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World Bank Country Economic Report

Yugoslavia

DEVELOPMENT WITH DECENTRALIZATION

11155

Yugoslavia represents both a new economic system and a new kind of socialist society which began to evolve nearly 25 years ago. The system is described and assessed in this report, which results from the work of a World Bank mission of nine members who explored all principal aspects of the economy.

The Yugoslav system is characterized by social ownership and control of the means of production, with worker self-management and decentralization of political and economic decisions.

As a corollary of decentralized decision-making, there is a gradual reduction of centralized planning and control and a greater reliance on markets as a guide to the allocation of resources. Progress has been accompanied by an increasingly open economy and a more liberal foreign exchange and trade system, intended to improve the efficiency of domestic industry and to generate higher standards of living.

The analysis of the development experience and problems of the Yugoslav economy that is presented in this report, while indicating that significant problems are still to be solved, nevertheless gives a favorable assessment of the country's future economic performance.

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YUGOSLAVIA: DEVELOPMENT WITH DECENTRALIZATION

YUGOSLAVIA: DEVELOPMENT WITH DECENTRALIZATION

Report of a mission sent to Yugoslavia
by the
World Bank

Chief of Mission and Coordinating Author
Vinod Dubey

FOREWORD

This is the ninth in the current series of World Bank country economic reports that are being made available for the use of scholars and practitioners in the field of economic and social development. It is the third to be published formally on behalf of the Bank, following *Economic Growth of Colombia* in 1972 and *Nigeria: Options for Long-Term Development* in 1974. Others published less formally by the Bank itself since 1973 have dealt with Trinidad and Tobago (focusing on employment), Ecuador, Peru, Chad, Senegal, and Turkey.

Economic reports are prepared regularly by the Bank on all borrowing countries in support of its own operations. These surveys serve as a basis for discussions with the governments and for decisions on Bank policy and operations. Many of these reports are also used by the governments themselves as an aid to their economic planning and by consortia and consultative groups of governments and institutions providing development assistance. Several Bank reports have been published by the governments concerned.

The World Bank is responding to an expressed desire for wider access to country economic reports by publishing as many of them as possible, always subject to the affected government's agreement, in order to facilitate the interchange of knowledge and experience and encourage academic research.

The present study results from the work of a mission to Yugoslavia under the leadership of Mr. Vinod Dubey. Although some of the quantitative projections have been affected by recent events, such as increases in petroleum production and prices, the basic analysis of this unique economy is still valid.

HOLLIS CHENERY
Vice President for Development Policy
The World Bank

Currency Equivalents

Unit: dinar (Din)

Before January 23, 1971

US$1 = Din 12.5
Din 1 = US$0.0800

From January 23, 1971, to December 22, 1971*

US$1 = Din 15.0
Din 1 = US$0.0667

From December 22, 1971, to February 23, 1972

US$1 = Din 17.0
Din 1 = US$0.0589

From February 23, 1972, to July 12, 1973

Maintained a central rate of
US$1 = Din 17.0
Din 1 = US$0.0589

Since July 12, 1973
The dinar has been floating.
The rate of July 12 was
US$1 = Din 15.5
Din 1 = US$0.0645

*All conversions of 1971 data into dollars in this book have been made at the January 23–December 22, 1971, exchange rate.

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SUMMARY AND CONCLUSIONS

The Historical and Institutional Setting

The territories which came together to form Yugoslavia after the First World War comprise seven distinct political, legal and administrative units. Serbia and Montenegro were independent countries at the time of the outbreak of the First World War. The remaining five units had all formed part of the Austro-Hungarian empire — Slovenia and Dalmatia in the Austrian half, Croatia-Slavonia and Vojvodina in the Hungarian half and the province of Bosnia-Herzegovina under the common Austro-Hungarian central hierarchy. Superimposed on these divisions, and only partially explained by them, was an extraordinary diversity and lack of cohesion among ethnic, linguistic, religious, cultural and historical factors, together with wide disparities in social and economic development. The differences gave rise to complex problems which were intensified during the interwar period by the internal policies of successive governments. The failure to recognize and deal effectively with the problem of nationalities, and to ensure a more even national distribution of political power and influence, greatly weakened the internal cohesion of Yugoslavia during this particular time.

From an economic point of view, the main effect of the Second World War was the apalling human casualties and physical damage which it caused. Politically, the Communist Party of Yugoslavia emerged in full control of the whole country. The rise to power of a genuinely Yugoslav party made a new and more constructive approach to the nationalities' problem possible. Under the Constitution formally adopted in 1946, Yugoslavia became a federal state with six constituent republics.

Despite a liberal-minded approach to the problem of nationalities, the Yugoslav regime of the early postwar years was highly centralized and authoritarian. The 1946 Constitution provided for state direction of economic life and economic development, through the agency of a comprehensive economic plan. The first postwar plan covered the five years from 1947 through 1951. In the first two years of the plan, output increased impressively, and the investment ratio rose to more than 30 percent. However, after mid-1948 the break with the Soviet Union and the other Cominform countries prevented fulfullment of the plan.

The Yugoslavs began to evolve a new economic system in 1950. It represents more than just a reaction to the inefficiencies and weaknesses of the centrally administered Soviet-type economy of the early post-war years. It marks a search for a new kind of socialist society. The system is characterized by social ownership and control of the means of production, with workers' self-management and the decentralization of political and economic decisions. As a corollary of decentralized decision making there is a greater reliance on markets as a guide to the allocation of resources, and gradual reduction of centralized planning and control. The evolution of the system has been characterized by a pragmatic, experimental and relatively nondogmatic approach. For example, despite the basic principle of social ownership of property, peasant ownership of land is accepted subject to prescribed limits on the size of holdings. The Yugoslavs have been groping to translate their notion of a self-managed socialist democracy into practice, and the evolution of the system is still far from complete. It has been marked by discontinuities — periods of rapid change (e.g., in 1953, 1961, 1965 and 1971) have been followed by periods of consolidation. Increased economic efficiency has been one of the major objectives of the process of institutional change.

The decentralization process, however, also reflects a recognition of the strong nationalism of the constituent parts of Yugoslavia. The progress has been accompanied by an increased opening up of the economy, and a liberalization of the foreign exchange and trade system springing from a desire to improve the efficiency of domestic industry and thereby generate higher standards of living.

Significant trends in the evolution of the system over the last twenty years have been (a) the decentralization of the role of the state, with republic and local governments acquiring greater autonomy and responsibility at the expense of the Federal Government; (b) a progressive increase in the autonomy and self-management rights of "work organizations";[1] and (c) a reduction of the role of the Federal Government in investment decisions and financing in favor of republic and local governments, enterprises, and, perhaps most important, the banking system. The process of decentralization — political, economic and financial — gave explicit recognition to the nationalities and ethnic minorities that comprised the Yugoslav state.

Constitutional Amendments adopted in July 1971 marked a major step in the evolution since the economic reform of 1965. The six republics and two autonomous provinces were given more economic responsibilities, especially in the fiscal field, while the authority of the Federal Government was narrowed and redefined. National defense, internal security and foreign policy, as well as the Fund for Financing the Accelerated Development of the Underdeveloped Regions (FAD) continued to be federal responsibilities. The federation also retained executive and coordinating functions for monetary and foreign exchange policies, certain tax and expenditure policies and price control for basic commodities and services. The powers maintained by the Federal Government in the unified market in Yugoslavia are, however, normally limited by the necessity to secure agreement of the republics and autonomous provinces before measures are undertaken.

There is a coordinating committee and five interrepublican committees to help reach consensus among the republics. After an initial period in 1971, when strong "national" interests hindered consensus among the republics, the system for ensuring interrepublic consensus and coordination began to work. However, the process of reaching agreement is still somewhat cumbersome and slow, and there may be a tendency for delays, sometimes requiring recourse to ad hoc and temporary measures. To some extent, the amendments merely formalized an already existing situation. Reconciliation of the interests and aspirations of the republics had been a major factor in federal decision making for some time. It must be stressed, however, that a serious effort has been made to ensure that decentralization does not result in disorganization. It is realized more clearly than before that the interdependence among various economic units and regions, and the necessity to maintain a unified Yugoslav market, require decentralized decisions to be harmonized and coordinated. Apart from the interrepublican committees, major instruments for harmonization and coordination are (a) the Social Development Plan, 1971–75, which was adopted in June 1972; (b) social agreements between government, enterprises and trade unions; and (c) self-management agreements among enterprises, to provide guidelines for economic units and ensure a degree of uniformity and coordination in behavior.

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1. A wide term which includes not only enterprises but also organizations like a library, a hospital, or a government office.

Economic Trends and Development Issues, 1953-72

Long-Term Economic Trends

Yugoslavia has successfully combined rapid economic development with fundamental institutional changes. Real gross domestic product (GDP) growth during 1950-71 averaged about 6 percent per year, and per capita income in constant prices increased by about two and one-half times during the period. Development was characterized by rapid structural change, a fairly high rate of employment growth and, particularly since 1965, rapid growth of output per worker and rising standards of living. The economy grew considerably more open, and Yugoslavia has, for a country of its size and per capita income, an extremely high level of foreign trade. A very high rate of investment and domestic savings has been maintained during the past two decades, indicating a strong development "effort."[2]

The development strategy has emphasized throughout a fast rate of economic development, based on high investment rates and rapid industrial development. The fixed assets per worker were fairly stable until about 1965, but have risen sharply thereafter following a shift in strategy. At the same time there was a tendency for the capital output ratio, declining until 1965, to increase, particularly in industry. While the trends in these ratios are not necessarily a reliable index of the efficiency of resource allocation in Yugoslavia, they do imply a reduction in the employment and growth effects of the development effort.

Inflationary pressures have been a persistent problem, particularly since the sixties. These pressures stemmed mainly from the policy of maintaining high rates of investment and growth, but also partly from efforts by enterprises to increase personal income payments. During the 1950s, the pressures for rising prices were suppressed through a wide ranging system of price control and a relatively large degree of control on enterprise autonomy in the distribution of its income. Consequently prices increased at a relatively slow rate. The cost of living increased, however, because of the gradual adjustment of the relative price structure between agricultural and nonagricultural commodities, and because of the rise in the cost of services. With greater enterprise autonomy on the distribution of income, the growth of personal incomes accelerated. Since high rates of investment were maintained, the growth of private consumption spurred by rising personal incomes created severe excess demand. The GDP deflator increased by an average of 12.7 percent per year during 1960-71.

The progress of decentralization and the greater autonomy of local governments and of enterprises created difficulties in coordinating investments among regions and among enterprises. The phenomenon of the "territorialization" of development became important. While such a narrow territorial view has often been present in industrial investment, it has been most striking in relation to infrastructure development. In principle the social development plans of the federation, the republic and the local government as well as institutions like the Chamber of Economy were expected to provide the necessary coordination of investment decisions. Actual developments were not always integrated among regions, sectors and enterprises. One important reason for this lack of integration was the shortage of financial resources. With decentralization and the elimination of federal investment funds for

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2. Gross fixed investment averaged 25.8 percent of GDP, and gross domestic savings (GDS) 27.2 percent of GDP during 1953-71.

infrastructure, the policy of low prices for basic products such as transportation and power meant that enterprises were unable to generate the surpluses intended partly to replace the federal funds. As enterprises were unable to provide a significant proportion of their investment needs, the banks were reluctant to lend to them. Consequently, ad hoc fund-raising means were devised, including mandatory surcharges on all investment expenditures and sale of bonds (purchased for patriotic reasons). The precarious financial situation meant that actual infrastructure investment proceeded in a haphazard fashion. The issue has been recognized as important in Yugoslavia. Measures for increasing coordination among power and transport enterprises, not only in plan formulation but eventually in their implementation, are well in hand.

Recent Economic Developments and Problems

Since 1968 the economy has been characterized by a rapid increase in production, averaging 7 percent per year during 1969-72, and, during 1968-71, the emergence of serious inflationary pressures and increasing balance of payments deficits. Growth of industrial output averaged over 10 percent per year; agricultural output fluctuated with output, declining by 5 percent in 1970 and increasing 9 percent in 1971. The ratio of investment to GDP has continued to be very high, averaging 29 percent. The savings' ratio declined from 31 percent in 1965 to about 25 percent in 1971, but is still very high compared to other developing countries. Employment increased at an average rate of about 4.5 percent in the last three years. The results of the 1971 Decennial Census indicate that during 1961-71 the growth of the labor force was significantly lower than expected. With an average growth of social sector employment of 2.7 percent a year during the decade, and the large migration of workers abroad, for the economy as a whole labor surpluses have been significantly reduced, though considerable surpluses still exist in underdeveloped regions and in Serbia.

Inflationary pressures reflect excess demand as well as cost push factors. Personal incomes in the social sector increased at an average rate of 18 percent per year during 1969-72. Although about half the prices are controlled and attempts were made in October 1970 to freeze producers' prices, the cost of living increased by 11 percent in 1970 and by about 15 percent in 1971. As a temporary measure to halt inflation, the government introduced a price freeze on all goods and services in November 1971. The freeze was lifted only gradually during 1972. However, the increase in prices during 1972 was over 10 percent. During 1973, the pace of inflation increased again, largely because of the rise in international prices and the effective devaluation of the dinar vis-à-vis the Deutsch-Mark.

A restrictive monetary policy has been followed since the second half of 1970. More stringent steps were adopted in July 1971 following a new standby agreement with the International Monetary Fund (IMF), which replaced one concluded in January 1971 when the dinar was devalued by 20 percent. However, present instruments for demand management are not very effective. Decentralization of the fiscal system has weakened fiscal policy making, both with respect to expenditure and to revenue. At the same time, monetary restrictions have been to some extent bypassed by enterprises not paying their debts. A major legislative reform was recently adopted which is expected to impose financial discipline and increase the effectiveness of monetary policy.

An incomes' policy is now developing guidelines to influence the allocation of net income of enterprises between investment funds and personal incomes. Incomes' policy guidelines have been established for each republic as a whole by so-called social agreements between the regional governments, the Chamber of Economy and the trade unions, while details will be worked out by each branch of activity to take account of peculiarities affecting that branch. The system is not yet fully operational; it is too early to say how successful the proposals for imposing financial discipline and the introduction of self-management and social agreements on the distribution of enterprise incomes will be, but they could significantly strengthen the effectiveness of demand management.

A major development has been the strengthening of measures that were proposed in the second half of 1971 to improve financial discipline in enterprises, and to impose restrictions on enterprises making losses embarking on investment without sufficient funds. One provision reduces personal income payments by 10 percent in enterprises that continue to suffer losses. Other measures strengthen the implementation of bankruptcy laws. The measures are crucial also to the long-term economic efficiency of the economy. Weakness in financial discipline not only leads to excess demand but also prevents structural adjustments to favor the efficient sectors of the economy.

The balance of payments situation has been a major constraint to accelerated development. The rise in imports associated with rapid growth has been accentuated by inflationary pressures, the structure of the economy and liberalization of foreign trade and payments. Even though exports of goods and services have been increasing rapidly, the current account deficit rose from US$108 million in 1969 to US$340 million in 1970 and US$324 million in 1971. In order to neutralize the effect of inflationary pressures on the balance of payments, the government has resorted to a more flexible exchange rate policy. After a long period of fixed rates, following a major devaluation in 1965, the dinar was devalued by 16.6 percent in January 1971 and, in effect, by another 19 percent in December of the same year. The favorable effect of the first devaluation on the foreign trade situation became evident in the second half of the year, and was strengthened by the second devaluation. There was a sharp reversal in the balance of payments in 1972, when exports of goods increased by 21 percent while imports grew by about 2 percent. With a large increase in tourism earnings and workers' remittances, the current account deficit of 1971 was converted to a surplus of nearly US$200 million, and foreign exchange reserves increased to about US$700 million at the end of 1972. The prospects for 1973 were improved by the effective devaluation of the dinar vis-à-vis major European trading partners following the dollar devaluation of February 1973, and a current account surplus of some US$300 million was achieved.

Yugoslavia took a significant step toward greater liberalization of trade and payments during 1972 and contemplates more such actions. Customs duties were reduced by 1 to 12 percent for about 1,100 items, and the general 6 percent import surcharge imposed in 1970 was reduced to 2 percent for a number of commodities. At the same time Yugoslavia has continued efforts to convert bilateral payments agreements to trade and payment in convertible currencies. For example, the agreement with India has now been terminated. The government is also attempting to establish a limited foreign exchange market between authorized banks—a move initially unlikely to mean a more liberal trade and payments system and only of symbolic importance.

The net inflow on medium-term loans averaged about US$300 million a year during 1969-72. The total external debt at the end of September 1972 was about US$3 billion, and debt service payments during the year amounted to about US$800 million, mostly in convertible currencies. The debt service ratio for debt in convertible currency was about 24 percent, as compared to 17 percent in 1967.[3] An active external debt management policy has been adopted during the last two years with some success in controlling the inflow of foreign capital, thereby correcting the excessively short-term pattern of borrowing abroad and channelling external capital to priority uses. The Yugoslav system is based, since April 1972, on noninterest-bearing dinar deposits against foreign loans. The rates of deposits are related to the purpose of the loan and its maturity, with preference shown to loans of longer maturity and to those for importing capital equipment. In December 1972, a prohibitive deposit rate of 75 percent was introduced to keep external borrowing for the year within a ceiling considered appropriate by the authorities.

A credit agreement was reached in November 1972 with the USSR for a US$540 million clearing account for thirty-eight projects in the coal, oil, electric power, iron and steel, nonferrous metals, cement and shipbuilding industries. The agreement reflects the Yugoslav desire to exploit all sources of long-term capital in an effort to improve the pattern of their external indebtedness. There have been problems, however, in the implementation of the agreement.

Population, Migration and Employment

Population

With total population growth rates of less than 1 percent per annum, the question of demographic pressure in Yugoslavia as a whole does not constitute a major development problem, though this is not true at the regional level. The major demographic issues at the national level are a high abortion rate and rates of infant mortality running at more than twice the average for Europe. While Yugoslavia is attentive to its population growth, a global policy on this issue is difficult to formulate because of widely differing regional experience. Depopulation in some developed republics has led to a desire to stimulate population growth. In Kosovo, on the other hand, the rate of natural increase approaches 2.9 percent per annum, and a reduction is a priority development objective. In this region, the experience of the last decade (during which the rate of natural increase remained constant) does not suggest that natural forces resulting from the transformation that development brings will themselves reduce fertility. Specific measures are required, consisting of an integrated attack on the quality of social amenities, health, education, child care and family planning.

Internal Migration

Net interregional population movements within Yugoslavia during the sixties, although not large by some standards, may have been greater than generally supposed. Calculations show that the net interrepublic transfer of population (1961-71) exceeded one-quarter of a million persons. The gross movements, of course, have been much greater. In this transfer the underdeveloped regions lost and the

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3. The debt service ratio for total external debt was 18 percent in 1972 and 12 percent in 1967.

developed regions gained population, at rates of 3.7 percent and 2 percent respectively. In the current configuration of Yugoslav demographic and economic structures, however, there seem clear economic grounds to argue that much higher rates of internal migration would be beneficial. Net internal migration has been significantly less than the migration of workers abroad, most of whom came from the developed regions where labor is in increasingly short supply. Consequently, internal migration has been insufficient to redress these shortages. Since migration would also provide employment for underemployed labor in the less developed regions, the benefits of higher migration rates seem mutual. Obstacles to such migration, which are recognized by Yugoslav authorities, include housing shortages, national language and political differences, poor interregional flows of information on the labor market and the low quality of surplus labor in the poorer regions. Overcoming these obstacles, by improved vocational and technical training, expanded housing development and an improved national labor market constitutes a major problem of human resource development during this decade.

External Migration

Estimates reveal that about 900,000 migrants left Yugoslavia in pursuit of more remunerative employment in Europe during the last decade, most after 1966. Of this total, about 750,000 were workers, a number which equals about 10 percent of Yugoslavia's total domestic labor force. Although this large outflow of manpower has had an impact on the national demographic structure as well as on the domestic labor market, and although it has carried a cost in terms of human capital loss, it seems likely that on balance the migration has provided unequivocal economic benefits. Apart from the reduction of underemployment at home, the generation of remittance flows, totalling US$2.5 billion over the last six years, would of itself seem a higher income return than could be had from the domestic employment of the same workers. Prospects for the seventies are for slower migration than in the past, but the average outflow could still involve 50,000 to 70,000 migrants a year, or a total of 1.2 million Yugoslavs abroad in 1980.

Employment

As Yugoslavia develops into a market economy under its new "intensive" development strategy, the key issue with respect to the country's employment problem is the efficient use of capital resources. The new strategy has led to rapid capital deepening in the social sector. This befits the objective of rapid income growth in the social sector, but capital deepening cannot be applauded unconditionally because it has been accompanied by a decline in capital productivity in some sectors. Viewed alongside continuing evidence of a large unsatisfied pressure from the peasants for jobs in the social sector, some of which could be provided if capital there were more thinly spread, it is difficult to avoid the conclusion that the allocation and utilization of investment capital should be improved. The authorities appear to be responding to this need. Capital pricing is being tightened and efforts made to expand capacity utilization, through, for instance, the eradication of overtime and the increase of multiple shift work. Efforts have also been made, by legislative and other means, to combat the tendency towards capital intensity which seems inherent in the operation of the workers' management system.

Since the labor force is growing even slower than total population, i.e., by about 0.8 percent per annum[4] while social sector employment is expanding at around 2.9 percent per annum, there are good prospects for continuing structural change and gains against underemployment. However, the backlog task is substantial. Yugoslavia still had more than 47 percent of its labor force in agriculture in 1971. It has a "labor reserve" variously estimated at around one million who may be underemployed in some sense. Certainly there is great pressure for more jobs off the peasant farm, increased by growing income disparities both between the country and the city, and among the regions (see below), as well as by the rapid expansion of education over the last decade.

The number of persons registered as seeking jobs has increased both absolutely and relative to total employment in the social sector. The average number of job-seekers was 74,000 during 1952–56, or 3.8 percent of the social sector employment. This increased to about 205,000 or 6.4 percent of the total social sector employment during 1960–64, and about 292,000, or about 8.2 percent of the total social sector employment during 1965–70. Rates are significantly higher in the underdeveloped republics.[5] However, persons registered for social sector employment are not all openly unemployed. Open unemployment, as measured by persons receiving unemployment benefits, is about 10 percent of the registered number of jobseekers. Thus the growing numbers of registered jobseekers indicates not a worsening of the employment situation but rather an increased tendency to seek social sector jobs by those in private sector employment (mainly on peasant farms). The higher relative number of those registered in the underdeveloped republics reflects both the large labor "surplus" in agriculture, as well as a greater proportion of all new employment in the social sector being channelled through the employment offices.

Income Distribution and Social Welfare

Yugoslavia is characterized by a relatively even income distribution, with the share of the upper 5 percent of the population in total household income only twice that of the lowest 25 percent. To a large extent this reflects the socialist nature of the economic system, where private ownership of capital assets, and hence "profit" income by individuals, does not exist. There has been, however, some increase in the gap both between household incomes in the peasant sector and the social sector, and between average incomes in different regions. A very well-developed system of social insurance and a system of free education are important in influencing the degree of income inequality, particularly within the social sector.

Industry and Mining

Rapid development of industry has been the cornerstone of the high rate of economic growth and structural change in Yugoslavia. The sector has absorbed the bulk of investment and provided the major part of increased employment in the social sector during the last two decades.[6] Development, in general, has been outward-

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4. The resident labor force in fact declined over the period 1961–71, as a result of external migration.

5. In 1970, the number of registered jobseekers was about 8 percent of the social sector employment in Yugoslavia, while it was nearly 14 percent in the underdeveloped regions.

6. About 52 percent of the total economic investments during 1952–69 went to industry and mining, and the sector accounted for 44 percent of the increase in social sector employment during 1952–70.

oriented, and industrial exports account for 85 percent of total export earnings. Since 1965, there has been great emphasis on adopting modern technology and attaining international competitiveness. The result is a rapid increase in capital intensity of industry — in line with other parts of the social sector. The average level of protection of industry is relatively low (averaging 23 percent, including charges other than tariff duty, which are 10 percent). There are pockets of fairly high protection in metal products, electrical equipment and chemicals. A tendency to duplicate plants and fragment output among regions has been one source of inefficiency. Industrial finance is a major constraint on industrial expansion. However, low real interest rates have led to a distorted demand for funds, which create the illusion of a more acute capital shortage than actually exists.

Within the general frame of market orientation there are some apparent exceptions. First, special priority is given to basic industries, on the grounds that their development has lagged in the past and has become a major constraint on growth and the balance of payments. Secondly, special priority is given to the industrial development of the underdeveloped regions. Thirdly, an attempt is being made to expand trade with the USSR, where opportunities may be excellent since in several areas Yugoslav-manufactured products are ahead in design and technology.

During the current Social Development Plan industrial production is projected to grow at 8 percent per year, with employment increasing at 3 percent per year and labor productivity by 5 percent. The most rapidly expanding sectors would be plastics and synthetic fibers (with growth rates of nearly 33 percent per year, quite apart from the initiation of synthetic rubber production), crude steel (15 percent), nonferrous metals, motor cars (19 percent), and other durable consumer goods (15–18 percent). In contrast, the average growth rate for the "equipment and durable consumer goods' " sector as a whole would be only 8.5 percent. Industrial exports are projected to grow by 14 percent a year, as compared wixh 11 to 13 percent for total exports. Yugoslavia stresses the completion of large projects in the developing regions for power production and ferrous and nonferrous metallurgy. There is no detailed discussion in the plan of investment requirements for the industrial sector as a whole or for specific industries.

Some of the plan policies and objectives for individual industries are as follows:
Steel: better coordination of investments.

Nonferrous: large investments in modernization (capacities already exist except for aluminum). More complete utilization of byproduct. Initiation of nickel production.

Chemicals: substantial increases in petroleum and petrochemical production, to increase the supply of petrochemical intermediates. Continued expansion of pharmaceutical exports and increased research in this area.

Forest Industries: increase in fellings from ten to twenty million cubic meters, with an increased proportion of industrial timber and increased utilization of beechwood for cellulose. Paper production to increase by about 18 percent per year, sawn wood production by less than 3 percent.

Machinery and Equipment: improvement in structure, technology production processes and marketing as well as increased specialization to meet intensified international competition. Improved financing of sales.

Consumer Durables: intensified cooperation with foreign companies. Increased exports. Improved structure of domestic industry and creation of "integrational blocks" to spearhead expansion.

Agriculture

Agriculture accounts for about 20 percent of the social product. The private sector in agriculture accounts for 85 percent of the arable land, 96 percent of the agricultural labor force, and 71 percent of agricultural production. Social sector production has, however, been increasing more rapidly than that in the private sector. The sectors are rather more complementary than competitive with respect to the satisfaction of demand, with the notable exception of the production of pig meat and poultry products, in which a sharp competitive situation is likely to arise. Labor-intensive cash crops like vegetables and tobacco are almost exclusively produced in the private sector, which also owns 95 percent of the cows and 90 percent of the sheep. The social sector dominates the market production of cereals. About 30 percent of all private farmers cooperate with the social sector in one way or the other, with 15 to 20 percent having firm contracts. Such arrangements are mainly found in the more developed, fertile parts of the country.

Excluding those products which domestic agriculture is not capable of producing, the surplus in foreign trade which originates in the agricultural sector has more than doubled during the last decade. This surplus is at present produced in three subsectors: (a) the grain-feed-livestock economy, in which about 70 percent of the agricultural trade surplus has been produced on the average during 1968–70; (b) tobacco industry and production of beverages, which contributed 20 percent to the total surplus; and (c) the fruit and vegetable sector, the net contribution of which to the trade surplus dropped from almost 40 percent in 1962 to 4 percent in 1968–70, mainly because of an increased import of tropical and subtropical fruit.

The Social Development Plan for 1971–75 projects an aggregate agricultural production growth of 3.2 percent per year, with the social sector growing at 5 percent and the private sector at 2.8 percent per annum. The planned growth rates are slightly lower than those in the previous plan, but are ambitious in their assumption of a significant acceleration in the private sector.

The private sector has no extension service and there exist no specific agencies for rural development in Yugoslavia. The active transmission of technical knowledge and modern production techniques to the private sector has been left exclusively to the social sector. But, since only 30 percent of smallholders are cooperators, rising growth rates in the private sector require in the first place substantial strengthening of the cooperative program of the social sector. Secondly, cooperation is not able to help the smaller farmers and those in the mountainous areas. A more direct means of helping peasant farmers should be explored to complement the role of cooperatives and *kombinats* (integrated factory farms).

However, there seems to be considerable potential for expanding production on smallholdings. For instance, cows owned by the private sector increased in number by about 10 percent over the same period when cattle in the social sector decreased by 30 percent, reflecting the private sector's comparative advantage under present circumstances. Expansion of livestock exports is therefore likely to succeed only if the economy makes use of these advantages. Production costs are not necessarily lower in the private sector. However, the marginal costs of a limited expansion within the existing capacity of buildings and labor are lower. There is scope for the mobilization of existing resources, including in many cases some savings. One obvious mechanism for achieving this would be through a "backward linkage" to the smallholder from investment in the processing capacity of the *kombinats*.

Another aspect of agriculture which should receive priority is the irrigation system. At present only 2.5 percent of the total arable land is equipped with modern irrigation (including land with movable sprinkling equipment). In the 1971–75 Development Plan, Yugoslavia proposes to increase the area under irrigation to 6 percent by the end of 1975. More than half of the total *arable* land is concentrated in three regions, namely, Vojvodina, Kosovo and Macedonia. Of the total *irrigated* area, these three regions account for only 4.5 percent; plans to increase this proportion to about 9 percent should be realized by the end of 1975. Weather conditions cause large seasonal fluctuations in the country's total agricultural production. For example in Vojvodina during the last hundred years there were fifty-one years of drought.

Since domestic demand is expected to continue a slow expansion, the greatest stimulus to growth must come from exports. Export prospects for Yugoslav agriculture will be largely determined by future developments in a further enlarged Common Market area. Export prospects for agricultural products will certainly be reduced by any expansion of the Common Market area, but effects will be different for major products. Export prospects for beef, either fresh or chilled, for direct consumption, is excellent with respect to the location and import regulations, given the trade agreement with the Common Market signed in 1970. The trade agreement permits a 20 percent reduction in import duties for beef, which amounted to 5 to 6 percent of the import price in fall 1971. Though this seems rather small in relation to the increase of production costs and domestic prices, it has been sufficient to revive exports to Italy and is likely to remain sufficient, if costs and domestic prices or exchange rates can be adapted to the development of prices in the Common Market.

Infrastructure

Transport

The major objectives of the transport policy have been to open up the less developed regions and to give the hinterland direct access to the sea by railway and road. The major problem has been that any network in the mountainous regions can only be developed at very high cost, and sometimes regional considerations may have received excessive weight. Apart from insufficient resources, the transport sector has also suffered from inadequate coordination between areas as well as between different means of transport. The trend has been toward increasing the role of road transport at the expense mainly of the railways. Between 1960 and 1970 the share of road transport in total freight traffic (measured in tons/kilometer), increased from 21 percent to 41 percent, and its share in passenger traffic (measured in million persons per kilometer) increased from 30 percent to 71 percent.

Power

There has been a rapid expansion in the demand for electric power. Per capita consumption increased nine-fold during the last twenty years, and total consumption eleven-fold. There has been a gradual shift from hydro to thermal power sources. This is due to the susceptibility of hydro potential to weather fluctuations, the long lead time in their construction, the presence of large lignite resources suitable for power and the lower capital cost of thermal plants. The last factor was particularly important in recent years when there was a shortage of finance for investment in

power. The policy of maintaining low power prices encouraged consumption. At the same time, the power enterprises were unable to generate the financial surpluses required for financing expansion of production. There has also been some lag in developing an agreed and coordinated plan for the development of new generating capacity, and installed capacity is expected to fall short of demand by 2 percent to 5 percent by 1975.

Housing

The most important factors responsible for the relatively low standard of housing in Yugoslavia at the moment are: (a) the destruction of housing during World War II, which left the country with less than 75 percent of the prewar stock of houses; (b) the rapid increase in the urban population, and (c) the decline in the size of households, which implied a larger demand for dwellings for a given total population. Since 1957, dwelling construction has been financed from communal and republic Housing Funds, which derive from fixed contributions from personal incomes paid by all work organizations. Construction of private dwellings has increased in importance with rising incomes, and is financed by credits from enterprises to employees. bank loans and private savings.

Education

Education is free at all levels and compulsory for all children between the ages of seven and fifteen. However, the full period of primary education is not ensured in all areas. Often, in underdeveloped and sparsely populated areas, education facilities tend to be available only in nuclear villages.

Regional Development Problems and Policies

There are wide disparities in the levels of economic development and standards of living between different republics and autonomous provinces, and these have been recognized as a major political, economic and social issue throughout the postwar period. While there are less developed areas even within the richer republics, the differentials between the republics have been the center of attention, both because of their magnitude, and because they are contained in distinct political units with differences in language, nationalities, religion and culture. The official definition of an underdeveloped region has varied over time. As at present demarcated, underdeveloped regions include four of the eight republics and autonomous provinces, and account for 40 percent of the area, 35 percent of the population and only 21 percent of the gross material product (GMP) of Yugoslavia. They are characterized by per capita incomes markedly lower than the national average, and are also relatively backward according to social indicators relevant in any assessment of standard of living and economic welfare (infant mortality, population per hospital bed and the percentage of illiterates). However, the underdeveloped regions are not homogeneous in their resource endowments, their present level of development, their development experience in the postwar period or their medium-term development prospects. In particular, the development problem and experience of Kosovo, the least developed region of Yugoslavia, is in several respects distinct from that of the other under-

developed republics. The average per capita GMP in Kosovo is only 45 percent of that of the other underdeveloped republics, and it is the only region in which the absolute number of the agricultural population *increased* during 1953-71. The demographic experience is also distinctive. In the underdeveloped regions excluding Kosovo, the total number of births per year declined by over 25 percent during 1950-70 as a result of a significant decline in the birth rate; in Kosovo the number of births increased by over 35 percent, reflecting the relatively stable birth rate.

The underdeveloped regions have undergone rapid development and structural change during the last two decades. The growth rate of GMP has averaged 6.7 percent per year during 1953-71 with the share of industry in GMP increasing from about 17 percent to 36 percent. The proportion of the labor force in agriculture declined from about 64 percent to around 47 percent over the same period. At the same time, significant progress was also made in the "quality" of life as indicated by several indexes of social development—the proportion of illiterates in the population aged ten years and over was reduced from two-fifths to about one-fifth, and the infant mortality rate was halved. The regional development problem in Yugoslavia is thus not a problem of economic stagnation in the less developed republics. It is a problem of increasing regional differentials between developed and less developed republics *despite* rapid growth in both. The increasing regional differentials are most clearly seen in relative levels of per capita income. The average per capita income in the underdeveloped regions was about two-thirds of that in the developed regions in 1953, but the proportion declined to less than half in 1971.

Regional development policy has relied on encouraging growth in the less developed regions by a substantial transfer of resources through the FAD. Less attention has been given to ensuring effective use of these funds and to the transfer of enterprise knowhow and capital from the more developed regions. Moreover, interregional linkages for integrated growth of the national economy and interregional migration of labor have been insufficiently stressed.

The Social Development Plan for 1971-75 continues to emphasize the traditional policy of accelerated development in the less developed republics, relative to the average national growth rate, through a transfer of resources. The social product of the less developed regions, according to the plan, will grow 25 percent faster than the national target growth rate of 7.5 percent per year. By 1975 the average per capita social product in the less developed republics will reach 60 percent of the average for Yugoslavia, compared to the present ratio of less than 50 percent. The plan objectives assume that one-third of the total fixed investment of the plan would be in the less developed republics, and that their incremental capital output ratio (ICOR) would be less than 20 percent higher than the same ratio for Yugoslavia as a whole. Thus the targets envisage a rise in the share of the underdeveloped regions in total investment, as well as an increase in the effectiveness of the investment in generating growth of output. Given the increase in the proportion of social product that is being allocated to the underdeveloped regions through the FAD, there is some possibility that their share in total fixed investment may increase. However, unless steps to improve the utilization of these funds are taken, it is unlikely that the planned growth rate of social product will be achieved. In this context, the plan objective of raising the relative per capita incomes in the less developed republics to 60 percent of the national average, has already become unfeasible due to the relatively low growth rates achieved during 1971 and 1972 and expected in 1973.

Resource Mobilization and Allocation

The changes in monetary and fiscal institutions and policies have been both a part of and a response to the history of decentralization in Yugoslavia. During the era of rigid central planning between 1946 and 1951, about 90 percent of gross savings was mobilized and allocated as grants through the national budget, which was a component of the detailed central plan. The institution and development of worker self-management in the 1950s steadily increased enterprise autonomy over the functional distribution of value added, leading to greater importance of enterprises and households in accumulation. At the same time the all-encompassing national budget was decentralized vertically among federal, republic and communal levels, and horizontally across budgets and extrabudgetary, independent "funds." Though budgetary revenues were exhausted by classical public expenditure functions such as administration and defense, the state retained a major role in resource mobilization and allocation until the mid-1960s, through the system of *social investment funds*. These semifinancial intermediaries channelled earmarked tax revenues to enterprises in the form of investment credits. It was only when these social investment funds and concomitant taxes were abolished in the mid-1960s that investment banking achieved preeminence in the system of financial intermediation.

Aggregate savings' performance has been very impressive in Yugoslavia. Even after the deliberate increase in the share of consumption after the economic reforms, gross national savings (GNS) as a proportion of GNP ranged from 29.3 percent in 1967 to 27.7 percent in 1971. Given the ambitious investment targets in the Social Development Plan for 1971–75, which appear to call for a GNS rate of about 29 percent, this slight erosion of the savings' rate over the past five years emphasizes the need to stabilize performance in this area. But more important is to direct these substantial savings to the most productive uses efficiently. With the progressive abolition of the state's saving/investment role, enterprises, households and private producers now account for over 90 percent of gross savings, compared to 10 percent in 1950. Nearly half this 90 percent is attributable to households and private producers, whose share of aggregate savings has increased dramatically since the reforms. However, households undertake only about 20 percent of total investment in the economy, the rest being done mainly by enterprises and also by state units in the social sector. In this context of highly decentralized, autonomous saving/investment decisions, improvements in financial intermediation and enterprise saving behavior are crucial to preserving the high aggregate savings' rate, ensuring adequate intermediation to the social sector enterprises and improving the efficiency of resource allocation.

The record of financial intermediation since the economic reform has not been very good. Despite recent reforms, such as the removal of interest rate ceilings on bank lending, certain features continue to hinder improvements in financial mobilization and allocation.

(a) *Banks/Interest Rate Policy*. Commercial banks, the dominant financial intermediaries, are not independent profit-maximizing institutions. Bank credit and interest policy are broadly controlled by founder members, mainly borrowing enterprises. This tends to bias interest rate policy downwards. Thus, despite the removal of legal interest rate ceilings in 1971, commercial banks have collusively agreed to limit lending rates to about 12 percent. Given the 15 percent rate of inflation in 1972 and medium-term prospects, this implies a negative or low real interest rate structure.

This, in turn, has several distortive influences:

(i)   it fuels excessive investment demand, making control of inflation more difficult;

(ii) it encourages waste of capital in all its uses—in combination with other factors, in utilizing existing capacity and in choosing replacement rates;

(iii) it affects adversely the quantity and quality of financial savings and investment, particularly by households and private producers; and

(iv) by implicitly relying on nonprice rationing of credit, it creates scope for arbitrary intervention by political bodies in interenterprise credit allocations. This is of particular concern in Yugoslavia, given the strong residual influence of the state in bank credit allocation, stemming from past history; and finally

(v)   it fails to ensure a positive incentive for savings.

In principle, an upward revision of the structure of real interest rates could be achieved through increases in money interest rates. At present, this would seem to require a prior reform of the ownership-management structure of banks, giving increased weight to depositors and savers (other than founder enterprises) in determining interest rate policies. While in the long run such reform is worth pursuing, it seems wiser, in the short and medium run, to concentrate on reducing inflation or insulating real returns on financial assets and liabilities from changes in the price level.

(b) *Inflation and the Financial System.* Inflation and the expectations it generates is obviously the other component (with money interest rates) of the low real rates on bank deposits and loans. The prospects for reducing inflation are a little better after the adoption of incomes' agreements and the imposition of tougher penalties on irresponsible financial behavior by enterprises. However, if reducing inflation should prove difficult (or too costly in terms of real output growth), *value linking* of financial assets and liabilities may have to be considered. This proposal is not offered as a substitute for antiinflationary measures. Inflation has other costs, such as distortion of intersectoral allocation incentives, balance of payments adjustment costs and undesirable income redistribution, which would still call for antiinflationary policy. But if the price stabilization program is expected to take long, it may be desirable to minimize costs in terms of inefficient financial intermediation. In any case, the restoration of positive real returns on bank liabilities should, itself, encourage increased real and financial savings, thus reducing excess demand in product and capital markets.

(c) *"Illiquidity" and Resource Allocation.* The system of worker self-management has, in the past, worked to insulate enterprises partially from financial risk. Bankruptcy, the ultimate sanction in a system of venture capital, is hardly appropriate for a country where all capital is viewed as socially owned. Enterprises have been generally successful in persuading patron state units and creditors to bail them out of a sticky financial situation. This cushioning from financial constraints encourages expenditure in excess of available financial resources, with the expansion of involuntary trade-credit acting as a vehicle for such excess demand. The resulting growth and lengthening of involuntary interenterprises credit (the phenomenon of "illiquidity") potentially distorts interenterprise resource allocation. A number of measures, taken in 1972 and still in progress, are designed to visit the risk of insolvency on worker-managers, by requiring, for instance, reduction in wage payments in certain circumstances. Basically, the goal is to restrict claims on resources by ineffi-

cient enterprises. Initial indications on the success of these measures are cause for hope.

Though the early fears of wildly excessive wage distribution by worker-managed enterprises after the reforms of the mid-1960s proved to be exaggerated, there *has* been some deterioration in their savings' performance in recent years. In the absence of a capital price which can "protect" the return to capital, *incomes' policy* has been theYugoslav response to the need to stabilize and perhaps increase the rate of enterprise savings. As a republican prerogative, the actual formulae differ across republics, but most of them attempt to separate the "fruits of labor" (allowable wage payments) from the share of capital. In each republic, these income- ' -ies are tripartite agreements between the Republic Government, trade unio. -ṅ·t; 'ᴴamber of Commerce, with subagreements for each sector of industry. Potentially, the incomes' agreements are powerful instruments for influencing the savings' performance of enterprises. As they have only begun to operate at different times for each republic during 1972, it is still too early to judge their impact. But their adoption and current steps towards interrepublic coordination do suggest that there is a growing need for organizing some jointly agreed restraints on the atomistic self-management system, as well as for giving substance to the goal of a unified Yugoslav market. The agreements are subject to some criticisms which may be taken into account in future. At present, they offer a rather ingenious constitutionally permitted tool for managing resource mobilization.

Despite the state's withdrawal from saving and productive investment, gross public expenditure accounts for about 30 percent of GNP. Excluding the exceptionally high social insurance payments of a socialist state, this ratio drops to nearly 20 percent of GNP, still a substantial chunk of expenditure. The 1971 Constitutional Amendments and ensuing laws defined the federal-republic roles and relations. The republican-communal roles are now under review. Two issues dominate the discussion here:

(a) can the revenue system supporting the residual state expenditure roles be performed to reduce misallocative effects?

(b) Has decentralization of public expenditure roles led to serious costs in terms of uncoordinated and piecemeal public expenditures? And if so, what are the possibilities for recapturing some of the lost economies of scale, without violating the underlying commitment to decentralization and self-management?

On the first question, the distortive effects of a large body of proportional taxes on personal incomes has been recognized, and the decision to substitute for some of them an alternative tax has been taken, though the nature of the new tax and the degree of interrepublic harmonization remains unclear. On the second question, the reforms under discussion will certainly improve matters, but, given the commitment to decentralization, considerable unutilized scale economies are likely to persist.

Stabilization: Institutions, Instruments and Policies

Since the extension of the market role and freeing of foreign trade in 1965, Yugoslavia had experienced external and internal imbalance problems typical of demand-determined western economies. In Yugoslavia there has been a bias toward "overheating," stemming from ambitious plan targets, or the underpricing of capital and partial insulation of enterprises from financial risk. The key problem is the lack

of appropriate instruments for management. Recently there has been ample readiness to use the exchange rate to secure external balance. But the instruments for managing domestic demand can still be improved.

Monetary policy, operating on a credit availability approach, remains the main centrally coordinated demand-management tool. But it suffers from some limitations. First, on the side of immediate instruments, existing policy making procedures for issuing high-powered money are somewhat inflexible, arising largely from the need for interrepublic agreement. The absence of a securities market, along with legal limits on reserve requirements, hampers sterilization of unwanted increases in high-powered money from balance of payments surpluses. Second, existing measures concentrate on the *supply* of credit; the demand deflationary use of higher real interest rates may be usefully explored. More fundamentally, the prime reliance on monetary policy tends to focus the burden of deflationary management on investment expenditures, with serious costs in terms of output growth. These costs are accentuated in Yugoslavia where inefficient enterprises are able to preempt resources from others during a credit squeeze, through the proliferation of unpaid bills. Aside from costs of misallocation, this cumulation of involuntary trade credit to crisis proportions makes it difficult for monetary authorities to pursue a deflationary policy to a satisfactory conclusion. While measures against "illiquidity" should curb such behavior, and reduce this particular cost of monetary policy, the more general case for "spreading" the burden remains of deflationary management, beyond investment expenditures. Fiscal policy can provide this.

The existing framework of fiscal stabilization policy is much less adequate. The multitude of budgetary and extrabudgetary units with independent revenues and expenditure authority seriously undermine the scope for coordinated anticyclical fiscal policy. General expenditure limits (like the 14 percent allowable increase in 1972 over 1971) *do* have a deflationary impact, since excess revenues are "sterilized" in blocked accounts, but the *incidence* of the curb is highly random. In particular, there are inadequate central *discretionary* fiscal tools to influence *personal consumption*. The existing federal turnover tax could, in principle, be adapted for this purpose. The Federal Government currently sets the rate of this tax, though revenues accrue to the republics. For deflationary policy, the federation could impose a *temporary surcharge* on the existing rates, with the revenues channelled into blocked republican accounts, where they may be deblocked at federal initiative according to expansionary policy, but for uses determined by republics. Since the surcharge can be concentrated on private consumption goods, it offers an opportunity to widen the spectrum of final demand amenable to antiinflationary demand management. Unfortunately, current discussions of tax/expenditure reform do not emphasize stabilization policy.

Incomes' policy could, in principle, be adapted for short-term demand management. But, in the existing situation, policy is better directed towards medium-term improvements in enterprise-saving behavior. Even so, it has potential benefits for antiinflationary policy. First, by bringing some order to the field of personal income formation, the incomes' agreements limit possibilities for autonomous wage increases at the enterprise level. Second, through such limits, the climate for monetary and fiscal management is improved. Third, to the extent that incomes' agreements are successful in improving the rate of enterprise and aggregate savings, they will reduce the secular bias towards excess demand, which is believed to have plagued the Yugoslav economy and its management since the reform of the mid-1960s.

Foreign Trade and the Balance of Payments

The foreign sector played an important, enlarged role in Yugoslavia's postwar economic development. Foreign exchange and trade policy remained a major instrument of overall development policy throughout the period. While the foreign exchange and trade policy in the early postwar period was designed to attain the Five-Year Plan targets and to isolate Yugoslavia from the world economy, the general theme since 1952 has been liberalization and simplification of the foreign exchange and trade system, to integrate Yugoslavia in the world market and ultimately to achieve the convertibility of the dinar. Despite continuous efforts toward this end, the foreign exchange and trade system up to 1973 remained in practice—although not formally since 1961—a multiple exchange rate system.

Increasing trade restrictions and administrative regulations are inconsistent with the objectives of the 1965 reform. Yugoslavia therefore is following a flexible exchange rate policy. In 1971, the dinar was devalued twice by, together, almost 40 percent, and again in March 1973 by about 7 percent, against its main trading partners. Since July 1973 the dinar has been floating, with small movements around a rate of 15.50 dinars to US$1.

During the first post-World War II decade, highest priority was given to investment in heavy industries. As a result, in the mid-1950s the structure of the economy was heavily biased toward basic industries. Foreign exchange and trade policy supported the industrialization drive, with little attention paid to relative scarcities and comparative advantages. The export exchange rate was kept low for agricultural products and high for the priority sectors of heavy industry, such as nonferrous and ferrous metallurgy, providing strong disincentives for the former and stimulation for the latter. On the import side, a low exchange rate was applied to machinery, equipment and raw materials while the import of consumer goods and luxury items was discouraged by a high exchange rate.

During 1956 to 1960, the base was laid for an import substitution strategy which was later supported by changes in the foreign exchange and trade regime. However, import substitution and export promotion were not seen as exclusive alternatives, and were not followed indiscriminately with regard to sector and stage of development. While production of raw materials and semiprocessed goods were always considered export-oriented industries, manufacturing industries were protected mainly in their early development stage and increasingly exposed to greater foreign competition through import liberalization.

The 1965 economic reform included a radical readjustment of the internal price structure, to conform more closely with world market prices. At the same time the foreign exchange and trade system was revised, to integrate the Yugoslav economy further into the world market and to liberalize foreign trade. The dinar was devalued, export premia and tax subsidies were abolished and about one-quarter of imports were liberalized. With liberalization continuing during recent years—though at times interrupted by restrictive measures to alleviate rising inflationary pressures on the balance of payments—entirely liberalized imports are expected to account for around 42 percent in 1973.

Over the last two decades merchandise exports grew by 10 percent and exports of goods and nonfactor services by 12 percent per annum, both in real terms. The export structure became increasingly diversified, with industrial exports accounting now for about 85 percent of total exports. By opening its economy to world markets

and introducing the practice of cooperation agreements with western firms, which provide technical knowhow and marketing, Yugoslavia has ensured a competitive position in western markets for itself and has become an attractive trading partner for the East.

Imports of goods and services increased at an average rate of 12.4 percent per year during 1952–71. Although rapid industrial development created a strong link between economic growth and imports, a number of other factors contributed to an increase in the import dependency of the economy. The foreign exchange and trade system, and the overvalued exchange rate which prevailed till the mid-1960s, both acting toward lowering import prices, introduced an additional import encouragement. The policy of integrating the Yugoslav economy with the world market implied a strong pressure on enterprises to improve international competitive efficiency, to replace obsolescent machinery and to introduce modern technology. This resulted in high pressure on imports, which furthermore increased when the economy entered a boom period in 1969/70. The restrictions on foreign borrowing were significantly relaxed, while at the same time the government embarked on a restrictive antiinflationary policy. Enterprises facing increasingly tight domestic credit conditions resorted to importing, financed by more easily available financial and suppliers' credits from abroad. The retention quota system also provided a strong incentive for importing. More significant, however, in creating a structural import dependence were the disproportionate development of primary production and manufacturing. The disproportions in industrial development have clearly contributed to the serious structural problem for the balance of payments, making it a major constraint to fast economic growth. The 1971–75 Social Development Plan, in recognizing this disproportion, gives more emphasis to developing the domestic resource base.

Yugoslavia's regional trade structure since World War II has reflected its political situation as a nonaligned country, regionally located between Eastern and Western Europe. It is neither a member of Comecon (footnote 1 in Chapter 12 contains details on Comecon), the EEC nor EFTA. Traditionally, Yugoslavia's main trading partners were European countries. Before World War II, 65 percent of exports were directed to Western and 27 percent to Eastern Europe. Immediately after World War II, about 55 percent of foreign trade was conducted with the Soviet Union and her eastern allies. Trade with the West amounted to roughly 45 percent, leaving a share of about 5 percent for trade with less developed countries. Following the economic boycott of Comecon in 1948, trade with the eastern bloc collapsed completely. It was not until 1954 that first trade contacts were reestablished with the eastern bloc; it took another ten years to become an observer in Comecon, a status Yugoslavia has maintained since. In the course of normalization of political and economic relations with the Soviet Union, trade with Comecon countries picked up again, reaching a peak in 1958 of 28 percent of total Yugoslav trade. Since then Comecon's share has been fluctuating; it declined to 20 percent in 1962, reached a new peak of 36 percent in 1965 and declined during the second half of the 1960s to 25 percent in 1970. The most recent trend, which is expected to continue, is again upwards. Exports to the East consisted largely of highly manufactured commodities both in the investment and consumer goods' categories. Imports were dominated by fuels and other raw materials. While eastern markets provided vast opportunities, little competition and few marketing difficulties for Yugoslavian export products, they were severely limited in supplying

goods that Yugoslavia needed. Quality, design and technical sophistication were particularly deficient for Yugoslav enterprises competing domestically and externally with western suppliers. As a result, the trade balance with the nonconvertible currency area tended persistently toward a surplus, as against a deficit with the West. To avoid excessive accumulation of bilateral credit balances, exports were at times made conditional on an undertaking to import from such countries.

Throughout the two postwar decades, the West has been both the primary source of Yugoslav imports and market for her exports. Merchandise trade with OECD countries declined relatively during the 1950s from a peak of 88 percent in 1953 to 43 percent in 1959, following the resumption of economic relations with the East. After heavy fluctuation in the early 1960s the OECD share in total trade increased from 47 percent in 1965 to an average of 62 percent in 1970/71. Since 1960 there has been a greater reliance on the OECD market as a source for imports rather than a market for exports. As a result, the trade balance with the OECD area was persistently negative. It averaged about US$270 million per year between 1961 and 1966 and increased rapidly since, reaching a peak of US$1.1 billion in 1971. The less developed countries hold a small share of Yugoslavia's foreign trade, supplying largely raw materials and providing an outlet for Yugoslavia's industrial exports.

Yugoslavia's foreign exchange needs were increasingly financed by earnings from services, whose share in total foreign exchange earnings increased from about 14 percent in 1950 to 50 percent in 1972. Tourism, transportation and, since 1965, workers' remittances were the main contributors. The importance of earnings from tourism and workers' remittances goes well beyond the quantitative aspect, since they consist almost exclusively of convertible foreign exchange. Earnings from tourism and particularly workers' remittances can be expected to continue to finance a large share of the rising trade deficit.

Foreign capital, largely from the West, financed the remaining balance of payments deficit. Since the mid-1960s medium- and short-term financial credits replaced increasingly long-term official capital, resulting in a significant deterioration of external debt structure. The situation was exacerbated by a liberal external borrowing policy. Total external debt almost quadrupled between 1964 and 1971 and service payments more than quadrupled. The debt service ratio on total external debt outstanding increased from 12 percent in 1967 to 18 percent in 1971, while debt service ratio on debt in convertible currency increased from 17 percent to 23 percent in the same period.

An active external debt management policy has been followed since mid-1971, following a standby agreement with the IMF. A system of reporting and registering external credit with the National Bank of Yugoslavia has been instituted and a policy of improving the maturity structure of borrowing is being implemented.

Development Problems and Prospects

The analysis of the development experience and problems of the Yugoslav economy in this report, while indicating significant problems not yet solved, also gives ground for a favorable assessment of future economic performance. The success with which Yugoslavia has combined rapid economic growth and fundamental institutional changes over a long period of time shows the basic soundness of the line of economic development, and of the country's ability to find reasonably effective

solutions to the persisting and seemingly intractable domestic and external economic problems. The endowment of natural and human resources, together with the pragmatic and dynamic approach brought to bear on economic problems and issues, the readiness to consider and undertake institutional changes, and the general commitment to an open market-oriented economy are other reasons for confidence in development prospects.

The major factors likely to influence growth are: (a) the efficiency of the decentralized system of decision making based on consensus among the republics in formulating, adopting and implementing general economic policy and in effectively coordinating regional investment programs; (b) success in controlling inflationary pressures—implying the development of an environment of financial responsibility in which monetary policy can be more effective—and in implementing an incomes policy to restrict the growth of personal incomes, and in developing a more flexible fiscal policy; (c) improvement in the tight balance of payments situation, depending partly on the attainment of domestic stability as well as on the rate of growth in western European countries, particularly Italy and Germany, which absorb more than a quarter of Yugoslav exports and are a major source of tourism earnings and workers' remittances; (d) improvement in resource allocation and maintenance of the rate of aggregate savings.

An average growth rate of about 7.5 percent per year is the official target considered necessary for the achievement of basic social and economic objectives within an acceptable time period.[7] It is, however, recognized by the Yugoslav planners that a rate of growth of 7 percent to 8 percent per year would not be feasible if recent measures for domestic stabilization are not successful. In that situation, a growth rate of between 5 percent to 6 percent per year is regarded as the minimum acceptable. These targets may be compared with the average growth of GDP of 6 percent per year achieved during 1953–71, and of 6.5 percent per year during 1953–65. On the basis of its analysis, the mission believes that a growth rate of GDP of around 6 percent to 7 percent could be achieved in the medium- and long-term. Given the fairly low rate of population growth, this would imply a fairly rapid increase of per capita GDP, from around US$700 in 1971 to a level of about US$1,450 (in 1971 prices) in 1985.[8]

7. This was the target growth rate in the Social Development Plan for 1966–70, as well as for the Current Plan (1971–75).

8. The 1985 per capita GDP, corresponding to a growth of 7.5 percent and of 6 percent per year, would be about US$1,600 and US$1,350, respectively.

Chapter 1

THE HISTORICAL AND INSTITUTIONAL SETTING

This chapter gives a brief historical account of the evolution of the present social and economic system of Yugoslavia. Its object is a strictly limited one, namely to serve as an introduction and a frame of reference for the more detailed analysis, in subsequent chapters, of the economic situation and problems of present day Yugoslavia. Hence the treatment is not only brief but very selective. Attention is concentrated on those aspects of the past which bear most obviously on contemporary social, political and economic issues. The main emphasis is on broad institutional and political aspects, which for the most part are taken as given in the main body of the report.

Certain aspects of the development of the Yugoslav system can be best understood in relation to what is from the economist's point of view the rather remote past. While this chapter deals principally with more recent events, reference is therefore also made to developments over a period of some fifty years, from the initial establishment in 1920 of what was then called the Kingdom of the Serbs, Croats and Slovenes. The first part of the chapter covers the period to 1952, by which time the distinctive Yugoslav experiment in social and economic organization had been fully launched and some of its characteristic features were already becoming clear. The second part surveys the evolution of the system from 1952 to the present day.

The postwar development of Yugoslavia may be viewed as consisting of several periods. In the immediate postwar period, Yugoslavia was an orthodox socialist state with a large degree of centralized direction and control, comprehensive and detailed economic planning and little reliance on market forces. In 1948 Yugoslavia was expelled from the Cominform following a dispute with the USSR, and during the next two years trade with the eastern bloc dried up completely. In 1950 Yugoslavia began to evolve a new type of Socialist economy based on decentralizing decision making and self-management, and relying increasingly on the market system. Increased economic efficiency within a socialist framework has been one of the major objectives of the process of institutional change. The decentralization process, however, also reflects a recognition of the strong nationalism of the constituent parts of Yugoslavia. At the level of the enterprise, self-management has meant gradually increasing autonomy with decision making powers on management, investment and income distribution increasingly given to the workers. At the level of the government it has meant the erosion of the power of the Federal Government and greater autonomy and authority to republics and local governments. A third facet of the process of decentralization was the replacement by the banking system of the budget and extrabudgetary funds at all levels of government as the major source for financing investment. Associated with this was the decline of central control on the allocation of investment. This has proceeded at a varying pace with periods of rapid change followed by years of consolidation. The economic reform of 1965 however, constitutes something of a Great Divide, when the system acquired all its present essential features.

Principal Developments to 1952

Economic Changes up to 1941

Throughout the interwar period, and despite an active policy of promoting industrial growth, the Yugoslav economy remained primarily agricultural: the proportion of the population depending on agriculture appears to have fallen from almost four-fifths to rather less than three-quarters. The main single change affecting agriculture during the period over the greater part of the country was the extensive land reform which was introduced in 1919. This provided for the abolition of serfdom and the break-up of large landed estates. Although this reform became effective only gradually and over a period of time, it extended to the country as a whole the principle which had already been established in the older part of the prewar Serbia (though not in Macedonia), that the land should belong to those who tilled it. The reform led to a fall in the size of the characteristic agricultural holding. This tendency was encouraged by the growth in the agricultural population which somewhat exceeded the increase in the available amount of cultivable land—over the whole period of the order of one-fifth of the total. Hence by the close of the interwar years the average farm size was probably less than five hectares, while the total number of agricultural proprietors was not far short of two million out of a total agricultural population of perhaps twelve million.

At the same time, industrial and mining enterprises were encouraged through a set of policies which included state enterprise, tariff protection and favorable incentives for foreign investors. State enterprises were established, or took over from private ones, in iron and steel, oil refining, armaments, coal mines and some other sectors. It has been estimated that total manufacturing employment doubled during the interwar period to about 300,000, while employment in mining increased from about 30,000 to 50,000. Coal production rather more than doubled, and a similar increase in output probably occurred over the industrial sector as a whole.

The combination of industrial and commercial growth on the one hand, and on the other the increase in agricultural output resulting from a large cultivated area and from somewhat higher average yields for certain crops, led to a substantial rise in total national output over the whole period. One estimate has put the average annual growth of output at 5 percent for the period 1923–29, and 1.7 percent for the period 1929–39, when production levels in the early part were badly affected by the depression. Combining these two figures yields an annual average for the sixteen-year period of about 2.9 percent. By comparison, the average annual rate of population increase in the interwar years was of the order of 1.4 percent, so that there would have been some increase in income per head.

Despite this progress, Yugoslavia was still a poor country by the standards of Western Europe and North America. Thus for the years 1934–1938 it has been estimated that annual consumption of meat per head was approximately twenty-three kilograms, as compared with sixty-four kilograms in the United Kingdom; the infant mortality rate was 140 per thousand, as compared with fifty-five in the United Kingdom; and the number of radio sets and of passenger cars and buses were respectively 9 and 0.9 per thousand persons, for which the corresponding British figures were 181 and 43. An estimated 45 percent of the population over ten years old was illiterate, as compared with over 50 percent at the time of the census in 1921.

Despite the breaking-up of landed estates in the regions where these still existed,

considerable inequalities continued to exist, and even to increase, with respect to the distribution of income and consumption. In particular, the policy of favoring industry meant that a disproportionate share of the increase in income went to the industrial sector and to the towns, and more especially to the already established industrial centers in Slovenia and Croatia. Partly for this reason, there was probably little, if any, reduction in the absolute numbers of those living in extreme poverty in the more backward rural areas of the country. This was a major factor for the emergence and continuance of the revolutionary movement in Yugoslavia.

The National Question in Yugoslavia between the Wars

Major internal political problems of Yugoslavia in the interwar period arose from the extreme diversity of its newly joined constituent elements. This diversity was remarkable with respect even to geographical and administrative factors alone. The territories which came together to form Yugoslavia comprised seven distinct political, legal and administrative units. Two of these, Serbia and Montenegro, were independent countries at the time of the outbreak of the First World War. Both of them, and Serbia especially, had then recently acquired further accessions of territory which had not yet been fully incorporated. The remaining five units had all formed part of the Austrian-Hungarian empire. Two of these (Slovenia and Dalmatia) were in the Austrian half; two others (Croatia-Slavonia and Vojvodina) were in the Hungarian half; while the province of Bosnia and Herzegovina was jointly administered by the common Austro-Hungarian central bureaucracy. Hence the new state inherited a wide variety of previously separate jurisdictions. The diversity in the ethnic, linguistic, religious, cultural and historical fields have been mentioned in the previous chapter. Some particular aspects of these are worth noting, not only because of their effects on the early evolution of the Yugoslav state, but also because of the influence that they continue to exercise, though in ways that have been considerably modified by time, even in the present day.

One aspect of ethnic diversity was the existence of substantial national minorities. Although the reason for the establishment and survival of the Yugoslav State was that it united the South Slav peoples, about one-sixth of the population during the interwar period consisted of non-Slavonic groups. Of these the most important were Albanians, Germans, Hungarians and Turks.

Within the Slavonic majority, five distinct peoples existed: Serbs, Croats, Slovenes, Montenegrins, and Macedonians. Among these, language was and remains a primary distinctive and unifying factor. At the same time, linguistic differences exist which if disregarded or exploited can easily become sources of friction. Both Slovene and Macedonian are distinct from Serbo-Croat, though during the interwar period Macedonian was not officially recognized as such. Although the Serbo-Croat language is common to Serbs, Croats and Montenegrins, the Serb and Croat variants are not completely identical, while in Croatia (as in Slovenia) the Roman alphabet was used and in Serbia and Montenegro (as in Macedonia) the Cyrillic.

In addition to the divisions just noted between the South Slavs and the various minorities, and between different linguistic subdivisions of the Slav majority, there were also major causes of division which affected both the South Slav people and the minority groups alike.

One of the most important of these was religion. The population of Croatia (including Dalmatia) was and is very largely Catholic, while in the southern and eastern parts of the country the Serbs, Montenegrins and Macedonians were for the most

part members of the Eastern Orthodox Church. In addition, about 10 percent of the population were Moslems. These included not only the Albanian and Turkish minorities, but also a group in Bosnia-Herzegovina belonging to the Serbo-Croat community.

Both alphabetic and religious dividing lines coincided with a very broad historical and cultural divergence between the northern and western regions, on the one hand, and the southern and eastern regions on the other. Serbia, Montenegro, Bosnia-Herzegovina and Macedonia had all been subject over a very long period first to Byzantine and then to Turkish rule or influence. On the other hand Turkish expansion had affected Vojvodina and part of Croatia only temporarily, and Slovenia and Dalmatia not at all. In these areas, the main cultural influence remained western and Catholic, while as noted above political allegiance over a substantial period had been to Vienna and Budapest. A particularly serious aspect of this historical legacy was the fact that the two largest national communities in Yugoslavia, namely the Serbs and Croats, had over a period of several centuries been politically separated and subject to quite different sets of influences.

Social and economic development had also been greatly divergent. Of the historic provinces, prosperity was greatest in Slovenia and in a small number of urban areas in Croatia (including Dalmatia), where such industrial and commercial development as had taken place was largely concentrated, and in the rich agricultural area of the Vojvodina. While little industrial development had taken place in Serbia, a situation had long been established there in which the land was fairly evenly divided among peasants who owned their holdings. This was in contrast to the situation in Croatia and Vojvodina, in which large estates coexisted with substantial numbers of small peasants and landless workers. Similar inequalities were prevalent in Macedonia and Bosnia-Herzegovina, where because of less favorable natural conditions levels of living were generally lower. According to the census of 1921, the illiteracy rate among persons over ten years old exceeded 80 percent in both Macedonia and Bosnia-Herzegovina, whereas the figure for Slovenia was less than 10 percent.

The differences just summarized were bound to give rise to extraordinarily difficult problems. Unfortunately, these were intensified during the interwar period as a result of the internal policies pursued by successive governments in Yugoslavia. Hence the nationalities' problems, and in particular the antagonism between the Serb and Croat communities, became more acute as time went on.

The main single reason for this was that little attempt was made to acknowledge and respect national differences, and to accommodate them within a decentralized political and administrative structure taking account of historical divisions. Political life was consistently dominated by a ruling group which was composed almost entirely of Serbs, though with periodic support from individual members of other communities and from the main Slovene political party. The royal family, the leading ministers and senior military officers, as well as the principal recipients of patronage and key appointments were all Serbs. Successive institutional arrangements were alike in maintaining political power in the hands of this group. At the same time, local administration (particularly after 1929) was subject to strong central control, while its constituent units were created without regard for national and traditional dividing lines. The operation of this system gave rise to considerable opposition, which was generally, though not always countered with repressive measures. The Croats in particular became an increasingly disaffected community in which separatist elements gained ground.

The failure to recognize and to deal effectively with the problem of nationalities, and to ensure a more even national distribution of political power and influence, greatly weakened the internal cohesion of Yugoslavia during this period. A new approach to this basic problem was clearly necessary if the conception of a South Slav state was to recover and maintain the support of the peoples concerned.

The Situation in 1945

From an economic point of view, the main effect of the war on Yugoslavia was the appalling human casualties and physical damage which it caused. Fatal casualties arising from the war have been estimated at 1.7 million, over 10 percent of the population. Even more significant, the average age of those killed was twenty-two years. Widespread and serious damage was done to the transport system, while about 40 percent of manufacturing capacity was either destroyed or seriously damaged. Some 3.5 million people were left homeless. Hence a very considerable effort of reconstruction was needed before prewar levels of output, still less consumption, could be restored.

From the political point of view, wartime developments were to transform the whole situation. Each of the two main political causes which had existed before 1945 — the maintenance of a regime dominated by old Serbia and its ruling group before the war, and the establishment of a fully independent Croatian State during the war — had been not merely defeated but totally discredited during the war years. The political vacuum thus created was occupied by the Communist Party of Yugoslavia, which at the outbreak of the war had been an illegal group numerically insignificant but with growing influence. The party emerged from the wartime struggle against internal and external enemies in full control of the whole country, following the now celebrated war of national liberation.

In consolidating the position which it had thus won, the Communist Party had a number of positive advantages, in addition to the negative advantage that all serious rivals for power had disappeared from the scene. In particular, it derived strength from:

(a) the prestige it had acquired from its outstandingly courageous and successful direction of the partisan resistance during the war;

(b) the active support of the Soviet Union, together with the tolerance (following what finally had become close military collaboration in the war years) of the United States and Great Britain; and

(c) the fact that it represented and drew support from all sections of the nation, and plainly had no bias or special commitment toward any particular linguistic, regional or religious group.

Of these, the first became gradually less important as wartime memories grew fainter, and as to the second the Soviet Union became within a few years actively hostile to the Yugoslav Communists. The third factor, however, has been not only more enduring but of fundamental importance. The rise to power of a genuinely Yugoslav Party, which had already recognized and indeed insisted on the need to respect the separate identities of the peoples and regions which comprised the Yugoslav state, made possible a new and more constructive approach to the nationalities' problem. This may well have been a necessary condition for the continued survival of Yugoslavia as an independent sovereign state.

The Period of Central Planning, 1946–52

Under the constitution which was formally adopted in 1946, Yugoslavia became a federal state made up of six constituent republics. These were established on the basis of the old historic provinces, and comprised Serbia, Croatia, Slovenia, Bosnia-Herzegovina, Montenegro and Macedonia. From one point of view, the choice of the federal system was symbolic rather than real, since at this stage the power of the republican governments were exceedingly limited. Nonetheless this decision was important. It marked the passing of the prewar conception of a centralized Yugoslav governmental system which deliberately disregarded historic divisions and loyalties; and it also gave formal expression to the fact that Serbian predominance was no longer an objective of the central government. The recognition of Montenegro and Macedonia as separate republics was clear evidence of the latter, as indeed was the national composition of the leading members of the Communist Party. Two later constitutional developments further emphasized this point. First, Macedonian was formally recognized and established as an official language distinct from Serbo-Croat. Second, two autonomous provinces, of Vojvodina and Kosovo, were created as separate administrative units within the republic of Serbia.

Despite this liberal-minded approach to the problem of nationalities, the Yugoslav. regime of the early postwar years was highly centralized and authoritarian. A number of related factors accounted for this. One was the wish to consolidate the new regime in the face of actual or potential opponents, who were perceived as directly or indirectly encouraged by the great powers. In the early postwar years the main source of opposition was seen as the traditional prewar parties and ruling circles, while it was the western powers with whom external relations were difficult and contentious. After June 1948 there was the threat arising from the antagonism of the Soviet Union, and the risk that the Soviet position would gain widespread support within the Yugoslav Communist Party itself.

Another influence which made for centralization was the wish to imitate the Soviet example, which was at this time thought of as uniquely appropriate, by adopting an ambitious centrally directed five-year economic plan. Since moreover the Yugoslav plan imposed considerable sacrifices on present consumers for future gains, its implementation could hardly be taken for granted without a strong coercive element. An important aspect of this was that the method of financing the plan, as, indeed, the agricultural program as a whole, brought the regime increasingly into conflict with by far the largest social group in the country, the peasants.

An argument against decentralization to the republican level of government was that from the outset a leading objective of the new economic plan was the equalizing of living conditions throughout Yugoslavia, through accelerated economic development in the poorer republics. This could only be achieved, at any rate at the rapid pace which was initially chosen, through the central government, in which close control was exercised over the location of new investment projects. If, moreover, separate political power bases could be established at the republican level, there was the risk that this might lead to the reappearance of political movements based in particular communal groups, thus recreating the factional struggles of the war and prewar years.

The 1946 Constitution provided for state direction of economic life and development, through the agency of a comprehensive economic plan. The first postwar plan covered the five years from 1947 through 1951, and was drawn up in 1946 and finally

approved in April 1947. It provided for a huge expansion of industrial output, to about five times the prewar figure, while agricultural output was to be raised to about 20 percent above the prewar level. A very high rate of accumulation was provided for, to be directed particularly towards industry (with special emphasis on producer goods) and to the poorer regions. Production targets were established in extraordinary detail, for industries, products and enterprises within each of the six republics. Investment, prices, and flows of materials and finished products were likewise subject to rigorous supervision and control. This elaborate system was operated by a set of federal ministries, each dealing with particular sectors of industry.

The industrial system for which these plans were drawn up was already very largely owned by the state. By 1946 the great bulk of industrial and mining enterprises, the whole of the banking and transport systems, and almost all wholesale trade had been nationalized. This was followed in 1948 by the extension of state ownership to retail trade and catering. These measures established the system maintained in Yugoslavia to the present day, under which private ownership of enterprises is restricted to small-scale production and trade, where an enterprise employs no more than five people outside the immediate family of the owner. (Housing units with more than three apartments were also brought under public ownership at a later stage, in 1958.)

At the same time, a land reform was introduced, placing an upper limit of thirty-five hectares of cultivable land on all private holdings (including church properties). The land which thereby became available, together with the lands previously owned by the expelled German minority, were confiscated and turned over either to state farms or cooperatives or to individual peasants. An attempt was made, though in the early stages of the plan it was not pursued very strenuously, to extend the area owned by the state farms or producer cooperatives and to reduce correspondingly the element of private landed property. In order to guarantee a basic minimum flow of food supplies at regulated prices, a system of compulsory deliveries was imposed on peasant farmers.

In the first two years of the plan there was an impressive increase in output, and the investment ratio was raised significantly although signs of overstrain started to appear in 1947. After mid-1948 however, the break with the Soviet Union and the other Cominform countries made fulfillment of the plan impossible. This had two major distinct effects on the Yugoslav economy. First, there was a rapid reduction, literally to zero, in exports to and imports from what had previously been — and had been expected to remain — its principal trading partners. Imports from the socialist countries, which had been 56 percent of the total in 1947, had ceased altogether by 1950. Second, the new external threat caused the Yugoslav government to increase its expenditure on defense very considerably, so that by 1951 it had risen as high as 20 percent of national product. For three years, from 1949 through 1951, the combined percentage of GMP absorbed by investment and defense expenditure exceeded 40 percent. To make matters worse, both 1950 and 1952 were years of drought and exceptionally poor harvests. As between the calendar years 1948 and 1952, there was virtually no increase in total national output. If, in order to abstract from the effects of harvest fluctuations, comparison is made on the basis of three-year averages, the average annual rate of growth in national product between 1947–49 and 1951–53 was about 4 percent. This was low in relation both to later achievements and to the rate of growth in the immediate postwar years, although higher than the interwar average.

One result of the boycott imposed by the socialist countries was that the plan ob-jectives had to be abandoned. Even the principle of long-term planning was no longer emphasized, and the actual practice became to formulate annual plans only. However, the system of targets and allocations and the elaborate central machinery remained. In agriculture the system of compulsory deliveries was maintained, while in mid-1948 an intensive campaign was launched to induce the peasants to join in forming production cooperatives. The land farmed by cooperatives or state farms in-creased rapidly over the next three years, reaching some 27 percent in 1951 for the country as a whole and over 50 percent for Vojvodina.

One of the effects of this renewed emphasis on collective farming enterprises was to demonstrate again, in the face of accusations of heresy from the East, that Yugoslavia was and intended to remain a socialist state. But there was also a different and more lasting reaction to the controversy with the Soviet Union and the difficulties it caused. Not only was the Soviet example no longer necessarily to be followed, but its defects and limitations became a matter for extensive analysis. At the same time, the weaknesses of detailed imperative central planning, particularly in the face of enormous problems of adjustment created by the rupture with the Com-inform countries, were becoming increasingly evident. Hence an extremely lively debate arose within Yugoslavia, in which the nature and problems of the transition to a fully socialist society, which had previously been regarded as fairly well-estab-lished, were examined afresh. The outcome of the debate, and of the lessons which recent disillusioning experiences had seemed to teach, was a move towards a quite different conception, the *modus operandi,* of a socialist economy. As early as mid-1950 the first major sign of this appeared in the form of a law which provided for the crea-tion of workers' councils in state enterprises. This marked the beginning of a unique series of social and economic experiments which more than twenty years later is still very much in progress.

The Evolution of the Decentralized Self-Managed System, 1950–71

Basic Ideas and Characteristics

The Yugoslavs began to evolve a new economic system in 1950. This system represents more than simply a reaction to the experiences with the centrally admin-istered economy of the early postwar years triggered by the disagreements with the Soviet Union. It marks a search for a new kind of socialist society. The system may be termed a "socialist market economy" or a "socialist democracy" depending on whether the political or economic content of the evolution is stressed.

There are a number of interconnected elements that underlie the system. First, a basic tenet of the Yugoslav system is that a state is not socialist "until it begins to wither away."[1] Nationalization of resources and their management by the state is regarded only as "the first, and the lowest, form of socialism" (Kardelj) which, if there is a strong bureaucracy exploiting power for its own ends, degenerates into "state capitalism." Secondly, and connected to this, instead of state ownership and control there is social ownership and control of the means of production. The con-cept is a philosophical one. Social ownership as an economic category is not vested in

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1. E. Kardelj, Address to Federal Assembly, April 2, 1952. President Tito, in a speech to the Federal Assembly, July 26, 1950, also expressed the same idea when he said that: "Marx, Engels and Lenin teach us that the state begins to wither away from the moment when the proletariat comes to power."

any holder. Noone holds the right of social ownership, not even the federation...
But, the law recognizes a special property right which it calls the "right to use."[2]
Under social ownership, the worker is vested with the management of the means of
production and the right to dispose of the product. Workers' self-management is
seen as the fundamental principle of social organization, without which socialism is
not possible, because without workers' self-management they would not have the
disposition of the "surplus value" created in production. Thirdly, the decentraliza-
tion of political and economic decisions from the federal government to republics,
communes and enterprises is necessary because workers' management cannot be
meaningful without it. Fourthly, as a corollary of decentralized decision making
there has to be a greater reliance on markets as a guide to the allocation of resources.
This means the reduction of centralized planning and control. There has to be a de-
centralization of the planning function to the enterprises, the communes and the re-
publics. The plan for the economy as a whole is "only aimed at channelling and coor-
dinating the trends of general development."[3]

The evolution of the system designed to incorporate these basic principles has
been characterized, first, by a pragmatic experimental, and relatively nondogmatic
approach. For example, despite the basic idea of social ownership of property, peas-
ant ownership of land is accepted subject to prescribed limits as to size of holding.
The experimentation stems at least partly from the unique nature of the system. The
Yugoslavs have no model to follow and the workability of ideas and institutions has
to be judged by practice, and changes made on the basis of experience. Secondly, at
no stage during the development of the system has the process of reform and
rethinking been brought to a halt. The laws of the new system have been changed
frequently. Often the existing system did not correspond to the legal framework
because the realities of its functioning sometimes led to a tacit abandonment of
statutes inconsistent with its further development. Sometimes practice preceded the
legal enactment, and sometimes laws that were enacted were never put fully into
practice. Progress was not easy; finding an appropriate balance between the objective
of decentralization and self-management on the one hand, and the need for coor-
dination of decisions, economic stability and management at the macroeconomic
level, and other problems, had to be faced from the start. Finally the whole process
had occurred in an environment of relatively free and open discussion at all levels
and has been marked by a deep involvement of all elements in Yugoslav society.

It would not be correct to view the Yugoslav system as a halfway house between a
socialist system of the Soviet type and a capitalist system. It is basically a socialist
system based on Marxist doctrines, which reflects the view that the Soviet model
does not solve the problem of the "alienation" of the worker from capital and from
the product of his work (characteristic of capitalist society). The evolution of the
system has been marked by discontinuities—periods of rapid changes (e.g., 1953,
1961, 1965 and 1971) have been followed by periods of consolidation, marked by at-
tempts to organize. This is in line with Yugoslav political theory. The Program of the

2. "Development of Forms of Ownership in Yugoslavia," *Yugoslav Survey* 4 (January-March 1963):
1,686. Also see B Horvat, "Yugoslav Economic Policy in the Post War Period· Problems, Ideas, Institu-
tional Developments," *American Economic Review* 61, supplement to no. 3 (June 1971): supplement,
106–108; and V. Račić, "Fundamental Characteristics of the Yugoslav Economic System," in R. Sto-
janovic (ed.), *Yugoslav Economists on Problems of a Socialist Economy* (New York: International Arts and
Sciences Press, 1964).

3 *Jugoslovenski Ekonomski Sistem, 1954* (Belgrade: 1954), p. 2.

League of Yugoslav Communists adopted at the Seventh Congress (1958) considered "impetuosity to accept artificially created forms" to be "just as harmful as the conservative retention of obsolete forms." More concretely it warned against two "equally dangerous and harmful tendencies...first, against the tendency toward an anarchist underestimation of the role of the state...and secondly, against the tendency to transform the state into an all embracing force" (*The Program of the League of Yugoslav Communists* (Belgrade: 1958) p. 125). During the whole period of evolution of the new system there have been stages when reaction against protagonists of one of the other idealogies was dominant.

The Period of Transition, 1950-53

Although, as noted, the principle of self-management was introduced in 1950, its practice was redefined and extended during the next few years. In 1952 the control of all state enterprises was formally vested in the workers' councils, who were regarded as the trustees for the fixed capital which was provided to them by the Yugoslav state. At the same time all production decisions became the responsibility of the enterprises. Machinery and procedures were defined for constituting workers' councils and providing for the executive direction of enterprises. Initially the director of each enterprise was still appointed centrally, but late in 1952 the appointment was vested in the local authority (the commune), and in the following year this was replaced by a system of appointment after public advertisement by a committee representing the commune and workers' council concerned.

The move towards greater reliance on the market was not the result of a conversion to forms of economic reasoning then almost unknown in Yugoslavia, but was adopted because it seemed a necessary consequence of the principle of self-management. The process of decentralizing decisions to enterprises began in 1950, but gathered momentum in the following year. The federal ministries which had devised and administered the plan were abolished, to be replaced by secretariats with much smaller staff and greatly restricted functions. In December 1951 a law on "Planned Management of the National Economy" established from 1952 a system of annual plans (a second five-year plan was not embarked on until 1956), and introduced the practice of what was known as planning of "basic proportions," in which the amount and broad allocation of investment was determined, while the decisions regarding quantity and quality of output and its price were left to enterprises. Before 1952 the investment allocations of the plan were implemented through the budget. This arrangement was abolished with the Law on Planned Management. Initially, the National Bank of Yugoslavia was responsible for actually channelling funds into projects. However, in December 1953 a system of auctions for investment loans was instituted as the device for allocating investment funds to individual enterprises, along the basic proportions laid down by the plan. Bids received from enterprises were evaluated and those offering the most competitive terms were accepted.

At the same time the wide variety of prices and markets was replaced by a single price structure, while rationing was abolished and the scope of price control reduced. Centralized distribution of materials and finished products was abolished with the ministries which had operated it. According to a law of January 1951, prices of products that were not regulated were to be equated to average cost of production (deter-

mined by the price commission on the basis of reports of producing enterprises) plus a margin specified for each industry by the government. For consumer goods and for enterprises producing for a local market, the price so determined was to be a minimum. Obviously the method for setting prices did not provide any incentive to reduce average costs and protected existing enterprises against competition from new, more efficient producers. However, it did signify the acceptance of profit as an economic incentive and criterion. The relative freedom of enterprises to fix prices led to price and market agreements among enterprises which were made illegal in 1955. Some relaxation of controls was also attempted in foreign trade, where restrictions were greatly reduced following a devaluation in 1952 of the dinar to one-sixth of its former official rate.

In agriculture, there was an almost complete reversal of the objectives and policies which had been adopted in the early postwar years. The idea that the socialization of the peasant is necessary for the socialization of the country would eventually lead to the socialization of the peasant. Consequently the Yugoslav economy emerged divided into a socialist sector and private sector, with the former identified with the modern "sector." The process of socialization was viewed as one of rapid expansion of the social sector, so that the weight of the private sector in the economy diminished over time. After 1951 the practice of imposing crop patterns was discontinued, and in the following year the extremely unpopular system of compulsory deliveries came to an end. In March 1953 a law was passed, by which production cooperatives could be dissolved and their land returned to the peasants who had contributed it. This resulted in a very sharp reduction in the number of these cooperatives, particularly in the Vojvodina. Also in 1953 a further instalment of land reform was introduced, by which the thirty-five hectare limit on private holdings was brought down to ten hectares, with the stipulation that the excess was to be made available only for state farms or cooperatives. In addition a new system of taxation was introduced according to which farmers were to be taxed according to the market value of their production.

The changes concerning economic policy were accompanied by a series of complementary political and constitutional changes. In 1952 the Communist Party of Yugoslavia changed its name and formal status, and was reborn as the League of Communists. In 1953 the principal changes of the recent period were brought together and codified in a new Constitutional Act. Article 4 of the new constitution provided that:

> "Social ownership of means of production, the self-government of producers in the economy, and the self-government of working people in the commune, city and district represent the basis for the social and political system of the country."

Besides providing a new basis for the federal parliament and executive, the Constitution of 1953 gave greater powers to the local authorities below the level of the republics. The districts, the next tier under the republics, acquired a share in local enterprise revenues, together with some independent rights of taxation, while the size and responsibilities of the communes were increased. Nevertheless the Federal Government remained the dominant authority with respect both to taxation rights and the financing of investment.

The Period of Elaboration and Consolidation, 1954–64

The development of the system after 1953 followed the general principles and the lines of development already mentioned — self-management, decentralization, liberalization and increased reliance on the market — as the Yugoslavs tried to work out the practical implications of the approach that they had adopted, and discover how best to implement the basic principles. In the event, decentralization and self-management proceeded at two levels. First, decentralization at the political level increased autonomy for republics and local governments and reduced the role for the federal government. Secondly, there was a reduction of state regulation and control over enterprise decisions at all levels, federal, republic and communal.

Self-Management in Enterprises. The development of enterprise self-management is illustrated by the evolution of the system of distribution of enterprise income.[4] Up to 1954 the enterprises had little control over their resources. The wage and salary system was fixed by the state, which also determined the use of other funds. In 1954 a new system of determining net profits was introduced, under which the total wage bill was still determined on the basis of average salaries for specified categories of workers fixed in the social plan. However, the enterprise could distribute the total amount thus determined among the workers, in accordance with pay scales determined by the workers' councils. A proportion of the net profit could also be paid out to workers, but this proportion was determined by the state. The authority of workers' councils in this field was increased significantly in 1958, when a new scheme of income distribution within enterprises was adopted and implemented, particularly after some revisions in 1961.

The revised system dropped the idea of net profit and replaced it with that of net income. Net income was defined as gross revenue *minus* material costs, depreciation and taxes. It, therefore, was not net of the wage bill. The allocation of the net income between personal income payments to workers and other uses was now entrusted to the workers' councils. This meant that workers' councils were now accepted as responsible bodies, which would not pay out the whole net income in income to workers at the expense of "accumulation" and other enterprise funds. However, there was a tendency for a sharp increase in wages after the system was adopted. Enterprises found themselves in liquidity difficulties too, because insufficient attention had been given to financial conditions of the enterprise when determining the proportion of net income to be paid out in wages. Consequently guidelines for the allocation of net income between personal income payments and other uses were imposed again in 1962.

The guidelines aimed to discourage personal income payments above a prescribed minimum level, by imposing large obligatory payments from the net income. The payments were calculated as follows: from the net income, socially prescribed minimum personal incomes were deducted and the contributions progressively related to the remainder. After these obligatory payments were made the little there was left for the enterprise to play with could be added to the socially prescribed minimum wage bill or used for other purposes. The major difficulty with the system was that

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4. There were other developments indicating increasing self-management. For example until 1958 the directors of enterprises were appointed by a committee on which the enterprise had one-third representation. After 1958, half the members of the committee were from the enterprise. At present the workers' council appoints the director from a list approved by the selection committee.

there was no incentive for the enterprise to reduce costs, because the resultant increase in net income only increased the base on which the obligations were calculated. The contributions were abolished in 1964 when the enterprises finally secured a greater control on the distribution of their net income.

The increasing control of the enterprises over the distribution of their income is illustrated by the increase in the proportion of enterprise income at their disposal in the form of net personal incomes, depreciation and enterprise funds. This proportion increased from 43 percent in 1959 to 55 percent in 1964 and 62 percent in 1966.[5]

The Finance of Investment. The development of the system of investment allocation was a second area in which decentralization and self-management gradually increased. The Law on Banks passed in 1954 permitted communal banks to be established by local governments to supplement the role of the National Bank, and to be subject to its control. The banks were expected to collect savings and other funds from enterprises in their areas and control and execute the local government budget. In addition, three specialized banks were established for implementing the credit and investment policy of the government. The Bank for Foreign Trade was established in 1955, followed by the Investment Bank in 1956 and the Agricultural Bank in 1958. Funds were allocated to these banks from the government's General Investment Fund and they were responsible for financing the most efficient projects within the framework of the social plan. The increasing role of the banks in allocation of finance was expected to improve efficiency and economy in the use of funds, without eliminating the influence of government on the volume and pattern of investment. In 1956 it was enacted that investment policy would be implemented by the Yugoslav Investment Bank (YIB), which would consider a number of criteria in allocating credit, including the proportion of internal financing of the project, the term involved in construction, the profitability of the project and its foreign exchange effect. It is not clear how these criteria were interpreted and what was the weight given to them. The banks acted primarily as agents for the distribution of state investment credits until 1963. Since almost all the resources of the banks came from the government, its influence on credit allocation continued to be dominant. The decentralization of investment decisions in Yugoslavia did not take place until the mid-1960s.

The continued importance of the state in finance of investment is shown by its high proportion in total investment funds (Table 1.1). The relative unimportance of banks until 1964, when the state investment funds were abolished and added to bank resources, is also to be noted.

TABLE 1.1: Investment in Fixed Assets by Source of Finance

(%)

	1952	1955	1960	1962	1964
State	98	64	62	59	36
Work organizations	2	35	37	38	32
Banks	—	1	1	3	32

SOURCE *Statistički Bilten* 1 (1965).

Decentralization and Self-Government. Parallel with the development of enterprise autonomy, there was progressive decentralization of the powers of the federation to

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5. The proportion of depreciation and enterprise funds to total net income increased from 18 percent in 1959 to 27 percent in 1964, i.e., by one-half, approximately

republics and local governments. The basic idea was that self-management at the territorial level meant increasing self-government by communities.[6] At the same time republic and local governments were given an expanding role in the "supervision" of enterprises in their territory, at least in the initial stages. Instead of centralized state control at the federal level, enterprises faced decentralized state regulation at the commune level.

One aspect of this development was an attempt to make republic and local government financially independent of the federation by developing their own revenue resources. As a result, while in 1948 about 54 percent of the total revenue of local and republic governments was derived from their own sources, in 1954 the proportion had increased to about 73 percent. In general, however, the local governments were not financially independent and continued to depend on sharing in federal revenues and on subsidies from the federal budget for a significant proportion of their finances. The principle of separate revenue sources for each level of government was abandoned during 1960–64 but reintroduced in 1965.

The attempt to increase financial independence and resources was accompanied by a significant increase in the role of nonfederal governments in investment financing (Table 1.2). In particular the importance of local governments continued to grow until 1964, when they accounted for one-fifth of total investment expenditure in the social sector and three-fifths of the investment expenditure financed by the state.

TABLE 1.2: Investment in Fixed Assets Financed by the State, by Levels of Government

					(%)
	1953	1955	1960	1962	1964
Total government	100	100	100	100	100
Federation	97	73	60	51	19
Republics	2	14	11	15	22
Communes and districts	1	13	29	34	59

SOURCES: *Yugoslav Survey* (1963): 2,167; and *Statistički Bilten.*

The law on local self-government adopted in 1955 stated that the commune was "the basic political-territorial organization of self-government," and gave it a variety of functions and responsibilities, both legislative and administrative. Its functions included the preparation of a social development plan for the area, the supervision of economic enterprises and the provision of municipal services and infrastructure, including not only public utilities but also services like education, roads and hospitals. Communes were also responsible for the social property on their territory, as well as that under the control of enterprises in their area. The communal government had an important (initially a decisive) voice in the appointment of directors of enterprises. It also approved the wage schedules of individual enterprises since 1954 and continued to do so, even after the system of "net income" was adopted in 1958. The communes were also the founding members of the communal banks, of which there were 206 in 1964.[7] Hence the communes were, and are, an important factor in financing enterprise investment.

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6. "In daily life every man appears in a double capacity: as a producer and as a citizen. Thus direct democracy will also have two aspects: one relating to the work place, the other to the territory where citizens live," Horvat, "Yugoslav Economic Policy," p. 153.

7. Communal banks disappeared subsequently as an attempt was made to reduce their narrow territorial approach. As founder members, commune governments continue to have influence on lending policies of the commercial banks that replaced the communal banks.

The growth in the importance of local self-government was accompanied by a reduction in the number of communes, and an increase in their average size. The total number of communes declined from 4,156 in 1953 to 500 in 1970, and the average population per commune increased from 4,000 to about 40,000. The main reason for this tendency was that large communes could benefit from economies of scale in various commune activities. There also developed a large degree of intercommune cooperation for the pursuit of joint interests, for example, in infrastructure.[8] Since the larger average size of the communes implies less direct self-government, local communities have been created for specific localities within the commune since 1963, with their own system of self-government.[9] One factor affecting the real degree of self-government in the commune is the question of resources. In 1960 only 9 percent of the communes were able to cover their needs. All others had to rely on higher levels of government for subsidies and other financial help.

The Five-Year Plan, 1957–61. The Second Five-Year Plan (1957–61) marked a return to medium-term planning after some years of annual plans. The period of annual plans had been used to a large extent to complete projects initiated during the period of centralized planning and, therefore, was characterized by the development strategy of the earlier period. During the second plan there was a reorientation of the pattern of development from one emphasizing heavy industries and producer goods, to one encouraging the production of consumer goods and finished products with the object of improving standards of living. The shift is termed in Yugoslavia as one from an "intensive" to an "extensive" pattern of development. The plan aimed at a growth in living standards of nearly 8 percent per year, and at the elimination of shortages and bottlenecks arising from the earlier pattern of development through a faster development of agriculture and industries producing final goods. The plan was very successful and was declared completed in 1960 when most of its targets were fulfilled.

The emphasis on agriculture marked a significant change. The objective was to increase production so that food imports would not be a burden on the balance of payments. The role of the peasant in attaining this objective was recognized, and cooperation between peasant farmers and the social sector in agriculture was encouraged both as a method for getting higher production, as well as for demonstrating to the peasants the advantages of socialized agriculture.[10] Investment in agriculture was increased both through the newly-founded Agricultural Bank and through investment funds. The increase of relative prices of agricultural commodities improved the terms of trade for agriculture and was an important incentive for growth of output.[11]

While significant progress towards decentralization and self-management had been made by 1964, it was much less than would appear at first sight. There continued to be a large degree of central control of the economy, and particularly of investment, in the interests of coordination and stabilization or ensuring what were termed the "basic proportions" of development. The emphasis placed on achieving greater regional equality was another reason for central intervention in investment

8. "Inter-Commune Cooperation," *Yugoslav Survey* 6 (July-September 1965).

9. In 1971 there were over 8,000 local communities. "Local Communities—Development and Results," *Yugoslav Survey* 13 (August 1972).

10. See *The Program of the League of Yugoslav Communists* (Belgrade: Edition Jugoslavije, 1958), pp. 149–50.

11 Between 1956 and 1962, the index of producers' prices in agriculture increased by 64 percent, compared to an increase of 14 percent in industrial producer prices.

allocation. There was also a large degree of control of prices and wages. The state continued to control the prices of 70 percent of the products, and thus exercised a strong influence on the pattern of decentralized resource use. In the field of foreign trade as well, the failure of the attempts to reduce controls in 1952 had been followed by an increase in restrictions, nor was a second major reform of the foreign exchange system in 1962 very successful. The relatively slow progress was partly the normal concomitant of the problems of developing a new and, in many ways, unique economic system. The process of "learning by going" was a difficult one. In addition, there was also some resistance to the ideas of the new economic system and its implications, which slowed the process of decentralization and self-management. Such views were increasingly voiced in 1961 and 1962 when there was a reduction in the rate of growth. This was attributed to the significant increase in enterprise autonomy that occurred in 1961, and a return to the old system of income distribution in enterprises and greater state influence in investment allocation was demanded. The ideological opposition was defeated. The Constitution of 1963 and the Eighth Congress of the League of Communists of Yugoslavia in 1964 reaffirmed the basic principles of Yugoslav development.

The New Constitution, 1963. The new constitution, which is still in effect though with major amendments, summed up the progress of the preceding decade and set the stage for the next steps in the evolution of the system. It was presented by Kardelj as: "not only the constitution of the state but also a specific social charter which will provide the material basis for the faster internal development of the system of social self-government," and stated that: "the basis of the social economic system of Yugoslavia is free, associated work with socially-owned means of labor and self-management of the working people in production and in distribution of the social product in the working organization and social community." The citizens' right to "social self-management" was stated to be "inviolable" and was to be applied in all spheres of economic, social and political life.[12] The constitution defined in greater detail than before the institutions for local government, and gave greater importance to the commune. It also incorporated the progress made in the development of workers' self-management. The Federal Assembly was reorganized with five chambers—the Federal Chamber (incorporating the Chamber of Nationalities), the Chambers of Economic Affairs, Education and Culture, Social Welfare and Health, and Political Organization.[13] Representation in all the chambers was on the basis of population, except in the Chamber of Nationalities in which each republic had equal representation, and the two autonomous provinces had half of that of a single republic. Election to all the chambers except the Federal Chamber was indirect, through communal assemblies. Representatives to the Federal Chamber were to be elected from candidates nominated by the communal assemblies through direct election in each constituency. There was an attempt to enforce wide participation of the people in the process of government by providing that noone could be elected to the same chamber more than twice consecutively.

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12. The quotations are from Article 6 and Article 34.
13. The assembly system was modified by a Constitutional Amendment in 1968. The Chamber of Nationalities became an independent unit at that time. It represented the continued importance of the complex nationalities' problem in Yugoslavia. It was to meet occasionally when questions relating to the equality of rights of republics and nationalities arose, or when demanded by the majority of delegates of any republic.

The Economic Reform, 1965

By the mid-60s there was increasing dissatisfaction with the progress made in establishing a decentralized market-oriented, self-managed economic system. As already mentioned, a large degree of government control on prices continued. There were several reasons for this. First, the price system was used as an indirect way of regulating the allocation of resources and influencing the investment and production decisions of enterprises. It was one way of achieving the "basic proportions" of development. Secondly, to prevent high costs and the price escalation of finished goods, prices of power, raw materials and intermediate goods were kept low and a complex system of subsidies and compensation was maintained to keep enterprises in these areas solvent. Thirdly, given the high rate of investment, restrictions on imports, and the tendency for wages to rise and large fluctuations in agricultural production to emerge, there were, in general, strong inflationary pressures as well as a tendency for monopolistic price increases, and price control was an important weapon for suppressing inflation. "Consequently, the practice of administrative interference of the economy was longest and most extensively retained in the price sector."[14] The system of prices was the major object of attack. It was argued that administrative control of prices may have been acceptable in an underdeveloped agrarian economy, but Yugoslavia had passed beyond that stage. The complex production structure that had been created was being inhibited and distorted because of price controls. The recession in the rate of economic growth in 1961 and 1962 led to serious questioning. This was intensified during the immediately following years when there were severe balance of payments difficulties. Exports of goods averaged two-thirds of imports during 1962–64, and for the convertible area only three-fifths. The balance of payments question was crucial for the future with the expected decline in external assistance on soft terms. The problem was attributed to rapid increase of imports. (Imports of goods increased at about 27 percent per year during 1960–64.) One reason for this, it was claimed, was domestic price policies, which, by depressing raw material prices, led to a relatively slow development of the domestic resource base, at a time when final goods production, and, therefore, industrial raw material needs were expanding. The domestic price system, which sheltered domestic industry from international competition through restrictions in foreign trade, was also blamed for the relatively poor export growth. Producers of final products preferred to sell on the domestic market and exports had to be subsidized. In 1964 export subsidies totalled 2.7 billion dinars, or 20 percent of the value of exports.[15]

Other aspects of the inefficiency of past development also caused discontent. Despite the rapid growth and the institutional development of the 1950s there continued to be a great emphasis on high rates of investment. These were secured at the expense of a slower growth in private consumption. The share of the latter in GNP declined from 56 percent in 1957 to 51 percent in 1964. Over the same period, private consumption per capita increased at 4.4 percent per year, while per capita investment increased at 8 percent per year. It was believed that the time had arrived for modifying priorities between investment and consumption. It was also believed that the slow growth in per capita consumption was largely a result of the "extensive" pattern of development in Yugoslavia, in which increases in employment rather than of pro-

14 "Price Formation and Social Price Control," *Yugoslav Survey* 9 (February 1968): 51.

15. D. Bilandžić, *Management of Yugoslav Economy, 1945–66* (Belgrade: Yugoslav Trade Unions, 1967), p. 109.

ductivity per worker were emphasized.[16] It was argued that for greater efficiency, competitiveness and higher living standards for the workers (in the social sector) a shift to an "intensive" pattern of development was needed.

A third aspect of development during the past decade which had become increasingly suspect was the system of investment allocation. Though there had been significant progress in the diversion of resources from the federal level to republics, local governments and to the enterprises, the Federal Government was the largest single source for investment funds. Since the Federal General Investment Fund was allocated among enterprises, republics and communes either directly, or through the banking system the federation had almost full control of investment allocation through a process of leverage.[17] The banks, since they operated with state funds, were, therefore, subject to its influence. A second aspect of investment allocation in the late 1950s, which was also questioned, was related to the regional development question. In the system of investment financing, the designated underdeveloped regions received special privileges (see Chapter 8). It was widely argued, particularly by the representatives of the developed regions, that this policy led to significant distortions in resource allocation and had encouraged waste.

As a result of all these factors, the economic reform of 1965 was carried out and the Yugoslav economic system was given, more or less, its present shape. The period 1950-65 has been called that of the birth of the self-management system (D. Bilandžić, *Management of Yugoslav Economy* p. 125). The reform consisted of a number of measures adopted during 1964-67 which were designed to achieve three major objectives: (a) to give greater autonomy to enterprises and limit the role of state in the economy by reducing taxation on enterprises and leaving investment decisions to them; (b) to correct by major price adjustments the long-standing distortions in relative prices, and thus improve the pattern of output and investment; (c) by devaluing the dinar (approximately halving customs tariff rates and liberalizing imports and the foreign exchange regime), to integrate the economy more closely with the world economy and exert pressure on Yugoslav enterprises to increase efficiency. The measures were adopted over a number of years with the reduction in taxation of enterprises occurring in 1964, the devaluation and the principal price adjustments in July 1965 and the liberalization of the foreign exchange regime in January 1967.

The economic reform involved a major reorientation of economic policy and strategy which has dominated the pattern of development in subsequent years. This reorientation is clearly defined in the Social Development Plan 1966-70, which was adopted in July 1966.[18] The first "basic intention" of the plan was: "to ensure a gradual redistribution of national income in favor of personal incomes, so that they may

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16. The fixed capital stock and the total employment in industry and mining change as follows:

	1952	1956	1964
Capital stock (1966 prices)	100	133	270
Employment	100	136	214

Consequently the value of fixed assets per worker in 1964 was only 26 percent higher than in 1952.

17. As stated, the federal funds financed only a part of any project, the rest having to be financed by the borrower from own funds. Thus: "the central investment fund appears as an instrument for directing the use of the decentralized investment funds left with the enterprises and local authorities." B. Kubović and V. Tričković, *National and Regional Economic Planning in Yugoslavia* (Belgrade: Federal Planning Bureau, Research Division, Regional Development Division, 1961).

18. The actual targets of the plan were abandoned following the unfavorable development of the economy during 1966-68. However, the fundamentals of development strategy were not changed.

not only bring about an improvement in the standard of living but also become a fac-
tor conducive to rational production and spending."[19] Increase in personal incomes
would be an incentive for increasing productivity and efficiency of resource use. Sec-
ondly, the plan emphasized the "intensification of socio-economic activity." It was
stated that while in the 1950s labor productivity accounted for only 10 percent of
production and income gains, the proportion would be 70 percent during the plan
period. Thirdly, to allow "integration of the Yugoslav economy in the international
division of labor" (quotations from Stajner, see footnote 19), it was necessary to
achieve rapid export growth, which itself depended on the rapid adoption of modern
technology in production. Production itself would be reoriented away from the
domestic market: "to what is profitable to produce in world proportions." Fourthly,
to attract modern technology and to improve efficiency, foreign investment was to be
encouraged. Fifthly, the role of the state in investment decisions was to be reduced
significantly, partly by reducing its role in investment finance. In 1963 the various
state investment funds were abolished, and the resources transferred to the banks. It
was envisaged that: "in the future, the Federation will no longer dispose of the pres-
ent amount of investment funds...but will only accumulate and build up funds in-
dispensable for the development of underdeveloped regions" (Stajner, "The Funda-
mentals," p. 3,866).

The economic reforms were successful in bringing about a large degree of de-
centralization of decision making and in reorienting the pattern of economic
development in Yugoslavia in the stated directions. This is clear from the selected in-
dicators in the table below.

TABLE 1.3: Selected Indicators

(%)

	1952	1961	1965	1970
Share of private consumption in social product (1966 prices)	58.4	53.3	50.9	55.1
Share of Federal Republic and local governments in finance of total investment (current prices)	78.0	61.8	36.5	15.0
Index of capital stock per worker (industry)	100.0	113.0	132.0	182.0
Share of industrial commodities under price controls	—	—	80.0	43.0
Share of "liberalized" imports	—	—	—	80.0
Exports as share of GNP (1966 prices)	10.3	14.3	18.2	20.7

SOURCE. World Bank, Economic and Social Data Division

However, the reform required radical readjustment with the economy. Also, in order
to stabilize prices, it was accompanied by a tight monetary policy. Consequently the
period 1966–68 was marked by unemployment and stagnation while the reform was
implemented. The resumption of rapid economic growth in the middle of 1968, and
the boom of 1969 and 1970, brought to the forefront issues of economic stabilization,
of coordination of economic policies and investment decisions, and of balance of
payments deficits which are discussed later in this report (see Chapters 9 and 11).

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19. R. Stajner, "The Fundamentals of Yugoslavia's 1966–70 Social Development Plan," *Yugoslav Survey*
7 (1966): 3,862–3.

Nationalism and Constitutional Change

The growth of decentralization was accompanied by a surfacing of the nationality question. To ignore it has not been a part of Communist party thinking. The program adopted by the Seventh Congress of the League of Yugoslav Communists in 1958 emphasized that the creation of a "new Yugoslav consciousness" did not mean the renunciation of national identity by people of different nationalities. At the Sixth Congress (1964) Kardelj stated that: "the point of departure in economic relations between the nationalities is economic independence for the people of each nationality."[20] The Amendments to the Constitution of 1963 adopted in 1968 gave increased rights and responsibilities to the republics. The structure of the Federal Assembly was modified and the Chamber of Nationalities was given much greater importance. There was a concomitant improvement in the position of ethnic minorities. The 1963 Constitution provided that in areas with mixed populations all nationalities would be represented in government and in workers' councils in proportion to their population. The Constitutional Amendment of 1968 gave a "fuller, more independent constitutional and legal status" to the autonomous provinces of Kosovo and Vojvodina.

The Constitutional Amendments adopted in July 1971 were the most significant steps in the development of the economic system since the reform. First they carried the trend towards greater self-management in the republics much further. Secondly, they marked a major step in the development of the system of self-management in enterprises. They established, thirdly, a collective presidency at the federal level in preparation for President Tito's eventual retirement from the active political scene. Finally, they provided a new institutional framework for coordinating economic policy and decisions. The changes in the legal framework required to implement these changes has not yet been completed. However, as brought out in this report, after an initial period of adjustment and dislocation, the new system has begun to work.

The republics and autonomous provinces now have more economic responsibilities, while the authority of the Federal Government has been narrowed and redefined. Major economic (particularly fiscal) responsibilities were transferred to the republics and autonomous provinces. National defense, internal security and foreign policy as well as the FAD continue to be federal responsibilities. The Federal Government also retains executive and coordinating functions for monetary policy; foreign exchange policies; the control of prices of basic commodities and services; and certain tax and expenditure policies. The extent of federal competence in these fields is, however, normally limited by the necessity to secure agreement of the republics and autonomous provinces before new measures can be undertaken by the federation. The Federal Government, however, retains sufficient initiative and control in the form of its responsibility for maintaining the unity of the Yugoslav market as well as emergency powers.

Since important matters cannot be decided without the approval of all republics and provinces, five Interrepublican Committees were established to deal with (a) development policy, (b) foreign trade and the foreign currency system, (c) the monetary system, (d) internal market matters and (e) financial matters. Each committee is

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20. *Practice and Theory of Socialist Development in Yugoslavia,* the basic document of the Eighth Congress of the League of Yugoslav Communists (Belgrade: Medžunarodna Politika, 1965), p. 100. Kardelj went on to point out that: "there can obviously be no question only of independence but interdependence as well."

chaired by a member of the Federal Government. There is also a Federal Coordination Committee consisting of the President of the Federal Government, the presidents of the governments of the republics and autonomous provinces, and five members of the Federal Government. There are intricate rules for approval of legislation where there is disagreement among the republics and to allow for the continuity of government while discussion continues. The Social Development Plan is also an important instrument for coordinating economic policies at different levels.

A system of "social agreements" and "self-management agreements" was created as a major new technique for coordinating the economic behavior of enterprises. The system, which involves tripartite "social agreements" between the state, the trade union and the enterprises, and subsequent "self-management" agreements among enterprises in the same branch of activity, has been used, at first, mainly to develop and implement an incomes' policy. The agreements are binding on the enterprises that enter into them. While enterprises are not forced to enter these agreements, the federal, republic or local government can proclaim a "social agreement" as generally binding, if the enterprises are unable to negotiate a "self-management" agreement.

The Constitutional Amendments and the proposed implementing legislation included basic changes affecting enterprises that are likely to have significant effects in the long run. An enterprise was given the right to invest funds in another enterprise and claim in return a part of the surplus. This could eventually have farreaching implications for the mobility of capital, mergers, and the emergence of conglomerates. Joint ventures among domestic enterprises may become more frequent in the future. On the other hand, a subunit of an enterprise may invoke the right of self-management and constitute a separate organization provided it does not violate contractual obligations. In a further effort to attract foreign firms into joint ventures with Yugoslav firms, it was stated that the rights of foreign partners cannot be diminished by changes in legislation enacted after a joint venture contract has been finalized. To the extent that foreign firms have been inhibited during the past by uncertainties about their legal status this may help to increase joint ventures.

Since the new system relies on consensus, every republic has, in effect, the power of veto. The process of reaching agreement on policies and solutions is sometimes cumbersome and slow and there may be a tendency for recourse to ad hoc and temporary measures on difficult issues while consensus is being hammered out. It must also be remembered, in this context, however, that, to a certain extent, the Constitutional Amendments only formalized a situation that had already emerged. Reconciliation of republic interests and aspirations had already become a major factor influencing and sometimes delaying federal action, even before 1971.

The Yugoslavs point out that one of the advantages of the recent changes explicitly recognizing the views of the republics, is that policy decisions, once made, reflect an agreement and are therefore more likely to be implemented than in the past. The delays in arriving at policy understandings is, in their view, more than compensated by the greater certainty of the eventual outcome. It is also argued that as the republics are now responsible for many facets of development they can more rapidly take decisive steps to resolve their own specific problems.

The Present Institutional Framework

The Federal, Republic and Local Governments

The structure of the government gives explicit recognition to the different nationalities and republics. The political structure of the Federal Government is shown in Chart I. It is guided by a Presidency consisting at present of twenty-three members, which will be reduced to twenty-two members on the retirement of President Tito. The Presidency will then consist of three members from each republic and two members from each autonomous province. Members are nominated by their respective republics and approved by the Federal Assembly for a term of five years. The executive branch of the federation is the Federal Executive Council (FEC) which consists of twenty-eight members, chosen from among the republics for a term of four years on the same representative basis as the Presidency. The Federal Assembly is a five-chamber body. All legislation has to be approved by the Chamber of Nationalities and by one of the other four chambers depending on its competency. For economic matters, the Economic Chamber has to give its approval.

The governments of republics and autonomous provinces are organized on the basis of their own constitutions along similar lines as the Federal Government, except that there is no equivalent for the Presidency and no constitutionally established committees for coordination. The Republican Assembly also has five chambers in line with the Federal Assembly and the Executive Council of the republic is responsible for the implementation of policies adopted by the assembly.

Local government at the commune level, and even below, at the level of local communities, is a most important element in self-government. The Communal Assembly consists of two chambers, one elected by all citizens and the other by employed personnel. In addition to the elected chambers there are commissions, councils and committees established for specific purposes.

Enterprises and Workers' Self-Management

The basis of the Yugoslav economic system is the workers' managed enterprise or "work organization."[21] The enterprise is an autonomous body with the status of a legal person, with freedom to contract for capital goods, raw materials and workers. The assets of the enterprises are social property but it can mortgage or dispose of them. The enterprise is free to determine what to produce, how to produce it, how much of it to produce and, in principle, the price of its product.

An enterprise can be established by any group of persons, but is usually set up together by communes and other working organizations, which are termed its founder members. Although the founder members have influence in the early stages of the enterprise, once it is operating fully, it comes under the control of the workers.

The management of an enterprise is carried out by a workers' council elected by all the employees (the work collective), a managing board elected by the workers' council and a director, appointed by the workers' council and approved by the commune. Where an enterprise consists of less than thirty persons there is no elected workers' council, and the whole working community acts as a council. This arrangement is also legally permissible in any working community with up to seventy persons.

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21. The term "work organization" includes not only business enterprises but all organizations in the field of public services, research, and education, etc.

POLITICAL STRUCTURE OF THE FEDERATION   CHART I

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                    ┌─────────────────────┐
                    │  THE PRESIDENT OF    │
                    │     THE SFRY         │
                    │ COMMANDER-IN-CHIEF   │
                    └─────────────────────┘

┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────────┐
│ FEDERAL ASSEMBLY     │   │  PRESIDENCY OF THE   │   │ COUNCILS OF THE PRESIDENCY│
│ —Chamber of          │   │        SFRY          │   │ —Foreign Affairs        │
│   Nationalities      │   │                      │   │ —Peoples Defense        │
│ —Chamber of          │   └─────────────────────┘   │ —State Security         │
│   Economy            │                             │ —Economic               │
│ —Chamber of Social   │                             └─────────────────────────┘
│   Welfare and Health │
│ —Social-Political    │
│   Chamber            │
│ —Cultural and        │
│   Educational Chamber│
└─────────────────────┘

┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────────┐
│  COORDINATING        │   │  FEDERAL EXECUTIVE   │   │ INTERREPUBLICAN COMMITTEES│
│  COMMITTEE           │   │     COUNCIL          │   │ —Development Policy     │
└─────────────────────┘   └─────────────────────┘   │ —Foreign Trade and      │
                                                     │   Currency System       │
                                                     │ —Monetary System        │
                                                     │ —Market Matters         │
                                                     │ —Finance Matters        │
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FEDERAL SECRETARIATS	FEDERAL DIRECTORATES	FEDERAL ADMINISTRATION	FEDERAL INSTITUTES
—Foreign Affairs	—Food Reserves	—Customs Authority	—Social Planning
—Finances	—Reserves of Industrial Products	—Civil Aviation Authority	—Prices
—Peoples Defense	—Yugoslav Free Zone in Salonika	—Geodetic Authority	—International Scientific, Educational, Cultural and Technical Cooperation
—Internal Affairs		—Radio Broadcasting Authority	—Statistics
—Economy			—Hydro-Meteorology
—Foreign Trade			—Industrial Standards
—Labor Social Welfare			—Patents
—Judicial and General Admin. Affairs			—Weights and Measures and Precious Metals
—Agriculture			—Geology
—Transport			
—Prices			

World Bank—8165

Where the enterprise is larger than seventy persons, the workers' council must consist of a minimum of fifteen persons, with no maximum.

When an enterprise has less than ten working members, there is no managing board, but above that number, a managing board must consist of a minimum of five persons, once again without any maximum. The director of the enterprise attends meetings of the workers' council and is a member of the managing board. The management of the enterprise, including decisions on basic policy, is the responsibility of the workers' council and the managing board, while the responsibility for imple-

menting decisions and for organizing production is given to the director alone.

The workers' council meets collectively. Its members are elected by the vote of all the workers and each member serves for two years, with half the members being elected annually. To ensure wide participation, no person can serve more than two terms consecutively. The workers' council decides on the internal relationships in the enterprise, adopts economic plans and annual financial reports, decides on the utilization of funds and the distribution of the enterprise earnings between personal income and investment. The workers' council also decides matters concerning employment and dismissal of personnel.

In all large enterprises there have been distinguished, since 1959, economic units termed "basic units of associated labor" with important self-management rights. The units are distinguished on the basis of technological, economic or other characteristics. Each unit is entitled to elect a workers' council. Usually there are workers' councils for each unit and a separate workers' council for the enterprise as a whole (see Chart II). The workers' council of each unit is permitted to take individual decisions applicable within the unit as long as their decisions do not harm other units of their enterprise.

When an enterprise has not been operating successfully and has been unable to meet the income payment of its members, it is usual to appoint assignee management, normally chosen by the commune. Such assignee management is limited in the first instance to one year, though this can be continued where necessary. In earlier times the choice of the director was made jointly by the commune and the workers' council, but in 1968 the responsibility of the choice of the director was given to the workers' council alone, although the short list of names from which the appointment is made was to be drawn up in consultation with the commune.

The role of the director in the enterprise has come in for much discussion and criticism. A proper balance (and coordination) between management by the director and self-management by the workers is not always found in practice though it can exist in theory. The workers' council is supposed to formulate policy, and the director to implement it; the workers' council is supposed to make the basic decisions and the director the day-to-day ones.

The director is given the responsibility of ensuring that the enterprise fulfulls its legal obligations and does not ignore its social responsibilities. In addition, the social responsibility of the enterprise is also ensured through a wide range of financial and accounting regulations, inspection and control of the Social Accounting Service, tax and credit and price policies, the economic associations and chambers of economy, social and self-management agreements as well as the influence of the commune, the Association of Trade Unions, and the League of Yugoslav Communists. Competition among enterprises is regarded as a strong influence against nonsocial behavior. An important change in the legal framework is presently under discussion. It would make all the workers in an enterprise responsible for any illegal actions of an enterprise that they are cognizant of.

As pointed out, the evolution of the system of income distribution within an enterprise has been one index of the growth of enterprise autonomy.[22] The system existing at present is illustrated in Chart III. The gross income of the enterprise is the

22. See J. Kolaja, *Workers' Councils: The Yugoslav Experience* (London: Travistock Publications, 1965); B. Ward, "The Nationalized Firm in Yugoslavia," *American Economic Review* 15 (1965): 65–74; B. Horvat and V. Kaskovié, "Workers' Management in Yugoslavia: a Comment," *Journal of Political Economy* 57 (1959): 194–98; Workers' Self-Management in Economic Units," *Yugoslav Survey* 4 (1963): 1,690–1,704.

CHART II

SELF-MANAGEMENT AT DIFFERENT LEVELS OF A LARGE ENTERPRISE, 1971

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                    GENERAL MEMBERSHIP
                      OF ENTERPRISE

                     WORKERS' COUNCIL

                     MANAGING BOARD

      PLANT          DIRECTOR OF          OTHER
                     ENTERPRISE           DEPARTMENTS

   WORKERS'                            WORKERS'
   COUNCIL                             COUNCIL

   MANAGING                            MANAGING
   BOARD                               BOARD

   DIRECTOR OF                         DIRECTOR OF
   PLANT                               DEPARTMENTS

ECONOMIC      ECONOMIC        ECONOMIC        ECONOMIC
UNITS         UNITS           UNITS           UNITS

COUNCIL OF                    COUNCIL OF
ECONOMIC UNIT                 ECONOMIC UNIT

SUPERVISOR                    SUPERVISOR
OF ECONOMIC                   OF ECONOMIC
UNIT                          UNIT
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World Bank—8166

total receipts, from which the cost of materials, tax payments and depreciation are deducted to yield the net income of the enterprise. The allocation of the net income between personal income payments and accumulation of funds is decided by the workers' council of the enterprise within general regulations of allocation to certain funds, to the Housing Fund, for instance. The personal income is distributed by economic units which usually have their own reserve funds and funds for incentive payments. Only after these have been deducted is the individual's income determined.

Thus the worker's personal income consists of various components: (a) basic salary established for the job, (b) bonuses paid by the economic unit for exceptional performance, (c) share in the "profits" of the economic unit because of *its* superior performance, and (d) share in the "profits" of the enterprise determined by market conditions etc. Thus the worker does not know his actual receipts during (say) the year in advance, but only his basic salary and, to some extent, the incentives for superior performance.

The role of the workers' councils and the autonomy of Yugoslav enterprises has been the subject of much study and debate.[23] One view is that the director is actually in control of the management of the enterprise because he is better informed and can "manage" the decisions of the workers' council. Another theory is that the councils themselves are controlled by the better educated, highly skilled workers, so that the system represents management by an elite group in the enterprise. There is some evidence that the proportion of representation of the "middle class"—skilled and highly skilled manual workers and employees with secondary and lower school education—has increased in workers' councils (Table 1.4). The total of the middle four groups in workers' councils increased from 63 percent in 1960 to 73 percent in 1970.

TABLE 1.4: Membership of Workers' Councils and Managing Boards

	1960	%	1970	%
Manual workers	117,965	76.9	91,323	67.5
Unskilled	112,420	7.3	10,305	7.6
Semiskilled	20,805	13.6	12,234	9.0
Skilled	62,685	40.9	45,497	33.7
Highly skilled	23,133	15.1	23,287	17.2
Other employees	35,489	23.1	43,881	32.5
Lower education	917	0.6	8,699	6.5
Secondary education	10,306	6.7	21,558	15.9
Professional education	17,967	11.7	5,547	4.1
High level of professional education	6,299	4.1	8,077	6.0
Total	153,454	100.0	135,204	100.0

SOURCE· *Statistički Godišnjak, Jugoslavije* (Belgrade: Federal Institute of Statistics), 1961 and 1972.

In any discussion of the question three factors must be kept in mind. Firstly, who *really* controls the working of the enterprise is to some extent a metaphysical question which could be answered differently at different levels of philosophical abstraction. Secondly, it is clear that the degree of workers' control varies between enterprises and sectors of activity. Neither is it static, but changes over time with directors and the leadership in the workers' councils and managing boards. Thirdly, the workers' councils do not control the day-to-day working of enterprises and are not meant to do so.[24] They lay down general policies and have to make important decisions, though they do not always do so. The fact that the director has to be reelected every four years is an important safeguard. Further, self-management rights are con-

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23. V. Rus, "Influence Structure in Yugoslav Enterprise," *Industrial Relations* 9 (February 1970); E. Blum, "The Director and Workers' Management," in M. J. Brockmeyer (ed.), *Yugoslav Workers' Self-Management* (Hague: 1970); and I. Adizes, *Industrial Democracy: Yugoslav Style* (New York: Free Press, 1971).

24. In Energoinvest, the workers' council of 100 members, (representing 13,500 total workers in 1970) meets once every three months, Blum, "The Director and Workers' Management."

stitutionally guaranteed and their violation by an autocratic director may, and some-
times does, lead to criminal prosecution. It is our judgement that the system does, in
practice, incorporate a large degree of workers' participation and involvement in en-
terprise decision making, and marks significant progress towards the workers' self-
management ideal.

More significant economic issues are related to the efficiency of the system of
workers' management in the allocation and mobilization of resources. Economic
analysis as well as experience have pointed out several problems that could face an
economy based on workers' self-management. Firstly, the workers may pay out an
excessive proportion of enterprise income in personal income payments and leave
relatively inadequate amounts for reinvestment. This danger has always been recog-
nized. In the early years, attempts were made to limit enterprise autonomy in the
allocation of its income to ensure a sufficient level of enterprise savings. A recent in-
novation has been to introduce a system of social agreements between involved par-
ties (governments, trade unions, enterprises) to regulate the proportion the enterprise
pays out in personal incomes. Secondly, it has been argued that an enterprise's incen-
tive to invest would be relatively weak under self-management, since savings out of
the workers' personal income would belong to them, while amounts reinvested in
the enterprise are under social ownership. In fact, reinvestment rates by enterprises
have been fairly high, partly because the low real cost of borrowed funds in an infla-
tionary environment encourages borrowing for investment purposes, and banks
making loans require a certain proportion of an enterprise's own funds in an invest-
ment being financed. Also, given the relatively low mobility of labor, the workers do
gain in the shape of higher personal incomes in the future if the enterprise maintains
a high rate of investment. In addition if the enterprise expands, job opportunities are
created for members of the worker's family. Another reason for high investment
rates by Yugoslav enterprises has been the low degree of risk that investment in-
volves for workers. The decentralization of the investment decisions has not been
accompanied by a significant decentralization of the risks. Enterprises and workers
making poor investment decisions do not have to pay commensurate financial
penalties, because the state guarantees minimum levels of personal income. Thirdly,
there is a bias towards capital intensive techniques of production which may imply
misallocation of resources in workers' managed enterprises. If the enterprise aims to
maximize net income per worker it would tend to maximize the product per worker,
and this would give a bias towards capital intensive techniques which add to en-
terprise income without adding to those who share in it. Fourthly, there may be
allocative inefficiency resulting from the lack of mobility to capital. The savings gen-
erated in an enterprise tend to be invested in it, rather than moving to possibly more
productive uses through the channel of capital market. The Yugoslavs have not yet
come up with an institutional substitute, though a number of developments have oc-
curred. Constitutionally, enterprises are allowed to invest funds in other enterprises
and receive payment. Cooperation in production and trade between enterprises with
contractual interenterprise transfer of funds has also emerged. However, much
progress has yet to be made for efficient intermediation of investment funds (see
Chapter 10).

The Banking System

Since the mid-1960s the role of the banks in financing investment has increased
sharply. Following the Banking and Credit Law of 1965 any group of economic or po-

litical organizations could set up a bank by subscribing the legally determined minimum of the initial "credit fund" (equity capital). Each participant (founder member) is represented in the bank's assembly (the highest managing authority) in proportion to its subscription, subject to an upper limit of 10 percent of the voting power. The limit is mainly designed to prevent bank policy being dominated by a state unit or one or two large enterprises. All banks are permitted to operate throughout Yugoslavia, and their activities cannot be limited by the local governments of territories in which they operate. A bank assembly decides on business policy, conditions for granting credits, agrees on the division of income, elects the Executive Committee, and appoints members of the Credit Committee and the Manager of the bank. The Executive Committee carries out the business policy laid down by the Assembly, while the Manager, appointed by the Executive Committee after a commission has held a public competition, is responsible for the day-to-day activities of the bank and is an ex officio member of the Executive Committee. Under the new law passed in 1971 the income earned by the bank is divided among its founders, but sociopolitical communities do not share in this division. Also conditions are laid down preventing a bank from granting credits to one client exceeding 30 percent of the total investment of the bank.

The banking system is regarded as playing a crucial role in the mobilization of savings and their allocation to the most efficient use. In fact the allocation of funds has tended to be influenced by many other considerations apart from "profitability" of projects, including government policies and the founder members, who are also the chief borrowers. The power of founder members is seen in the relatively low interest rates that have persisted despite the removal of ceilings on interest rates in 1971. The banks have, however, also come in for criticism as being too powerful in determining the allocation of funds, and being a serious hurdle to greater autonomy of workers' self-managed enterprises. The legal provision in the banking law of 1971, which vested the control of the funds generated through the bank operations in the founder members, was, at least in part, a reaction to what was regarded as arbitrary misuse of these funds by the bank managers.

The feeling that banks are too powerful has been encouraged by the merger movement among the commercial banks. In 1966 there were 111 banks. In 1970 their number was reduced to sixty-four. These mergers have resulted in the emergence of some very large banks with practically a national field of operation. However, the mergers may permit an increase in the regional mobility of funds which may be desirable, if it results in improved regional allocation.

Chambers of Economy

With the growth of decentralization, self-governing associations of enterprises *(komoras)* were established in each branch of industry as early as 1954. Membership in these was made compulsory in 1958. Every enterprise is required to belong to the Chamber of Economy of the republic or autonomous province in which it is situated. In addition there is a federal chamber of economy to which each republic chamber must belong. A chamber of economy has a number of important responsibilities, which include examining all types of economic legislation before it is sent to the federal and republic assemblies, collecting and analyzing plans of enterprises, preparing estimates of markets, particularly foreign markets, undertaking research into new products and providing a general economic service for its members. Each chamber is

divided into a number of industrial groups which work together on common prob-
lems assisted by professional staff, including economists and engineers.

The chambers of economy play a major role not only in the formulation but also in
the implementation of economic policies. For example, in the foreign exchange re-
quirements the global exchange quota for importers is allocated among sectors of in-
dustry and enterprises on the basis of recommendations of the Chamber of Economy
of Yugoslavia. These recommendations themselves are arrived at on the basis of dis-
cussions with the republican chambers of economy.

In addition to chambers there are associations of producers of similar commodities,
which also play a role in coordinating the decisions of enterprises, and giving techni-
cal and marketing assistance to members.

The Trade Unions

The trade unions are relatively less important in the Yugoslav economic system,
their major task being viewed as increasing the effectiveness of workers' self-man-
agement. Each enterprise has its own trade union branch and these are organized
along industrial lines. Associations of trade unions of different branches exist at the
commune and the republic level. The Confederation of Trade Unions *(sindikat)* of
Yugoslavia is concerned with the broad lines of development of self-management
and plays a role in initiating and commenting on draft legislation.[25] An important part
of the function of trade unions is to combat tendencies "towards localism and
chauvinism" on the part of enterprises and workers' councils. They also fulfill the
normal trade union role of "protecting" individual workers from arbitrary decisions
of directors and workers' councils. In 1971, the total membership of trade unions was
3.5 million, 91 percent of the total social sector employment. However, not all mem-
bers are employed in the social sector.[26]

The League of Communists: (LCY)

With the development of the new economic system the role of the LCY has also
changed. The renaming of the party in 1952 was indicative of this change. The role of
the party was considered to be not to direct and command through control of the
machinery of the state, but to play the leading role through discussion, education and
propaganda, in the development of the new economic system.[27] However, this was
not meant to imply that the importance of the LCY should decline. As its Program
stated in 1958, because of the existence of "antagonistic forces" which endanger the
existence of socialism: "the working class cannot give up the weapon of its class
struggle, the dictatorship of the proletariat and the leading role of the League of
Yugoslav Communists."[28] The process of decentralization, however, was imple-
mented also within the party organization and the report on the Eighth Congress of
the LCY (1964) commented that the independence and initiative of the organizations
within the LCY had increased, so that instead of being "agents for passing on views

25. "The Confederation of Trade Unions of Yugoslavia," *Yugoslav Survey* 11 (August 1970): 34–64.

26. This is clear from the fact that in 1971, 241,000 persons were employed in agriculture in the social
sector. The trade union membership in agriculture etc. was 358,000.

27. "The basic principle governing the work of the LCY...is not one of domination, but of stimulation
of activities and initiative among the public...in the development of new-type socialist relationships,"
Program of the League of Yugoslav Communists p. 245.

28. *Program of the League of Yugoslav Communists,* p. 244.

and executors of tasks assigned" they were becoming participants in "the adoption of conclusions and decisions."[29] The process of decentralization had its own see-saw evolution. There was a noticeable tightening of party discipline in 1958. A struggle within the party in the early 1960s between those in favor of greater self-management and those for greater centralization resulted in the success of the former. A major reorganization giving greater independence to republican communist parties followed the Ninth Congress (1970). This was a period of resurgence of nationalist ideas and to some extent these ideas also gained influence in the party. At the Second Conference of the LCY in January 1972, the party challenged the more extreme symptoms of nationalist thinking. Since then there has been an increase in the influence on republic parties of the LCY and its Presidium.

The LCY is a key influence on all facets of Yugoslav life, and basically determines the direction and pace of development of the system. The total membership of the party was just over a million in 1971, only about 5 percent of the population, and the membership has not increased very rapidly. In fact in the recent measures for revitalizing the party it is stressed that a smaller, more highly disciplined and organized LCY would make a better "vanguard" of the country's social development. There is a branch of the party in every enterprise, and members are expected to be active in influencing decisions and ensuring that they are in line with national policy. The proportion of party members in workers' councils, management boards and in other organizations and institutions of self-management is much larger than their share in the population. The influence of the party is seldom exercised directly, and tends to be underestimated.[30]

The Socialist Alliance of Working People of Yugoslavia (SAWPY)

The SAWPY was, in the period of centralized planning, known as the People's Front, and was viewed as a forum through which all citizens accepting generally socialist aims can participate in the building up of the new system. The SAWPY, with a membership of about eight million, includes individuals as well as organizations, and is organized at the level of the commune, the republic and the federation. The role of the SAWPY in economic decisions is not very large. It is more concerned with the political aspects of "socialist democracy" and plays an important role in the election system, determining election programs, and nominating candidates etc.[31]

The Instruments of Economic Policy and Coordination

The Yugoslav economic system possesses a number of institutions and instruments for formulating, interpreting and implementing economic policies. Some of these are familiar tools of economic policy, for example, monetary and fiscal management, social development plans, price and income policies etc. There are others

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29. *Practice and Theory of Socialist Development in Yugoslavia*, p. 312.

30. In a study of self-management in two factories Kolaja asked seventy-eight workers about the most important influence in the enterprises. Forty-five thought that it was the workers' council, twenty-seven that it was the director, four that it was the LCY and only two that it was the trade union (Kolaja, *Workers' Councils* p. 38). Studies by Rus and Kavić also came to similar conclusions. (Rus, "Influence Structure," p. 149.

31. *Yugoslav Life* 18 (January 1973).

which are uniquely Yugoslav, such as social agreements and self-management agreements which are a constitutionally enshrined method for substituting coordination on a self-management basis for the role of the state. These instruments and institutions have had a mixed success in ensuring rapid social and economic development and stability and in improving economic efficiency. However, in any evaluation of the Yugoslav institutional and policy framework, the success achieved in combining rapid growth and institutional change should not be overlooked. If to this is added the significant progress in democratizing the socioeconomic framework and giving the ordinary worker a high degree of freedom and influence in decision making, the Yugoslav economic system has to be judged a success.[32]

CHART III

DISTRIBUTION OF INCOME WITHIN AN ENTERPRISE, 1971

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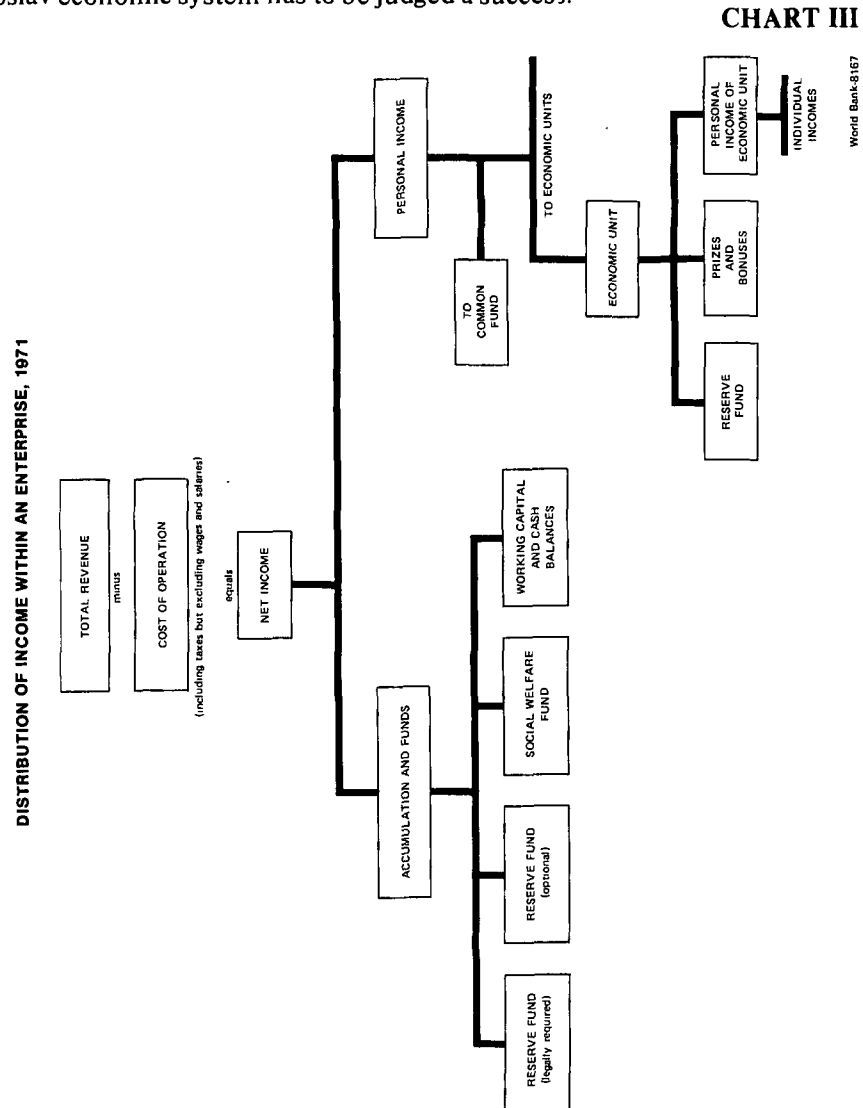
32. J. Vanek, *The Participatory Economy* (Ithaca: Cornell University Press, 1971); and also in "Decentralization under Workers' Management. A Theoretical Appraisal," *American Economic Review* 59 (December 1969): 1,014, goes so far as to conclude that: "the labor managed system appears to me to be superior by far, judged on strictly economic criteria, to any other economic system in existence."

Chapter 2

ECONOMIC TRENDS AND DEVELOPMENT ISSUES, 1953–72

Long-Term Economic Trends

The rate of GDP growth in Yugoslavia has averaged about 6 percent per year in real terms during the last two decades. GDP per capita increased about 5 percent per year during the same period. The rate of growth is high compared to average growth rates of developed and developing countries over a similar period, and has resulted in a significant increase in the standard of living and the development of a large modern industrial sector (Table 2.1).[1]

Table 2.1: Selected Indices of Economic and Social Development

	1950	1960	1970
Per capita GDP (1966 prices)	216.0	333.0	520.0
Infant mortality (per hundred live births)	118.6	87.7	55.2
Illiteracy rate (% of population ten years and above)	25.4	19.7	15.2
Population per hospital bed	304.0	199.0	174.0
Population per doctor	3,360.0	1,474.0	1,010.0
Radio receivers (per thousand persons)	21.0	78.0	166.0
Automobiles (per thousand persons)	0.4	2.9	35.0

SOURCE: *Statistički Godišnjak, Jugoslavije.*

The Stages in Postwar Development

It is evident from Chapter I that the economic development of postwar Yugoslavia may be divided into stages in line with the evolution of the institutional framework. On the basis of the evolution of the new economic system, long-run economic trends may be usefully presented separately for 1952–60, 1960–65 and 1965–70. During 1952–60, though centralized planning had been given up, a large degree of centralized control still existed. The period 1960–65 may be considered as one of transition and struggle between opposing tendencies. The economic reforms of 1965 and its results are the dominating theme of the period 1965–70. The constitutional changes of 1971 increased the autonomy of the republics and may be seen as a logical step in the implementation of the principles enunciated in the reform.[2]

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1. The GDP of European OECD countries increased at an average rate of 4.8 percent per year during 1950–70, and that of the developing countries at an average of 4.8 percent per year during 1960–70*(National Accounts* of OECD countries 1950–68, and 1960–70, and *UN Yearbook of National Accounts Statistics* (New York: 1960), various issues).

2. Given the relatively large fluctuations in growth rates that characterized Yugoslav development in the postwar period, it is necessary in presenting trends to allow for cyclical factors. For example, 1952 was marked by a bad crop, and hence social product was lower than it had been in any year during 1948–51. Consequently, if 1952 is used as a base year, an upward bias is given to trend growth rates. To eliminate this bias, three-year averages centered on the years marking the beginning or the end of different development stages, are used where necessary in the following discussion.

Growth of Output and Structural Change

The average sectoral growth rates of GDP (at factor cost) are presented in Table 2.2. These indicate that there has been some slowdown in the growth rate, particularly since 1965, though in agriculture and services it appears during 1960–65. Industry has increased significantly faster throughout the period, and agriculture much more slowly than GDP. Services have expanded at about the same rate as GDP, except during 1960–65 when they grew more slowly than total GDP.

TABLE 2.2: Sectoral Growth Rates of GDP in 1966 Dinars[a]

	1952–60	1960–65	1965–70	1952–70
GDP	6.7	6.2	4.8	6.0
Agriculture and forestry	3.5	1.6	1 9	2.5
Industry, of which:	10.1	11.0	5.8	8.9
Manufacturing and mining	12 3	10.7	6.1	10.1
Construction	4.9	9 5	4.7	6.1
Services	6.8	5.0	5.4	6.1

[a]Growth rates are between three-year average data for the periods indicated; thus the growth rate for 1952–60 is computed as between the average figures for 1951–53 and 1959–61.

SOURCE· Statistical Annex, Tables 2.1 and 2.2.

The differences in sectoral growth rates have implied significant change in the structure of output (Table 2.3 and Chart IV). Because of the price distortions prevailing in the early 1950s, when, in order to transfer resources into industrial development, agricultural prices were administratively set very low while industrial prices were kept high, the change in the structure of product in current prices is different from that in 1966 prices.

The degree of sectoral price distortions appears from the fact that industry accounted for nearly 45 percent of the GDP in 1952, in current prices, while in 1966 prices, which were more in line with international prices, its contribution to GDP was only 27 percent. A decline in the share of agriculture in GDP, and a rise in the share of industry (particularly manufacturing), with the share of services roughly constant characterizes the change in the structure of GDP in constant prices during the last twenty years. The structural change in current prices, however, took the form of a decline in the share of agriculture, and an increase in that of services, with the share of industry remaining roughly constant, and even declining. This reflects the differences in price trends for agriculture, industry and services over the last twenty years.

Resource Mobilization: Consumption, Savings and Investment

Both aggregate and private consumption in real terms increased slower than GDP up to 1965, while gross investment grew much more rapidly (Table 2.4). Since 1965 there has been a reversal of these trends, partly resulting from the explicit objective of the economic reform of 1965 to raise living standards, but perhaps also reflecting a tendency of self-managed enterprises to distribute a larger proportion of their net income as personal incomes following the increase in their autonomy in 1965.

TABLE 2.3: Sectoral Shares in GDP
(At Factor Cost)

(%)

	Constant, 1966 Prices				Current Prices			
	1951–53	1959–61	1964–66	1969–71	1951–53	1959–61	1964–66	1969–71
Agriculture, forestry, etc.	37.9	29.8	23.8	20.7	27.2	24.8	23.8	17.6
Industry	27.3	35.2	43.0	42.5	44.6	44.9	42.6	41.7
Of which: manufacturing and mining	16.3	24.5	30.2	32.2	35.4	35.4	30.0	29.4
Construction	10.1	8.8	10.3	10.3	7.9	7.6	9.9	12.3
Services	34.8	35.0	33.2	36.8	28.2	30.2	33.6	40.7
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE. Statistical Annex, Tables 2.1 and 2.2.

TABLE 2.4: Resources and Uses: Growth Rates[a]

(1966 Prices)

(%)

	1952–60	1960–65	1965–70	1952–70
GDP at 1966 market prices	6.7	6.2	4.8	6.0
Total consumption	4.8	4.7	6.3	5.2
Gross investment	11.6	7.8	4.0	8.4
Gross fixed investment	9.7[b]	7.5	6.3	8.2[b]
Exports of goods and services	12.5	12.0	8.2	11.1
Imports of goods and services	8.4	8.3	11.7	9.8

[a]See Note a, Table 2.2.

[b]The base year is not the average for 1952-54. The estimates for 1951 are not available.

SOURCE: See Statistical Annex, Tables 2.3 and 2.4.

CHART IV

STRUCTURAL CHANGES IN THE GDP
CURRENT PRICES

100% 100%

28.2 30.2 33.6 40.7

44.6 45.0 42.6 41.7

27.2 24.8 23.8 17.6

1952—53 1959—61 1964—66 1969—71
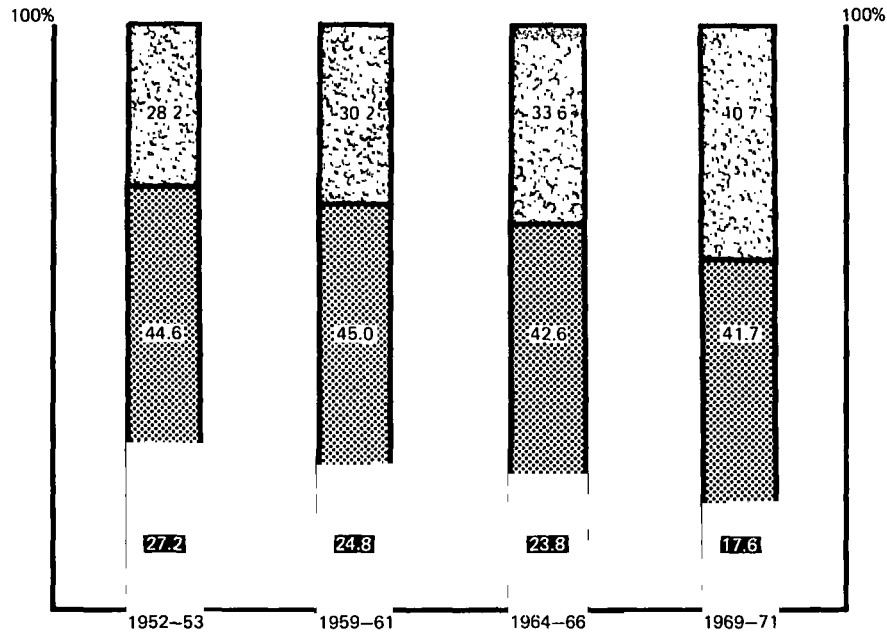
Agriculture ■   Industry ▒   Services ▓

1966 PRICES

100% 100%

34.8 35.1 33.2 33.4

27.3 35.2 43.0 45.9

37.9 29.7 23.8 20.7

1952—53 1959—61 1964—66 1969—71

World Bank—7513
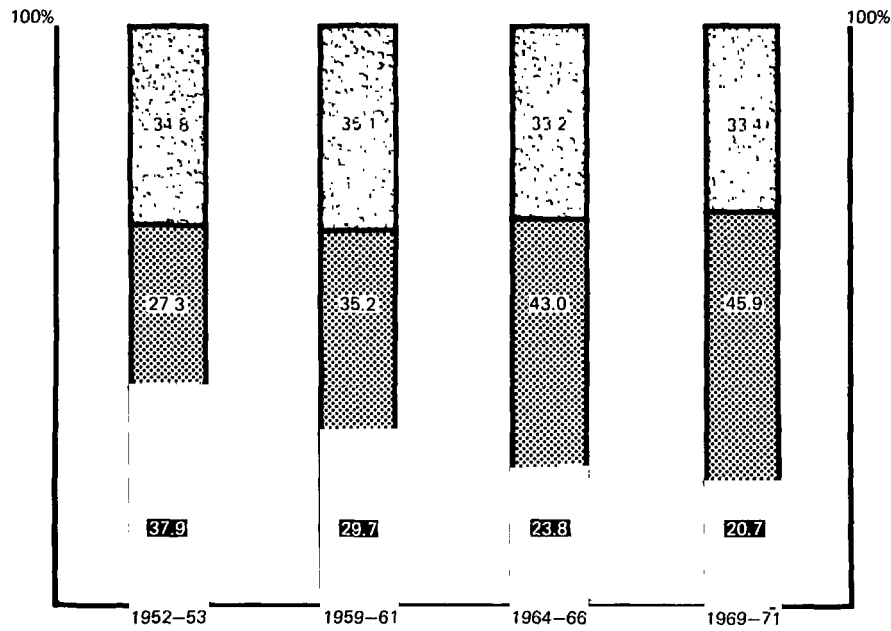
However, slowdown in the growth of gross investment was much more marked than in gross fixed investment. Up to 1965, the growth of gross fixed investment lagged behind gross total investment, reflecting more accumulation of stocks. After the reform following the greater market orientation of production, there was reduced investment in stock accumulation.

The trends in the share of consumption and investment in GDP vary, depending on whether current prices or 1966 prices are used (see Table 2.5). This again reflects the distortions in relative prices that were largest in the early 1950s and were gradually reduced thereafter, in particular after the economic reform of 1965. In current prices, the share of private consumption in GDP has increased steadily from 1952, while that of total consumption declined in the 1950s and increased in the 1960s. However, in 1966 prices, the share in GDP of both total and private consumption declined until 1965 and thereafter increased (Chart V). The very low share of private consumption (in current prices) in the early 1950s reflects the administratively fixed low prices for goods which entered into private consumption—mainly agricultural goods. The impact of relative price policy on the investment ratio was the reverse. The high investment ratio in the 1950s in current prices is significantly reduced in 1966 prices. The increase in private consumption since 1965 appears to have occurred not at the expense of gross fixed investment but of inventory accumulation and a growing balance of payments deficit. The process of institutional change, therefore, does not appear to have reduced the investment "effort" in Yugoslavia, and only in the last few years has there been a rise in the share of private consumption. The resource mobilization effort is still very high as shown by the level of gross domestic savings (GDS) as a percentage of GDP. The decline in the savings' ratio that occurred after 1965 was the result of the change in the institutional framework and priorities, and was concentrated on the immediately succeeding years (see Chapter 10).

TABLE 2.5: Resources and Uses

	In Current Prices (% of GDP)			
	1952	1960	1965	1970
GDP	100.0	100.0	100.0	100.0
Total consumption	70.0	64.7	67.6	72.1
Private consumption	36.0	46.6	50.6	53.8
Gross investment	30.3	35.3	32.3	27.9
Gross fixed investment	27.7	28.5	26.0	25.4
Net exports of goods and services	—4.6	—4.0	0.7	—5.2
GDS	22.0	32.8	30.3	26.4
	In 1966 Prices			
GDP	100.0	100.0	100.0	100.0
Total consumption	83.9	73.1	68.2	73.1
Private consumption	60.4	52.9	50.8	57.0
Gross investment	21.0	30.1	32.5	31.0
Gross fixed investment	20.1	25.1	26.6	28.1
Net exports of goods and services	—4.9	—3.3	—0.8	—4.1
GDS	15.0	27.3	31.6	26.9

SOURCE: Statistical Annex, Tables 2.3 and 2.4.

TOTAL CONSUMPTION, GROSS DOMESTIC INVESTMENT AND RESOURCE GAP AS % of GDP 1966 PRICES

%

| | 1950 | 1955 | 1960 | 1965 | 1971 |

CONSUMPTION

GROSS DOMESTIC INVESTMENT

RESOURCE GAP

YUGOSLAVIA, DEVELOPMENT WITH DECENTRALIZATION
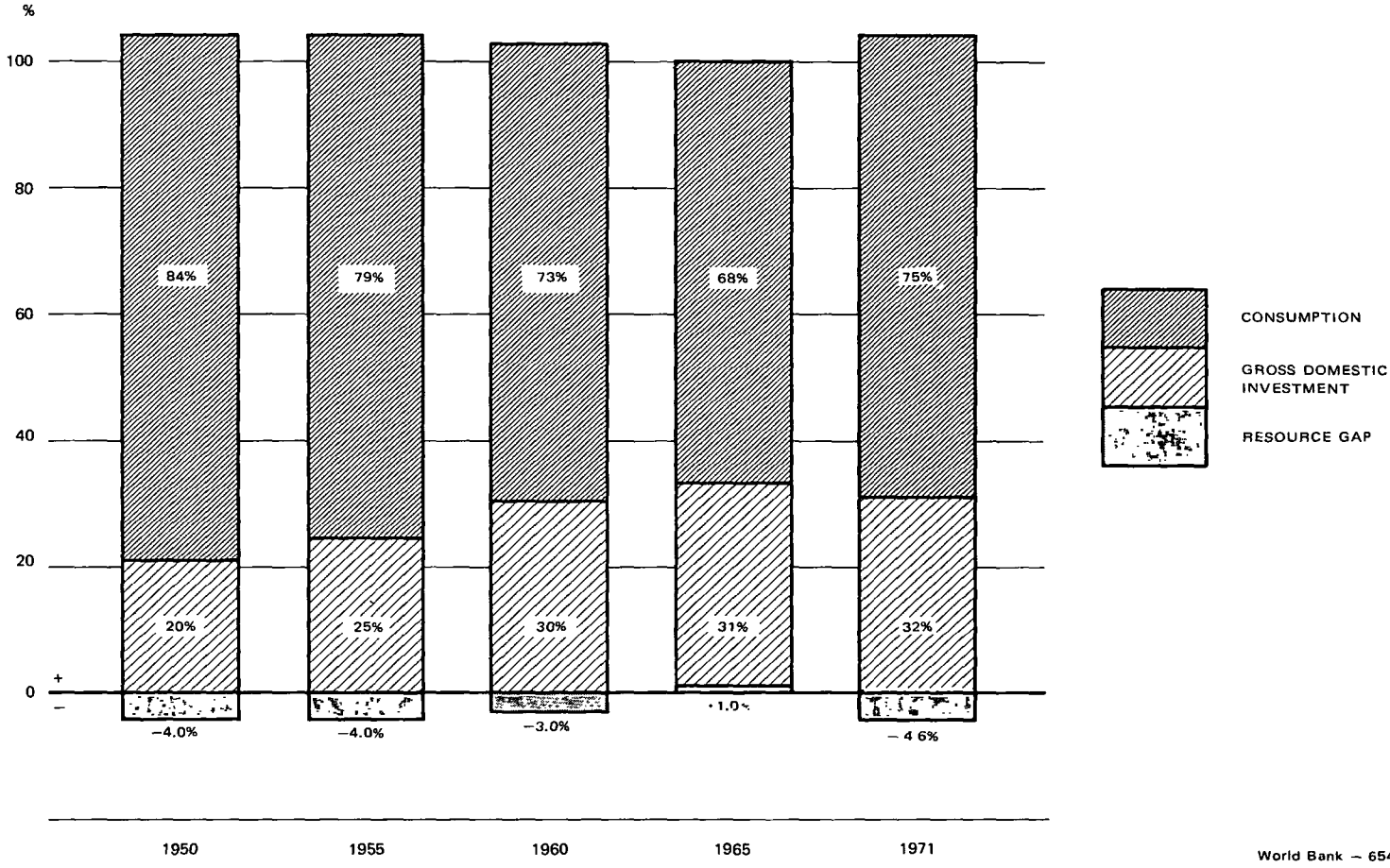
CHART V

Development Strategy and Investment Allocation

The development strategy has throughout emphasized a fast rate of economic development based on high investment rates, and rapid industrial development. While there has always been emphasis on industrialization, the pattern of industrial development aimed at has changed. During the period of centralized planning, there was relatively greater emphasis on heavy basic industry at the expense of the production of consumer goods. There was also an autarkic orientation to development and consequent neglect of the need for the industrial structure to be internationally competitive. There was only a gradual departure from these positions. During 1952–56, the development strategy continued to be that inherited from the period of the first plan. The period of the Second Plan, 1957–61, modified national priorities and the development strategy by some increase in the concern for social welfare and living standards. This resulted in an increased share in total investment of noneconomic investments (housing, health, education etc.) and agriculture, together with a reduction in the share of industry and power. Within industry there was a reduction in the proportion of investment going to basic industries, reflecting the emphasis given to expanding the production of finished goods. However, the inward orientation of industrial development persisted. These trends in investment allocation were modified and partially reversed in the 1960s. The increased emphasis on noneconomic investment continued with the increased concern for social welfare. However, the proportion of investment in agriculture declined and that in basic industries increased more or less to the levels of the early 1950s. At the same time, there was a change from the autarkic orientation in the pattern of industrial development. This did not imply, it would appear, a change in the pattern of investment within the industrial sector, but mainly an increase in the efficiency of certain industries so that they were able to export.

The development strategy and its evolution sketched above is reflected in terms of its implications for investment allocation, in Tables 2.6 and 2.7. The significant increase in the share of noneconomic investments, and the decline in the share of mining and manufacturing after 1956 appear clearly. The share of basic industries in industrial investment declined sharply after 1956, but has gradually increased back to its earlier levels. Admittedly, changes in investment allocation may not be the best index for following changes in development strategy. It is interesting, however, how the pattern of investment allocations in Yugoslavia does indicate the shifts in development strategy fairly clearly. The period 1957–60 (when the Five-Year Plan stressed the "extensive" development and increased production of consumer goods) appears as distinctly different from both the preceding and succeeding periods. It would support the thesis that the system of planning the "basic proportions"—the volume and sectoral allocation of investment, leaving the allocation within sectors to be determined—was not ineffective in influencing the broad pattern of growth.

Investment, Employment and Growth Effects of Investment

The changes in development strategy also had an impact on capital output and capital labor ratios. The fixed assets per worker were fairly stable during the period of "extensive" development in the social sector, but have risen sharply in the second half of the 1960s after the economic reform (see Table 2.8). The trend is most clearly

TABLE 2.6: Gross Fixed Investment
(1966 Prices)

(%)

	1952–56	1957–60	1961–65	1966–70
Gross fixed investment	100.0	100.0	100.0	100.0
Type[a]				
Economic	77.6	67.1	60.1	63.6
Noneconomic	22 4	32.9	39.9	36.4
Sectors				
Agriculture	11.7	16.4	11.1	9.7
Mining and manufacturing	36.7	26.7	25 2	23.3
Electric power	11.6	6.1	6.2	8.2
Transport and communications	11.6	14.2	10.7	11 3
Others	29.4	36.6	46.8	47.5

[a]Economic investments include mainly investments in "productive" sectors; noneconomic investments are mainly in housing and social welfare. See Appendix A, Statistical Note, and Statistical Annex, Table 2.10.

SOURCE· *Investicije, 1947–69*(Belgrade: Institute for Economic Investment, 1971).

TABLE 2.7: Gross Fixed Investment in Industry
(1966 Prices)

(%)

	1952–56	1957–60	1961–65	1966–69
Total	100.0	100 0	100.0	100.0
Power	24.4	10.9	19.9	26.7
Ferrous and nonferrous metals	24.7	10.7	15.7	20.3
Peteroleum and chemicals	10.4	10.8	12.5	13.2
Subtotal	59.5	42.4	48.1	60.2
Metal manufactures	7.4	10.0	11 1	7.7
Electrical equipment	3.2	1.7	3.1	2 5
Food manufactures	4 3	8.6	5.3	5.1
Textiles	3.4	6.1	7.3	4.3
Others	—	—	—	—

SOURCE. *Investicije, 1947–69.*

marked in industry and construction. At the same time there was a tendency for the capital output ratio, which had shown a declining trend until 1965, to increase, particularly in industry. While the trends in these ratios are not a reliable index of the efficiency of resource allocation in Yugoslavia, they do imply a reduction in the employment and growth effects of the development effort.

This conclusion is also supported if one looks at the *increments* of employment and output in relation to investment (Table 2.9). For the social sector as a whole, the investment cost (in 1966 dinars) per additional job during the latter half of the 1960s was nearly seven times that in the 1950s. The trend was most marked in industry and construction. The increase was unusually high because of the exceptionally slow growth of social sector employment during 1966–68, when the adjustments necessitated by the economic reform were being carried out. It also reflects the fact that much of the investment in this period was in modernizing existing facilities which

did not create much new employment. Similarly, the rise in the ICOR in the social sector during the first half of the 1960s reflects, first, the greater share of "non-economic investments" in the 1960s. These investments do not contribute directly to the material product in terms of which the ICOR in the table is calculated. Secondly, the inefficiencies of the centrally planned period became more evident with the adoption of greater market orientation of production such as the emergence of unused capacities in "uneconomic" units. Thirdly, changes in the quality of output and in the product mix, which was closer to the preferences of the population as expressed in market demand, brought an obvious increase in "efficiency" which should not be ignored. However, the rising ICOR in industry (which accounted for more than half the total economic investments in the social sector during 1965–69), did contribute substantially to the rise of the ratio since the economic reform.

TABLE 2.8: Capital Output and Capital Labor Ratios

	1953	1956	1960	1965	1970
Fixed assets per worker (thousands of 1966 dinars)					
Social sector[a]	45.0	42.9	44.7	57.3	80.7
Industry	49.2	51.5	54.1	66.8	91.6
Construction	6.5	8.2	7.3	14.5	21.6
Transport and communications	142.6	144.3	156.7	161.8	185.6
Capital/output ratio (1966 dinars)					
Social sector[b]	2.59	2.76	2.27	2.30	2.44
Industry	3.64	3.58	3.02	2.83	3.95
Construction	0.36	0.72	0.45	0.59	0.65
Transport and communications	10.09	8.42	6.18	6.04	5.36

[a] Fixed assets in 1966 prices in the social sector in the industries producing material products, divided by social sector employment in the same sectors.
[b] Fixed assets in 1966 prices in the social sector in the industries producing material products, divided by GMP of the social sector.
SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 2.9: Incremental Capital Output and Capital Labor Ratios[a]

	1953–59	1960–64	1965–69
ICLR, social sector	65.1	149.0	438.5
Industry	66.0	120.5	552.1
Construction	15.3	139.9	212.7
Transport and communications	313.5	241.4	781.9
Trade and catering	39.6	50.4	110.0
ICOR, social sector[b]	2.43	2.69	2.91
Industry	2.83	2.76	3.37
Construction	1.17	0.72	0.62
Transport and communications	4.17	7.58	4.82
Trade and catering	0.56	0.90	1.30

[a] The total gross fixed investment in 1966 prices, over the period divided by the increment in GMP in 1966 prices and of employment respectively, between the initial year and the year after the end of the period. Thus ICOR for 1965–69 is the ratio of total fixed investment during 1965–69 and the increment in GMP between 1965 and 1970.
[b] Total economic investment in the social sector (i.e., gross fixed investment in sectors contributing directly to gross internal product) divided by the increment over the relevant period.
SOURCES: *Investicije, 1947–69; Statistički Godišnjak, Jugoslavije.*

While no simplistic conclusions about the trend in the efficiency in allocating resources can be drawn from these developments, there are a number of indications that the allocation is suboptimal and could be substantially improved. The inefficiencies imbedded in the production structure of the prereform period are yet not completely eliminated. Biases resulting from the partially freed price structure coexisting with a liberalized trade and payments system, the behavior patterns of workers' self-managed enterprises operating in an environment of low price for capital and little risk, and with relatively low mobility of capital and labor, have tended to induce distortions in resource allocation (see Chapter 3 and Chapter 9). Thus, improving the efficiency of resource allocation continues to be an important issue in Yugoslavia.

Population and Employment

The population growth rate has been low, averaging less than 1 percent per year. There are, however, large differentials in the growth rate of the population between the republics. Kosovo, in particular, had a population growth rate nearly three times the national average.

The labor force has increased more slowly than total population, particularly in the last decade, as a result both of declining participation rates and migration of workers abroad. The resident labor force declined between 1961 and 1971. Again, there are significant differentials of growth rates among republics. However, there was no clear relationship between the population growth and the labor force in the republics. Serbia (proper), among the developed republics, and Macedonia among the underdeveloped, had the most rapid growth of the resident labor force, while Kosovo and Croatia had the largest proportional decline.[3]

The development of the economy is reflected in major shifts in the sectoral distribution of the labor force (Table 2.10). The resident labor force increased by less than half a million since 1953. The labor force in agriculture has declined by over 1.4 million while that in industry has increased by nearly one million in the same period. The large decline, both absolutely and proportionately, in the agricultural labor force implies significant success in reducing underemployment in that sector. However, nearly half the labor force is still in agriculture, mostly on peasant farms. It is likely, therefore, that, particularly in the underdeveloped regions, significant underemployment still exists in agriculture. However, there was a change in the pattern of development in the 1960s, particularly after 1965, with external migration replacing industry and other sectors as the most important source of nonagricultural employment. The increase in nonagricultural employment in Yugoslavia during 1965–71 was significantly less than the increase in Yugoslav workers abroad.[3] With the adoption of a strategy of "intensive" development there was a slowdown in the growth rate of nonagricultural employment. This could not have happened but for the large external migration.

Labor Productivity and Structural Change

The combination of rapid growth of output and a fairly slow increase in the total labor force implies that increase in labor productivity (output per worker) has been

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3. There is some reason to believe that the decline in the labor force in Kosovo is partly the result of a large number of women in peasant agriculture not reporting themselves as employed. See Chapter 3.

very significant. In Table 2.11 the total growth of output is broken up into three
"components": (a) the part that can be attributed to growth of the labor force, assum-
ing output per worker was unchanged; (b) the part resulting from increases in pro-
ductivity of labor, assuming that the sectoral distribution of the labor force was con-
stant (or "standardized" output per worker); and (c) the part resulting from increased
productivity of labor resulting from a shift in the distribution of employment in favor
of sectors where output per worker is higher, or change in the structure assuming the
output per worker in each sector was unaltered. The major part of the growth in out-
put in Yugoslavia has derived from growth in output per worker, both in the 1950s
and in the 1960s. However, during 1953–61 over 40 percent of the growth in output
per worker resulted from shifts in the sectoral distribution of the labor force as com-
pared to only 29 percent in 1961–71. In other words there has been an acceleration in
the growth of the "standardized" output per worker with the adoption of the strategy
of "intensive" development.

TABLE 2.10: Population and Employment

	1953	1961	1971	Growth Rate (%) 1953–61	Growth Rate (%) 1961–71
Resident population	16,937	18,549	19,890	1.1	0.7
Resident labor force	7,849	8,340	8,298	0.8	−0.1
Agriculture, forestry and fishing	5,360	4,692	3,928	−1.7	−1.8
Industry and mining	592	1,128	1,531	8.4	3.1
Trade, transport and catering	309	498	760	6.1	4.3
Other activities	1,588	2,022	2,070	3.1	0.2
Workers temporarily abroad	—	19	578	—	41.0

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 2.11: Relative Magnitude of the Components of Total Output Growth[a]

	1953–71	1953–61	(% per Year) 1961–71
Growth of net material product (NMP)	7.2	7.6	6.8
Growth of labor force	0.2	0.8	−0.2
Growth of productivity	6.8	6.6	6.9
Of which:			
Growth of standardized output per worker	4.5	3.9	4.9
Growth of output per worker from change in industrial structure	2.3	2.7	2.0

[a]Calculated with a sectoral breakdown of employment into industry, agriculture, construction, transport
trade and other services. Employment in sectors not contributing directly to net material product was not
included.

SOURCES: *Statistički Godišnjak, Jugoslavije,* and *Kretanje Društvenog Proizoda i Narodnog Dohotka Jugoslavije
1952–68* (Belgrade: Federal Institute of Statistics, 1969).

There have been large differentials between sectors in the growth of labor produc-
tivity, with net material product (NMP) per worker increasing most rapidly in con-
struction over 1953–71 (Table 2-12). The growth of productivity in industry and con-
struction has accelerated in the 1960s with greater emphasis on "intensive" develop-
ment. The growth rate in agriculture declined in the 1960s, because the shift of labor
from agriculture has slowed down. It is also evident that large differentials in output
per worker persist between agriculture and other activities.

TABLE 2.12: NMP per Worker

	1966 Dinars	Growth Rates (%)		
	1971	1953–71	1953–61	1961–71
Total	14,910	5.3	5.6	5.1
Industry and mining	28,830	4.4	3.3	5.3
Agriculture and forestry	6,810	4.1	7.0	3.9
Construction	31,280	5.2	2.4	7.3
Trade and transport	45,330	4.4	5.0	4.5

SOURCES *Kretanje Narodnog Dohotka, Zaposlenosti i Produktivnosti Rada u Privredni Jugoslavije, 1947–67* (Belgrade: Federal Institute of Statistics, 1970), and *Statistički Godišnjak, Jugoslavije*

The complex relationship between the growth of employment, output and labor productivity is examined in greater detail in Table 2.13 for the industrial sector. There is a distinct change between the 1950s and the 1960s in the interrelationships of these factors. During 1953–61 there was a strong negative correlation between the growth of output per worker and the growth of employment. Industries experiencing rapid growth of employment tended to have a slow rate of growth of productivity. During the 1960s, however, this was not generally true. This was because industries with rapid increase in output tended also to have rapid growth of both employment and productivity. Thus, during 1961–71, there does not appear to have been a strong trade off relationship between employment and productivity growth in the industrial sector.[4] The policy implications of this change are interesting. During the 1950s rapid

TABLE 2.13: Industry: Growth of Employment and Productivity[a]

	1953–61[b]			1961–71[c]		
	Output	Employ-ment	Output per Worker	Output	Employ-ment	Output per Worker
Industry, total	255	186	137	243	136	178
Electric power	297	218	137	303	140	217
Coal and coke	197	125	157	114	75	151
Petroleum	3.5	115	266	520	253	206
Steel	344	147	234	171	138	125
Nonferrous metals	195	120	162	202	133	152
Nonmetallic minerals	270	151	179	286	122	235
Construction materials	224	188	119	228	89	258
Metal products	293	272	108	235	145	162
Electric equipment	588	334	176	314	202	156
Chemicals	4.8	275	149	522	210	248
Wood products	166	109	153	211	114	184
Textiles	235	212	111	204	151	135
Food	248	183	135	234	144	163
Shipbuilding	162	746	22	287	120	239
Paper	315	196	161	327	202	162
Leather	250	183	136	190	152	125
Rubber	312	600	52	277	172	161
Printing	319	288	110	220	144	152
Other	165	366	45	149	87	170

[a] GMP per worker, at 1966 prices.
[b] 1961 with 1953 = 100
[c] 1971 with 1961 = 100

SOURCE: *Statistički Godišnjak, Jugoslavije.*

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4. During 1953–61, the coefficient of rank correlation between productivity and employment growth among nineteen industrial sectors was −0.667, significant at the 1 percent level. During 1961–71 the coefficient was −0.128, and the rank correlation coefficients between output growth and employment and productivity growth were +0.639 and +0.598, respectively, both significant at the 1 percent level.

growth in numbers employed in an industry was associated *either* with rapid increase in employment *or* in productivity per worker. In the 1960s, on the other hand, rapid growth of an industry tended to imply relatively rapid growth of both employment and productivity. Thus a rapid rate of growth of industries tended to be associated with a more rapid increase in industrial employment.

Prices and Incomes

Inflationary pressures have been a constant problem, and particularly since the 1960s (see Charts VI and VII). They stemmed mainly from the policy of maintaining high rates of investment and growth and also from efforts by enterprises to increase income payments for productivity expansion. During the 1950s the pressures for rising prices were suppressed through a wide ranging system of price control, and a fairly large degree of control on enterprise autonomy in the distribution of its income. Consequently, prices increased relatively slowly, as indicated by the GDP deflators and the index of producer prices (Table 2.14). There was, however, some increase in the cost of living because of the gradual adjustment of the relative price structure between agricultural and nonagricultural commodities and because of a rise in services (including rents).[5] In the 1960s the inflationary pressures continued and even intensified. In 1961, with the greater autonomy of enterprises in income distribution, the growth of personal incomes accelerated, despite the imposition of mandatory links in 1963 between productivity growth in an enterprise and its income payments (Table 2.15). Since the high investment rates were maintained, the growth of private consumption spurred by rising personal incomes resulted in severe excess demand. The economic reform, with its major effort to restructure the price system to be more in line with international prices and to increase the market orientation of the economy by reducing price controls, led to a sharp increase in prices:

		Price Increase 1965/64 (%)
Producer prices:	Total	17.4
	Industry	14.2
	Agriculture	40.1

The highest freedom from price controls was reached in 1970 when prices were free for about two-thirds of the products and services. Producer prices were free for about 57 percent of the value of industrial production, and in trade about 76 percent of the turnover consisted of free prices. Given the fact that the prices of noncontrolled items tended to increase more rapidly, the rise in the proportions over 1965–70 does not all reflect increased liberalization of price control. Since then with continuation of inflation there has been a reimposition of price controls. A complete freeze on prices was imposed in November 1971, and in May 1972 a new Social Price Control Act was adopted. This reaffirms the price policy adopted during the economic reform but allows for a high degree of price control and intervention both at the federal and the local levels. Social agreements and self-management agreements among producers and consumers under the general supervision of state authorities are expected to be an important instrument of price regulation. The essential guiding principle for price regulation is stated to be the international price for similar products, modified if necessary to take into account (a) the needs of development policy as

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5. Between 1952 and 1962 the index of retail prices increased by about 42 percent, with the retail prices for industrial goods increasing by 14 percent, for agricultural products by 106 percent and services by 199 percent. "Movement of Prices in 1962–65," *Yugoslav Survey* 7 (January-March 1966): 3,477.

TABLE 2.14: Prices and Deflators

			(% per Year)
	1952–60	1960–65	1965–71
GDP deflators			
GDP at market prices	6.5	14.7	11.1
GDP at factor cost	6.0	14.5	11.2
Mining and manufacturing (factor cost)	0.4	5.1	10.2
Agriculture and forestry (factor cost)	8.1	19.6	6.9
	1954–60	1960–65	1965–71
Prices			
Producer prices: industry			
All items	1.6	4.7	6.7
Investment goods	0.7	2.0	4.0
Raw materials	2.4	5.1	7.9
Consumer goods	0.7	8.5	5.9
Cost of living	6.4	13.7	11.4

SOURCE *Statistički Godišnjak, Jugoslavije.*

CHART VI

INDUSTRIAL AND AGRICULTURAL PRODUCER PRICES, AND COST OF LIVING INDICES, 1952–71

World Bank — 7507(R)
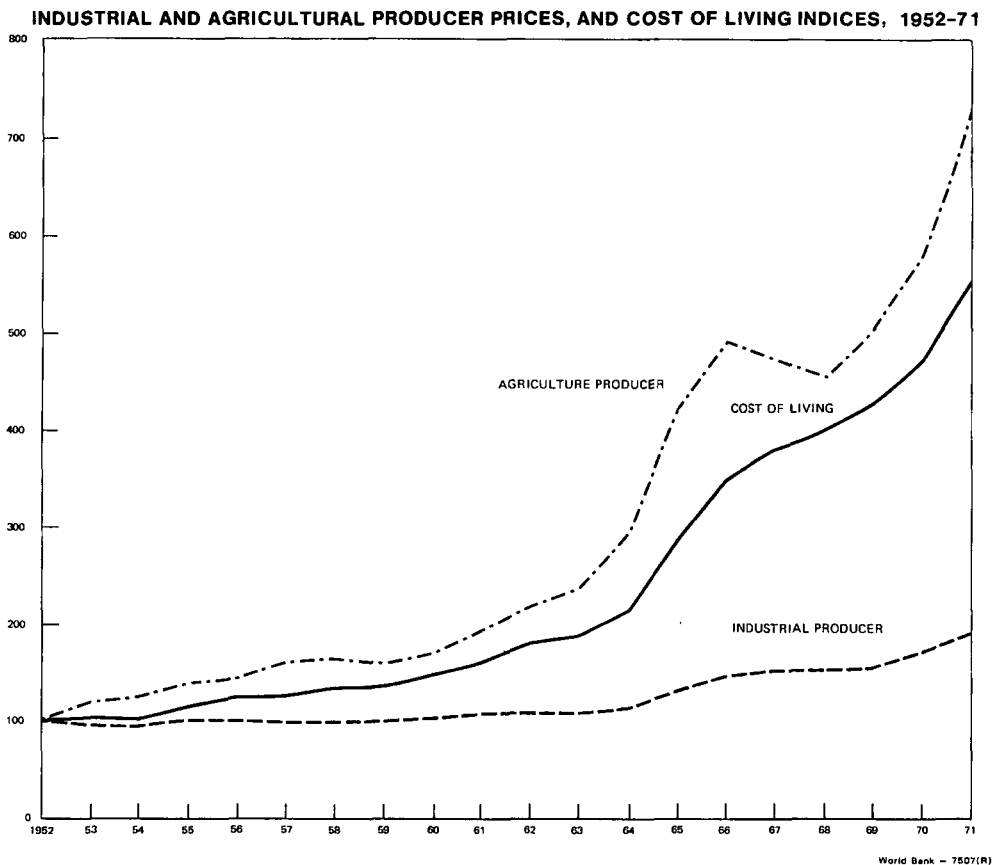
TABLE 2.15: Growth of Personal Incomes

	1952–56	1956–60	1960–65	1965–71
Nominal personal incomes				
Total	6.6	14.3	20.0	19.1
Economic activities[a]	5.6	15.6	20.5	19.2
Real personal incomes				
Total	1.3	9.0	5.9	7.0
Economic activities[a]	0.0	10.3	6.6	7.1

[a]These include industry, agriculture, forestry, construction, transport and communications, trade, hotels and catering, crafts and communal housing and utilities. Noneconomic activities compose: health, social security, culture, education, science, chambers of commerce, banking, insurance, government and administration and social organizations.

SOURCES Jugoslavija, 1945–64 (Belgrade: Statistički Pregled, 1965); and Statistički Godišnjak, Jugoslavije.

Retail Prices:	Total	41.3
	Industrial products	24.8
	Agricultural products	42.4

CHART VII

INDUSTRIAL PRODUCER PRICES BY TYPE OF GOODS

World Bank — 7506(R)
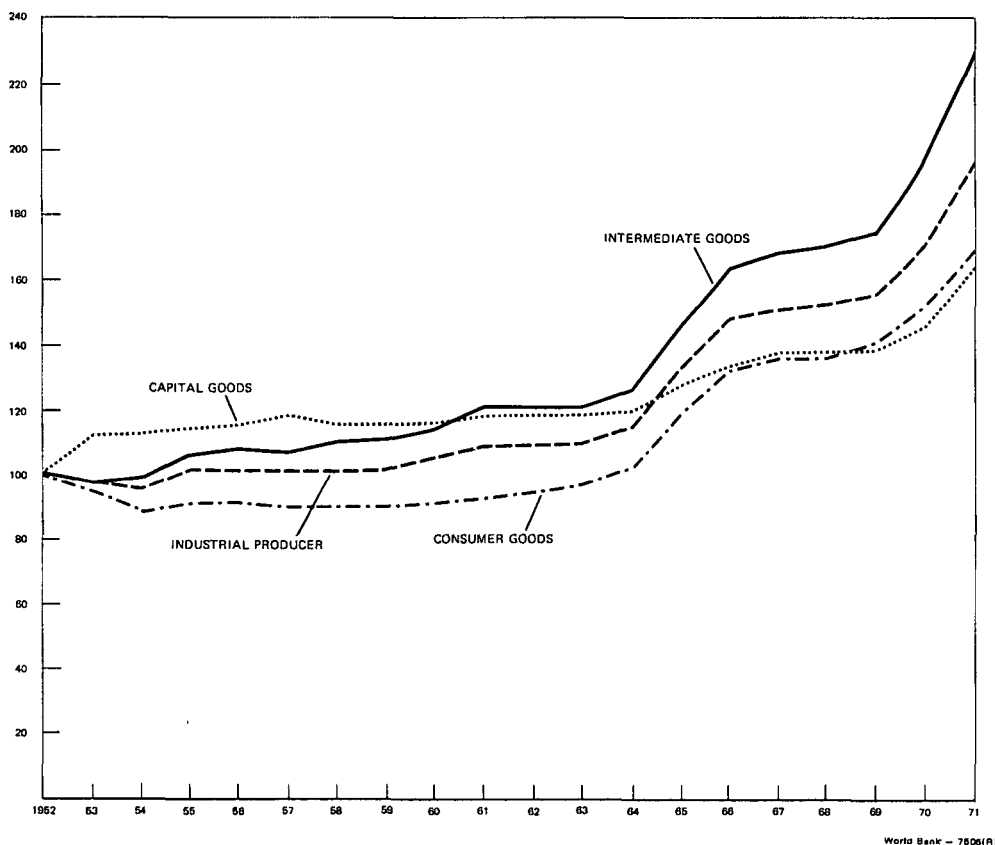
viewed by the state, and (b) the structure and level of development of domestic producers, such as protection for certain domestic industries. These principles do not appear to differ significantly from those enunciated at the time of the reform and permit substantial departures in specific instances from international prices. Prices for non-traded goods are regulated with reference to costs and the gross income earned by the enterprise. The regulation of industrial prices lies with the federation, except for construction materials, power, and printing which are under republic control. Prices of agricultural commodities are under federal regulation except milk, bread, and fresh meat. Air transport and railway freight rates are regulated federally, with other transport prices being under republic and communal control. In 1973 a Federal Secretariat of Prices was established to coordinate and ensure a consistent price policy.

The relationship between changes in industrial producer prices, industrial production and average personal incomes in the industrial sector is illustrated in Chart VIII. The chart shows the fairly small annual increases in producer prices until 1964 and the major acceleration in 1965 and since 1969. It also shows a roughly inverse relationship between the growth of industrial production and producer prices until 1964. Producer prices increased more rapidly in years of relatively slower growth in industrial production. Price increases were apparently agreed to by the state, most probably to allow the generation of investment funds or to maintain personal income during years when payments for industrial production increases slowed down. The relationship has changed with greater enterprise autonomy since the reform.

The growth rate of personal incomes in the industrial sector has generally moved with the growth rate of industrial production. Boom periods were characterized by rapid increase in personal income payments both before and after the reform. The rapid growth of personal incomes, often far in excess of productivity growth, has been recognized in Yugoslavia as a major inflationary factor.

The persistent inflationary pressures both from the aggregate demand and the cost side has been a major problem, partly because of inadequate tools for demand management (see Chapter 9). The decentralization process eroded and dispersed the authority of the state and made it difficult to use fiscal policy for stabilization. Stabilization policy has relied mainly on price controls, with all its deficiencies, and on monetary policy. The efficiency of a restrictive monetary policy has been limited by the fact that enterprises tended to evade it by running up unpaid obligations or by raising prices. To the extent that they were not evaded, the impact of monetary restrictions fell primarily on investment expenditure. In the absence of an incomes' policy the cost inflation elements and excess consumption demand were not affected. An incomes' policy framework has been developed during the past two years to deal with both the large income differentials among workers with similar skills, and the cost push effect of rapid personal income increases, but has yet to be implemented.

The Coordination and Financing of Development

The process of decentralization and the greater autonomy of local governments and enterprises created difficulties in coordinating investments among localities and among enterprises. The phenomenon of "territorialization" of development has been much commented on in Yugoslavia. While such a narrow territorial view has often been present in industrial investment it has been most striking in relation to infrastructure development (see particularly the sections on Transportation and Power in Chapter 7). In principle, the social development plans of the federation, the

CHART VIII

ANNUAL CHANGES IN PRODUCTION, PRICES AND NET PERSONAL INCOME; INDUSTRY, 1954-71
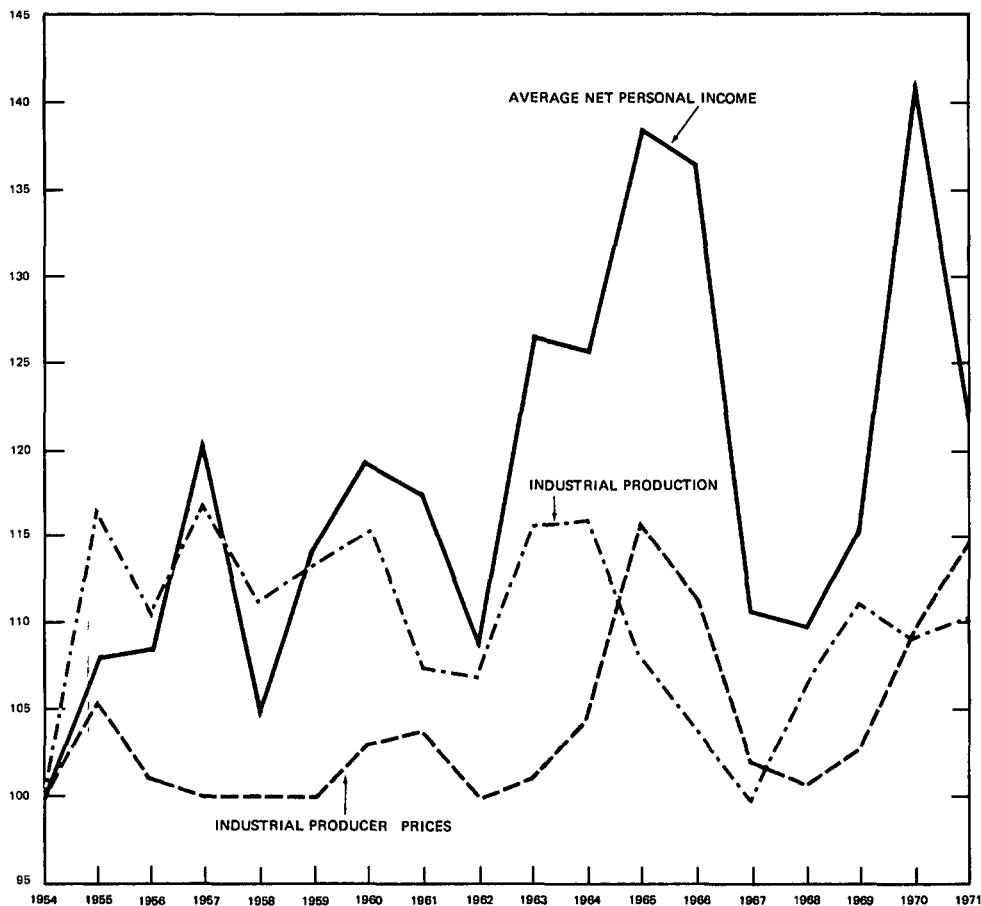
World Bank — 7512(R)

republics and local governments as well as institutions like the Chamber of Economy were expected to provide the necessary coordination for investment decisions. Actual developments were not always integrated among regions, sectors and enterprises. One important factor for this was the shortage of financial resources.

With decentralization and the elimination of federal investment funds for infrastructure development, there emerged a great shortage of financial resources in infrastructure enterprises. The policy of low prices for basic products like transportation and power meant that enterprises were unable to generate the surpluses which were supposed partly to replace the federal funds. As the enterprises were unable to provide a significant proportion of their investment needs, the banks were reluctant to lend to them. Consequently, there were ad hoc devices for raising funds, including mandatory surcharges on all investment expenditures and sale of bonds (purchased because of patriotic reasons). The precarious financial situation meant that actual infrastructure investment proceeded in a haphazard fashion.

The issue has been recognized as an important one in Yugoslavia, and there are measures on hand for increasing coordination among power and transport enterprises, not only in the formulation of plans but eventually in their implementation. One institutional form that has been used for this is the "association" of enterprises in the same sector for coordinating their activities. Another, is the inter-republican committee for coordinating the views of the Republic Governments. However, the problem of financing for infrastructure development has not yet been adequately solved in a general way and continues to affect coordination of infrastructure development.

Exports, Imports and the Balance of Payments

Foreign trade and the balance of payments have been crucial determinants of economic growth in the postwar period. Their importance was driven home early to Yugoslavia when the break with the Soviet Union and its impact on foreign trade caused the First Five-Year Plan to be abandoned. During the progress of decentralization and self-management efforts were made unsuccessfully in 1952 and again in 1961 to simplify and liberalize the foreign exchange and trade system. However, despite a complex trade and payments' system, and the consequent distortions, Yugoslavia's exports increased rapidly even before the foreign trade reform was adopted in 1967. Partly with the help of external assistance, Yugoslavia was also able to finance a rapid increase in imports. The change in the structure of both exports and imports reflected the development achievements and needs of Yugoslavia (Table 2.16). In exports there was greater growth of manufactures and, within this group, of highly processed products at the expense of semimanufactures. As regards imports, there was a decline in agricultural products reflecting self-sufficiency, and an increase in the share of machinery and other manufactures as well as of intermediates and raw materials. These trends have continued in recent years.

TABLE 2.16: Commodity Trade

	Average Exports		Average Imports	
	1953–57	1963–67	1953–57	1963–67
Total (US$ million)	280.0	1,049.0	461.0	1,390.0
(%)	100.0	100.0	100.0	100.0
Agricultural products	41.1	30.1	40.0	25 5
Mineral fuels	1.4	1.6	9.1	5.1
Minerals and base metals	20.5	12.5	8.2	14.0
Machinery and transport equipment	6.3	25 7	28.3	34.6
Other manufactures	30.7	30 1	14.4	20.8

SOURCE UNECE, *Economic Bulletin for Europe* 21 (1970).58.

Since 1967 there has been increased pressure on the balance of payments, following the liberalization of the foreign trade and exchange system, but not simply as a result of it (Chart IX). Briefly, the problem resulted from a sharp increase in the growth rate of imports relative to the growth of GDP, which overwhelmed the good export performance. During 1953–57 the elasticity of imports with reference to GDP was about 1.5. During 1968–72 it was around 2.5. The sharp upward shift in the import elasticity resulted first from the domestic inflationary pressure with excess demand spilling over into imports. Secondly, the change in the development strategy, emphasizing modern technology and "intensive" development, led to a rise in the

CHART IX

TRADE, SERVICES AND CURRENT ACCOUNT BALANCE, 1950–72
(MILLIONS OF US$)

IMPORTS OF GOODS

CURRENT ACCOUNT BALANCE DEFICIT

NET EXPORTS OF GOODS AND SERVICES

CURRENT ACCOUNT BALANCE DEFICIT FINANCED BY SERVICES

EXPORTS OF GOODS

World Bank — 7506(R)
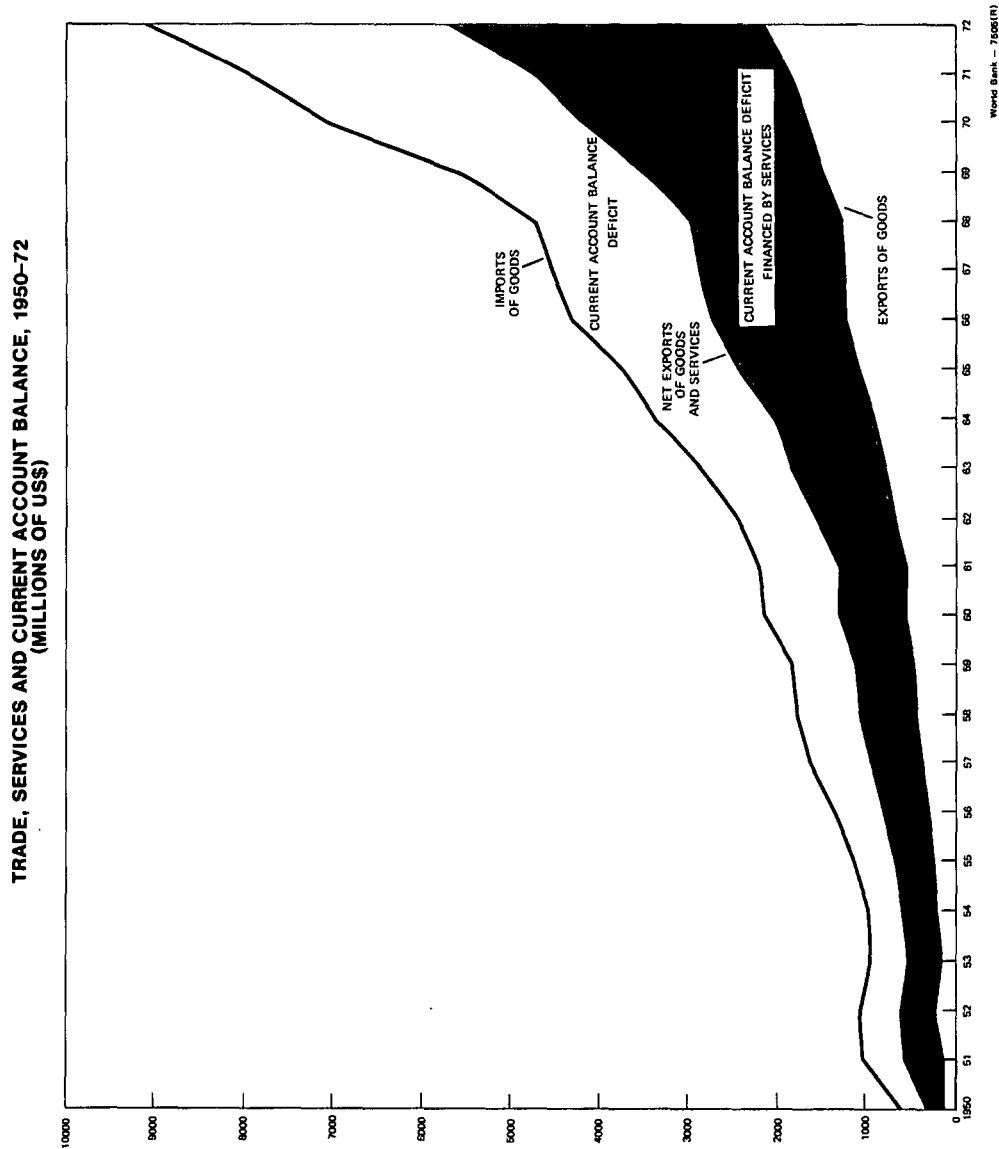
import content of output, investment and consumption (see Chapter 11). Thirdly, it is believed that the domestic industrial structure has leaned more towards final goods production, neglecting the development of intermediates and basic materials, partly because of the prevailing policy of maintaining low prices for these commodities through regulation and preferred import treatment. The resulting increase in the trade gap was offset largely by the rapid growth of receipts from services and workers' remittances. In 1972 of the total foreign exchange earnings, about half were derived from these sources, as compared to only 15 percent in 1960. Nevertheless a substantial current account deficit had to be met, mainly by borrowing on commercial terms

as bilateral assistance on soft terms was phased out by the middle 1960s (Table 2.17). The aggregate balance of payments does not give a complete idea of the severity of the balance of payments problem. This is particularly intense with reference to the convertible currency area.[6]

The growth of Yugoslavia's external debt is the direct result of the balance of payments developments and the changing pattern of capital inflow. Total external debt outstanding increased from US$700 million in 1964 to US$2.7 billion at the end of 1971. During the same period the proportion of external debt in the form of suppliers' credits almost doubled. Consequently there was a sharp increase in debt service payments which, as reported to the World Bank reached about US$630 million in 1971. About 90 percent of the debt and 95 percent of the debt service is in convertible currency. The debt service ratio with reference to convertible currency has increased from 17 percent in 1966 to 23 percent in 1971, while the aggregate debt service ratio moved from 13 percent to 18 percent in the same period.

TABLE 2.17: Summary Balance of Payments

(In Millions of US$)

	1960–63	1964–67	1968–71	1972
Export of goods	666	1,119	1,558	2,190
Import of goods	939	1,478	2,514	3,325
Trade gap	−273	−359	−956	−1,135
Net services, remittances, transfers	65	300	736	1,321
Current account	−117	−61	−220	+186
Medium- and long-term loans (net)	134	93	276	298
Other capital (including errors and omissions)	—	9	−109	147
Allocation of SDRs			12	22
Reserve movements	−17	−41	41	−653

SOURCE: Statistical Annex, Table 3.2

Regional Development Problems

The problem of regional inequalities in development and income levels has been an important issue in the postwar period. Regional differences in per capita incomes were quite large, even at the start of the rapid postwar growth, mainly for historical reasons. An active regional development policy has been followed from the First Plan (1947–51). The policy consists of three elements which have been present from the start: (a) a growth rate in the less developed regions above the national average to be achieved through (b) a high rate of investment, to be attained by a transfer of resources to them and (c) to upgrade health, education, social services and amenities to the average level of Yugoslavia. The policy has succeeded in bringing about quite a rapid rate of development in the underdeveloped regions. However, it has, on the whole, failed in its objective of raising growth rates above the national average and reducing regional differences in per capita income. In fact, the average per capita income in the underdeveloped regions was nearly two-thirds of that in the developed republics in 1953, and only about one-half in 1970.

The lack of success is partly due to the magnitude of the problem itself. The investment ratio in the underdeveloped regions during the whole postwar period has been much higher than in the developed regions. However, the growth and employment impact of the investment has been relatively less because of higher than average

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6. Yugoslavia has devalued the dinar seven times since 1950

ICORs and incremental capital labor ratios (ICLRs), partly the result of the pattern of resource endowment and the structure of investment, but also reflecting the underdevelopment of the region. A second group of factors influencing the trend in regional differences was demographic. The population growth rate in the underdeveloped regions was about three times as rapid as in the developed regions. Not only did this have direct consequences on per capita income growth, but it also led to a higher proportion of young dependents in the population, a relatively low proportion of population of working age and thus a relatively smaller labor force. Thirdly, Yugoslav regional development policy has tended to be too exclusively oriented to investment in and the development of the mineral and other basic resources in the underdeveloped regions. A many-sided attack on the problem, including population policy, the development of interrepublican linkages to integrate development of the underdeveloped regions more fully with that of the rest of Yugoslavia, and a policy of increasing geographical mobility of capital, labor and enterprise appears to be necessary.

The Role of the Private Sector

The Yugoslav economy is divided into a modern, socialist sector, where the principles of social ownership and workers' self-management primarily apply, and a private sector which is largely in traditional peasant agriculture and handicrafts, but also includes relatively modern elements in activities like tourism, and modern crafts such as automobile repair. By the end of the 1940s, the government had abandoned the attempt to collectivize agriculture and accepted the existence of a private sector in socialist Yugoslavia (see Chapter 1). The strategy was to achieve a rapid growth of the social sector to cause the relative decline of the private sector which would eventually be absorbed within the social sector. The private sector is regulated, and there are restrictions on the activities that it may undertake and on the number of people that can be employed in a private establishment. (At present the number is restricted to five, but the limit is under review.) The result of this policy was the creation of a dual economy. Left to itself, the private sector, particularly agriculture, lagged in the

TABLE 2.18: The Private Sector

			(%)
	1953	1961	1971
Labor force			
Total	76	59	49
Agriculture	96	91	92
Handicrafts	61	43	50
NMP (current prices)			
Total	32	26	19
Agriculture	94	90	78
Handicrafts	54	35	58
Construction	7	15	14
Catering and transport	—		3
Investment (1966 prices)	1953–60	1961–65	
Total	15	18	
Agriculture	37	28	
Handicrafts	26	15	

SOURCES: *Statistički Godišnjak, Jugoslavije*, and *Investicije, 1947–69.*

rate of growth of output and incomes. There was a large exodus from the private farms into the social sector and abroad. There has recently been a shift in the official policy towards private agriculture, partly because the government is concerned about the depopulation of the mountainous areas, but also because the production of meat has to be increased for the growing domestic market and exports and private farms have a comparative advantage in livestock production.

While the importance of the private sector has declined during the last twenty years, it still continues to employ nearly half the labor force and produce about one-fifth of the national income (Table 2.18).

The sector plays a relatively more important role in agriculture and handicrafts and is increasingly important in the construction industry. The official policy of at best benign neglect, of treating the sector as a convenient store for surplus labor during the period when sufficient jobs are not created in the social sector, is evident from the sector's very small share of total investment during this period.

It appears from Table 2.19, that though the GMP in the private sector has been increasing slowly, the output per worker has risen fairly rapidly because of the declining total labor force. This would support the idea of an improvement, in absolute terms, of the condition of the population in the private sector. However, their relative position has not changed because of the rapid progress of the social sector. For example, in 1971 the GMP per worker in the private sector was still about 20 percent of that in the social sector.

TABLE 2.19: Growth of the Private Sector

	1953–61	1961–71
Total private sector		
Net GMP (1966 prices)	3.1	3.3
Employment	−2.6	−2.7
Product per worker	5.7	6.0
Agriculture		
GMP (1966 prices)	3.3	2.0
Employment	−2.6	−1.7
Output per worker	5.9	3.7

SOURCE· World Bank, Economic and Social Data Division

In considering the position of the private sector, a distinction has to be made between the large proportion of the population which is not very well off, and certain elements, such as the richer peasants and persons in handicraft and service activities, who are perhaps in a better position than many workers in the social sector. It is this which explains at least some of the resilience of the private sector in Yugoslavia. Available data for handicrafts throws some light on this question. In 1970, there were 188,000 owners and workers in private sector handicrafts, or about half the total labor force engaged in the activity. The NMP per worker in the private sector was 58 percent higher than of the handicrafts in the social sector.[7]

At the same time, the increasing importance of the social sector as the modernized, technologically advanced dynamic sector in the Yugoslav economy cannot be denied. The development of the private sector is, therefore, to be viewed as a com-

7. *Statistički Godišnjak Jugoslavije* (Belgrade: Federal Institute of Statistics, 1972) Tables 110.3, 110.6, and 105.8.

plement to rather than competition with the social sector. In agriculture, particularly, a lot has been done to develop the relationship between the social sector *kombinats* and private farmers (see Chapter 6).

The Current Economic Situation and Short-Term Prospects

The New Economic System

Recent economic development in Yugoslavia has been dominated by the issues of historical origin which have just been discussed. These have concerned problems of resource mobilization and allocation, inflation, the balance of payments and the need for effective coordination of economic policy and investment decisions in a decentralized self-managed economy. The Constitutional Amendments of July 1971 which led to greater regional and enterprise autonomy, also ushered in a period of consolidation. In the latter half of 1971 there was some doubt both about the capacity of the new system to arrive at decisions on federal policies, as well as on the coordination of measures taken by the various republics. However, the institutional framework created to ensure interrepublic coordination and agreement had begun to work fairly smoothly by 1972. A serious effort appears to have been made to ensure that decentralization does not result in disorganization. It is realized more clearly than before that the interdependence among various economic units and regions, and the necessity to maintain a unified Yugoslav market, requires that decentralized decisions should be harmonized and coordinated. This does not imply a return towards the centralized administration of the early postwar period, because there continues to be a very wide participation of all involved in arriving at decisions. The major instruments for coordination that have emerged are: (a) the interrepublican committees and the Coordination Committee, consisting of representatives from the Republic and Federal Governments, (b) the Social Development Plan, 1971–75, which was adopted in June 1972, and (c) social agreements between government, enterprises and trade unions, and self-management agreements among enterprises, to provide guidelines for economic units and ensure a degree of uniformity and coordination in behavior.

Growth and Fluctuations

The problem of maintaining a high rate of growth without running into balance of payments difficulties is reflected in large fluctuations in the growth rate from year to year since the economic recovery that started in 1968 (Table 2.20). With the emergence of severe inflationary pressures which resulted in a deterioration of the balance of payments, the government introduced a stabilization program in the second half of 1970, devalued the dinar by 16.7 percent in January 1971 and adopted a more restrictive external borrowing policy. The measures were only partially successful. One problem at this time was that much official attention and energy was devoted to the proposed constitutional changes which marked another step in the development of the Yugoslav economic system. Consequently, while the rate of growth in 1971 was above that of 1970, the general economic situation was not favorable. Inflationary pressures continued and the balance of payments during the first half of 1971 was significantly worse than a year earlier. More effective policies were adopted in the second half of 1971, following a standby agreement with the IMF in

July. A tight monetary policy was followed, a price freeze was introduced in November 1971, and in December the dinar was devalued again by 18.7 percent during the international currency realignment.

In 1972 the growth of GDP slowed down, as anticipated in the government economic policy resolution. Agricultural output was affected by floods, industrial production increased by 7.5 percent. There was a slowdown in the increase of real domestic expenditure on investment and consumption. The balance of payments situation improved much more than anticipated. Exports of goods increased by 19 percent while imports of goods grew by only 5 percent. The very rapid increase in invisibles, in particular workers' remittances, resulted in a current account surplus of nearly US$200 million, and together with the net capital inflow of about US$300 million, generated a large increase in foreign exchange reserves. Domestic inflation, however, continued almost unabated. Despite the price freeze, the cost of living increased by about 16 percent during the year. The increase represented partly the impact of devaluations and readjustments in the controlled prices of power and transportation. However, the cost push resulting from rapid increase in personal income payments was a major factor in the continued inflation.[8] This reemphasized the crucial need for the implementation of the incomes' policy, a framework for which has been developed. Income policy guidelines have been established in the form of "social agreements" between republic governments, trade unions and enterprises. However, these have not yet been fully translated into "self-management agreements" which would govern the income distribution policies of individual enterprises or groups of enterprises. In 1973, the new incomes' policy is likely to be more fully implemented.

TABLE 2.20: Selected Economic Variables
(Annual Growth Rates in %)

	1968	1969	1970	1971	1972
GDP (constant 1966 prices)[a]	3.5	9.3	5.7	7.5	5.0
Industrial output (constant 1966 prices)	6.8	11.9	10.1	9.9	7.5
Agricultural output (constant 1966 prices)	—3.5	9.9	—4.5	7.8	1.0
Gross investment (constant 1966 prices)	—1.9	10.0	18.8	4.7	4.0
Consumption (constant 1966 prices)	6.1	9.6	10.2	10.2	4.0
Employment (social sector)	0.6	3.9	3.9	4.8	4.5
Cost of living	5.7	7.5	10.0	15.0	15.0
Exports of goods	0.9	16.6	13.9	8.0	20.7
Imports of goods	5.2	18.8	34.6	13.2	2.2
Current account (million dollars)	—106.0	—108.0	—340.0	—324.0	191.0

[a] Estimated.

SOURCE. World Bank, Economic and Social Data Division.

Stabilization Policies

The rapid growth of aggregate demand, both consumption and investment, has been an important factor in the inflationary pressures of recent years. The growth of consumption demand was related to the sharp increase in personal incomes that followed the increase in enterprise autonomy in 1965. The investment demand has

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8. Personal income per worker increased by 18 percent in 1970, 22 percent in 1971 and about 18 percent in 1972.

been high not only because of the existence of opportunities for productive investment and a high level of social and infrastructure investment by state authorities, but has also been inflated by the underpricing of capital, the relative insulation of enterprises from financial risk and the shift to an "intensive" development strategy emphasizing rapid modernization and technical progress in industry. Economy policy directed at restricting aggregate demand has consisted mainly of monetary policy. The scope for using fiscal policy as a flexible instrument of demand management has been limited, given the decentralized institutional framework. Total public expenditure (including social insurance funds) accounts for about 34 percent of GDP, but control over the various items of expenditure and revenue is dispersed very widely. Some attempt was, however, made in 1970 and 1971 to restrict the growth of current expenditures by imposing a ceiling on increase in revenue, with the excess being sterilized. The main instrument for demand management has been monetary policy. This is determined, in the new system, by the National Bank of Yugoslavia and approved by the Federal Government. The Board of Governors of the National Bank of Yugoslavia comprises the Governors of the National Bank of Yugoslavia and of the National Banks of the republics, and has been effective in formulating and implementing the restrictive monetary policy.

A major development has been the strengthening of measures that were proposed in the second half of 1971 to improve financial discipline in enterprises, and to impose restrictions on the ability of those making losses to embark on investment without sufficient funds. These include provisions to reduce personal income payments by 10 percent in enterprises that continue to suffer losses. Measures are also being taken to strengthen the implementation of bankruptcy laws. The measures are crucial also to the long-term economic efficiency of the economy. The weakness in financial discipline leads not only to excess demand but also prevents structural adjustments to favor the efficient sectors of the economy.

The Balance of Payments and External Debt

The improvement in the balance of payments situation during 1972 does not mean that it is no longer a major constraint on sustained rapid growth. The rapid increase in exports was partly the result of domestic monetary stringency and the problem of illiquidity of enterprises. It also reflected the realistic exchange rate that prevailed after the two devaluations, and the increase in the level of retention quota allowed to exporters. The slow growth of imports in 1972 was, to some extent, a result of the very large imports of intermediate goods and equipment that occurred in 1970 and 1971. The basic structural weaknesses of the balance of payments have yet to be solved (see Chapter 11).

There was a significant step towards greater liberalization of trade and payments during the year, and more are contemplated. Customs duties were reduced by 1 to 12 percent for about 1,000 items, and the general 6 percent import surcharge imposed in 1970 has been reduced to 2 percent for a number of commodities. At the same time, Yugoslavia has continued to make efforts to convert bilateral payments agreements to trade and payment in convertible currencies. The agreement with India has been terminated now. The government is also attempting to establish a limited foreign exchange market between authorized banks. This, initially, is not likely to mean a more liberal trade and payments system and is only of symbolic importance.

Short-Term Prospects

Short-term prospects are dominated by the problems of inflation and illiquidity, and the consequent efforts at domestic stabilization. These efforts have been to some extent undermined by the change in Yugoslavia's balance of payments. Since 1972, export performance (following the dinar devaluation, particularly as against the Deutsch-Mark) together with a buoyant invisibles' account strongly boosted by increases in workers' remittances, have led to a surplus on current account and a growth in reserves. In mid-1973 convertible reserves stood at about US$1,500 million as against US$425 million at the end of 1971. This new situation caused an added elasticity in the supply, for which there was no automatic sterilization mechanism in the domestic monetary system. Thus, despite the added potential it gave for a growth in imports, this new situation has made the control of inflation more difficult. Since the combined effect of the dinar devaluation and of world price increases have worsened cost inflation pressures, despite a domestic wage freeze, it seems unlikely that the full year inflation in 1973 will be below 17 percent, i.e., about 7 percent higher than expected. Attempts to contain these pressures include a continuation of price control, wage restraint, a reduction in public expenditures and new measures to limit the impact of changes in money supply. Despite these measures it is still expected that the growth in real GDP in 1973 will accelerate slightly (to 6.5 percent, as against 4.4 percent for 1972) as a result of a somewhat more rapid growth in real investment. This is expected to draw in a sharp increase in imports of between 25 percent and 29 percent for 1973 in volume terms, sustained by an 11 to 12 percent increase in exports and by a rapid increase in tourism and remittance receipts. Remittances are expected to increase 41 percent in 1973 to US$1,250 million. In 1973 a balance of payments surplus of US$300 million is expected on current account with a net inflow of medium-term loans of about US$300 million.

CHAPTER 3

POPULATION, MIGRATION AND EMPLOYMENT

This chapter traces the outline of Yugoslavia's demographic development, both in terms of the size and natural increase in the population and of its regional distribution. The final part of the chapter examines the nature and extent of the country's employment problem.

Population

Yugoslavia, a country of some 20.5 million in 1971, has a relatively slow rate of population growth.[1] In the decade 1967–71 the country's population grew by 1.956 million, a rate of 1 percent per annum. Subtracting the 0.679 million migrants who went abroad during this period reduces this rate to only 0.7 percent. This slow rate of increase has had several implications for the country's development. For one thing, slow population growth coupled with rapid economic growth has implied high growth rates in per capita incomes, which have helped to sustain a high savings' rate. For another, slow population growth has implied at least an equally slow growth in the labor force. This has enabled Yugoslavia to make some progress in dealing with the existing backlog of underemployment. Rapid economic growth has therefore also achieved rapid structural transformation.

Not all the implications, however, have been beneficial. Population growth in some areas of the country has actually been negative after migration, and the resulting decline in the labor force has contributed in some cases to economic stagnancy. This is true, for example, of Vojvodina as a whole and of Croatia, particularly in the Slovanian region of that republic. In both Slovania and Croatia as a whole, as well as Vojvodina, slow population growth has led to a situation where these republics will be increasingly confronted with manpower shortages in terms of their current plans for economic growth.

The essence of the demographic factor in Yugoslavia is that it varies widely between the different regions of the country. For example, contrasted to population growth rates in Slovenia, Croatia and Vojvodina of less than half the national average of 1 percent per annum, are growth rates in the less developed regions of about 1.7 percent per annum (Kosovo had the highest rate of 2.9 percent per annum in 1971). The impact of population growth on the development prospects of Kosovo are really quite uncharacteristic of the situation in Yugoslavia generally, and for this reason it should be studied separately.

The prospects are for population growth to continue around its present rate, with some possible decline. Fertility rates, particularly in the less developed regions, will continue to decline. These declines may be partly offset by declines in infant mortality rates which are still high in these regions, but general mortality rates are slowly rising as the average age of the population increases. Whatever changes occur in the next decade, they are unlikely to depart very markedly from current parameters.

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1. This was the total population recorded at the Census of March 1971. The resident population at that time was around 19.8 million, the difference being migrants temporarily abroad.

Infant Mortality

The question of infant mortality is an additional dimension of population policy which is receiving direct attention. Yugoslavia's national rate of infant mortality, around forty-nine per thousand live births in 1971, is still about twice the average for Europe as a whole. Only Slovenia, at twenty-one per thousand, approaches the European average of around twenty-two per thousand. Macedonia and Kosovo still have rates above eighty per thousand. To be sure, this is a problem with moral, social and medical aspects, all of which deserve priority over its demographic implications. Nevertheless, the question of infant mortality is an important element of the population problem in Yugoslavia, more especially in the underdeveloped regions where its eradication may be something of a prerequisite to achieving lower fertility rates as well. Further, the fight against infant mortality requires not just a "health clinic" approach, but an integrated program involving health, education, nutrition and child care. This serves to emphasize that the fight against high fertility cannot be won with a single component "family planning clinic" approach, but requires a similarly integrated package. Although infant mortality rates have declined quite sharply in recent years (in 1965 the rate was seventy-two per thousand live births) there is obviously considerable room for improvement.

The Population Problem in Kosovo

The autonomous region of Kosovo, comprising 1.2 million people or 6 percent of Yugoslavia's population in 1971, is one region where the pressure of population density and growth have a serious influence on development prospects. Kosovo is the poorest region in Yugoslavia and has the most rapid growth in population. Although the growth in Kosovo's social product (7.6 percent per annum 1961–71) is above average for the underdeveloped regions, it has one of the slowest growths in per capita incomes (5.1 percent 1961–71) because its population growth is so rapid. Kosovo is the only region in which the average size of the family has consistently risen since 1948. It is also the only region in which the rate of natural increase remained constant, at 2.86 percent per annum, during the intercensal decade. Dependency ratios, already well in excess of unity in Kosovo, have risen more rapidly there than elsewhere, this tendency being worsened by the migration abroad of workseekers. In a region of relatively poor resource endowment (there is, for example, a growing water shortage), these demographic pressures cannot fail to retard the economic progress of the region. This is a truth which the authorities in Kosovo have acknowledged, but which they have not yet been able to act upon in any effective way.

Of course, the importance of population growth as an operational variable in development can be exaggerated. If the rate of population could be reduced without affecting income growth, then per capita income growth would increase *pari passu*. If population grew at 1 percent per annum as against Kosovo's actual growth rate of 2.5 percent per annum, then, under this assumption, per capita incomes would be 18 percent higher after a decade. To achieve this, however, would imply a 150 percent reduction in the rate of population growth, no mean achievement in a variable whose response patterns are as tenuously known as are those of fertility.

Further, recent information contained in the Household Budget Surveys of 1963 and 1968[2] suggest that the relationship between population growth and poverty may

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2. *Anketa Olicnoj Potrosnji Stanovnistva* (Belgrade: Federal Institute of Statistics, 1963 and 1968).

not be as simple as is often supposed. These surveys show for Kosovo, as for most other republics, that larger families tend to have higher average incomes per family member than do smaller families. On the face of it, this seems to gainsay the conventional wisdom that high fertility (large families) and poverty are covariants. There is further discussion of this issue in Chapter 4. At any rate they suggest that simple solutions to the population issue in Kosovo, as elsewhere, are unlikely to be found. What seems required is, first, more knowledge of the incidence and significance of high fertility in Kosovo, and then the mounting of an integrated program to develop health, education, nutrition, child care and, as but one component of the program, an attempt at family planning.

Two overriding points regarding Kosovo's population problem seem clear. First, any attempt to attack it in isolation from its social setting will inevitably fail. Second, despite the complexities, there should be a positive effort by the authorities to deal with the problem in all its aspects, since failure to modify the current high population growth will simply correspondingly diminish the impact of current efforts to bring the level of development in Kosovo abreast of that of the nation.

Migration

The relocation of labor out of traditional activities, which is the essence of industrial transformation, very often involves a geographical as well as an occupational movement. In Yugoslavia the occupational change has sometimes occurred to a greater extent than the geographical movement. At present a prerequisite for long-term balanced growth appears to be increased geographical movement, particularly between regions, though past interregional mobility may have been greater than is generally supposed. The subject is complicated by the substantial external migration of labor occurring during the second half of the 1960s, most of whom come from the more developed regions where they could least be spared.

Internal Migration

At present there is no published information which records the details of population movements within Yugoslavia over recent years. Only after the final tabulation of the 1971 Census results will this become available. Existing material, however, does provide a general indication of the broad trends, both as to rural-urban migration and the migration between regions.

Rural-Urban Migration. During the 1950s, although the urban population grew very rapidly, there was an even more rapid growth in industrial employment. Industrial decentralization and worker commuting, forced by a critical housing shortage, led to peasants taking up industrial employment without necessarily moving to live in the urban areas. In the decade of the 1960s, as a result of declining employment generation under the new development strategy, coupled with an enhanced desire of the peasant to move into the urban way of life, urban population has tended to increase more rapidly than industrial employment. In the developed regions the growth rate of urban population (1961–71) was 1.43 times more rapid than the rate of increase in urban employment; in the less developed regions it was 1.65 times more rapid. The implication of this new situation is dual. On the one hand this implies a likely increased pressure on the urban labor market. On the other hand, the slower employment growth probably itself explains the decline in urban population growth during

1961-71 as compared with the previous intercensal period. Rural-urban movements in the 1960s have been slowed down by lack of urban employment openings.[3]

Interregional Migration. Accurate assessments of the degree of interregional migration during the intercensal period of 1961-71 will have to await the final tabulation of the 1971 Census. Estimates of this, however, have been made using the residual method (see Statistical Annex Table 1.7).[4] The estimates reveal a clear trend of migration from the less to the more developed regions. Over the decade there has been a net internal transfer of 265,000 people. Bosnia-Herzegovina and Kosovo have provided the bulk of migrants abroad; Serbia proper and Croatia are mostly where they go.

Increased rates of migration between the regions would be both mutually beneficial and not infeasible. If migration could be increased to equal 30 percent of population growth in the poorer regions (from its present rate of 19 percent), this would raise population growth in the developed regions by more than 50 percent. Further, because the developed regions have a much larger total population than the developing regions, the migrants they receive form a much smaller proportion of the total than of the total population in their home regions. The migration rate of 3.7 percent from the poorer regions equates to an immigration rate of less than 2 percent in the developed regions. This suggests that assimilation problems can be minimized in the regions receiving migrants and underemployment in the regions they leave can be reduced at the same time. Even if the migration rate from the latter were to rise to 5 percent, this would still imply an immigration rate into the developed regions of less than 2.7 percent.[5]

None of these considerations, of course, can themselves constitute a case for stimulating more migration. There are very real personal, social and even national political issues to account for as well. Nevertheless, if an economic case for more migration is to be sought, it seems that the analysis just given would raise strong supporting arguments in its favor.

External Migration

Yugoslavia has had a long history of external migration of its population. Although some of this has been motivated by noneconomic factors, the major driving force has

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3. The picture is probably not quite so simple. For one thing, commuting rates have risen significantly over this period. In 1961, 7 percent of all employed workers were employed away from their place of residence. In 1971 this had risen to 35 percent. Actual urban population growth may also be understated in the preliminary census figures now available. Further, it has been an active policy of urban planning authorities not to accelerate the expansion of urban housing beyond what is conceived to be a rate commensurate with a parallel policy of industrial decentralization. The housing shortage continues (see Chapter 7).

4. Net interregional migration is defined as the residual difference (positive or negative and summing to zero for all Yugoslavia) between the total population found in the 1971 Census and the total expected according to the evolution of births and deaths in each region during the intercensal period 1961-71. External migration complicates this procedure. However, the 1971 Census figure *includes* those migrants temporarily abroad so the net interregional migrations should still sum to zero. This census record of external migration, however, may not be accurate. The residual method calculations showed that the regions of outmigration lost about 238,000 migrants more than were received by the inmigration regions This figure is reflected in Statistical Annex Table 1.7 as the unrecorded external migration, distributed across the republics/provinces according to the share of each republic in the recorded migration abroad.

5. These rates, which equate to incremental rates of 30 percent and 50 percent respectively, would require a net migration in this decade of 400,000.

been the search for better working opportunities. The latter is certainly the reason for the very large numbers of workers who have left Yugoslavia in the years since 1965. This particular phase of external migration is, however, different from earlier movements in that it is essentially labor migration rather than population migration. However, it seems from current evidence that even worker migrants may stay abroad as long as five, six or seven years, and this has led to some concern in Yugoslavia over the extent to which an intended temporary sojourn abroad is in fact transformed into permanent immigration.

The basis for this anxiety lies simply in the numbers involved. Although there is some uncertainty as to the exact numbers currently "temporarily" abroad, it seems that between 0.9 and 0.95 million Yugoslavs may have left Yugoslavia during the last decade. The 1971 Census records 672,000 migrants stated (by relatives at home) to be temporarily abroad in that year. To this number should be added those who have already decided to stay abroad, plus those possibly missed by the census sample.[6] A figure of 0.95 million represents about 4.8 percent of the total population or, since about 85 percent are workers, about 10.1 percent of the domestic labor force. The migration which occurred during the 1960s exceeded the total increase in the domestic labor force, which declined in absolute terms as a result. In principle, this massive outflow of manpower provided a much desired reduction of pressure on the domestic labor market, as well as generating a useful flow of foreign exchange in the form of money remittances from the migrants back to their families. In fact, however, the net benefits of the migration are less clear-cut.

The Benefits and Costs of External Migration

There seems little question that, in terms of short-term income maximization of the total Yugoslav population (i.e., those migrating plus those remaining), the outflow of workers coupled with the remittance feedback has been unequivocally beneficial to Yugoslavia. In the period 1966–72, an estimated 786,000 migrant workers generated a total remittance flow of US$2.5 billion. On a rough estimate, this is equal to about US$880 per man-year of those going abroad, an amount which about equals the average product of all workers in Yugoslavia in 1971.[7] Since the marginal product of a worker is likely to be less than the average, in fact considerably less if the marginal worker is underemployed in some marginal activity, it follows that the remittance effect alone more than justifies (by the short-term income criterion) the migrants' departure. There may be other benefits too. Even if there were no remittances, the migration would raise overall average incomes (a) of the migrants themselves, by virtue of the new employment, (b) of those remaining behind, so long as

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6. The estimation of net external migration by the residual method (described in the section on internal migration) gave a figure for the unreported external migrants of 238,000. Also, data for the gross outflows during the period 1966–72 show that 925,000 migrants went abroad, most of whom left towards the end of this period. It is unlikely that return flows have yet been strong enough to reduce this number to the census figure, although this is possible. There are also about 10,000 permanent migrants who left during this period.

7. Assuming that 85 percent of all those going abroad are workers, and that rates of return migration have been negligible over the years 1966–72, the figures for gross migration abroad in Statistical Annex Table 1 7 can be used to derive a total number of man-years involved in this migration, which comes out at about 2.6 million.

those who left were not fully employed.[8] Further, if there is a premium on foreign exchange, which has certainly been true in Yugoslavia, the remittances carry a social value greater than the simple domestic currency equivalent. By these economic criteria, therefore, the global benefits of migration appear manifest.

Migration, however, is not without its burdens for the economy. In some respects it has fallen rather unevenly on the regional structure of the economy. The negative demographic impact of the migration has already been described. Dependency ratios have been significantly raised by migration, more especially in the poorer regions. For their part, the developed regions have suffered population declines in some areas and mounting labor shortages overall which, as described above, have been less than compensated by internal population movements. Also, the skill composition of migrants was much more advanced in the developed nations. About 30 percent of all migrants from these regions were either technically or academically qualified, as against only 13 percent from the less developed regions. (The profile of the domestic labor force in the two sets of regions in 1970 was 34 percent qualified in the developed, and 30 percent in the less developed). Thus, the embodied capital contained in skilled workers who have left to go abroad is much greater in the more developed regions.

Despite these negative factors, it seems unlikely that any purely economic assessment of the migration, at least for the short term, would arrive at a negative balance. So long as the net income gain (local plus remittance effect) is positive, rising local dependency ratios might give a false picture of economic welfare, though from a social point of view they may argue for increased migration of dependents. Further, since the capital endowment of the migrants is below average for the nation, since there is a significant labor reserve in Yugoslavia and since the remittance effect is substantial, the benefits' side of the equation appears very strong. Although interregional disparities in labor supply conditions have been accentuated by migration abroad, it is arguable that these discrepancies could be alleviated less by discouraging external migration than by stimulating interregional flows of labor along the lines already suggested. In the longer term, of course, the negative effects of the migration may come to weigh more heavily over the short-term benefits.

The Prospects for Migration

It seems unlikely that annual migration in the hundreds of thousands, as experienced at the turn of the last decade, will be repeated during the 1970s. Economic stabilization in Western Europe, the currency realignments, and a possible (but largely unknown) impact on the European labor market following Britain's entry into the EEC, are all economic factors arguing for possibly slower migration into Europe in this decade. Also, in response to demographic factors, the German labor force will grow more rapidly than in recent years, thus expanding the elasticity of Germany's domestic labor supplies, implying an additional decline in the need for foreign labor.

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8. The theoretical conditions for this result are: (a) those who leave produced less than they consumed; (b) they did not export with them a capital endowment per man greater than the average for the whole economy. If they did, the domestic capital labor ratio and hence productivity and incomes would fall. Assuming that most migrants take with them little or no physical or liquid capital, the chief source of accompanying capital export is in the form of embodied capital, i.e., education and skills. Even here, however, the average skill content of the outmigration has been less than that for the nation as a whole (see *Growth in the Labor Force* below) so the migrants' departure should not have lowered the average capital-endowment per resident worker.

Adding to these factors the growing disenchantment in labor-receiving countries with the idea of growing concentrations of foreign workers and families, there is a general climate in which expectations tend to favor a more or less acute slackening of migration over the rates experienced in the 1960s. For Yugoslavia this might be expected to an even greater extent, since there has been some recent increase in the tendency for German employers to recruit greater numbers of Turkish workers, whose share of new recruitments now exceeds that of Yugoslavia's.

The migration will, however, continue and Yugoslavia will continue to share a significant portion of it. The 90,000 or so workers[9] who left in 1972 probably represent a higher average than will prevail for the decade as a whole, but the judgment of this report is that this will be in the region of 50,000 to 70,000 a year net outflow for the remainder of the decade. This would imply a migrant stock of 1.3 million workers abroad by 1980. Official policy expects this figure to be no greater than one million, but there is no concrete reason to accept either figure with any strong certainty. What the authorities hope to achieve is one million workers abroad but with an increased annual turnover of workers. This would tend, among other things, to enhance the remittance effect if returning workers bring with them their accumulated savings.

Employment Problems and Prospects

Yugoslavia's employment situation has passed through two major phases during the postwar period, broadly divided between the decade of the 1950s and that of the 1960s. In the earlier period, the essential problem was to mobilize labor from the peasant sectors to undertake both postwar reconstruction (in the early 1950s) and the expansion of industry and infrastructure later in the decade. Heavy taxes on the peasantry and some other measures[10] succeeded in shifting labor off the land during this period, so employment in the social sector expanded rapidly with relatively slow growth in productivity. (In the years 1953–61 social sector employment grew at 5.5 percent per annum, productivity at 2.8 percent per annum.)[11]

It is worth emphasizing that part of the desire to expand employment in the social sector was to expand the size of the urban proletariat, since the creation of a strong socialist nation was seen to depend as much on the development of heavy industry, as (at the political level) on the creation of a large industrial work force which would respond to the socialist ethic in ways in which rural peasants have often found it difficult to do. Under the development strategy of the 1960s, however, employment goals tend to be in increasing conflict with other objectives. Whereas, during the 1950s, production growth reflected capital widening, during the 1960s there was a drive to modernize industry, to import technology from the West and to increase the

9. This estimate may be too high. Official statistics show that 56,435 workers went abroad through the Federal Employment Office in 1972. Before that year, only about half the migrants used the Employment Office, the others migrating through the so-called second channel, i.e., by direct contact between the migrant and the employer. By 1972, the "second channel" migration was considerably less.

10. In the immediate postwar period all employment was centrally directed.

11. Throughout this part of the report "employment" will in general be used to refer to contractual, or organized, or "wage" employment, almost all of which is found in the social sector. This is not in any way to overlook the importance of self-employment and other forms of remunerative activity, most of which is in the private sector. However, since the national objective is to expand social sector employment, the "employment" problem being addressed is precisely that of attaining this objective. This does not, however, preclude the option of improving the quality of employment in the private sector as well, as is argued later in the text.

capital intensity of production. Growth was therefore characterized by rapid capital deepening, high labor productivity growth and declining employment increases. In the period 1961–71 employment grew by only 2.2 percent per annum, and labor productivity at 5.8 percent per annum.

The new "intensive" strategy was partly the reflection and partly the substance of the economic liberalization of the mid-1960s. Motivated to some extent by the quest for dinar convertibility which required world competitiveness of Yugoslav exports, the strategy was also a means of bringing rapid income gains to those employed in the social sector who were increasingly cognizant of the higher living standards to be found in Western Europe. At the same time, however, the spread of education and rising aspirations among the peasantry led to a surge in the numbers wishing to leave the land. It is the pressure of these numbers which, even after the release of migrants going abroad, still considerably exceeds the capacity of the social sector to expand new job openings that constitutes the employment problem in Yugoslavia. It is most serious in the less developed regions.

The Growth in the Labor Force, Employment and Structural Change

The growth in the labor force in postwar Yugoslavia has been even slower than the slow growth in population. In the two intercensal periods 1953–73 the total labor force grew at 0.8 percent and 0.7 percent per annum respectively. These rates reflect a decline in participation rates from 46.3 percent in 1953 to 45 percent in 1961 and 43.2 percent in 1970. Due to the external migration of workers during the 1960s, the labor force actually resident in Yugoslavia declined by 0.1 percent per annum, the participation rate of the resident labor force falling to 41.7 percent in 1971. These rates of increase have added considerably less to the labor force than social sector employment growth has added to formal employment, even during the period of the new "intensive" development strategy when employment growth was relatively slow. In the years 1953–61, the social sector provided 1.36 million new jobs as against an increase in the labor force of only 0.49 million. During the period 1961–71 social sector employment grew by about 0.77 million, while the total resident labor force declined.

Structural change during these periods, therefore, was understandably significant. During the whole period 1953–71 the share of agriculture (both social and private sectors) declined from 68.3 percent to 47.4 percent, measured in terms of the resident labor force. The pace of this decline, however, was significantly more rapid during the 1950s than during the 1960s, commensurate with average growth in social sector employment of around 2 percent in the later period, as against 7 percent in the earlier. This difference would have been more striking still but for the external migration. Without the migration, agriculture's share of the labor force in 1971 would probably still have exceeded 50 percent.

While the lower rate of employment generation during the 1960s was to some extent due to the adoption of a new production strategy, the decade's average rate of employment generation was also lowered to some extent by very slow (even negative) employment growth during the period 1965–68. This followed both the sharp adjustments to the 1965 economic reforms (which really launched the new strategy) as well as a severe recession during the period 1966–67. In these years total social sector employment actually declined absolutely. Coincidentally, the labor force during this short period was growing unusually rapidly because of a minor but significant

postwar "baby boom" effect.[12] The large-scale migration of labor occurring at this time tended to reinforce the resulting impression of a more serious employment deficiency and a more dismal prospect for structural transformation than in fact was warranted over a longer period.[13]

To some extent, therefore, the average employment growth of 2.2 percent per annum recorded for the period 1961–71 probably understates the current potential of the social sector to create new jobs. The average, omitting the years 1965–68, is about 3.5 percent per annum. Further, employment growth in the years subsequent to the 1968/69 recovery has been in the region of 2.9 percent per annum, which is very close to the rate projected in the 1971–75 Social Development Plan. At this rate of increase the social sector will add significantly more new jobs annually than the projected increase in labor force (even in the absence of migration) of only about 60,000 new members. Thus, the prospects for a continuing and possibly even increasing rate of transformation of the economy in the coming years are good, and improved as net external migration continues.

Dualism and Capital Deepening

These positive prospects do not, however, imply that Yugoslavia no longer has an employment problem. The economy is still highly dualistic. Only a little more than half the labor force is engaged in the "modern" (nonpeasant) sector, and the income disparities between the sectors are still of the order of 2 or 3:1, and widening (see Chapter 4). The dualism between the developed and less developed regions has also widened in recent years. Clearly, the eradication of this dualism will depend principally on the rate at which labor can be reallocated out of the peasant sector into the social sector, on the rate of employment creation therefore in the social sector. This objective, however, is in some conflict with the rapid increase in productivity and incomes through capital deepening in the social sector—the achievement of which would tend to retard rather than increase the absorption of labor in the social sector, thus perpetuating the existing excess demand for social sector jobs.

There is, of course, no exact measure of the excess demand for social sector employment, nor of the total numbers of people outside the full employment economy who may be said to constitute a "labor reserve" available to permit expansion of the modern economy. That there is such a demand, however, seems clear not only from the numbers who register as workseekers but also from how these numbers fluctuate relative to the amount of employment created each year. The numbers registering with the Employment Institute for new jobs have varied between 200,000 and 300,000 over the last decade, which equals a rate of between 7 percent and 8 percent of the labor force employed in the social sector. These rates, however, considerably understate the total numbers seeking work in the social sector because not all workseekers use the Employment Institute. According to the institute, not more than half of all new jobs secured each year are found through its reporting system.

Fluctuations in the numbers who register for jobs are also much less than the fluctuations in employment creation. Although the growth in employment in recent

12. See D Brcžnik, "Demographic and Other Aspects of Labor Force Formation in Yugoslavia for the Next 20 Years," *Ekonomist* 1 (1969).

13. The timing of this migration was of course no coincidence, and no doubt owed a good deal to deteriorating employment prospects at home. However, the major determinant of migration abroad is probably foreign demand rather than local supply of labor.

years has far exceeded the growth in labor force, the decline in the numbers seeking
new work has been very slight. The year 1971 is a good example of this. Total
domestic employment in the social sector plus the employment found by migrants
going abroad equalled about 300,000. In the same year the growth in the labor force
was probably in the region of 60,000. If the total labor force consisted only of those
employed plus the registered workseekers, this performance should have reduced
the numbers registering for work by 240,000. In fact, the decline in registered
workseekers during this year was only of the order of 40,000, implying that about
200,000 people not initially registered entered into employment or came into the role
of workseekers during this period. This seems fairly clear evidence that there is a
substantial labor reserve waiting for new job openings in the social sector.

This pressure for employment seems to reflect a growing desire of younger
workers in the peasant sector to find nonagricultural occupations commensurate
with the changing aspirations of a rapidly modernizing society. In 1970 about 51 per-
cent of all those registering for work were registering for the first time. Further, these
rates cannot be solely due to the "bulge effect" of a rise in the number of school
leavers in the late 1960s, following the rapid expansion of enrollment (see Chart X).

CHART X

**PERSONS REGISTERING FOR THE FIRST TIME AT THE EMPLOYMENT BUREAU,
TOTAL REGISTRATION AND NONPRIMARY SCHOOL LEAVERS, 1960-70**

Persons Registering for the First Time
as % Total Registered Workseekers

Persons Registering for the First Time
as % of Nonprimary School Leavers
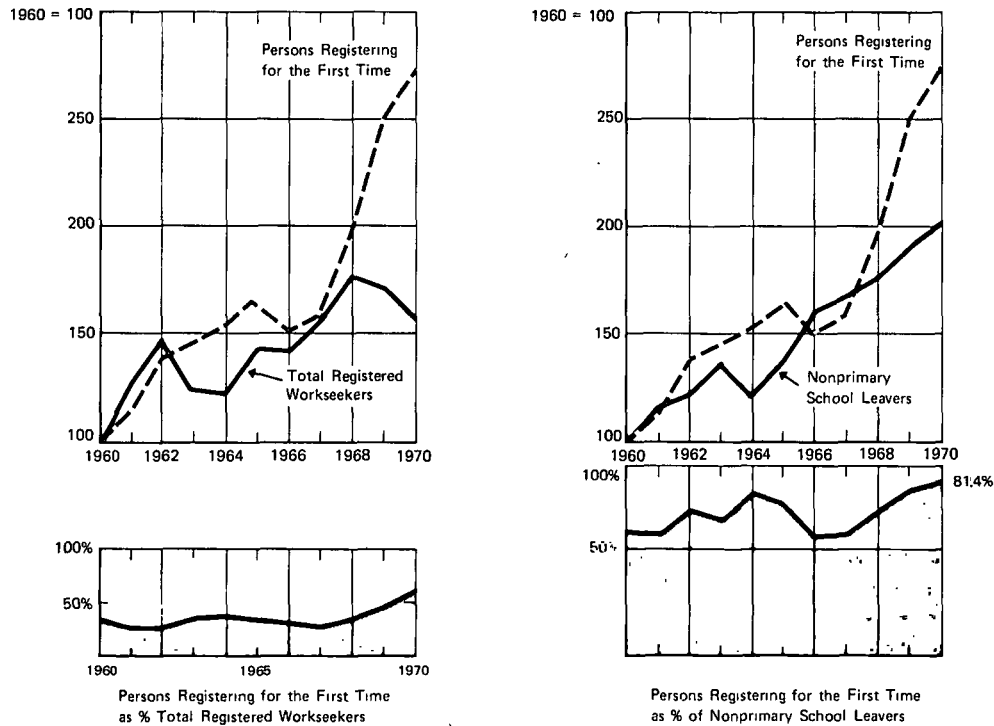
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As the chart shows, the numbers registering for work for the first time have increased much more sharply than the numbers leaving school. The "labor reserve," therefore, seems to be based more on underlying structural characteristics than on transient imbalances between labor supplies and job availability. The expansion of education as a general factor, however, has been of great importance in changing the willingness of school leavers to pursue careers in the agricultural sector.

The Attainment of Full Employment

One means of gauging the extent of a country's employment problem is to postulate the number of full-time jobs required to employ the labor force fully in all sectors over a given period. If it is assumed that in Yugoslavia those employed in the social sector are fully employed, then the number of jobs required is comprised roughly of the underemployed in private agriculture plus the total net additions to the labor force. If, for illustrative purposes, a figure of one million[14] underemployed is assumed for private agriculture in 1971, then over the period 1971–81 the attainment of full employment would require the creation of 1.5 million jobs, since the labor force will grow by about 0.5 million during that period.

The attainment of this target seems not infeasible in principle, in the light of recent rates of employment growth. If employment in the social sector were to expand by 3 percent per annum in the decade 1971–81 (which is close to current trends), this would create about 1.3 million out of the 1.5 million jobs required. However, the attainment of even this figure depends not simply on national aggregates but also to a large part on whether there is sufficient regional mobility of both jobs and labor. Further, even if "full employment" were achieved by reaching the target of 1.5 million new jobs, this would still imply that agriculture had 36 percent of the labor force in 1981. Full employment by this definition therefore would still leave considerable scope (if not need) for continued structural transformation of the economy.

The Regional Dimension

An important feature of Yugoslavia's employment problem arises from a growing imbalance between labor demands and supplies on a regional basis. Broadly speaking, the developed regions have a deficiency of labor supplies while in the underdeveloped regions, where both the existing labor reserve in agriculture is larger and population growth more rapid, the prospect is for growing labor surpluses. Even though the *rate* of employment expansion in the underdeveloped regions is more rapid than in the developed regions (2.6 percent per annum as against 2.1 percent per annum), the margin by which this exceeds the rate of growth in the labor force is proportionately less in the underdeveloped regions. Unemployment rates (i.e., rates of registration of workseekers) are much higher in the less developed regions, and during the last decade the share of these regions in total registrations increased by 3.5 percentage points, despite little change in their share of the total labor force.

The underdeveloped regions also have a significantly higher share of the labor force in agriculture, which can be taken as a general indication of a larger "labor reserve" in these regions. The differences are even more marked if account is taken

14. This figure is suggested by a current study in progress at the University of Skopje which has tried to estimate the extent of labor utilization in private agriculture.

TABLE 3.1: Regional Comparisons in Social Sector Job Creation and Growth in the Total Labor Force, 1961-71

	Social Sector		Labor Force		
	Growth Rates	Absolute[a] (Thousands)	Growth Rates	Absolute[a] (Thousands)	Ratio[b]
Developed regions	2.1	56.6	0.6	36.6	1.55
Underdeveloped regions	2.6	23.0	1.0	16.0	1.43
Yugoslavia	2.2	79.6	0.7	52.6	1.51

[a]Annually.
[b]Increase of employment as percentage of increase in labor force.
SOURCE. World Bank, Economic and Social Data Division.

of the different age structures of the agricultural labor force. Of the resident agricultural labor force in the developed regions, only 30 percent are aged less than thirty-four years, as against 52 percent in the underdeveloped regions. Since mobility out of agriculture is probably very low among those aged more than the mid-thirties, these differences signify the relatively greater "labor reserve" in the less developed regions.[15] At the current rates of job expansion, the potential in the developed regions would be absorbed within five or six years while, even assuming no further growth, that in the less developed regions would take more than twenty years. Therefore, the scope for reducing these differences without substantial migration appears limited.

This fact has been acknowledged by authorities in Yugoslavia, and the issue is given explicit mention in the plan for 1971-75. The regional development effort, too, is evidence of this concern. However, it is probably not unfair to say that the design of policy instruments intended to address this problem directly, either by stimulating interregional migration or by expanding the growth of productive employment in the poorer regions, is not yet very far advanced. Redressing this deficiency may be a prime requisite of economic policy through the 1970s.

Sectoral Employment Shares

During the two intercensal periods, 1953-71, the sectors providing most employment growth were the manufacturing industry and the tertiary sector.[16] It is interesting to note the historic shift in importance between industry and services as the main source of employment growth. In the 1950s, as the figures below illustrate, industry provided most of the growth in employment. During the 1960s this trend was

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15. The difference is most striking if Serbia proper, which in most comparisons between the regions lies close to the average, is omitted. Taking as the developed regions Croatia, Slovenia and Vojvodina would imply a total labor force of 3.6 million, 38.7 percent of which were in agriculture in 1971. This compares with 49.7 percent of a labor force of 2.5 million in the less developed regions. Despite this smaller labor force, however, the potential labor reserve in the poorer regions is much larger, both because of the higher proportion in agriculture and because of the younger age structure. Applying these two factors to the labor force in each region gives a potential labor reserve of about 380,000 for the three developed republics (i.e., 10.6 percent of the labor force) as against 590,000, or close to 24 percent, for the less developed republics.

16. In Yugoslavia such sectors as public administration, finance, education and cultural activity are listed as "noneconomic activities." These are combined here with the other services (transport and communications, and trade and catering) to give the total tertiary or services sector.

reversed. Moreover, the current prospects are for the services sector to absorb an increasing proportion of the total labor force, both in response to changes in the structure of demand as incomes rise and as a result of the adoption of increasingly capital-intensive techniques in industry.

TABLE 3.2: Employment Shares and Expansion of Employment in Industry and Services

	Employment Shares			Growth Rates			
				1953–61		1961–71	
	1953	1961	1971	(%)	(Thousands)	(%)	(Thousands)
Industry	7.5	13.5	18.7	8.4	536	3.1	403
Services[a]	8.2	12.9	18.6	6.6	427	4.1	457

[a]Includes noneconomic activities.

SOURCE: See Statistical Annex, Table 1.9.

These changes to some extent reflect a positive policy choice. Industry, the sector producing "tradeables," is to be geared for foreign competition by modernizing and importing new equipment and techniques, often from the West where labor saving is the bias in innovation. This sector is thus to pursue high productivity and income growth. Employment generation is to be looked for in the services sector. It has to be observed that this "two-pronged" approach has not worked too badly in the past, as the significant rates of employment growth achieved in recent years would suggest. Further, it is also evident that although the services sector has absorbed increasing shares of labor, this seems not to have been in "marginal" low income activities, representing an expansion of underemployment in this sector. Statistical Annex Table 1.19 shows that of all employment created in services in the period 1951–70, close to 64 percent has been in activities with an income above the average. This picture, contrary to that found in many less developed countries in which service activities expand to absorb the oversupply of urban labor, suggests that employment growth in tertiary activities has been largely demand determined. Thus, questions of possible sectoral imbalances in employment generation are not a major issue in Yugoslavia. What does remain a question, however, is whether the rates of both employment and output growth achieved, in fact, represent a reasonably efficient use of capital.

Employment-Productivity Relationships and Investment Efficiency

There is some evidence that the new so-called intensive development strategy has brought higher labor productivity in the social sector somewhat at the expense of capital productivity. This is clear from Chart XI which shows that the process of capital deepening which accelerated rapidly after 1964 was accompanied by an increase in the capital output ratio. The relative contributions of employment and productivity increases to the growth in social product by sectors support this conclusion (see Table 3.3). In the social sector, the relative contributions of employment expansion and productivity growth are reversed between the periods 1953–61 and 1961–71. Whereas employment growth accounted for 64 percent of output growth in the

CHART XI

GROWTH IN CAPITAL OUTPUT, CAPITAL LABOR AND LABOR PRODUCTIVITY RATIOS
(SOCIAL SECTOR ONLY)
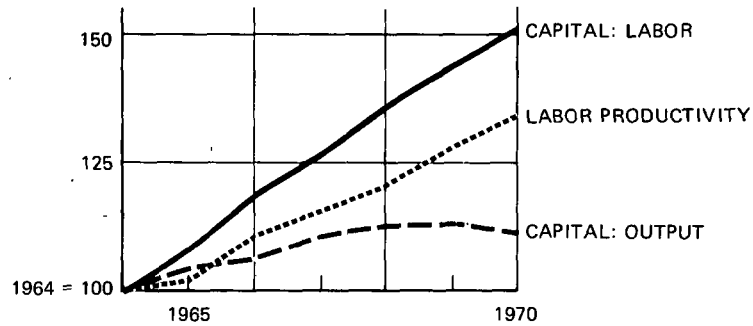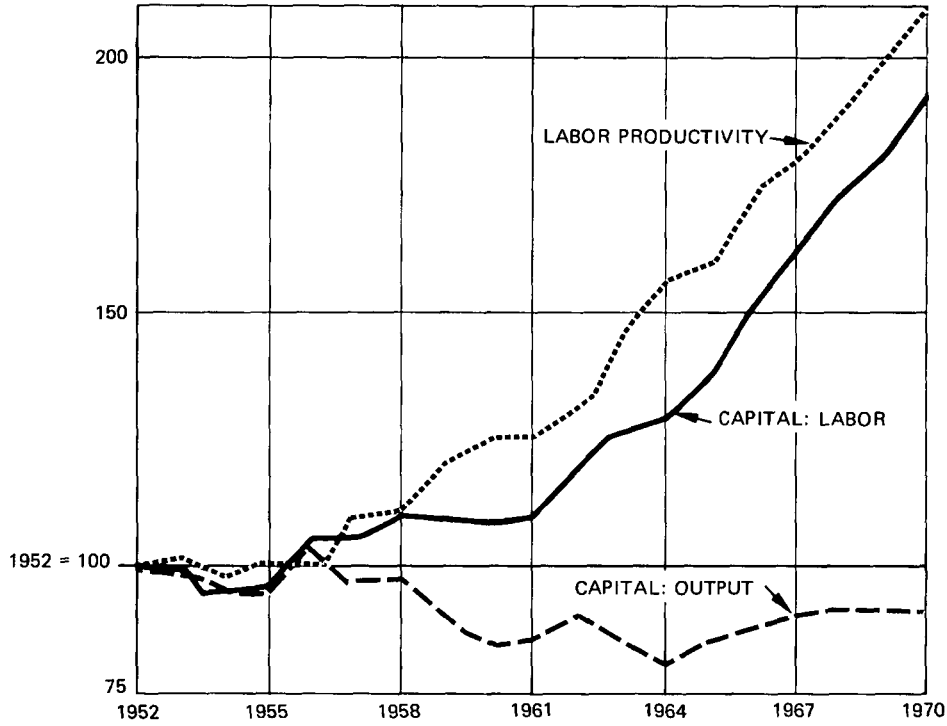
AVERAGE ANNUAL GROWTH RATES			
%	1952–70	1952–64	1964–70
CAP OUTPUT	− 0.66	− 1.52	2.20
CAP LABOR	3 94	2.24	7.20
PRODUCTIVITY	4.2	3.8	5.1

SOURCE. Capital Stock Data: "Fixed Assets of the Social Economy, 1952–60."
Federal Statistical Institute, Belgrade Employment and Output Data. *Statistički Godišnjak, Jugoslavije.*

World Bank-6337(2R)

former period, it contributed only 21 percent in the later period, with labor productivity making up the difference. During this second period, however, the contribution of capital productivity to output growth in each of the main industries of the social sector (Table 3.4) was negative. This evidence suggests the need to examine the merits of the increased capital intensity and to investigate possible means of improving the efficiency of capital investments.

TABLE 3.3: Contribution of Factors to the Growth in Social Product in the Private and Social Sectors

	Increments 1953-61 (1953=100)	Increments 1961-71 (1961=100)
Total economy		
Social product	181.1	195.1
Employment	106.3	99.4
Productivity	170.4	196.3
Social sector		
Social product	219.0	216.3
Employment	176.6	124.4
Labor productivity	124.0	173.8
Private sector		
Social product	123.3	137.7
Employment	80.6	85.2
Productivity	153.0	161.7

SOURCE. *Statistički Godišnjak, Jugoslavije.*

There are several biases, apart from the socially declared goal of modernizing the production structure, which systematically tend to favor the shift toward capital intensity. To the extent that this shift has caused a decline in the productivity of capital, these factors could be viewed as distortions whose removal or modification would improve on this situation. These biases can be grouped broadly into three kinds; a) those resulting from the workers' management system; b) those resulting from the capital pricing and allocation procedures; and c) those which result in poor capital utilization.

(a) *Decision Making under Workers' Management.* Theoretical treatments of the economics of worker-managed enterprises have shown that for enterprises seeking to maximize value added per worker (rather than a residual profit after payments to labor), the rational objective is to maximize the productivity of the work force currently in the enterprise.[17] Increasing the stock of capital per employed worker, i.e., capital deepening, seems precisely to have been the path chosen to achieve this objective. To some extent this reflects an environment in which improvement of efficiency and modernization have been equated more with mechanization and the importation of new equipment than with the improvement of the quality of human capital involved in production. More emphasis on the latter may be one way to achieve the enterprises' objectives by raising both capital and labor productivity.

17. See, for example, J. Vanek, *The General Theory of Labor-Managed Market Economies* (Ithaca: Cornell University Press, 1970).

TABLE 3.4: Contributions of Productive Factors to the Growth in Value Added in the Major Divisions of the Social Sector

	Increments 1953–61 (1953=100)	Increments 1961–71 (1961=100)
Industry		
Value added	225.0	242.8
Employment	190.5	135.7
Labor productivity	133.8	178.9
Capital productivity	115.3	94.9
Construction		
Value added	167.9	191.8
Employment	131.6	108.3
Labor productivity	127.5	177.1
Capital productivity	80.2	68.8
Services		
Value added	233.4	200.9
Employment	174.5	135.0
Labor productivity	133.8	148.8
Capital productivity	155.5	88.0
Agriculture		
Value added	128.8	135.8
Employment	87.5	84.4
Labor productivity	147.1	160.8
Capital productivity	46.5	71.0

SOURCE. *Statistički Godišnjak, Jugoslavije.*

(b) *Capital Pricing and Allocation.* As in many other countries, there are distortions in the pricing of capital in Yugoslavia, both absolutely and relative to the cost of labor, which may well have increased capital intensity of production.[18] These distortions arise through historically fixed interest rates, often negative in real terms; through too heavy an influence of founder members on the banking system which may have favored large over small borrowers; through some other valuation of the exchange rate making capital (labor saving) imports relatively cheap; and through excessive elasticity in the maturity structure of enterprise debt, which allows easy deferment of loan repayments, thus further cheapening investment credits in real terms. Added to this is a fiscal distortion which bases enterprise contributions on the number of workers employed rather than on some other criterion. This introduces a "cost" of using labor, whereas enterprises do not normally conceive of labor costs as such at all. It is true, recent steps have been taken to redress each of these distortions.

18. It is not just that when capital is cheap producers tend to choose, out of an assumed range of possible techniques and equipment, those which embody more capital. No doubt this happens to some extent, but in practice the choice of techniques is often probably quite limited. What may happen, however, is that cheap capital may accelerate the equipment replacing process, thus incurring increasing capital intensity. This probably causes some capital wastage to the extent that the distorted low price of liquid capital shortens the economic life of existing equipment more rapidly than its physical life Obsolescence is thereby prematurely accelerated.

Domestic interest rate ceilings have been abolished, successive devaluations have been implemented since the early 1960s, and measures are currently being devised to tighten up debt repayment and penalize "financial irresponsibility" among firms which overinvest or are otherwise inefficient. Fiscal reform is also being planned to shift the burden of social contributions more evenly between capital and labor in the enterprise. However, all these measures (devaluations apart) are quite recent and it remains an issue as to how successful they will be in improving investment efficiencies.

(c) *Capital Utilization.* Underutilization of productive capacity is one possible explanation for rising capital output ratios in recent years. This phenomenon is itself not really a distortion so much as a reflection of other distortions in the system. The Federal Institute of Planning in Yugoslavia has claimed that underutilization has resulted in Yugoslavia from imbalanced linkages in industry between industries producing intermediate inputs and those producing final outputs, from shortages of imported inputs, from plant duplication in limited markets and from a relatively low rate of multiple shift working relative to world standards, particularly in the non-processing industries. Using a formula which combines the methods of two alternative measures of excess capacity, the institute has estimated that average utilization of industrial capacity is 7 percent to 10 percent below an assumed maximum 85 percent.[19] Accordingly, it postulates an increased utilization of this shortfall in the plan period 1971–75 which, if achieved, would increase the rate of capital productivity by about 1.5 percent per annum. Details are less explicit, however, on how this increase is to be achieved. To a great extent this will devolve around the success of the measures to tighten capital pricing and allocation mentioned in (b) above.

Investment Efficiency in Industry

It is true (see Table 3.4) that the decline in capital productivity has been significantly less in industry than in other sectors of the economy. Nevertheless, the scope for improving both the employment and output efficiency of investments is in principle greater in this than in other sectors, because industrial outputs are often tradeable and hence substitutable one for another. This is unlike, for example, the outputs in construction and the services sector which are by nature nontradeable. In these sectors the employment and output mix of investments rests largely on the possible choice of techniques available, and in many cases those techniques using more labor will carry a cost in output efficiency. In industry, although a similar choice applies, there is also a social option of changing the industry mix of investment to give different combinations of employment and output generation per unit of investment. In this case, the question which arises is whether the choice of an investment mix which favors industries using relatively more labor would in general tend to imply lower output yields, i.e., the question is whether there is a "trade off" between employment and output at the margin of investments.

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19. Attempts to measure the degree of capacity utilization are often controversial, and the present case is no exception. The methods used by the Institute of Planning, according to their nomenclature, are: (a) the "intensive" method: a comparison of actual annual output with the output which would have been achieved had the rate of production throughout the year continued at the same rate as in the peak months, assuming no change in employment from the peak month; (b) the ratio of the actual number of man-hours worked by sector to the highest number worked, according to world averages for the sector.

This issue has been examined in Yugoslav industry by ranking the industries according to both the factor productivity and the investment cost per job in each industry. This ranking is given in Table 3.5. There appear to be four groups of industries defined having high or low factor productivity and employment generation per unit of investment.[20] The industries in Group I reveal both below average employment

TABLE 3.5: Investments, Employment Growth and Productivity in the Manufacturing Industry, 1967-71

(%)

	Share of Invest-ments[a]	Share of Employ-ment Increase[b]	Share of Total Employ-ment in 1971[b]	Cost Per New Job (Thousands of US$)[c]	Average Productivity[d] (Shipbuilding = 100)
Group 1: *High Employment, High Productivity*	17.9	52.0	38.9	5.7	71.7
Metal industry	7.2	28.0	19.4	4.3	64.3
Shipbuilding	1.0	1.9	1.6	8.4	100.0
Electrical industry	2.9	9.4	6.2	6.2	72.9
Leather	0 9	4.0	3.3	4.8	56.6
Food processing	5 9	8 7	8.4	4.9	64.8
Group 2: *High Employment, Low Productivity*	8.4	19.6	24 3	6 9	39.2
Wood industry	3.4	6.0	8.8	7.0	32.3
Textiles	5.0	13.6	15.5	6.9	46.1
Group 3: *Low Employment, High Productivity*	10.5	11.4	6.9	26.8	82.2
Petroleum industry	3.1	2.7	1.2	61.1	62.5
Chemicals	7.4	8.7	5.7	12.5	94.2
Group 4: *Low Employment, Low Productivity*	54.9	17.0	20.9	30.5	38.4
Electrical energy	24.6	3.0	2.9	97.1	39.0
Ferrous metallurgy	11.8	3.9	3.7	18.0	21.5
Nonferrous metallurgy	9.8	2.2	3.6	37.3	39.6
Nonmetallic minerals	2.2	2.8	3.0	11.2	48.6
Construction materials	4.0	1.6	4.5	24.2	48.2
Paper industry	1.9	2.2	2.0	14.9	21.1
Rubber industry	0.6	1.4	1.2	11.1	50.8
Other Sectors	8.3	—			
Total	100.0	100.0		—	—
Average	—	—		22.9	59.3
Median branch				11.1	48.6

[a]Investments are defined as the increments to fixed assets, as shown in Table 106.7 of *Statistički Godišnjak, Jugoslavije,* 1973.
[b]From Table 104.2, *Statistički Godišnjak, Jugoslavije,* 1972.
[c]Defined as the investment (as in a above) required for each new job created.
[d]The productivity term is $\frac{Y^2}{K.L.}$ where:

Y = average value added in constant prices over the period (Table 105.1, *Statistički Godišnjak, Jugoslavije,* 1972).
K = average fixed assets over the period.
L = average employment over the period.
The formulation, of course, implicitly assumes a production function defining the relative weights of capital and labor as they combine in production, which is not made explicit here. The implicit weighting assumed here is that one unit of capital (US$1) has the same weight as one man employed Unless the "real" weights are radically different between sectors it would not affect the relative ranking of sectors in the table.

20. "High" and "low" defined as being above or below the average for the whole of the manufacturing industry.

costs (i.e., high employment) and above average productivity, yet these have collec-
tively received only 18 percent of industrial investments in the period 1967-71. In
contrast, 55 percent of the total investment in industry was allocated to Group 4 of
Table 3.5, all of which have reflected both less than average factor productivity and
low employment generation per unit of investment. This implies, in principle, that
switching investments at the margin from Group 4 to Group 1 would have raised
both employment and productivity, i.e., there would have been no trade off between
output and employment generation.[21]

This analysis should not of course, be read too simply. It is not implied that Group
4 is "bad," and Group 1 "good." Nor is it implied that Group 4 industries are dis-
pensable—many produce inputs into other industries, and are obviously not so.
Moreover, price distortions may in some cases be responsible for apparent produc-
tivity differences. What the table suggests, however, is a need to clarify the reasons
for allocating such a large share of industrial investments to industries whose perfor-
mance, in terms of both employment and productivity criteria, appears considerably
less beneficial than in several others of the sector.

It is, of course, quite clear that production structures cannot be switched merely by
changing the pattern of investments. The structure of demand must respond to the
changes if the final outcome is not simply to create excess capacities. What this anal-
ysis suggests, therefore, is that an examination be made of the demand potential for
the outputs produced by the industries in Groups 1-3, especially in Group 1. On the
surface, since industries in Groups 1 and 2 produced 54 percent of total exports in
1970, and since domestic demand for these products should also grow rapidly as in-
comes rise, it would seem that demand should not constrain such a proposed shift in
output mix. Expanded investments in this group of industries, therefore, may well
prove beneficial in raising both output and employment growth.

Regional Investment

Yugoslavia's commitment to regional development does involve a negative "trade
off" both in overall output and employment, because the average cost per job is
higher and the average productivity yield lower in the underdeveloped regions.
These differences are too large—generally more than 20 percent in all sectors—to be
explained by price distortions alone. General productive inefficiency, which after all
is the mark of underdevelopment, is probably the root cause of this. What is disturb-
ing is that in the social sector, the major determinant of average income levels, the
productivity differential, has widened during the period 1961-71.

The Development of the Private Sector

The fact that most of the foregoing discussion focuses on the issues related to
employment and income generation in the social sector, i.e., in nonagricultural ac-
tivities, to some extent reflects the policy bias of development planners in
Yugoslavia. The stated objective is to develop the social sector; the private sector,
consisting largely of peasant farmers, has been viewed as something of a residual sec-
tor which provides the labor pool required for industrial growth. Up to now no major

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21. Similarly, allocations from Groups 2 and 3 to Group 1 would have raised either total productivity or
employment, as the case may be.

national effort has been mounted to secure improvements in the efficiency of the private sector of the economy. There is not even a clear conception of the extent to which this sector should itself be the subject of substantial development assistance, rather than simply be left to fulfill its residual role in a convenient dualism. However, any comprehensive attempt at rationalizing Yugoslavia's employment and income structures cannot ignore this sector, since it employs close to half the labor force, mostly at low incomes.

Because of its rural location, its unorganized structure and its institutional separation from the rest of the economy, information on this sector is much less developed than for the social sector. Thus, it is difficult to describe developments in the sector, far less to offer prescriptions for improvements, without giving it special study. Some attempt at this has been made in other parts of the report. It is sufficient here to note the importance of the sector as the major component of the employment problem, whose amelioration can at best be only partially made by generating employment in the social sector. Recent moves in Yugoslavia to institutionalize a line of development assistance to small farmers are to be encouraged.[22]

Employment Policy

In Yugoslavia employment policy is not the specific preserve of any ministry or government agency. It is true, the Federal Secretariat for Labor and the Federal Institute for Employment are charged with the responsibility of organizing and administering the labor market and other labor-related issues. These agencies, however, do not have responsibility for deciding upon the key macroeconomic conditions which govern the pace of employment expansion in the modern sectors of the economy. These conditions are decided by those agencies governing the economy's finance, banking, prices, and planning etc. At the level of strategy therefore, employment policy emerges as a residual to the formulation of economic policy in general.

The central issue in employment policy is how to reconcile a strategy of "intensive" (i.e., capital-intensive) development of the modern sector of the economy with the need to use capital more sparingly per worker, in order to create more job openings for those wishing to leave the peasant sector. This conflict has to some extent been heightened by the fact that the institutional framework of decision making, including government, enterprises and trade unions as well as the macroeconomic institutions, all tend to be devised to serve the interests of the modern sector itself, whereas the employment problem is essentially an intersectoral issue.

The authorities, however, recognize the nature of the problem and have responded to it, to a degree. Recent revival of interest in accelerating the development of the peasant sector is part of this response. There have also been attempts to improve the effectiveness of the Institute of Employment labor placement system, particularly on an interregional basis. In addition, there have been laws passed aimed at stimulating employment growth. A summary follows of some of the main measures adopted.

(a) *The Law of Apprentices*. This law, implemented in 1966, represents the first attempt by the Federal Government to influence employment directly since 1950. (This law no longer exists as a Federal Statute, but has been passed into the Statutes of the Republics and Autonomous Provinces.) It states, in the light of growing rates

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22. This report was written before the adoption of the Social Agreement on Agriculture (the so-called Green Plan), a development which precisely aims to build a consolidated policy for agriculture, and to take account of some of the needs mentioned above

of unemployment among young graduates, that all enterprises recruiting labor have to include a stated proportion (varying in each republic) of first-time workseekers in their locality, in each category of skill being recruited. The latter undergo a training-cum-probationary period. Although they need not finally be permanently employed by the firm, about 30,000 out of the 50,000 so far employed by the law have remained in their first job. One purpose of the law is to break a recent tendency for "closed shop" attitudes to develop within the workers' council system which, in some cases as described above, has tended to restrict access to new employment in social enterprises. This should not be interpreted to imply that the workers' councils were the main cause of declining employment growth. Development strategy since 1965, after all, had emphasized productivity growth over employment growth. To some extent the councils' actions were merely an extension of this policy.

(b) *The Law against Overtime.* The Federal Law of Working Relations established that overtime work can only be undertaken in emergency situations or where the viability of an enterprise is in jeopardy.[23] Enterprises engaging overtime work outside these limits pay a mandatory tax penalty on the overtime wage bill at rates higher than the standard contributions to social funds. The law contains flexibility to allow for operations in which seasonality or sharp peaks in labor demand occur, and is generally applied such that penalties arise only if over the working year the average working week of employed labor in an enterprise exceeds that standard working week (forty-two hours in 1972). The law, of course, has not eliminated overtime which in 1970 still stood at fifty-five hours a year, but it has reduced it from a figure of seventy-nine hours in 1964.

(c) *The Law on Part-Time Work.* The law on overtime of itself may not guarantee that employment will expand correspondingly to the reduction in overtime worked. But the combined effect of this law, and that which prevents an enterprise from allocating short-term special tasks to its existing staff or to staff already employed elsewhere, if there is local unemployed labor which could perform the task, has certainly increased the amount of work-sharing to some degree. Here again, defaulting enterprises pay a fiscal penalty. This law was initiated in Macedonia but is proposed for other republics as well.

(d) *Multiple Shift Working.* There are various reasons, common to those found in many countries, why multiple shift work is not widely practiced in Yugoslavia. Apart from some degree of limitation from the market demand for produced goods, and to some lack of raw material inputs, a major reason for this has been that differentials paid to second and third shift workers have made operations expensive. There is thus a move in some republics to introduce a system of shift rotation in which all workers will for some time work outside the first shift, so the need for high differential payments (which have involved an increment of 30 percent to 40 percent) will be avoided. Although conditions vary between different branches, the average number of shifts in manufacturing as a whole is significantly less than in Europe.

(e) *Labor Mobility and Relocation.* One important aspect of the policy of liberalization instituted in 1965 has been that of allowing the free movement of manpower abroad. This policy continues, with some possible modifications. There is a growing desire to stabilize the total number of Yugoslavs temporarily abroad by encouraging

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23. The Federal Law has now been replaced by counterpart republic laws. Note that the laws on part-time work and shift working ([c] and [d] in the text above) were not separate laws, but separate parts of the General Law of Working Relations.

the return of about the same number of workers leaving each year. At present the net outflow is still substantial. The problem of regional imbalance in labor supplies and demands which is the domestic aspect of the labor mobility problem is admittedly relatively new. It is, however, a major problem to be faced in the 1970s. At present, lip service to the ideal of the "unity of the market," statements about the ultimate collective unity of all Yugoslavia's nationalities, and some recent attempts to improve interregional information flows through the Institute for Employment constitute the only positive means of stimulating the relocation of labor. These efforts, it is true, may serve to state intentions, clarify policy and generally improve the environment for enhanced interregional migration. It seems unlikely, however, that any substantial impact on this problem could be achieved by these means alone. More efforts could be geared to raising the employment content of investments in the less developed regions, as well as to raising the quality of their labor force. Possibly, an expansion of technical and vocational training in the less developed regions (which some are already planning) may provide the only relatively sure means of giving surplus labor in these regions the chance of moving to better jobs in other regions or abroad.

(f) *The Limits to Employment in the Private Sector.* Following the recent constitutional changes, the republics established the number of nonfamily workers that can be employed by private enterprises. The republics are discussing the possibility of raising the present limit of five nonfamily workers. Some have argued that raising the limit will serve as a possible stimulant to private sector investment and employment growth, but it is not clear whether in fact this is justified. In some republics the average private sector employment rate per enterprise has been significantly lower than the legal limit, suggesting that the latter has not been a constraint.[24]

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24 In 1970, 141,700 private handicraft establishments employed 188,000 persons, of which 44,000 were nonfamily workers.

CHAPTER 4

INCOME DISTRIBUTION AND SOCIAL WELFARE

Incomes and Income Distribution

The growth in personal incomes, both absolutely and as a share of the social product, has been a major characteristic of Yugoslavia's development since the mid-1950s. Table 4.1 shows this evolution for incomes in the social sector. These developments, which have raised the share of consumption in total expenditures and have led to significant changes in demand structure, have also had an important influence on the stability of the economy. Very rapid increases in money earnings, very much more rapid than the growth in labor productivity, have provided a strong "cost push" element to the inflation of domestic prices. Increases in real earnings, too, have exceeded the growth in labor productivity, signifying the change in factor shares. This in turn has led to some decline in the saving and accumulation ratios, issues which are dealt with elsewhere in this report.[1]

Income Distribution

In keeping with the socialist ideal, the growth of personal incomes in postwar Yugoslavia has been achieved with relatively low degrees of income concentration. To some extent this is noteworthy, since both the income dualism between the social and peasant sectors and the disparity in incomes between different regions are quite wide, and have increased in recent years. The explanation for Yugoslavia's relative income equality seems to lie in the fact that there is no private ownership of large productive assets, so profits cannot in general be earned by individuals. While in the capitalist system the functional distribution determines the share of profit incomes as against wage incomes, under the workers' management system the functional distribution essentially determines the share of all personal incomes on one hand as against allocations to capital on the other. Since capital is socially not privately owned, the latter's share, no matter how large, does not affect personal incomes directly but goes into investment. Since the share that does go to personal incomes is distributed to individuals on the basis of relatively restricted criteria regarding differentials, the overall system tends to prevent the emergence of minority groups earning very high shares of total income, as is found in many developing countries.

Given this general framework, the subject of income distribution in Yugoslavia cannot be addressed the same way as in many other World Bank member countries. Nevertheless, the subject is an important social issue in Yugoslavia which receives the attention of social commentators concerned with such things as earning differentials between individuals and between regions. One key aspect of the debate which has received increasing emphasis in recent years relates precisely to the functional determination of the accumulation ratio on one side and personal incomes on the other.[2] It is very often this subject, rather than that of the degree of overall concen-

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1. The major determinants of increases in money earnings in Yugoslavia appear, from regression analysis, to be: (a) labor productivity increases; (b) price increases; (c) institutional factors determining the share of value added going to labor. See Appendix B on personal income formation.

2. A discussion of the "social agreements" whereby these are to be determined for each republic is given in Chapter 9.

tration of personal incomes, which is implied by the term income distribution in Yugoslavia. This confusion is to be avoided because it implies that distribution questions relate only to incomes within the social sector. The more important question, of the distribution of incomes as between the social and peasant sectors tends too often not to be addressed at all.

TABLE 4.1: Evolution of Average Personal Incomes

	Average Annual Growth Rates			
	1952–56	1956–60	1960–65	1965–71
Whole economy [a]				
Nominal earnings	6.5	14.3	20.5	19.0
COL increase	5.6	4.7	13.8	11.3
Real earnings	0.9	9.6	6.7	7.7
Economic activities				
Nominal earnings	3.0	17.2	21.0	19.0
Real earnings	−2.6	12.5	7.2	7.7
Noneconomic activities				
Nominal earnings	9.6	11.4	17.1	18.4
Real earnings	4.0	6.7	3.3	7.1
Industry				
Nominal earnings	8.1 [d]	14.6	23.0	18.9
Real earnings	2.5	9.9	9.2	7.6
Social product (real) [b]	5.9	14.1	9.2	7.2
Productivity increase [c]	1.7	6.2	5.8	5.4
Ratio of growth in earnings to growth in social product [b]	0.15	0.68	0.73	1.07
Ratio of real earnings' increase to growth in productivity	0.53	1.55	1.16	1.43

[a] Persons employed in the social sector only.
[b] Social sector only.
[c] Social product in economic activities + employment in economic activities.
[d] 1954–56.
SOURCE. *Statistički Godišnjak, Jugoslavije.*

Global Income Concentration. The Household Budget Surveys conducted in 1963 and 1968 provide detailed and apparently sound information on the size distribution of household incomes by republics and for the major economic sectors. Three initial observations can be made on the basis of these studies about the degree of income concentration, the apparent change in concentration over time and the differences between household and individual incomes.

(a) *The Degree of Income Concentration.* Table 4.2 shows gini ratios of around 0.30 for household incomes and around 0.20 for equivalent individual incomes for all Yugoslavia.[3] These ratios reflect a distribution of household incomes such that the upper 5 percent of the population receive about twice the total share of the lowest 25 percent. There are some differences in concentration between different types of households, but these are not very striking. Mixed households tend to be the most homogeneous, having the lowest degree of concentration of both household income

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3. The concept of "individual" used here is that of "consumption unit" as defined in the surveys. The standard consumption unit is a male of age twenty to sixty doing medium hard work (in an enterprise) and having an average calorie intake of 2,800 a day. Variations of this formula are applied to females, or different age groups doing different types of work, to give a standardized equivalent. The concept is thus close to a concept of "worker unit" and is therefore used to derive from household data the structure of individual worker equivalent incomes.

and average individual incomes. The differences between the republics are also not very marked in terms of the gini ratios (see Statistical Annex Table 9.21), although there is more dispersion if a comparison is made between the ratios of income shares of the upper 5 percent and lowest 25 percent. Chart XII shows this dispersion plotted against per capita income levels for each republic/province in 1968, in an effort to discern whether any systematic relation exists between income concentration and the level of income. The data are not very convincing, but drawing a line from Macedonia to Slovenia they do suggest a general reduction in dispersion as incomes rise.[4] Yugoslavia has an above-average degree of dispersion for all the republics because it is also dependent on the dispersion between as well as within the republics.

TABLE 4.2: Coefficients of Concentration of Household Income by Types of Household[a]

	Household Income		%	Standardized Household Income[b]		%
	1963	1968	Change	1963	1968	Change
All households	0.32	0.34	6.25	0.22	0.24	9.09
Nonagricultural households	0.32	0.34	6.25	0.22	0.25	13.64
Mixed households	0.26	0.28	7.69	0.17	0.21	23.53
Agricultural households	0.31	0.32	3.23	0.17	0.18	5.88
Workers' households	0.27	0.28	3.70	0.22	0.24	9.09

[a] Gini coefficients.
[b] Standardized for number of "consumption units" per household.
SOURCE· Estimated from Household Budget Surveys, 1963 and 1968 (Belgrade, Federal Institute of Statistics).

(b) *Changes in Concentration 1963–68.* The surveys also show that over the five-year period, concentration does appear to have increased, though not very markedly (a 6 percent worsening by households, 9 percent by individuals).[5] This trend appears in all types of household groupings, but is strongest in mixed and nonagricultural households. Too much significance should not be placed on these trends because they are not very marked and could well reflect the impact of cyclical factors operative over what is a relatively short time span.[6] Nevertheless, since the data are consistent with other information showing increased dualism, both between high and low income republics/regions and between urban and rural sectors, they may be taken to serve as something of a warning that policies designed to redress these dualisms may need strengthening.

(c) *Household and Individual Incomes.* Contrary to experience in many developing countries where household incomes tend to be more evenly distributed than individual incomes, in Yugoslavia the reverse is true. Individual incomes are much less

4. Other observers have interpreted the data as showing consistency with a "U" shaped evolution of dispersion over different income levels. This approach holds that both low and high income regions will exhibit relative equality while the regions in transition will be more unequal.

5. These estimates are all broadly consistent with estimates made in a recent study by Dr. B. Sefer of the Institute for the Study of Standards of Living entitled *Social Development in the Self-Managed Society* (Belgrade: Institute of Political Studies, 1971).

6. The data are of course now nearly five years old. The 1973 Household Survey which should become available in 1974 will provide a sounder basis for assessing the secular behavior of these distributions.

CHART XII

INCOME CONCENTRATION AND PER CAPITA INCOME OF REPUBLICS, 1968

INCOME SHARE
OF UPPER 5%
AS % OF
LOWEST 25%

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200 ┌─
    │
    │              ● MACEDONIA
    │                        ● YUGOSLAVIA
    │
    │
    │                     ● SERBIA PROPER
    │              ● BOSNIA —
    │                HERZEGOVINA
    │
150 ├─     ● KOSOVO
    │                              ● CROATIA
    │                              ● VOJVODINA
    │
    │              ● MONTENEGRO
    │
    │                                   SLOVENIA ●
    │
    │                                              PER CAPITA
    │                                              INCOME IN
100 └──────┴───────┴───────┴───────┴───────┴─── US$, 1970
         200     400     600     800    1000   1200
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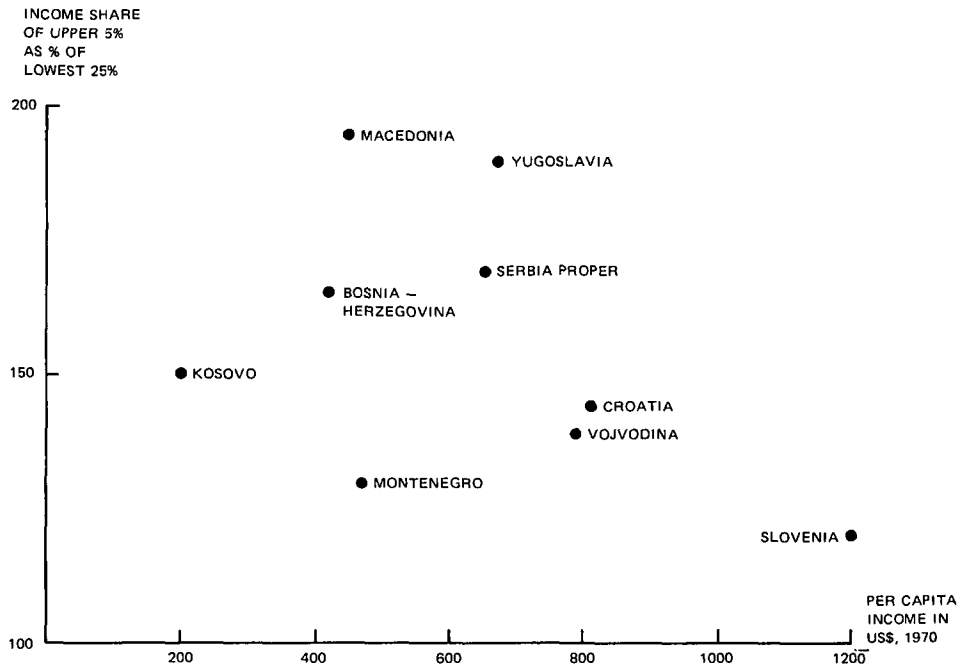
    SOURCE   Household Surveys and Statistical Yearbooks

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concentrated than are household incomes. No satisfactory explanation for this evidence has yet been given. Part of the reason seems to be that there is a positive correlation between the size of household and the total household income: larger households have a greater number of employed workers, therefore a greater household income pool. However, the correlation is still maintained when households are standardized for household size, i.e., the average income per household member is higher in larger households.[7] This is not an unimportant issue; for one thing it affects the policy approach to development, particularly in the less developed regions. Conventionally, it has been assumed that high fertility, large families and poverty are inevitably joined as covariables. Though substantiated by observation between regions, this view may be too simple when analyzing subgroups within the poorer regions. This is an obvious area for more research.

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7 This should not be confused with the tendency for household size in the poorer regions to be larger as a result of higher fertility rates. Within any income group, the average size of household becomes greater as a comparison is made between Slovenia and Kosovo. Within each republic, however, it is also clear that family size increases with income groups. For Yugoslavia as a whole in 1968 the average size of household was four members. The average for the four lowest income groups, however, was three while that for the four highest was 4 6. This tendency is the same for each type of household, agricultural, non-agricultural and mixed. It is possible that the positive correlation is partly the result of age differences, younger families generally being smaller and being in the lower income brackets.

Changes in Absolute Incomes

Emphasis on relative income shares should not detract from the trends in absolute income levels over time. The policy significance of an increased concentration of income may be much less if it occurs with still significant growth in incomes among the poorest groups. To some extent this is the situation in Yugoslavia over the period studied. Estimates based on the survey data (see Table 4.3) show that real individual incomes of the poorest 40 percent of the population grew by 3.26 per annum over the five-year period, which by some standards would be regarded as a fair achievement.[8] Nevertheless, it is also true that there is a distinct correlation along the income profile in Yugoslavia between income levels and income growth. Growth rates in the incomes of those in the upper 10 percent are more than double those in the bottom 40 percent. This is not surprising as it is exactly a reflection of what economic dualism means: peasant sectors are by nature relatively stagnant in terms of income growth. This fact, however, forms the substance of Yugoslavia's development problem which is precisely that of eradicating the dualism. The above disparities in income growth provide one possible measure of the distance still to be travelled along that path.

TABLE 4.3: Growth Rates in Real Average Incomes in Selected Percentiles 1963–68, by Types of Households in all Yugoslavia (Annual % Increases)

	Standardized Household Incomes[a]			
	Average	Top 10%	Bottom 40%	Middle 50%
All households	4.8	6.9	3.2	4.8
Nonagricultural households	6.1	9.7	3.2	5.1
Mixed households	3.5	7.4	2.3	2.2
Agricultural households	3.2	4.6	3.3	3.2
Workers' households	5.9	9.8	5.3	4.2

[a]Standardized for changes in size of household.

SOURCE: Estimated from Household Budget Surveys, 1963 and 1968.

Peasant Income Growth. Data from sample surveys of peasant households conducted each year tend to confirm the picture of slow real income growth in this sector, showing even lower rates of growth (2.2 percent per annum 1961–70) than those reflected for the poorest 40 percent in the 1963–68 surveys (see Table 4.4).[9] If this is an accurate figure for average income growth over the whole 1961–70 decade then, given that there is some unevenness in the distribution within the peasant sector, this rather low rate must imply that a significant proportion of the peasant population probably enjoyed very little income gain over the period. Further, Table 4.4 shows that most of the income gain came not from agricultural income expansion, which for the decade as a whole grew by less than 1 percent, but from an increase in off-farm enterprise employment. In 1970 this form of income comprised 25 percent of

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8. Money incomes are deflated by the general cost of living index.

9. In principle, the data in the two sets of surveys should be consistent, but in fact the same coverage is different. The surveys of peasant households are much less detailed and cover a much smaller sample. They also seem to reflect systematically higher peasant incomes than those found in the 1963 and 1968 surveys.

total peasant incomes, while agriculture accounted for less than 35 percent. This tends to support the view that peasant farm operations represent a large relatively neglected area of economic advancement, contrasting with the rapid gains made in the urban economy.

In the nonagricultural private sector, incomes have been favorably influenced in recent years by a diversity of factors, including a growth in tourism from abroad and a growth in demand for service activities (automobile repairs, for example) and for private home construction.

Regional Income Distribution

The development of incomes on a regional basis over the period 1953–71 is characterized by increasing disparity both in per capita incomes, and in income shares between the developed and the underdeveloped regions taken as a whole. It seems that this does not reflect results commensurate with the stated goals of the Yugoslavia planning authorities, who aimed at a significantly greater incomes' growth in the less developed regions during the latter half of the 1960s. Particular attention seems called for in the case of Bosnia-Herzegovina, Kosovo and, to a lesser extent, in Montenegro.

Factors Affecting the Change in Income Distribution

From the simple analysis conducted in this section, with some additional references to evidence found elsewhere, it is possible to identify several major changes in income structures which will have influenced the overall distribution of personal incomes in recent years. These movements have not all been in the same direction. Some will have implied greater, some lesser degrees of concentration, as the following discussion shows.

(a) *Factors Increasing Concentration.* Three major factors increasing overall dispersion of incomes appear to be, first, some tendency for increased inequality within the social (i.e., nonagricultural) sector, as shown in Table 4.2. In the absence of any influence from the functional distribution of income in this sector (profit incomes do not exist) these changes must result from a widening of the spread in wage incomes either or both within and between industry sectors. In fact, differentials between branches narrowed somewhat (see below). The second factor, therefore, is a widening of the individual income spread *within* sectors, discernible in an increased variance in incomes of individuals of similar skills. The third factor, already mentioned, concerns the widening differential in average income between the social and peasant sectors. Clear evidence of this is contained in Table 4.5.[10]

(b) *Offsetting Factors.* Within the social sector, as shown in Table 4.5, the spread of average incomes between sectors has narrowed somewhat during the 1960s. This is mainly due to more rapid incomes' growth in construction, housing and social agriculture, all of which have average incomes below the sector average. Interrepublic differentials in earnings within the social sector have also narrowed during the 1960s, as have the differentials between upper and lower skill brackets (see Table 4.6). This last effect, however, has not been stable. While in the years 1963 to 1968 the differential narrowed, in 1969 it widened again to show no change on 1963.

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10 These changes, it seems, cannot be explained by declining terms of trade between agriculture and industry, which remained about the same from 1965 to 1968.

TABLE 4.4: Structure and Growth in Peasant Household Incomes

	Structure of Peasant Incomes			Growth Rate in Real Terms (Annual Average %)			Standardized [a]
	1961	1965	1970	1961–65	1965–70	1961–70	1961–70
Members per household	5.4	4.8	4.4				
Total household income	100.0	100.0	100.0	0.6	2.8	1.8	2.2
Sources of income:							
From agricultural holding	36.0	33.2	32.5	−1.0	2.4	0.6	0.7
From work off holding	28.3	33.8	42.3	5.2	7.5	6.4	7.9
— In enterprises	(15.4)	(20.5)	(25.4)	(8.0)	(7.4)	(7.6)	—
— On cooperatives	(2.5)	(1.9)	(1.5)	(−3.0)	(−5.1)	(−4.1)	—
Other	35.7	33.0	25.2	−0.9	−5.0	−3.0	—
Relation between peasant incomes and average incomes in nonagricultural activities: [b]							
Household incomes	0.95	0.87	0.78				
Standardized per capita incomes	0.53	0.49	0.48				

[a] Standardized for change in household size.
[b] Estimated by extrapolation from the Household Budget Surveys of 1963 and 1968.

SOURCE: *Statistički Godišnjak, Jugoslavije*, 1972, Table 124.7.

TABLE 4.5: Structure of Average Personal Incomes in the Major Economic Sectors

	1963	1971
Noneconomic activities	125.9	115.5
Transport	110.2	108.7
Trade and catering	102.5	106.5
All sectors	100.0	100.0
Manufacturing	98.2	95.2
Crafts	93.7	92.3
Construction	91.2	95.3
Housing and utilities	89.5	96.1
Socialized agriculture	76.5	87.1
Peasant agriculture	43.9	38.6[a]
Ratio of highest to lowest	286.6	299.2
Ratio of highest to lowest in the social sector	164.6	132.6

[a] Estimated for 1968.

SOURCES *Jugoslavija 1945–64* ; and *Statistički Godišnjak, Jugoslavije.*

Interpersonal Earning Differentials

Recent studies have shown that within the social sector during the 1960s there was a tendency for differentials in earnings between workers of similar skills to increase.[11] The studies do not present econometric analysis but evidence is compiled to suggest two basic causes for this tendency: (a) growing capital intensity and productivity differences between enterprises, and (b) increasing monopolistic positions of some enterprises, allowing them to earn "abnormal" profits. These effects, however, were probably stronger in the pre- than in the postreform period (i.e., after 1965). A study by Professor M. Korać suggests that, at least since 1967, high income, capital-intensive enterprises tended to increase earnings somewhat less than the average.[12]

Policy Implications

Discussion of marginal changes in interindustry and interskill differentials have not in general contained the substance of a major policy issue in Yugoslavia, possibly because their impact on an already fairly equal distribution might not be very great. There has, however, been some discussion between enterprises and trade unions, in particular about the desirability of allowing a widening of differentials within the social sector, partly to maintain incentives for skill advancement and partly to discourage migration abroad. The enterprises would like more flexibility in this regard, the unions tend to argue against this on grounds of equity. Recent public revelations of a number of individuals who, by illegitimate means, have succeeded in acquiring very large accumulations of personal wealth, although raising an issue quite separate from that of employment earnings' differentials, have made it more difficult for those enterprises seeking to widen differentials to gain a sympathetic hearing.

11. Sofija Popov, "Intersectoral Relations of Personal Incomes," *Yugoslav Survey* 13 (May 1972); Howard M. Wachtel, "Wages in a Labor-Managed Economy: The Yugoslav Case," *Florida State University Slavic Papers* 4 (1970).

12. M. Korać, et al , *Politika Dohotka u Samoupravnoj Privredi* (Belgrade: Investicije, Institut za Ekonomski Investicije, 1972).

TABLE 4.6: Ratio of Earnings of Highly Qualified to Earnings of Unskilled Labor by Sector of Activity

	1957	1963	1964	1967	1968	1969
Industry	2.23	2.72	2.65	2.62	2.39	2.70
Construction	2.25	2.93	3.09	2.58	3.35	3.07
Transport	—	2.60	2.64	2.72	2.40	2.70
Trade and catering	2.02	2.32	2.35	2.64	2.37	2.60
Arts and crafts	—	2.38	3.11	2.68	2.60	2.48
Housing and utilities	—	2.45	2.22	2.67	2.54	2.62
Noneconomic activities	—	2.95	3.17	3.06	3.00	3.06
Agriculture	1.80	2.63	2.27	2.58	2.39	2.53
Total social sector	—	2.74	2.68	2.73	2.58	2.75

SOURCE: *Statistički Godišnjak, Jugoslavije.*

In the judgement of this report, the central policy issues on the subject of income distribution are those of rural-urban balance (i.e., balance between the social and peasant sectors) and the interregional distribution. While the latter has received explicit attention, epitomized by the creation of the FAD, there remains considerable scope for improving the effectiveness of regional development. The question of rural-urban balance, on the other hand, has received less attention, although this is being redressed both by new attempts to devise measures to support the development of small farms, and by efforts to stimulate a decentralization of industry and urban growth. One reason why this has not occurred earlier is probably owed to the tendency to regard distribution as an issue affecting incomes only within the social sector, not between it and the rest of the economy. Adoption of a global approach would give a more pertinent framework to policy formation, a point which seems now to have been accepted. Not only would attention be focused more on the rural sector, reducing, one would hope, its lag in income growth. It is also possible that the improvement in overall concentration, to which this would give rise, could serve to offset some degree of widened differentials within the social sector, desired by some as a means to stimulate incentives and skill advances and to discourage external migration. Less dualism in the total economy could thus provide for greater differentiation within the social economy, with little change in the overall degree of income concentration.

The Social Welfare System

The impact of the pattern of income distribution on welfare is modified by the social security system which is very highly developed in Yugoslavia. The distributional impact of the system is to increase the difference between the social sector and the rest of the population and to diminish the income differences within the social sector.

Health

During the last two decades there has been a vast improvement in health and medical facilities, indicated by the increase in the number of doctors and hospital

beds in relation to the population. While the improvement in medical facilities has been evenly spread over the less and more developed regions, there are still significant differences, both quantitative and qualitative, remaining between the republics.[13] The access of the population to these facilities is governed by the health insurance system.

Health insurance covers the following groups and their families: (a) all employed persons in the social or private sector; (b) self-employed; (c) retired people receiving social security pensions; (d) workers temporarily unemployed. It is estimated that 30.2 percent of the total population was covered by health insurance in 1950. By 1969 the proportion had increased to 63.3 percent (see Table 4.7).

TABLE 4.7: The Health Insurance System

	1950	1955	1960	1965	1969
Total insured (thousands)	4,941	6,475	9,081	11,020	12,795
Active	2,002	2,479	3,478	4,235	4,382
Retired	265	440	560	849	1,093
Temporarily out of work	na	47	101	51	81
Family members	2,673	3,509	4,942	6,785	7,239
Total insured (% of population)	30.2	37.0	49.4	56.7	63.3
Total expenditures					
Million dinars	92	450	1,379	4,264	5,743
% of national income	4.4	3.2	5.1	5.8	4.9

SOURCE *Statistički Godišnjak, Jugoslavije.*

All persons insured are entitled to free medicare, which includes hospitalization, doctors' visits, medicines and dental care. Up to 1969 health insurance was uniform throughout Yugoslavia, and the Federal Government was responsible for the management of the system. In 1970, the responsibility for the management of health insurance was given to the republics, and within them to the communes. The role of the Federal Government at present is confined to establishing standards of minimum health protection for control of tuberculosis, smallpox and other diseases which are subject to international conventions and WHO programs.

Under the present system of health protection, the main units responsible for health care are the Health Protection Associations. These associations are organized usually at the commune level and have representatives from all the economic and sociopolitical organizations of the commune.[14] The association decides the form and the extent of benefits within minimum standards established by federal law, and collects the necessary funds to carry out the health protection plans. The benefits pro-

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13. For example, in 1969, 16 percent of total births occurred with medical assistance in Kosovo as compared to 98 percent in Slovenia.

14. Communes may get together and create one association which will serve all the members of those communes. The general law on health protection provides that two or more communes creating one association must be from the same republic.

vided by Health Protection Associations, apart from covering medical bills, include the cost of transportation and loss of salary during illness.[15]

The Financing of Health Facilities

Up to 1970, health insurance was financed by uniform deductions from gross personal incomes. At present, each association decides on the kind of services to be provided to members and the percentage to be deducted from their gross personal income. For the temporarily unemployed, the labor exchange office pays the contributions to the association. In the underdeveloped and poorer communes the republican budget also contributes to the total expenses of the Health Protection Associations. The federal budget also provides grant assistance to the governments of the underdeveloped republics and provinces for social expenditure.

Fees charged by the hospitals and other similar institutions are checked by the local governments and revised periodically. Each insured person has the right to use any health facility regardless of location (including those in different republics) and the association will be billed by that institution.

Although health protection is very well-organized and covers a large proportion of the population, the facilities available to the private agriculture sector are relatively poor. Up to 1970, persons engaged in private farming were not covered by health insurance. With the recent establishment of rural Health Protection Associations, the private agriculture workers may become members by paying the same percentage of personal income as those from the social sector. It is not clear how far this has extended the benefit of health insurance to peasant farmers.

Pensions

Every citizen is entitled to a pension after reaching retirement age. The retirement age for males is sixty years of age and twenty years of employment, and for females fifty-five years of age and twenty years of employment. A person who has worked for forty years can retire regardless of age.[16] The amount of the pension is calculated on the basis of the average of the last ten years. However, because of the relatively high rate of inflation in Yugoslavia, past salaries are adjusted to reflect present values. Pensions are adjusted periodically to reflect cost of living increases.[17]

15. A worker is paid a regular salary for the first thirty days by the enterprise. After thirty days, the association pays the salary to the insured, in no case lower than 60 percent of his previous years' average salary. The salary is paid up to two years. If the person is still sick, the case is transmitted to the pension commission which will put the insured on a disability pension. If the illness occurs because of working conditions, or if the worker is on maternity leave, the salary paid is 100 percent of the previous years' average. The salary payments on sick leave may be stopped if the worker does not follow the doctor's recommendations, misses monthly check-ups, or continues to work in another job. This last provision is relevant for workers who have land. In the case of a female worker, she is required to work only four hours per day after maternity leave but is paid for full-time work, the difference being made up by the association. This payment stops when the child reaches the age of eight months, but in some cases, if the doctors' commission decides that a child needs special care, payments may continue until the child is three years old.

16. For calculation of working years, different formulae are used: (a) under normal conditions each year is taken as such; (b) depending on the hardship of the work, every twelve months of work may be recognized as equivalent to thirteen to eighteen months of normal work; (c) for those veterans of World War II who joined the liberation army prior to 1942, every year in the army during the war is considered equivalent to two years of work.

17. However, according to the law, only those paid after 1966 are to be taken into consideration for the calculation of the ten years' average. Hence only the persons retiring in 1975 or after will be subject to this ten-year average.

TABLE 4.8: The Pension System

	1950	1955	1960	1965	1969
Total pensioners (thousands)	265	440	560	849	1,093
Normal	115	185	208	311	412˙
Disabled	48	116	176	314	409
Family	102	139	175	224	272
Total expenditure					
Million dinars	54	342	−882	2,754	8,587
Period of national income	2.6	2.4	3.3	5.1	7.4

Contributions to the pension fund vary between 12 percent and 14 percent of the gross personal income. Pensions are transferable among the republics, i.e., if a person retires in Serbia but has been working in Croatia and in Macedonia, the respective pension funds of these two republics will pay their corresponding share to the Serbian fund.

CHAPTER 5

INDUSTRY AND MINING

Rapid industrialization has been the major element in the high rate of economic growth and structural change in Yugoslavia. The index of industrial production increased at an average annual rate of 10.6 percent during 1952–71, and the share of industry in GDP in 1966 prices increased from 17.5 percent to 33 percent over the same period.[1] Industry and mining account for 47 percent of total social sector employment in "productive" activities and provide over 85 percent of total exports. Unlike the situation in many other developing countries, industrial growth has been outward-oriented and, on the whole, competitive.

Nevertheless, over the years there has been a slowing down of industrial growth, its contribution to economic growth and, in particular, its employment-creating effects.

TABLE 5.1: Evolution of Industrial Output and Employment

	1952–60	1960–65	1965–71
Growth of industrial output, % per year (1966 prices)	13.0	10.5	6.6
As index of growth of GDP (1966 prices)	143.0	123.0	107.0
Average annual increase in industrial employment (in thousands)	68.0	54.0	26.0
Share of total increase in social sector employment (in %)	41.0	44.0	54.0

The slower growth during the last six years is related, in part, to Yugoslavia's balance of payments difficulties. But there is also a structural factor involved: the rapidly increasing capital intensity of Yugoslav industry. In spite of this, as the above table shows, the industrial sector accounted for an increasing proportion of the total new jobs created in the social sector.

Industry, as the leading sector in Yugoslav development, absorbed about 52 percent of total "economic sector" investments during 1952–69, its share remaining quite stable throughout the period—53 percent in 1952–60, 52 percent during 1961–65 and 49 percent during 1966–69.[2] Consequently, fixed assets in industry account for about 55 percent of total productive fixed assets in the social sector. Table 5.2 suggests that during the 1960s: (a) fixed assets in industry and industrial output increased *pari passu* at very similar rates of growth; (b) the growth trend (in spite of the trough in 1965–67) is fairly well identified as a constant annual investment quota with a stable (or slightly rising) annual increment in net industrial output, both measured in 1966 prices; (c) that, if one compares the second half of the 1960s with the first half, there has been a continuing sharp increase in the ratio of new capital

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1. Because the prices of agricultural commodities and services have increased more rapidly than industrial prices to correct earlier price distortions, the share of industry in GDP (in current prices) declined from 39 percent in 1965 to 30 percent in 1971.

2. Economic sector investments averaged about 67 percent of total investments in 1961–65, but 74.5 percent of total investments in 1967–69. Hence, in spite of a falling share of industry in economic sector investments in the latter half of the 1960s, its share in total investments remained fairly constant within a range of 28 percent to 30 percent.

investment to new jobs created. This "intensive" development strategy is reflected mainly in a tendency for production in all branches of industry to become more capital-intensive, but there has also been an increased share of capital-intensive industries in industrial employment.[3] Since the long-run gain in net output tended to be constant, one could say that there was simply a trade off between labor-intensive investments in the early period and capital-intensive investments in the later period. Even assuming there was no loss in output, this trade off does not seem favorable, considering substantial emigration and underemployment. There is a further presumption that, in real terms, the output growth in capital-intensive industries was overestimated, Yugoslav prices in those lines being generally higher in relation to world market prices than in more labor-intensive industries. That such growth was, in fact, costly is corroborated by the observations on the steel, chemicals', and pulp and paper industries further below. Major misinvestments, like Skopje steel or Kosovo nitrogen were directly related partly to the process of decentralization. Yet such problem projects must be weighed against major achievements like the development of the automotive and electrical equipment industries. The key question which cannot be answered without much more intensive research than is possible in this context, is whether the price paid for industrial diversification and regional development was reasonable, i.e., whether the excessive costs will be compensated for by added investment opportunities and more dynamic industrial growth in the future.

TABLE 5.2: Growth in Fixed Assets, Net Output and Employment in Manufacturing and Mining

(In Billions of Dinars, 1966 Prices)

	Fixed Assets, Purch. Value End of Year		Fixed Investments	Net Output		Employment (Millions)	
	Total	Incr.		Total	Incr.	Total	Incr.
1960	45.3		4.45	17.90		1.04	
1961	50.3	5.0	5.25	19.12	1.22	1.10	0.06
1962	56.6	6.3	5.91	20.51	1.39	1.13	0.03
1963	60.3	3.7	6.66	23.72	3.21	1.17	0.04
1964	65.7	5.4	7.19	27.57	3.85	1.29	0.12
1965	71.4	5.7	5.79	29.50	1.93	1.34	0.05
1966	76.2	4.8	6.37	30.60	1.10	1.32	—0.02
1967	80.9	4.7	5.60	30.69	0.09	1.31	—0.01
1968	87.0	6.1	6.85	32.47	1.78	1.31	0.00
1969	95.8	7.2	6.77	35.72	3.25	1.36	0.05
1970	103.3	7.5		39.28	3.60	1.41	0.05
1971				43.15	3.90	1.48	0.07
Average annual growth 1960–69 (%)	8.7				8.0		3.0

SOURCES. Col. 1-2 *Statistički Godišnjak, Jugoslavije*, 1972, Table 106.7; Col. 3 Institute for Investment Economics (consistent with overall totals for the economy shown in Table 105.3 of *Statistički Godišnjak*, 1972); Col. 4–5 Statistical Annex, Table 2.2; Col. 6–7 Industrial Production 1970, Table 8.

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3. Changes in the distribution of industrial investment by various sectors of industry are shown in Table 2.7, Chapter 2.

The Pattern of Industrial Development

The pattern of industrial development[4] is shown in Table 5.3 which divides industries into three groups: growth industries, average industries, and slow growing industries, and also distinguishes two periods, a broad perspective 1952–70 and the most recent five-year period within that perspective.[5]

TABLE 5.3: Range of Growth Rates as a Ratio of Industrial Average

	1952–70	1965–70
Growth industries[a]	150–350	110–140
Average industries[b]	110–120	95–105
Slow growing industries[c]	30–70	(80)–105

[a]Electrical equipment, chemicals, petroleum, pulp and paper, electric power, nonmetallic minerals.
[b]Rubber products, iron and steel, food processing, metal products.
[c]Wood products, leather and footwear, textiles and clothing, nonferrous metals, construction materials, coal and coke, tobacco manufactures. Manufacture of coal and coke actually declined.

TABLE 5.4: Growth of Industrial Production by Sectors[a]

	1952–70[b]	1965–70[c]
Industry (total)	100	100
Equipment	106	100
Industrial materials	93	101
Consumer goods	113	101
Growth industries		
Electrical equipment	355	127
Chemicals	329	143
Petroleum	278	126
Pulp and paper	199	110
Electric power	158	123
Nonmetallic minerals	156	109
Average industries		
Rubber products	121	106
Iron and steel	118	105
Food processing	110	97
Metal products	108	95
Slowgrowing industries		
Wood products	73	92
Leather and footwear	73	81
Textiles and clothing	70	88
Nonferrous metals	67	98
Construction materials	66	106
Coal and coke	34	d
Tobacco manufacturers	31	d

[a] Growth rate of the industrial sector = 100.
[b] Averages 1969–71 over 1952.
[c] Average 1969–71 over average 1964–66.
[d] Index of industrial production declined during the period.
SOURCE. *Statistički Godišnjak, Jugoslavije*.

4. A more complete statistical picture of the present (1970) structure of Yugoslav industry by major sectors, with selected financial ratios and major trends 1960–70 (production, foreign trade, employment, productivity of capital and labor, investments, fixed assets, wages and salaries) is given in Statistical Annex Table 8.1. This table is an important general point of reference for the discussion in this chapter, as is the section *Problems and Prospects of Selected Industries* in this chapter.

5. This is not an ideal comparison, since it gives too heavy representation to the stagnation period 1966–68. As a result, average annual industrial growth during this period was only 2/3 of the 1962–70 trend (6 percent as compared with 9 percent). Nevertheless, it will still serve to bring out some salient features.

Both market and supply constraints slowed industrial growth towards the end of the 1960s. Mineral development lagged, steel and power expansion was held back by faulty planning and lack of funds, the shipbuilding industry never attained international competitiveness, and pulp and paper expansion was bogged down by technical and financial problems. As a result, industries that had carried the upward surge in 1952–65 lost momentum, and there was no longer the same sharp demarcation between growth and slow growing industries.

A comparison between Tables 5.4 and 5.5 shows that the growth industries were all capital-intensive, the single exception being electrical equipment. Particularly during the last decade, their growth absorbed a high proportion of industrial investments. According to Table 5.5, capital-intensive industries accounted for more than one-half the total investments in the last two decades, but only about one-third of the increase in output and only 15 percent to 25 percent of the new jobs.

Sectors with particularly favorable incremental output and employment effects include metal products, electrical equipment and textiles. The metal products' industry which received only one-tenth of manufacturing investments in 1962–69, accounted for one-fifth of the growth in industrial output, and 28 percent of the growth in jobs. The share of the textile industry in job creation (23 percent) was about three times its share in investments and, in Macedonia, it was a leader in manufacturing growth. The electrical equipment industry with less than 4 percent of total investments in 1962–69 accounted for 14 percent of the job creation. In spite of this impressive record, only electrical equipment occurs among the growth industries (Table 5.4), while metal products (in the Yugoslav terminology this also includes machinery and transport equipment) showed only average growth and the textile industry was slower. The apparent implication is that these industries were not sufficiently promoted.

ICORs improved in 1962–70, sometimes strikingly, as compared with 1953–61, with only a few major exceptions (iron and steel, coal and coke, nonferrous metals, and pulp and paper—see Table 5.5). This is a good sign, suggesting generally improved industrial structure, improved capacity utilization and higher plant productivity. As is so often the case, higher capital productivity and higher labor productivity went hand in hand. The reasons explaining the unfavorable ratios in steel, nonferrous metals and paper in 1962–71, were mentioned above and are elucidated below in *Problems and Prospects of Selected Industries*. All of these industries have been squeezed financially, and several experienced management problems.

Trade in Manufactures

Trade in manufactures plays an important role in Yugoslavia. Industrial exports grew by 14 percent per year during 1961–71, much faster than the rate of growth in industrial production. The overall level of industrial exports is quite high in relation to the level of industrial production. Yugoslavia's industrial exports are very diversified. Metal products and engineering goods account for about one-third of the total. Nonferrous metals and textiles, leather, clothing and footwear together contribute another one-third. There are also significant exports of forest products, food products and chemicals. The most rapidly expanding export trades are textiles and leather manufactures, electrical equipment and chemicals. The first two of these were slow growing while the latter two were rapid growth industries.

TABLE 5.5: Investment, Output and Employment in Manufacturing[a]

	Share in Manufacturing Investments		Share in Increased Output		Share in Increased Employment		ICORs[b]		ICLRs[c]	
	1953–61	1962–69	1953–62	1962–70	1953–62	1962–70	1953–61	1962–70	1953–61	1962–70
Capital-intensive industries										
Pulp and paper	4.4	5.7	1.9	2.3	1.7	4.7	6.04	6.01	155	214
Iron and steel	11.6	15.9	5.5	2.5	2.5	4.1	5.43	15.25	285	700
Coal and coke	10.2	7.0	5.0	0.3	1.8	−6.4	5.32	51.75	355	—[d]
Nonferrous metals	9.1	8.7	5.1	4.2	1.3	3.8	4.64	5.09	408	414
Petroleum	4.2	5.6	2.1	8.0	0.2	3.3	5.12	1.69	1,167	201
Chemicals	9.4	10.7	7.0	15.3	5.2	14.0	3.46	1.70	112	137
Nonmetallic minerals	3.5	3.0	3.0	3.2	2.8	1.6	3.05	2.26	79	322
Subtotal	52.4	56.6	31.5	35.8	15.5	25.1				
Labor-intensive industries										
Food processing	4.2	4.0	4.9	4.5	2.9	0.8	1.98	1.92	53	152
Textiles and clothing	6.9	7.2	12.6	9.5	22.7	20.1	1.40	1.84	19	65
Metal products	10.5	10.9	19.9	21.1	28.1	23.8	1.37	1.27	23	83
Electrical equipment	2.5	3.8	6.4	8.2	6.5	14.1	1.03	1.12	24	48
Construction materials	4.3	3.4	4.3	4.5	5.9	−0.9	2.60	1.82	45	—[d]
Rubber products	0.5	0.9	1.2	1.6	1.7	2.4	1.34	0.99	20	70
Wood products	8.4	6.5	11.1	8.3	9.9	7.7	2.22	2.16	91	929
Other	10.5	6.9	10.3	9.7	6.7	7.0				
Subtotal	47.8	46.6	58.8	67.4	84.4	75.0				
Total manufacturing	100.0	100.0	100.0	103.2	100.0	100.0				

[a] Both investments and outputs have been calculated in 1966 prices.

[b] Gross fixed investment in 1966 prices 1953–61 and 1962–69 divided by the increment of social product in 1966 prices, during 1953–62 and 1962–71 respectively. Thus, a lag of one year is assumed between investment and output.

[c] The gross fixed investment in 1966 prices during 1953–61 and 1962–70, divided by the increment in employment during 1953–62 and 1962–71 respectively, expressed in thousand dinars. Thus, a lag of one year is assumed between investment and employment.

[d] Employment declined between 1962 and 1970.

SOURCES: Investicije, 1947–69; and Statistički Godišnjak, Jugoslavije.

TABLE 5.6: Capital Output and Capital Employment Ratios in Industry

	1970 Balance Sheet Data		Capital Output Ratios at 1966 Prices[b]			Capital Labor Ratios at 1966 Prices[c]		
	Net Total Assets[a] Social Product	Net Fixed Assets[a] Social Product	1953	1965	1970	1953	1965	1970
Capital-intensive industries								
Pulp and paper	5.45	2.42	5.98	6.02	5.80	69.6	138.2	163.3
Iron and steel	4.69	1.72	7.56	5.64	5.87	75.9	137.7	165.4
Coal and coke	2.42	1.74	3.69	3.79	5.99	36.5	69.8	135.4
Nonferrous metals	3.74	1.21	3.09	3.97	3.97	47.1	123.1	152.7
Shipbuilding	3.35	0.74	—	—	—	—	—	—
Petroleum	1.90[d]	1.33[d]	8.77	5.30	5.81	156.8	274.8	455.5
Chemicals	3.19	1.16	4.83	2.51	2.08	76.3	86.9	106.9
Nonmetallic minerals	2.51	1.11	4.37	2.17	2.36	31.9	44.2	65.2
Labor-intensive industries								
Food processing	2.75	1.00	3.26	1.97	2.01	67.0	55.2	63.8
Textiles and clothing	2.49	0.74	2.51	1.68	2.20	35.4	31.4	40.0
Metal products	2.39	0.59	3.36	1.75	1.72	60.1	43.3	50.2
Electrical equipment	2.14	0.57	2.97	1.57	1.60	35.4	33.3	47.8
Construction materials	2.08	0.83	3.93	2.44	2.28	36.1	45.0	62.0
Leather and footwear	1.97	0.40	—	—	—	—	—	—
Tobacco manufacturing	1.93	0.51	—	—	—	—	—	—
Rubber products	1.78	0.52	3.65	1.83	2.03	133.4	44.1	55.2
Wood products	1.63	0.54	2.14	1.94	2.16	14.4	27.6	38.6

[a] After depreciation.

[b] Fixed assets (purchase value) per unit of social product, both at 1966 prices.

[c] Fixed assets (purchase value) per worker, in thousand dinars at 1966 prices.

[d] After rough adjustment for the differential impact of especially high turnover taxes on the value added in this industry.

Note: Comparing Column 5 with Column 2, a great difference in capital output ratios will be noted. There are several reasons for this:

(i) *Col. 5* gives fixed assets in gross values before depreciation while *Col. 2* shows net values after depreciation. The latter value is more significant but comparable data for earlier periods are not readily available. For most Yugoslav industries, 1970 net values of fixed assets were within a range of 55 to 65 percent of gross values.

(ii) *Col. 5* gives data at 1966 prices while *Col. 2* gives data in current prices, including at least partial revaluation of fixed assets. Since the *Col 5* ratios for 1970 are normally considerably higher than would result from adjusting *Col. 2* data to a gross fixed assets' basis, one would conclude that prices for equipment goods rose considerably more between 1966 and 1970 than prices for industrial products in general.

SOURCE Computed from data in *Statistički Godišnjak, Jugoslavije.*

While the industrial share in total exports grew, attaining 85 percent in 1970, there was no significant increase in the proportion of industrial imports covered by industrial exports. In 1970 as well as in 1960, industrial imports were nearly twice the level of industrial exports. Equipment items predominate on the import side (about 45 percent of total industrial imports); other major imports include steel, nonferrous metals (predominantly aluminum), and chemicals. In fact, the view that Yugoslavia could not afford to import an equivalent of US$200-300 million per year simultaneously for each one of these latter groups has been a major determinant in her recent industrial programming.

TABLE 5.7: Trade in Manufactures   (In Billions of Current Dinars)

	Exports	Imports	Ratio
1955	3.19	5.58	0.57
1960	7.53	13.33	0.56
1965	15.78	19.25	0.82
1970	25.61	47.08	0.54

SOURCE: *Industrijska Preduzeca, 1970* (Belgrade: Federal Institute of Statistics): Table 1. Conversion, as per this source has been made at a standard rate—ND17 per US$1.

The proportion of directly and indirectly imported inputs to the value of industrial production increased significantly faster than production for most sectors, particularly since 1968 (see Chapter 12). The increasing import dependence, however, does not indicate the potential for economically desirable import substitution. In some fields Yugoslavia may lack the factor endowment necessary to achieve international quality at acceptable costs. In other fields Yugoslavia is able to import at attractive terms from the clearing area in exchange for domestic products which are difficult to sell elsewhere. The continuance of these imports appears desirable, both to keep the exporting industrial capacities involved occupied, and also to conserve scarce convertible foreign exchange.

The Size Structure of Industrial Enterprises

The size structure of Yugoslav industrial enterprises is shown in Table 5.8. The size profile is quite unique compared to both developed and developing countries. Small industry (with up to 125 workers per unit) accounts for only 3 percent of industrial employment and 3.5 percent of the social product. The predominance of large enterprises (with above 1,000 workers per enterprise), on the other hand is remarkable.

The predominance of large enterprises is actually understated in the data, because Yugoslav industrial enterprises, although legally independent, are in the great majority of cases not operating autonomously, but grouped with others in the form of *kombinats* or "united" enterprises. The individual enterprises cede, through contractual arrangements, certain functions to the "group," which frequently operates under its own name. Integration may only cover peripheral functions (like research and development, or procurement), but more often it comprises all major management functions, like long-term production, mutual delivery, marketing, investment and financial planning, and assumes all contractual arrangements with third parties.

Frequently the integration is so closely knit that the legal autonomy is no more than a fiction since any separation, although legally possible, would lead to untenable consequences; the units (enterprises) function rather like divisions with separate accounts within a decentralized large concern.

TABLE 5.8: Industrial Enterprises, by Size, 1970

(%)

No. of Workers	No. of Enterprises	Employment	Fixed Assets	Social Product
Below				
30	5.9	0.1	0.1	0.2
30–60	6.3	0.5	0.9	0.8
61–125	15.9	2.4	3.1	2.5
126–250	22.0	6.6	6.4	6.4
251–1,000	24.6	28.9	26.0	27.5
1,001–2,000	9.3	21.0	21.3	20.7
Above 2,000	5.9	40.5	42.2	42.0
Total industry	100.0	100.0	100.0	100.0

SOURCE: *Statistički Godišnjak, Jugoslavije.*

These integrated enterprises can be organized horizontally (for example, all deep-sea shipyards have integrated almost every management function), or vertically (the big electric industry group, for instance, have many features of this type), or without any such technical denominator in a largely diversified pattern (for example, the group clustered around big foreign trade enterprises, which extend into manufacturing, agroindustry, hotel and tourism transportation, and retail trade, with pooling of savings and foreign exchange as their major raison d'être). This integration has numerous positive features, particularly in the exploitation of economies of scale in production, research and development, and marketing. Other implications may be more questionable. The internal management of all financing and foreign exchange functions reduces their exposure to policy measures, for instance. Similarly, both horizontal and vertical integration, by reducing the number of sellers and/or buyers, will tend to weaken competition. On balance, however, this type of integration is likely to be favorable through its effect upon the world market competitiveness and financial power of Yugoslav industries. Theoretically there is a danger that vertical integration might lead to excessive inbreeding and lack of specialized suppliers; in practice, there appears to be a substantial amount of subcontracting between different units in the same industry.

The Constitutional Amendments of 1971 have granted increased autonomy to each economic unit of large enterprises, and consequently explicit agreement by each unit is necessary for major steps to be taken by the enterprise. The implications of this for the efficient working of integrated enterprises is yet to be seen.

Regional Industrialization

Regional development will be the subject of Chapter 8 of this report; here only a few aspects are cited to round off the industrial perspective. The share of industry in GNP for all underdeveloped republics except Montenegro is very close to the national average of 35 percent, having more than doubled over the last twenty years (Statistical Annex Table 8.2). Industrialization measured by this particular index has

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thus proceeded significantly faster than in the developed republics. And though the product per person employed in industry is some 20 percent below the figures for Croatia and Slovenia, it is not much different from corresponding figures for Serbia or Vojvodina. Statistically, therefore, the low industrial output appears as part of the general pattern of underdevelopment and underemployment rather than a specific lag in the industrial sector. If, however, we look upon industry as the main engine of growth, certain flaws in industrial growth dynamics become apparent. The main flaw, as shown in Chapter 8, is that the ICOR in industry has consistently been far higher in the underdeveloped than in the developed regions. This was partly a function of the heavy commitment to capital-intensive industries, with more than one-half of the industrial investments going into coal mining, steel, nickel mining and smelting, and nonmetallic minerals. Additionally, poor project preparation and execution in these complex industries were reflected in long gestation periods, with many projects delayed or in a very unbalanced state of expansion. But the disproportion was also due to other factors more pervasive than the concentration on capital-intensive industries. In all industrial industries, with very few exceptions, ICORs were much higher in the underdeveloped regions. Considering furthermore that manpower productivity was also lower (in spite of a high capital investment per worker) and average remuneration per worker rather similar, the problem involved in achieving accelerated growth is evident. The problem was magnified by the capital-intensive strategy: employment effects and economic returns were generally low, sometimes catastrophically so. This strategy seemed natural since it was aimed at exploiting major natural resources, providing power, minerals and raw materials for processing industries in developed republics or for export. In retrospect, it seems unbalanced. Larger investments in textiles, clothing, subcontracting for mechanical and electronics industries and so forth even at the cost of initial high subsidies and ambitious training programs, would have yielded better economic returns.

The Incentives' System

The major industrial incentives work through the foreign exchange, import duties–export subsidies and price control systems. Since the reforms, there has been a general reduction in quantitative restrictions and import duties and a better alignment with the world price structure.[6] By the end of 1971, only one-fifth of equipment imports, one-quarter of raw materials and semifinished goods, and 37 percent of consumer goods imports fell under the restrictive commodity quota and direct licensing schemes. The more common regime of global quotas, of course, is more liberal in appearance than in fact, since quotas for equipment and other items are determined in meetings between consumers and domestic producers, who indicate what types of equipment can be imported, and equipment which can be made in Yugoslavia is not included in the quota. The main modifier of the quantitative restriction, however, is the fact that more than one-half of total imports now occur outside the restrictive regime. Thus, it is normal for equipment to be purchased using retention quotas (20 percent of export proceeds).[7] Nominally valid only for the firm earning the foreign exchange, in practice, a large portion of the retention quotas is made

6 For the historical development of the foreign trade and payments' system, see Chapter 12.

7. There is also an "amortization quota" corresponding to 10 percent of the value of equipment purchased abroad.

available in a "semimarket," to importers who can use it far more efficiently than the producers. Because of this safety valve, the net effect of the quota system on equipment imports is probably very limited. On the other hand, it seems to function with respect to several raw materials and semifinished items (steel, fertilizers, plastics); here the main purpose today appears to be to avoid disruption of markets and to combat dumping rather than saving foreign exchange.

Between 1965 and 1971, the average duty on all imports was lowered from about 14 to about 12 percent and on equipment imports from 24 to 18 percent, with further reductions in mid-1972. Compared to most developing countries, the present rates (see Table 11.2) are quite moderate. They are increased, however, by customs and border taxes (together 4 percent) and, since 1971, by a special surtax of 6 percent. The highest average duty protection applies to metal products (25 percent) and electrical equipment (22 percent). Average duties of 8.3 percent to 13.4 percent are in effect for iron and steel, chemicals, nonmetallic minerals, rubber products, tobacco manufactures, pulp and paper, textiles and clothing, and leather and footwear. Very low average duties apply to certain typical home market industries (food processing, printing, construction materials, wood products) and highly world market-oriented industries (nonferrous metals and shipbuilding). The relatively low duties in the group with average duties does not mean that these industries are left exposed to cutthroat competition; this is the area where import quotas are used to the greatest extent to prevent the flooding of the market with imports. It should be emphasized that the above "gross" duties on the cif price are not necessarily closely correlated with the net protection of the value added, quite apart from the separate impact of differential taxes and subsidies. Thus, for some export-oriented industries, notably shipbuilding, the combination of relatively light taxation with high export retention quotas is the major element in the incentives' package; the low import duty on ships may be largely irrelevant. There is at the present time no authoritative study of effective protection, but a study done at the Ekonomski Institut at Llubljana indicates that although effective tariff rates are higher than normal tariffs, they are in general quite low.[8] There is a high positive correlation between nominal and effective tariffs by sectors, as has been found in other countries (see Table 5.9).

TABLE 5.9: Nominal and Effective Tariffs, by Sectors

	Nominal Tariff	Effective Tariff
Energy	5.0	10.8
Ferrous and nonferrous metals	4.9	11.2
Nonmetallic minerals and products	8.0	11.6
Metal and electrical products	23.7	41.4
Chemicals and paper	11.7	27.8
Wood products	7.2	12.8
Textiles	—	—
Leather and rubber	15.0	27.8
Food products	9.5	22.6
Miscellaneous industry	7.2	12.1
Agriculture	3.3	4.3
Forestry products	1.0	0.7

SOURCE   *Efektivna Cainska Zascita v Jugoslavije* (Llubljana, Ekonomski Institut).

8. The study is based on 1970 tariff rates and the 1968 input-output table. See Statistical Annex, Table 8.15 for detailed results.

Substantial incentives for the exports of industrial products existed in the 1950s, and were gradually tapered in the 1960s. Nevertheless, during the early 1960s, about one-half of the industrial exports continued to benefit from export premiums or tax rebates. In 1965, in connection with the dinar devaluation, export premia were abolished and replaced by "retention quotas." These were originally graduated upward in accordance with both (a) the share of exports in the manufacturer's total sales and (b) the growth of his exports (see Chapter 11). In June 1972, in connection with new exchange regulations, this system was changed to provide a uniform 20 percent retention quota for all exports. The idea of a uniform export premium more or less in line with (or slightly higher than) the average import duty seems rational in terms of resource allocation. No doubt it could be supplemented with additional temporary incentives from time to time, to promising new export industries.

In addition to duties and subsidies with respect to foreign trade, price control is an important instrument influencing resource allocation. The pricing of industrial products is full of question marks and ambiguities (see the following paragraph). The approach, as it has developed during the current inflationary situation, is gradually to have increased influence on the process by which prices are formed and reduce the reliance on price freezes. This is to be done through (a) the stabilization of personal incomes, and (b) the institution of objective pricing rules (e.g., standardized cost accounting, standardized rates of depreciation and return on capital, standardized rules for the ways in which prices vary with the degree of capacity utilization, and so on). However, what the impact of the new price policy will be remains to be seen.

The Efficiency of Resource Use in Industry

There is no intensive study of Yugoslav prices in relation to world market prices (see also Chapter 3 for more discussion of the efficiency of resource use in industry). Nevertheless, the strong support, in theory, of alignment with world prices and the healthy emphasis on outward orientation and exports in industry suggest that Yugoslav prices may be fairly well-aligned to those on the European Common Market. There are islands of fairly heavy protection (particularly in the chemical industries, but also for some items of electrical equipment); yet the trend is towards the elimination of major anomalies.

With respect to factor prices, relative wage earnings in different industries are quite similar to the pattern in Sweden which has an unusually open economy with great interregional and intertrade mobility of labor (see Table 5.10). The great formal weakness of the Yugoslav system is the underpricing of capital. Another weakness, according to some observers, is a relative lack of mobility of both labor and capital between regions and industrial activities (see Chapters 3 and 9).

With prices reasonably aligned on the world market and with manpower costs also in line with market criteria, the rate of return in different industrial activities is a plausible starting point for a discussion of the efficiency of resource allocation. Unfortunately, it is also a rather blunt instrument, for three reasons:

(a) there is still a significant degree of price regulation and control, particularly in basic industries;

(b) small differences in the rate of protection will have a significant impact upon the return to capital;

(c) a poor rate of return is not necessarily an index of faulty resource allocation; it could also indicate the troubles of an infant industry.

Consequently, gross returns to total investments, by industries, shown below in Table 5.11, have to be analyzed in greater detail before conclusions on the efficiency of capital use among industrial sectors may be derived. The breakdown of gross profits into constitutive elements is shown in Statistical Annex Table 8.14.

TABLE 5.10: Personal Incomes, by Industrial Group (as a Ratio to the Average for all Manufacturing Industries)

	Yugoslavia		Sweden	Yugoslavia v. Sweden %
	1969	1970	1965	Difference
Shipbuilding	147.4	138.4	118.8	19.6
Printing and publishing	126.6	128.0	110.5	17.5
Nonferrous metals	111.6	112.6	109.9	2.7
Iron and steel	112.5	111.9	110.5	1.4
Chemicals	116.0	111.4	104.7	6.7
Mining		107.1	113.6	—6.5
Pulp and paper	102.2	105.0	100.0	5.0
Electrical equipment	105.7	103.1	108.4	—5.3
Metal manufacturing and engineering	104.9	103.1	104.2	—1.7
Industry average	100.0	100.0	100.0	0
Food processing	93.4	96.9	91.6	5.3
Building materials	92.4	95.7	97.9	—2.2
Rubber products	100.9	95.5	(88.5)[a]	7.0
Nonmetallic minerals	91.6	92.2		
Wood products	83.8	88.2	88.5	—0.3
Leather	87.2	84.1	(88.5)[a]	—4.4
Tobacco	87.0	83.3		
Textiles and clothing	77.7	76.5	76.4	0.1
Average difference,15 industries		12.2	9.9	3.0[b]

[a] Combined index,leather and rubber manufacturing.

[b] Average percentage points excess of Yugoslav individual industry indices over corresponding Swedish indices. This difference arises from the fact that the overall industry wages for both countries are weighted totals. In both countries, the unweighted industry averages are higher than the weighted averages, but this tendency is pronounced for Yugoslavia and relatively minor for Sweden. The difference seems to be due almost entirely to disproportionately higher Yugoslav worker incomes in shipbuilding and in printing and publishing.

SOURCES Statistički Godišnjak, Jugoslavije; and World Bank.

TABLE 5.11: Ratio of Gross Profits to Total Assets, 1970[a]

High Ratios		Medium Ratios		Low Ratios	
Wood products	35.7	Nonmetallic minerals	24.1	Coal and coke	15.0
Construction materials	34.2	Leather and footwear	23.9	Iron and steel	12.7
Rubber products	31.9	Textiles	22.8	Tobacco products	12.3
Printing and publishing	31.0	Food products	21.3	Power	9.1
Electrical equipment	27.6	Chemicals	21.1	Pulp and paper	9.0
Metal products	25.0	Petroleum	16.9		
		Shipbuilding	16.3		
		Nonferrous metals	15.6		

[a] Gross profits, defined as gross value added minus depreciation, personal incomes and turnover taxes, expressed as a ratio to net total assets. The gross "profits" include payments of legal and contractual obligations, contributions to social services, enterprise-retained savings, and certain contributions to personal income. The ratio could be regarded as a proxy for return on capital before interest and income taxes,with an upward bias due to the inclusion of some sundry taxes, rents, etc.

SOURCE Statistički Godišnjak, Jugoslavije.

Abstracting from controlled prices in power and tobacco manufactures, low rates of return are shown above for industries with prices aligned on the world market (pulp and paper, iron, steel and coke, nonferrous metals, shipbuilding and petroleum). It so happens (although the chain of causation is not immediately apparent) that these are all capital-intensive industries. Their low rates of return may be contrasted with the high rates in protected home market industries (wood products, construction materials, rubber products, electrical equipment, and the printing industry). The printing industry is one of the few where personal incomes seem grossly out of line (see Table 5.10). It is not clear whether this is a result of protection or, as in shipbuilding, reflects a great demand for Yugoslav workers in the corresponding branch of industry in Western Europe.

Potentially interesting as a guide to economic efficiency, the main practical effect of the above differences in profitability is that different industries are placed in a very different position with respect to investment financing. Before turning to this subject, it is worth underlining the importance of studying not only the profile of the existing effective protection but also of the underlying rationale. Such a study shows new and more objective pricing and protection policies, under which observed differences in return to capital would presumably be quite drastically reduced.

Industrial Finance

The distribution of the value added in industry between personal incomes, depreciation and other uses in some recent years are shown in Table 5.12. There has been an upward trend in depreciation as a percentage of fixed assets, resulting both from an increase in actual write offs (above the unrealistically low legal limits) and, to a lesser extent, from an increasing proportion of equipment (as contrasted with buildings, etc.) in new investment. Depreciation, in spite of occasional revaluation of fixed assets, still falls woefully short of generating the funds actually needed for replacement. As far as we know, there has been no official adjustment for the roughly one-third increase in the replacement value of imported equipment, due to the two dinar devaluations in 1971. Neither has there been an official adjustment for the additional increases consequent upon the two dollar devaluations (with the dinar falling *pari passu*) which added a similar amount to the cost of undepreciated foreign currencies. The total increase, in this case, amounted to two-thirds of the original cost.

The very rapid increase in personal income payments (their share in value added doubled between 1957-70) coincided with the growing autonomy of enterprises in the distribution of their income, and, to a large extent, occurred at the expense of enterprise savings. This trend was partly intended, but as recent concern with incomes' policy shows, has gone further than is considered desirable.[9] The prevalent opinion in Yugoslavia is that enterprise self-financing is too low in relation to general growth targets and potential of the capital market.

In such a situation, a high rate of interest might serve as a useful tool to enforce financial discipline. Basic industries like the new Smederovo steel mill borrow at rates as low as 4 percent. Promotion of basic industries by preferential allocation of funds at subsidized rates has also occurred in recent years in industrialized countries. The

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9. One indication of the squeeze is that industrial customers quite often do not pay their trade debts, and are apparently able to obtain additional deliveries in many cases as long as they are at least paying interest on amounts overdue (see Chapters 9 and 10).

operative reason is presumably that steel companies cannot obtain sufficient equity funds on the capital market; the interest subsidy is a way of achieving an adequate debt service coverage in an industry which would otherwise need some combination of higher profits and additional equity. Even in industrialized countries, the rationale for such a policy would seem to be political rather than economic. In Yugoslavia, an interest subsidy to basic industries could lead to misallocation of resources and excessively capital-intensive designs for industrial plants. If some of these industries (steel, aluminum, pulp and paper, petrochemicals) need support at the infant stage — this might be given as a straight annual subsidy rather than a low interest rate.

Table 5.13 shows the pattern of financing of fixed assets by industries in 1970. This table points to: (a) a normally high degree of self-financing, 40 percent to 50 percent *except in basic industries;* (b) the pivotal role played by investment banks which financed over one-half of new industrial investments; and (c) the strategic role played by the Federal Government and the republics as lenders of last resort, particularly for projects in steel, nonferrous metals, cement and pulp and paper. Viewed purely in terms of supply of funds, the system has generally worked for industries like pulp and paper, cement, fertilizer, and shipyards. Remission of turnover taxes and subsidized interest rates have also been used to increase the cash flow. In contrast, large complexes in steel, nonferrous metallurgy and apparently also petrochemicals have faced difficulties in financing investment. This is serious when it leads to long drawn-out construction periods. In addition, there seems to be a lack of balance between fixed assets' financing and working capital financing, with the latter often representing the main financial bottleneck. Secondly, there is some lack of interindustry and, in particular, interregional mobility of capital. The system of price and income formation has allowed excess fat to develop in some protected corners, which could be used to better advantage in certain other industries exposed to foreign competition (see above). Most seriously, acute shortages of capital have occurred in certain regions. For example the Montenegro Department of Industry maintains that one of the main reasons no new industrial enterprises have been created in the last few years, is that after taking care of infrastructure and basic industry expansion, the republic had no funds left for the processing industries. By the same token, however, the doubtful wisdom of some of the large capital-intensive investments in underdeveloped republics, e.g., nitrogen fertilizers in Kosovo, steel in Macedonia, aluminum smelting in Montenegro, provides a strong argument for national planning and financing of such basic industries.

Foreign Investment

Yugoslavia has adequate legislation, introduced in 1967, to encourage foreign investments. These must generally be in the form of joint ventures where at least 51 percent of the shares are held by Yugoslavs. Joint ventures must be embodied in contracts subject to registration and approval by the Federal Secretariat of the Economy. Authorization is generally limited to cases where at least 40 percent of the output will be exported; investments bringing new technology to Yugoslavia are strongly favored. More generally, it is hoped that joint ventures will become an effective vehicle for Yugoslav exports, and that foreign partners would not unduly limit the joint venture with respect to products and markets.

In the first two years of the new system, fourteen joint venture contracts were approved for investments, totalling US$45 million equivalent. All but a small portion

TABLE 5.12: Distribution of the Industrial Product

(% Shares)

	Gross Value Added (Billion Dinars)	Share	Depre-ciation	Personal Income Payments	Total	Accumulation — Turnover and Excise Tax	Contrib. Personal Income	Interest and Enterprise Savings	Depreciation/ Gross Fixed Assets [a]	Interest and Enterprise Savings Net Total Assets [a]
1958	8.8	100.0	9.0	19.1	71.9	16.3	11.4	44.2	4.3	21.0
1960	12.7	100.0	7.8	21.7	70.4	13.5	10.9	46.1	4.2	23.9
1965	30.5	100.0	8.8	29.7	61.4	8.1	18.4	34.9	5.5 (4.2)[b]	20.8 (17.3)[b]
1967	35.4	100.0	13.1	35.7	51.2	5.1	16.3	29.7	5.6	12.6
1970	55.3	100.0	12.9	38.3	48.8	4.9	16.7	27.2	7.0	12.7

[a] Fixed assets were revalued upward in 1962 and again in 1966 (by 33 percent) to take inflation into account.
[b] Figures within parentheses indicate what the rates of depreciation and return on assets would have been, had the 1966 revaluation been made retroactive to December 31, 1965.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

was accounted for by four large investments. Fiat, Italy, provided one-half of the total and VVB, an East German producer of titanium oxide another quarter, followed by a Czech producer of synthetic sausage casings and SKF, Sweden (ball bearings). During the subsequent two years ending March 1972, investments proceeded at about the same rate, but there was a sudden upturn in the second and third quarters of 1972 when, over a six-month period, the total approved was roughly as high as the previous annual average. Mercedes-Benz and Klockner-Humboldt-Deutz, Germany, and Citroen, France, are investing respectively US$20 million, US$5.6 million and US$3.8 million equivalent in the motor vehicle industry, in the first two instances in partnership with the International Finance Corporation (IFC). The only other major investment was by Semperit, Austria, in tire manufacturing. The bulk of the joint ventures are located in the developed republics, mainly Slovenia, for understandable reasons.

The first steps taken to activate foreign investment have, therefore, had favorable results. At the same time, they are limited, in the main, to the motor vehicle industry where they are favored by special rules for the development of exports. In a wider perspective, these investments are as yet small in relation to Yugoslavia's needs and its attractive industrial potential.

Industrial Planning and Development Prospects

Within the basic strategy of development and the macroeconomic framework prepared by the Federal Planning Institute and discussed with the republics, individual enterprises are involved (through the Republic and Federal Chambers of Economy) in the formulation of targets for different industries. The execution of the plan rests primarily with the enterprises guided by the market and their financial resources, and secondly with the republics whose main instrument is preferential financing, particularly for basic industry. The Federal Government does, however, have some policy instruments to induce enterprise decisions along the lines of the plan— through price policy, credit policy, trade and exchange policy and moral suasion.

Within this general frame of market orientation there are some apparent exceptions. First, special priority is given to basic industries (e.g., steel, basic petrochemicals) on the grounds that the development has lagged in the past and has become a major constraint on growth and the balance of payments. Second, a special priority is given to the development of the underdeveloped regions. Third, an attempt is being made to expand trade with the USSR in the belief that the trading opportunities there for many Yugoslav manufactured products may be excellent since in several areas the Yugoslavs are ahead in design and technology.

During the current Social Development Plan industrial production is projected to grow at 8 percent per year, with employment increasing at 3 percent per year and labor productivity by 5 percent. Industrial exports are projected to grow by 14 percent a year (as compared with 11 percent to 13 percent for total exports). Stress is laid upon the completion of large projects in the developing regions for power production and ferrous and nonferrous metallurgy. While overall investments are expected to increase at a rate of about 7 percent per year, there is no detailed analysis in the plan of investment requirements for the industrial sector as a whole or for specific industries.

Targeted rates of output for some major industries are shown in Table 5.14. The most rapidly expanding sectors would be plastic and synthetic fibers (with growth

TABLE 5.13: Pattern of Fixed Assets' Financing, by Industry, 1970

Industry Sector	Gross Fixed Assets End of Year (Billions of Dinars)	Investments in Fixed Assets during Year (Billions of Dinars)	Gross Profit [a] (Billions of Dinars)	Allocation to Enterprise Funds (Billions of Dinars)	Financing out of Ent. Funds [b] (Billions of Dinars)	Sources of Finance for Fixed Assets		
						Enter. Funds (%)	Inv. Banks (%)	Soc. Political Organizations (%)
Electric power	22.82	2.96	1.26	1.58	0.62	20.8	72.6	6.7
Coal and coke	6.40	0.39	0.39	0.09	0.14	37.0	40.3	22.7
Petroleum	5.75	0.24	0.49	0.02	0.31	13.1	76.3	10.6
Iron and steel	6.64	1.51	0.52	0.18	0.15	9.8	53.1	36.9
Nonferrous metals	5.71	1.32	0.56	0.14	0.58	43.7	26.4	29.7
Nonmetallic minerals	2.37	0.23	0.35	0.18	0.07	31.5	43.8	24.8
Metal products and machinery	10.99	1.01	2.39	1.15	0.39	38.6	47.6	13.8
Shipbuilding	1.40	0.13	0.23	0.19	0.09	65.7	32.7	1.4
Electrical equipment	3.79	0.38	1.13	0.41	0.12	32.8	53.8	13.4
Chemicals	7.48	0.70	1.35	0.58	0.29	41.3	47.1	11.6
Construction materials	3.08	0.54	0.60	0.37	0.19	35.7	53.9	10.3
Wood products	3.66	0.53	1.03	0.51	0.20	38.0	51.5	10.4
Pulp and paper	3.92	0.18	0.20	—0.02	0.04	21.1	54.3	24.7
Textiles	7.73	0.72	1.47	0.57	0.24	33.3	51.7	15.0
Leather and footwear	1.05	0.12	0.26	0.08	0.05	41.9	46.0	12.2
Rubber products	0.87	0.08	0.25	0.12	0.04	51.5	39.0	9.6
Food	5.60	0.77	1.14	0.48	0.37	47.5	45.6	7.0
Printing and publishing	1.86	0.25	0.65	0.36	0.11	42.9	54.7	2.4
Tobacco	0.82	0.08	0.13	0.00	0.05	54.4	37.4	8.3
Other and statistical differences	0.44	0.15	0.30	0.07	0.02			
Total	102.38	12.39	14.56	16.06	3.78	30.5	53.5	16.0

[a] Figure represents net value added *minus* personal income payments *minus* turnover and excise taxes. A large portion of this "Gross Profit" is earmarked for contractual (i.e., interest), legal and social service obligations. Only 41.4 percent of the gross profit was available in 1970 for allocation to enterprise reserves. The corresponding total of 6.06 billion dinars, however, is well above the total self-financing of new fixed investments, shown as 3.78 billion dinars. The difference presumably represents mainly self-financing of additional working capital requirements.

[b] In absolute figures, comparable with percentages given in Column 6.

SOURCES: *Statistički Godišnjak, Jugoslavije*, 1972, Tables 106.5 and 119.2.

rates of nearly 33 percent per year quite apart from the initiation of synthetic rubber production), motor cars (19 percent), other durable consumer goods (15 percent to 18 percent), crude steel (minimum 15 percent). In contrast, the average growth rate for the "equipment and durable consumer goods" sector as a whole would be only 8.5 percent. The following list gives some of the policies and objectives for individual industries.

Steel: Better coordination of investments.

Nonferrous Metals: Large investments in modernization capacities already exist (except for aluminum). More complete utilization of byproducts. Initiation of nickel production.

Chemicals: Substantial increases in petroleum and petrochemicals' production to increase the supply of petrochemical intermediates. Continued expansion of pharmaceutical exports and increased research in this area.

Forest Industries: Increase in fellings from ten to twenty million cubic meters, with an increased proportion of industrial timber and increased utilization of beechwood for cellulose. Paper production to increase by about 18 percent per year, sawn wood production by less than 3 percent.

Machinery and Equipment: Improvement in structure, technology production processes and marketing as well as increased specialization to meet intensified international competition. Improved financing of sales.

Consumer Durables: Intensified cooperation with foreign companies. Increased exports, and improved structure of domestic industry and creation of "integrational blocks" to spearhead expansion.

Development Policy Issues

Import Substitution versus Exports

The first issue of industrial policy is that of industrial orientation — which industries to push. The main option is between import substitution and exports. Many individual enterprises still retain a strong preference for the domestic market as long as this is expanding at the rate of recent years. They view production for export mainly as a means to secure foreign exchange for equipment and current inputs. Many Yugoslav economists also support continued import substitution, particularly in basic industries like steel and cement, on these grounds: (a) foreign exchange would not be available for massive imports; (b) export possibilities for manufactured products have been overestimated in the past and import needs underestimated; and (c) competition in the world market is becoming more fierce in goods highly dependent upon technology and marketing, whereas in more traditional items, such as textiles, Yugoslavia would be competing with low-wage countries and would also be facing important trade barriers.

Such timid views would not seem in line with the country's true comparative advantage. In areas like shipbuilding, mechanical and electrical equipment, consumer durable goods, textiles and clothing, nonferrous metals, Yugoslavia could hope for a considerable export trade. As a developing country, it obtains strategic tariff preferences in the EEC. Increasingly, it should be able to conclude agreements (similar to those in the motor vehicle industry with Fiat, Mercedes and KHD), which would not only provide for balanced trade but eventually a trading surplus for

Yugoslavia. Yugoslav firms have secured major construction contracts from developing countries; in this area, their combination of skills and low labor costs could lead to outstanding performance, and such contracting will also facilitate competitive access for Yugoslav equipment suppliers.

TABLE 5.14: Industrial Targets in the Draft Social Plan

		Average Annual Growth 1971–75 (%)	Shares in GNP 1971	Shares in GNP 1975
Manufacturing, mining and quarrying		8.0	35.0	36.0
			Shares in Industrial Product	
Electric power		8.9	3.2	13.7
Basic metals		11.2	7.5	8.6
Equipment and dur. cons. goods		8.5	26.1	26.6
Nonmetallic minerals and construction materials		9.0	7.3	7.7
Chemicals		12.0	8.8	10.5
Other		5.5	37.1	32.9
			Production Data	
Coke	mill t.	14.0	1.3	2.5
Crude steel	"	15.4–17.8	12.2	4.5–5.0
Steel products	"	9.1–11.0	2.2	3.4–3.7
Copper	th. t.	7.9–11.0	89.0	130–150
Aluminum	"	26–33	48.0	150–200
Lead	"	16–18	98.0	200–220
Zinc	"	15–17	65.0	130–145
Plastics	"	32.8	97.0	400.0
Synthetic fiber	"	32.0	9.0	36.0
Synthetic rubber	"	—	—	50.0
Sulphuric acid	"	747.0	747.0	1,200–1,300
Chlorine	"	23.2	44.0	125.0
Cement	mill. t.	12.8	4.4	8.0
Shipbuilding	th. grt.	16.2	409.0	850–1,000
Motor cars	th. units	19.0	109.0	260.0
Refrigerators	"	14.9	425.0	850.0
Washing machines and dryers	"	18.0	240.0	550.0
Television sets	"	18.3	320.0	740.0
Furniture	th. sets	8.5	342.0	515.0

Incentives and Protection

In most developing countries successful industrialization requires (a) identification of areas of major opportunities and (b) supporting the desired industrial orientation by a well-thought-out incentives' system. More needs to be done in the first respect. The target of 70 percent self-sufficiency in steel has not been documented; a master plan for the development of the steel industry is urgently needed. The same would seem to be true for petrochemicals, shipbuilding and nonferrous metallurgy, for example.

Once targets have been carefully set, the desired industrial orientation must be supported by proper incentives. Certain apparent anomalies in the protective system have been pointed out earlier in this chapter. Three further observations are in order:

(a) with greater liberalization the "retention quota" from export earnings may no longer be a powerful exports' incentive. If one accepts the premise that dynamic growth could come only through exports, the incentives' system should be so ar-

ranged that it is, as a very minimum, neutral as between export sales and domestic sales. Over and above this, some special incentives to new and promising export activities would be justified. Moreover, shortage of funds for export financing remains a problem.

(b) Yugoslavia recognizes the central importance of technical and managerial knowhow transfers from abroad and a correlated need to find external markets so as to achieve and remain in the frontline of product quality and cost competitiveness. An increase in foreign investment is desirable; how to attain it is a point for further study.

(c) Yugoslavia needs to pursue more aggressively the country's "permanent policy of decreasing import protection" where this can be done without harming development. Gross protection rates of 30 percent or more are quite common, and may be contraproductive.[10] High protection is a condition *sine qua non* for the false starts that have been made in certain fields, e.g., steel and certain petrochemicals, and it may be delaying a painful but eventually highly salutary adjustment in textiles (see the next section in this chapter). In a country with a high growth rate, massive external and internal migration and excellent training facilities, there is generally enough flexibility to absorb the manpower that would be freed through restructuring and rationalization, particularly if due allowance is made for the special problems of underdeveloped regions. The 1971–75 Draft Social Plan does, in fact, specify that: "in their self-management agreements and social contracts, organizations of associated labor, republics, and regions will introduce programs for specialization, retraining and employment of workers in new jobs and new working positions, concurrently with the introduction of new technology and organization of production."

The Fragmentation of Output

Fragmentation of output, and failure to realize economies of scale is a serious issue in steel and in chemicals. To a lesser extent, the same holds for the pulp and paper industry, household equipment, partly in aluminum and agricultural tractors and possibly also in shipbuilding (in spite of the fact that all major yards are grouped under one holding company). In certain other industries, notably motor vehicles, electrical equipment and telecommunications the industrial structure is, on the whole, good (with an exception, perhaps, for small auto assemblers). There appear to be four reasons for fragmentation, in order of their relative importance:

— regional pressures for each region to obtain its own fertilizer plant or steel mill;
— decentralization of control is regarded as a major condition for workers' self-management— the independent enterprise is the basic "economic cell";[11]
— special difficulties and problems in financing large units;
— the fear of monopolistic exploitation; "entry of new competitors is important to the functioning of the competitive system."

10. Since there are different views on the benefits of protection, some elaboration may be desirable. Protection isolates the domestic market. Competition in a small-market, oligopoly situation will not be vigorous and direct for fear of ruinous economic warfare. Competition by methods less direct than price-cutting will be preferred, and inefficiency perpetuated. This is the problem of fragmentation, though, as shown below, the Yugoslavs have developed devices for dealing with fragmentation.

11. Enterprises hesitate to locate subsidiary plants in other republics for fear that the new plant would establish its own management, as it could legally do, with a consequent loss of control by the founding enterprise.

Fragmentation of output is, however, less likely to become a serious issue in the future. First of all, the tendency towards fragmentation has been checked, and in recent years there has been some increase in concentration.[12] At the same time there has been a strong tendency towards mergers, resulting in about one hundred mergers, plus some break-ups (the latter presumably to facilitate concentration of production, rounding out of product lines, etc.). In other industries, notably the metallurgical and electrical engineering sectors and ship-engine production, there have been specialization and cooperation agreements, with retention of the independent status of cooperating enterprises. Finally, the government is committed to a gradual reduction in protection; with lower protection it will be more difficult for inefficient enterprises to sprout or oligopolistic market structures to persist. Possibly the most serious obstacle to continued rationalization of industry structures lies in the reconciliation of (a) the legally guaranteed independence of the individual (local) self-management unit with (b) the impetus of the holding company towards unified direction and control.[13]

Regional Industrialization

The prospects for regional decentralization seem good, based upon: (a) recent trends; (b) government willingness to subsidize regional development; (c) the desire of centers like Belgrade, Zagreb, and Llubljana to limit urban spread and immigration, gradually ceding various labor-intensive and resource-based industries to other regions; and (d) the positive attitude of many leading industrialists towards decentralization. Three elements will determine the success of future industrialization:

(a) *an intensified planning effort* where the emphasis might well (i) be shifted from large capital-intensive projects to integrated industrial complexes, e.g., in metal manufacturing and chemical processing industries and connected auxiliary industries,[14] and (ii) focus on development poles and satellite poles;

(b) more *critical screening* (by both the republic governments and the banks) of the planning and execution of major projects like the Macedonian steel mills, Kosovo nitrogen fertilizer plant, and some of the Bosnian paper mills;

(c) *direct subsidies* for plants in certain labor-intensive industries which are located in or transfered to development regions;

(d) *greater support at the federal level,* if necessary, for research and development in such areas as mining (e.g., in Macedonia) and forest industries (e.g., in Bosnia-Herzegovina and Montenegro).

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12. As measured both by the number of firms per industry and the percentage of output in each subsector accounted for by the four largest firms. See Stephen R. Sacks, "Changes in Industrial Structure in Yugoslavia, 1959–68," *Journal of Political Economy* (June 1972). Sacks also shows (based upon an examination of several hundred specific products) that the number of procedures for each product tended to stabilize during the 1960s.

13. Reconciliation of these two objectives is possible, as demonstrated by the United Steelworks of Slovenia which was formed three years ago, under Slovenian Government sponsorship, to coordinate future development and investments by independent steel mills—Jesenice, Revne and Store. This agreement is now said to work well. Yet it took five years to achieve, mainly because of the financial weakness of some of the participants.

14. Some ideas in this field are contained in the EEC, "Study for the Promotion of an Industrial Development Pole in Southern Italy," Vol. I (Brussels: EEC, 1966).

Problems and Prospects of Selected Industries: Steel

Recent Trends

During the last decade, Yugoslav steel consumption has grown by slightly in excess of 10 percent per year (about 1.7 points for each percentage point increase in industrial production). The present per capita steel consumption, over 200 kilograms of crude steel equivalent, is at a comparatively high level in relation to Yugoslavia's per capita national product, reflecting both a heavy investment effort and substantial development of metal manufacturing and engineering industries.

Over the same period, however, production did not keep pace with domestic consumption; as a result, the net imports in steel grew ten-fold, from 134,000 tons in 1962 to 1.34 million tons in 1971, valued at US$250 million equivalent (see Statistical Annex Table 8.3). The degree of self-sufficiency consequently dropped from 90 percent to only 60 percent. Notwithstanding the heavy import surplus, Yugoslavia also exports considerable quantities of steel, about 250,000 to 300,000 tons per year. These are mainly exchanges (about equally with Western and Eastern Europe) to round assortments; other exports are said to be only about 50,000 tons per year. Import quotas were introduced in 1967 due to depressed world market prices; imports are now controlled by agreement between producers and consumers. Most of the imports take place through twelve major imports wholesalers.

During 1961-70, prices for steel moved in close relationship to the general price levels for manufactured goods, a parallel that may have something to do with federal price controls. In 1971, however, steel prices were raised by an average of 36 percent (roughly *pari passu* with the two dinar devaluations) as compared to an average increase in prices for manufactured goods of only 15 percent. Since world market prices declined by 10 percent, there was a deterioration in competitiveness in relation to imported steel. Even then, judging by official price tests, Yugoslav steel appeared to be priced competitively with domestic steel prices in Western Europe for nonflat products in the fall of 1972 (Statistical Annex Table 8.4). For flat products, like plates and sheets, the comparison is less favorable.[15] Moreover, since that date world steel prices have continued to rise.

Investments in the steel industry during 1958-62 were on a small scale, and the Yugoslav steel industry by the early 1960s was characterized by relatively small units, much antiquated equipment, and generally unbalanced facilities. It was the aim of the 1963-68 Reconstruction and Expansion Program to overcome these deficiencies. Many problems were encountered, in particular lack of capital, delays in construction (of fifteen to forty months) and overrun in costs. The capacity utilization has been poor. The reasons for this include poor balancing of facilities (various bottlenecks) and an inability to operate some facilities at rated capacities (indicating further experience needed). Poor capacity utilization is a major reason for the relatively slow growth in productivity which was less than 33 percent in 1962-71, despite heavy investments.

Growth was accompanied by decentralization. Thus, there was relative stagnation of steel production in Bosnia-Herzegovina (after the enlargement and modernization

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15. Price comparisons for steel are a highly technical subject, and the above remarks represent only a very preliminary interpretation.

of Zenica in the mid-1950s) and a slowing down of growth in the other major producing area, Slovenia, while new works were built at Skopje, Macedonia and Smederovo on the Danube in Serbia. The vigorous growth of tube production at Sisak (Croatia) should also be noted.

The Number and Location of Mills. The splitting of 3.4 million tons of steel production among half a dozen principal plants has entailed grave diseconomies of scale and difficulties in investment scheduling. There are too many mills in relation to the annual growth in consumption, hence none can build to optimum size or expand at optimum pace. The location of the mills (in part historically determined) is also highly unfavorable with not a single mill on the coast. Since Yugoslavia has only small reserves of coking coal, imports have been railed from Adriatic ports or from the East. Skopje is close to domestic iron ores and lignite, but the lignite can only be used in electric iron furnaces which was not a competitive solution in this case; meanwhile Skopje is far from its major markets. The choice of Niksic as a site for a steel mill is also highly questionable. The opening of the Iron Gate for river traffic made it possible to build Smederovo, the most recently constructed mill, which will receive ore and coal by river.

Facilities. The major modern metallurgical units installed in 1962-71 were a new blast furnace at Smederovo and two 100/110 ton oxygen steel converters at Skopje. Skopje is a problem case. Iron is produced in electric furnaces but the output per furnace is only about two-thirds of the output of similar furnaces in Sweden or Norway, apparently due to a combination of factors (low grade lignite, variations in electric current, and insufficient operating experience). Skopje is probably the major problem child but there seem to be grave technical, economic and/or programming difficulties at Niksic and Smederovo as well.

Investments and Production Costs. For the industry as a whole, at a rate of ND12.50 per dollar (effective from mid-1965) through 1970, the incremental investment cost works out at US$240 per ton crude steel equivalent at historical prices. For well-balanced capacity, this incremental investment might be on the high side, but is tolerable. The picture changes, however, when low productivity, high labor costs and poor profitability are taken into account. That Yugoslav costs are, in fact, on the high side is also suggested by the above-mentioned comparison between Yugoslav (postdevaluation) prices and Common Market prices in Statistical Annex Table 8.4. Yugoslav quotations seem higher for plates, sheets, and concrete reinforcing rounds but are lower for wire rods, profiles, and (surprisingly) narrow strip.

The main problems for the future concern demand projections, planning and coordination of production and investments, the supply of raw materials and the financing of investments. During the past decade, the demand elasticity of steel in relation to GNP growth was approximately 1.67; the plan expects this to fall slightly to 1.56. However, the projected growth rate for steel production (11.3 percent) is not consistent with the growth rates for major steel-consuming sectors (7.8 percent for gross fixed investments and 8.5 percent to 9 percent for metal processing and equipment industries). This discrepancy is even more pronounced if account is taken of the secular trend towards reduced inputs of steel per unit of production in major steel industries (i.e., construction, shipbuilding, motor vehicles, canning, and so on).

It might be argued that any excess of potential production over future demand could be compensated through a reduction in net imports. However, the proposed self-sufficiency, at 70 percent, is probably well-adjusted to the size of the domestic

market and the possibility of acquiring certain quantities of steel at favorable prices on the world market. The economic returns associated with alternative expansion rates for domestic steel production would, therefore, need to be studied closely.

Problems of the optimal rate of expansion and the optimal expansion path are closely linked. As shown below, expansion, as presently planned, would take place exclusively at existing works. Because of uncertainties regarding the plans of rival producers and available financing, the above plans of the individual works are in themselves rather vague and undetermined. It has been argued that it will be necessary for most, if not all, the works to revise their plans downward in line with a more realistic assessment both of their financial availabilities and also the availabilities of iron ore (in particular there are more claims for the Llubljana ores than the projected output). At the same time, it is possible that because of many half-finished, poorly balanced facilities within the mills and poor harmonization of investment programs between mills, the Yugoslav steel industry is in a phase where there would be high returns on a rather massive investment program, if well-coordinated. An independent study examining the situation from the point of view of the country as a whole appears needed to devise a rational development path for the steel industry.

The first three mills would be oriented towards mass production of commercial grades on an integrated basis while the latter three complexes would become increasingly specialized in higher grades and/or degrees of processing. Zenica and Smederovo would use imported coal (an expensive proposition) while Skopje, as already mentioned, is using local lignite for its electric iron furnaces. The iron ore deposits at Zenica are excellent and at Skopje acceptable, in terms of qualities and reserves; the main problem lies in upgrading these ores, which hold respectively 50 percent and 42 to 43 percent Fe, into a more economical blast furnace feed. Smederovo is importing iron ore concentrates over the Danube and in this respect, its position may not be much different from, say, German steel mills on the Ruhr. All things considered, ore and coal supply is probably not a *major* constraint on competitive production.

One informed source indicates likely investment costs for the expansion from three to five million tons of about US$550 million equivalent, or US$275 per ton steel, with lower incremental investments (say, on the order of US$200 per ton) at Zenica and Skopje. If investments can be kept within these limits and assuming also an associated radical reduction in manpower requirements per ton steel, the economic returns from steel expansion may be high. Unfortunately, a coordinated expansion and financing plan for these giant investments is still lacking.

Nonferrous Metals

During the first half of the 1960s there was a rapid growth in the production of several major nonferrous minerals and metals (see Statistical Annex Table 8.5). Subsequently, there was continued progress in copper and, temporarily, in zinc, while the production of aluminum and lead stagnated. It is expected that the 1972 production of electrolytic copper will be about 140,000 tons, i.e., 50 percent above the 1971 level and above the 1975/76 production target. In other major metals, production stagnated in 1972 (aluminum and zinc), or actually declined (lead, due in part to problems at Trepca in Kosovo, the country's largest lead-zinc smelter). A major reason for the stagnation in output is price control; Yugoslav prices for lead are 20 percent and no less than 40 percent below the world level. Copper prices in 1965–68 also

averaged significantly below the world market level. Only aluminum prices, at US$500 per ton (nearly 23 cents per lb) in 1972, were more or less at the world level.

Yugoslavia is the largest producer of nonferrous metals in Europe, and has the richest resource endowment, both in relation to its area and the number of inhabitants. The best potential is believed to exist in lead, zinc and nickel but Yugoslavia is also a net exporter of copper. Though there has been a decline in chrome ore production in recent years, large reserves are believed to exist in the Zlatibor Massive in Serbia.

TABLE 5.15: Present and Planned Steel Capacities

				(Million Tons Crude Steel Equivalent)
	1971	1975	Ultimate	Main End Products
Zenica (Bosnia)	0.93	1.50[a]	3.0	Bars, profiles sections flats
Smederovo (Serbia)	0.10	1.00	2.5	Slabs (for Skopje), flats
Skopje (Macedonia)	0.25	0.65	2.0	Flats
Sisak (Croatia)	0.31	0.55	0.7	Tubes
Jesenice/Ravne/Store (Slovenia)	0.66	1.00	2.2	Profiles and special steels
Other (incl. Niksic)	0.26	0.30	0.4	Alloyed steels
	2.45	5.00	10.8	

[a] By 1976, Zenica capacity could be 2.4 million tons.
SOURCE. Federal Chamber of Economy, Belgrade.

Insufficient prospecting and development is a serious constraint on production; the raw material basis for three of the major minerals (copper, lead and zinc) is regarded as secure through 1976 only. Because of delays in development, production is lagging far behind recently expanded smelting capacity. The situation in aluminum ores is better, and there are projects for substantial expansion of both aluminum oxide and aluminum production, mainly for exports to the eastern bloc.

The following targets have been set for 1975/76; 1971 capacities are shown for reference (thousand tons):

	1971	1975/76
Copper	90	130
Lead	100	200
Zinc	65	130
Aluminum	70–75	200

In 1971, Yugoslavia produced about two million tons of bauxite, of which about 1.75 million tons were exported, making her a major world exporter. Only about 300,000 tons were used for the domestic production of aluminum at Kidricivo in Slovenia (about 70,000 tons), and on a small uneconomic scale (6,000 tons) at Sibenik in Croatia. A new 75,000 ton smelter was started up at Titograd in 1972. Over the next five years, it is planned to increase smelter production five-fold and also to produce substantial quantities of alumina for export, mainly to the USSR.

Increased alumina production will absorb all but 250,000 tons of the planned expansion of bauxite production to three million tons which could, however, probably be raised to 3.5 million tons to permit additional exports. Proven reserves are in excess of 200 million tons. The major problems are financing and power supply. The USSR is providing substantial financing for Zvornik, to be repaid in aluminum deliveries over a period of ten years. The remainder of the financing will come from the republics and, in part, from the FAD.

Cheap and reliable power is, of course, imperative for aluminum smelters, which use some 16,000 to 18,000 kWh per ton aluminum produced. Titograd will receive about equal quantities of hydropower and lignite based thermal power, while Zvornik will use power based upon brown coal from Plevlje in Bosnia. The power supply for Mostar and for the Sibenik expansion has not yet been arranged. The 1972 power price for reduction plants has been fixed at 8.5 paras per kWh (slightly over five US mills); this is very favorable but would appear to be below the cost of supplying this power, including a necessary return to capital. There is a need to review for supply contracts to avoid muddying the economic accounts between power and aluminum industries.

TABLE 5.16: Alumina and Aluminum Capacities at the End of the Present Expansion Phase

(In Thousands of Tons)

	Alumina	Aluminum	Notes
Titograd (Montenegro)	200	100	
Mostar (Herzegovina)	280	80	120,000 tons of alumina for export
Sibenik (Croatia)	300	110	80,000 tons of alumina for export
Kidricivo (Slovenia)	100	40	
Zvornik (Bosnia)	500	—	500,000 tons of alumina for export
Total	1,380	340	

Traditionally there is some smelting and refining of lead and zinc in Slovenia and Serbia, but the main resources of these metals are located in Kosovo and Macedonia, and this is where future expansion of mining, smelting and refining will mainly occur. In fact, a new smelter and refinery with smelting capacity for 70,000 tons of lead and 40,000 tons of zinc will start operations at Tito Veles in Macedonia by the end of 1972. Similarly during the last five years Trepca in Kosovo has invested one billion new dinars in its lead and zinc operations, and another one billion is to be invested in 1973-75, to raise lead output to 150,000 tons and zinc output to 80,000 tons. While there are indications of a substantial ore potential in Kosovo, the development of sufficient reserves to meet the proposed expansion in smelting and refining capacities has become a matter of urgency.

A promising potential for the production of nickel exists in both Kosovo and Macedonia, with proven reserves of ten million tons at both locations, grading 1.2 percent to 1.3 percent nickel. These are complex ores and studies are being carried out (by Russian and Yugoslav consultants) with a view to developing the appropriate processing method, possibly hydrometallurgical for Kosovo ores and pyrometallurgical for the Macedonian ores. According to preliminary indications, a smelter capable of producing 12,000 tons of ferronickel may be erected in Kosovo. This would be a large project which might use up to 180 MW of power.

Metal Manufacturing and Nonelectrical Machinery

With a ratio of imports to total domestic supply of 38.6 percent in 1970, it is a sector in which Yugoslavia relies heavily on imports. In fact, metal products and nonelectrical machinery account for about 36 percent of total imports of manufactures, and

probably an even higher share of total technology payments. Though exports grew twice as fast as imports in the 1960s they still are less than one-quarter of the value of imports. Net imports of the motor vehicles and parts' subsector are relatively small, while the import dependence for the metal products' and machinery subsector is quite high. In the following paragraphs, the two subsectors will be discussed separately.

The metal products' and machinery subsectors are highly diversified and include a large number of individual producers as may be seen from the following summary.[16]

TABLE 5.17: Production and Employment in Metal-Working Industries, 1970

	No of Producers	Social Product (Millions of ND)	Employment (Thousands)
Castings, forgings and other mats.	88	1,504	44.5
Structural elements	14	291	8.1
Machinery and tools	85	2,577	74.4
Precision instruments	14	386	10.4
Railway vehicles	17	813	30.6
Household equipment, other than electrical	45	773	19.7
Other	23	223	5.9
Total	286	6,567	193.6

SOURCE: *Industrijska Preduzeca, 1970.*

Geographically, the production of metal products is more heavily concentrated in developed republics, particularly in Slovenia and Serbia, than is manufacturing as a whole. Details of physical output, by major subgroupings, are shown in Statistical Annex, Table 8.6.

Though production approximately doubled between 1960 and 1970, this still places this subsector close to the lower third of the manufacturing industries in growth terms. Moreover, imports in the machinery subgroup have expanded very rapidly (see Statistical Annex Table 8.7).[17] There is in fact some indication that this industry has not attained the position to which it might aspire based upon comparative advantage (high skill requirements and considerable labor intensity). A special study of the conditions for dynamic expansion of this subsector merits a high priority.

Structurally, the Yugoslav metal processing and machinery industry is composed of a fairly small number of enterprises (see Statistical Annex Table 8.6, last column). In terms of turnover and employment the ten largest enterprises are of the same size or larger than the ten major Spanish firms in the same sector. Yet, by international standards these firms are small, and in Spain, there is a tendency towards amortization of production.[18]

16. The uniformity of value added per worker in the three digit subsectors is striking. It falls within a range of 34,000 to 39,000 dinars, except for railway vehicles where it is only about 27,000 dinars.

17. An analysis of import substitution is rendered difficult by (a) lack of comparable value-of-production data, and (b) the fact that there are about thirty subcategories of metal products and machinery, only one of which (construction and mining machinery) accounted for more than 10 percent of the total imports of the group.

18. In a Yugoslav ranking of industrial enterprises (including power, mining, and agricultural *kombinats*), the five largest metal product manufacturers rank respectively as Nos. 24, 47, 61, 92 and 93.

TABLE 5.18: Number of Producers of Some Common Types of Equipment

	Spain	Yugoslavia
Power boilers	7	5
Ship diesel engines	3	7
Locomotives	6	5
Railway carriages	6	6
Hydraulic turbines	3	1
Compressors	4	7

Diversification and duplication of facilities lead to poor plant utilization, poor economic returns, and a low decline in growth potential. Moreover, excessive end-product duplication, as actual Yugoslav experience shows, leads to uncoordinated growth of supporting facilities like foundries and forging plants. Even though Yugoslavia has some favorable experience with cooperative research, this type of structure is difficult to reconcile with efficient development work in an industry where such development is both important and costly. Another strategic aspect is the transfer of technology from abroad. Such transfers are eased when the receiving partner owns large and sophisticated technical organization.

Yugoslav engineering industries are handicapped by relatively high steel prices. An even more important problem is finance. Yugoslavia has major projects underway in mining, steel, power, nonferrous metals, and cement chemicals, etc. These projects are, to a large extent, financed through foreign credits, including the recent USSR loan for thirty-eight major projects. Yugoslav authorities have insisted on maximum participation by the domestic engineering industry in these deliveries, which is generally acceptable to the foreign creditors. But the domestic industry has encountered great difficulties in financing simultaneously a share in the equipment credits and its own investment needs for productive equipment and goods in process.

From a regional point of view, one may expect some future concentration of this industry in Slovenia which has a good supply of skilled labor and industrial experience, and could attract foreign partners with eyes towards exports. This would also be in line with the gradual conversion of Slovenia steel mills towards more highly processed steels as are used increasingly in the mechanical industries.

Motor Vehicles

The development of motor vehicle and tractor manufacturing in Yugoslavia is reflected in the following production figures.

(In Thousands)

	1961	1964	1967	1970	1971
Tractors	4.9	9.4	8.8	12.0	15.0
Trucks	5.4	9.1	9.6	12.9	13.3
Buses	0.8	2.6	2.4	3.8	3.9
Automobiles	15.0	26.4	46.2	108.8	109.9

Further details of production are given in Statistical Annex, Table 8.8. Tractor production has tripled over the decade and production of trucks (including both heavy,

medium and light commercial vehicles) has grown at a similar pace. Automobile production, which started at a low level in relation to the potential market, tripled between 1961 and 1967, and grew nearly 2.5 times between 1967 and 1971.

Reflecting the rapid motorization of the country, imports have grown almost as rapidly as domestic production. Exports also have developed in response to government regulations which induce companies to export in order to secure their foreign exchange for their import requirements.

TABLE 5.19: Production and Trade in Motor Vehicles

								(In Thousand Units)	
		1964	1965	1966	1967	1968	1969	1970	1971
Tractors	P	9.4	7.4	8.7	8.8	10.9	10.8	12.0	15.0
	I			.	4.8	4.0	2.7	5.3	
	Ex				4.9	9.2	0.7	4.0	
Trucks and	P	11.7	11.9	12.0	12.0	14.1	14.3	16.7	17.2
Buses	I		1.9	1.3	9.2	5.7	3.3		
	Ex		0.1	1.9	1.3	9.2	3.3		
Automobiles	P	26.4	34.4	36.1	46.2	58.3	78.9	108.8	109.9
	I	4.8	13.0	20.2	51.8	52.9			
	Ex	1.1	6.4	3.7	5.6	1.0			

P=production   I=imports   Ex=exports
SOURCE· Federal Chamber of Economy, Belgrade.

Exports of finished vehicles represent only a small portion of the total exports of the motor vehicle industry, which consist mainly of automobiles and parts exported to foreign partners. Total exports more than covered import requirements of parts and components for passenger cars manufactured, and in the near future will be covering about two-thirds of the corresponding requirements for trucks and buses. The industry is dominated by four firms:[19]

Zastava (ZCZ) is the only integrated manufacturer of passenger cars, and has accounted for about 90 percent of car production in recent years. Zastava also produces light commercial vehicles. It cooperates closely with Fiat of Italy through agreements on licensing and mutual exchange of parts.

UMI is a holding company, whose major units are engaged in the manufacture of tractors (about 15,000 per year), agricultural combines, diesel engines (under Perkins license) for its own IMT tractor and for TAM trucks (see below), at a rate of about 22,000 units per year, and finally all the gasoline engines for the Zastava car (about 100,000 per year).

FAP-FAMOS is Yugoslavia's only producer of heavy trucks (eight tons payload and up) and buses under license agreements with Saurer (Austria) and, more recently, Mercedes-Benz (West Germany). Its present annual output is about 4,500 units.

TAM is Yugoslavia's only manufacturer of commercial vehicles in the 2 to 6.5 ton range, with a present output of about 7,000 vehicles. It has a technical and commercial cooperation agreement with KHD (West Germany).

19. These are listed in the order of total employment, which is also the order of total sales except that, in 1971, TAM overtook FAP-FAMOS in total sales though not in employment. This was mainly related to the absorption by TAM of TZV "Boris Kidrič," an enterprise engaged in the production and repair of railway carriages as well as parts for TAM.

Other producers include three assemblers of passenger vehicles (cooperating with respectively NSU, Citroen, and BMC), with relatively small annual outputs, three additional bus manufacturers and three manufacturers/assemblers of heavy wheel tractors and crawler tractors.[20] Their total value added is small in relation to the dominant producers. The most important of these is Torpedo, which has a project for the production of air-cooled engines for TAM and would also expand its present relatively small tractor production (under Klockner-Humboldt-Deutz license) to 6,000 units.

An analysis made in connection with World Bank–Yugoslav Investment Bank (YIB) financing in 1969, before the devaluation of the dinar, concluded that Zastava's retail prices were only some 10 percent higher than prices for comparable Fiat cars made in Italy, with a somewhat higher differential at the factory level. The effective rate of protection was probably (depending on various assumptions made) of the order of 15 percent. On the other hand, TAM prices for trucks and buses in the 2 to 6.5 ton range and FAP–FAMOS prices for its heavier line of trucks and buses were roughly in line with German prices. Finally, IMT tractor prices were well below the German level except for the largest 100 HP version. Scale economies are important in the motor vehicle industry, and major Yugoslav manufacturers are now beginning to attain respectable scales of output by international standards. Compared with any other developing country in a similar situation (Argentina, Brazil, Mexico, India, or even Spain), the growth of the Yugoslav car industry has proceeded along exceptionally sound lines, particularly in avoiding the proliferation of many rival producers.

The technical and financial association of three major world manufacturers (Fiat, Mercedes-Benz, and KHD) with leading Yugoslav firms provides protection against technological lags and creates an opportunity for additional export growth within (or, in the case of Eastern Europe, even outside) the international production and marketing network of these companies. For the moment, the Yugoslav motor vehicle industry is concentrating on meeting domestic requirements; exports of finished vehicles (mainly to Eastern Europe) by 1975–76 are not expected to exceed 7 percent to 10 percent of total sales. As domestic production expands, truck imports which totalled 60,000 units in 1969 could conceivably double. These are determined by the ability of Yugoslav workers abroad to buy and import cars with their own foreign exchange earnings, plus the arrangement already described governing the assembly of foreign-made cars. Although a 54 percent duty is applicable, this is compensated for by differentially low export prices (including exoneration from value added tax) and by the preferences of some consumers for foreign cars.[21]

Electrical Equipment

The electrical engineering industry shows one of the most successful performances of all industrial sectors during the last decade. It has successfully absorbed a mass of new technology, rapidly increasing the proportion of engineers in the total staff. It has created a number of research and development centers, and concluded cooperation and trading agreements with leading international manufacturers. It has

20 In principle, importers/assemblers cover the foreign exchange component (up to 80 percent) of their car imports by substantial exports of components (e.g., exhaust piping, silencers, welded members and similar items with a high labor content).

21 According to the 1969 appraisal of the ZCZ project, these two factors were of roughly equal importance, i.e., a low foreign export price compensated for about one-half of the protective duty.

rapidly expanded the share of exports in total production from 15 percent in 1963 to 34 percent in 1971, thereby achieving necessary economies of scale in several product lines. It has independently and successfully contracted for several major construction jobs (electric power stations, transmission lines, communication systems) in developing countries. On the production side, major progress has been made in the quality, design, sophistication and range of items produced. The industry is well-distributed over the country. However, production in development regions like Macedonia, Montenegro and Kosovo is still small; a major new storage battery plant in Kosovo is only starting operations.

The main impetus towards growth has come from the domestic market, reflecting the growing electrification of the country, the rapid increase in consumer demand for electrical appliances and television sets, the expansion of communications' systems, and the electrical component requirements of the expanding automobile and shipbuilding industries. Because of this explosion in demand, the share of imports in total consumption has actually been rising quite rapidly, and Yugoslavia's net imports of electrical equipment reached nearly ND750 million in 1970. At the same time, certain predominant export items have been developed, including power transformers, small and "micro" electrical motors (as used in electrical appliances, etc.), cables (about 30 percent of total exports; this could conceivably reflect an anomaly in the incentives' system), scanatrons (used in the transmission of television pictures, etc.), telephone exchange and telex systems (large deliveries to the USSR). Comecon countries in 1971 received 39 percent of the exports of electrical products.

Several of the major firms have ambitious expansion programs which would generally result in increased export shares. Some of the larger firms feel that an optimum might be reached with exports exceeding 50 percent of sales, a means of absorbing new technology and achieving economies of scale. There is also a clear tendency to extend international cooperation and licensing agreements. License fees and other payments are regarded as modest in comparison with the results achieved (even joint ventures are often regarded with favor). The profitability of the industry is generally satisfactory, and worker and staff incomes are among the best in Yugoslavia. Raw material costs are generally competitive, or even favorable (such as for copper, lead), and raw materials which cannot as yet be economically manufactured in Yugoslavia, such as transformer sheets, are imported. Finance, both for fixed assets and working capital, is the main bottleneck. There is a commonly held view in several subsectors of this industry, electronics is an example, that heavy investments are necessary each year to keep abreast of world market and technology changes, and consequently the lack of finance is regarded as a danger to long-term competitiveness.

Chemicals and Fertilizers

The chemicals' industry has been the fastest growing industrial sector in Yugoslavia (for output, by major products, see Statistical Annex, Table 8.9). Nevertheless, since consumption increased *pari passu* with production, import dependence, presently about one-third of consumption, declined only slightly in recent years.

Imports of chemicals, primarily from developed market economies, have been increasing rapidly and over a wide front, like basic elements and compounds, dyes and colors, pharmaceuticals and plastics. In contrast, exports totalling about US$100 million equivalent and growing more slowly than imports are mainly to centrally

planned economies; pharmaceuticals are prominent in these exports which also include artificial and synthetic fibers (particularly viscose) and fertilizers (particularly NKP).

TABLE 5.20: Supply and Demand for Chemicals

(In Millions of Current Dinars)

	Production	Exports	Imports	Domestic Supply
1965	3,952	818	1,921	5,834
1970	10,466	1,401	4,545	13,610

There are some 140 enterprises in the chemicals' industry, of which some fifteen figure in the 1971 list of Yugoslavia's hundred largest industrial enterprises. This includes the chemicals' divisions of some conglomerates in the oil and mining sector. However, closer analysis reveals a number of problems, in particular, low and uneconomic plant sizes, lagging modernization, low productivity and high prices. Some of these problems, characteristic of the chemicals' industry in many developing countries, are in the nature of growth pains. They point to the principal issue facing the industry today: the financing of major expansion for basic petrochemicals' plants, specifically ethylene and aromatics' complexes. Another important issue is low productivity in both petroleum refining and petrochemicals. To improve performance and to find employment for the workers thus made redundant presents a substantial challenge.

These issues may be illustrated by a closer look at some of the subsectors and projects. Production of *artificial and synthetic fibers* has been expanding, generally on sound lines. The two producers of viscose fiber from domestic pulp cover the country's needs, and are projecting exports of 20,000 tons per year. Production of polyacrylic fiber is being expanded from 5,000 tons to 15,000 tons, and two new plants, with a capacity of about 12,000 tons each, are being projected for the production of polyester fiber from imported DMT. These outputs will be essentially for the domestic market. There are also two small plants, each with a capacity of 3,000 tons, producing nylon from imported caprolactam; this is unlikely to be a viable proposition. Production of *nitrogen fertilizers* is concentrated mainly on two good sized plants, using either refinery waste gases (Panchevo) or natural gas (INA) as feedstocks. Nevertheless, domestic prices are higher than import prices, and imports of nitrogen fertilizers are controlled by quota to permit domestic manufacturers to obtain maximum capacity utilization. An ammonia plant built in Kosovo to use locally available lignite as a source of hydrogen has not produced the desired results — no production is recorded in official statistics. Such production presumably would not be economical. INA's recently completed *aromatics' complex* near the Rijeka refinery has a capacity of 150,000 tons. Two of the major intermediates produced, benzene and toluene, are exported to the United States; this can hardly be an economic proposition. A new petrochemicals' complex for the production of *PVC and polyethylene* will be erected at Panchevo (using naptha from the adjacent oil refinery) at an estimated investment, including working capital, of US$170 million equivalent. With a total ethylene capacity of 200,000 tons and with planned exports of 50,000 tons of ethylene and 65,000 tons of propylene to Romania, this could be an interesting proposition but financing has not yet been secured.

Some of the recently completed plants lack economic justification, and even the proposed Panchevo complex with economic-sized units entails a very heavy investment in relation to the employment opportunities created. Nevertheless, as in steel, industry leaders and government officials feel nervous about the large and growing import deficits which, in their mind, provide a rationale for expansion independent of the economics of individual projects. Far more consistently than in the past, however, present planning will be aimed at efficient scales of output and the promotion of exports (even of a temporary nature) to fill the new capacities. Development will generally start with the downstream plants, and production of basic intermediates will begin only as a sufficient domestic market has developed to provide a minimum base-load. In this way, Yugoslavia will be exporting vinyl chloride monomer while continuing to import acrylonitrile, styrene monomer, and caprolactam.

Forest Production Industries

The total volume of logs cut in Yugoslav forests increased by over 10 percent between 1962 and 1966/67, but has since stagnated at or below 10 million cubic meters. Though deliveries of saw logs increased from 4.1 million to 4.8 million cubic meters and of pulp logs from 1.2 million to 1.6 million cubic meters, the pulp and paper industry has suffered from a shortage of logs, and imports of pulpwood (mainly coniferous and largely from Austria and the USSR) averaged about 300,000 cubic meters per year in 1965-71. Such imports are expensive and are furthermore burdened with considerable inland transportation. Even more important than the deficit in pulpwood are rapidly increasing imports of wood products and pulp.

With sawmill production stagnating (only 20 percent increase in output over the decade) and veneer and vinier fiberboard production also stagnant, growth in the forest industries was largely confined to the pulp and paper sector (Statistical Annex, Table 8.10). Between 1964 and 1971, production of paper and board increased by about 60 percent (23,000 tons), with increase in pulp production lagging somewhat behind (162,000 tons). Thus, notwithstanding a rapid increase in lumber and furniture exports, the growing paper imports made the total trade surplus in forest products decline from about 1.5 million dinars per year in 1964-69 to only 0.5-0.6 million per year in 1970-71 (Statistical Annex, Table 8.10).

Yugoslav forests contain about one billion cubic meters of wood, and could easily sustain a substantially higher cut. Annual removals average only about 56 percent of the estimated annual increment, which is particularly regrettable since much of the forest is overmature, and since so much of the forest land is in underdeveloped republics and regions (Statistical Annex Table 8.11). The three republics of Bosnia-Herzegovina, Montenegro and Macedonia alone account for 40 percent of the forest land, 44 percent of the annual increment in timber volume and 39 percent of the annual cut.

One complicating factor is technology: 70 percent of the standing timber is hardwood, particularly beech. Moreover, Yugoslav consumption of paper is growing particularly fast for those types of paper, newsprint and craft paper, which use mainly softwood pulp. Hence, dynamic growth of the forest industries is contingent upon exports using hardwood. The prospects for beech lumber are favorable, since the European import market over the next five years is expected to grow by as much as 200,000 cubic meters. Yugoslavia and Romania are the major suppliers, and Romanian supplies are expected to fall. However, export prospects for other hardwood

products (railroad ties, plywood and veneers, fiberboard), are not very good. And the outlook for beechwood pulp, of which Yugoslavia already exports substantial quantities, is highly uncertain, mainly due to competition from eucalyptus pulp for viscose and the unwillingness of European paper-makers, until now, to accept major increases in the proportion of beechwood pulp in the finish for writing and printing papers.

The 1971–75 Social Plan projects a doubling of the annual log harvest to twenty million cubic meters per year, which is said to be well below the annual forest growth, estimated at about thirty million cubic meters. Increased emphasis on industrial lumber and on chemical and semichemical pulp from broadleaved species is prescribed. The raw wood supply would be improved through better sylviculture and additional forest roads. But the plan is not operational since it does not show how these targets and instruments could be brought together.

The answer to the future development of Yugoslavia's forest potential lies in devising the most appropriate structure for the whole integrated process whereby trees are grown, harvested and converted into industrial products. It includes: (a) market development for beechwood products; (b) maximum utilization of sawmill waste, small dimensions of logs, and thinnings;[22] (c) structural tightening which creates units of optimum size and integration (horizontally and vertically) capable of finding and developing markets and of organizing the whole chain of cutting, conversion, and marketing; (d) probably backward integration to the forest (presumably crossing republic borderlines). Forest industries are reluctant to undertake massive investments unless assured of their future wood supplies. Forest management, on the other hand, has to be flexibly adapted to industrial markets and long-run economic returns; if the return on beechwood proves insufficient, substantial areas may have to be replanted with softwoods (barring ecological constraints which have not thus far been brought to the fore). Finally, there is an indication that selective felling area permits increases mechanization of log harvesting and reduces the time lag between harvesting and conversion.[23]

Even though too much reliance should not be placed upon averages, it would appear that the typical size of Yugoslav wood processing units outside the pulp and paper sector is too small for efficient production. The figures for 1971 are shown below:

	No. of Producers	Average Output
Sawmills (thousands of cubic meters)	621	5.3
Plywood and veneers, utility grade (thousands of cubic meters)	39	4.7
Fiberboard and blockboard (thousands of square meters)	4	6.3
Particle board (thousands of cubic meters)	23	9.4

22. Only about 50 percent of the sawmill waste in Yugoslavia is converted industrially, whereas in North America, Northern Europe, or neighboring Austria a very much higher proportion is used by pulp and fiberboard factories

23. Archaic institutional arrangements also play a role: because the annual cut in each forest region is limited by regulation, there is an understandable tendency to harvest mainly saw logs, secondly, pulp log prices are fixed at such a low level as to make it uninteresting to pull them out to the road.

As a rough benchmark, Finnish plywood and veneer mills have an average capacity of 17,000 m³, and southern Swedish particle board mills, a capacity of 75,000 m³. According to a recent FAO study, sawmills in Bosnia and Montenegro are usually poorly equipped both with respect to sawing and seasoning facilities, and lack capital for modernization. The FAO team recommended that, as overage equipment wears out, production should gradually be transferred to units of more viable size with a minimum log intake of approximately 100,000 cubic meters of sawn wood. This would permit the introduction of special equipment for the utilization of sawmill waste, which would also make it economical to cut small-dimension logs.

The pulp and paper industry presents a different picture, with the bulk of the production supplied by fairly large-sized mills, supplemented by a large number of smaller units, particularly at the paper end (see Statistical Annex Table 8.12). Thus ten plants (eight producers) account for 82 percent of pulp production, and twelve plants (ten producers; all but four of them integrated) account for 71 percent of paper production. If present expansion plans can be realized, the expanded plants would generally be at least twice the size of existing plants, with some very large new units, generally based on hardwood pulping.

In theory, this would provide an acceptable structure but there are problems.

(a) Pulp and paper production in recent years has not been profitable. The industry accounted for a very substantial portion of the total losses suffered by all enterprises in industry and mining. Some of these losses were due to special circumstances, the Banja Luka viscose pulp mill, for instance, suffered considerable earthquake damage. In other cases, losses resulted from unsolved problems in the supply of water or raw materials or delays in repairs. The more basic reasons for poor profitability include relatively low prices (Statistical Annex Table 8.13), and import competition, imports of pulpwood at very high prices representing nearly one-third of the total supply and underutilization of capacity in some plants due to persistent problems in the supply of pulpwood. Some of these difficulties in turn reflect poor management, uncoordinated planning, and lack of finance. Even the aggregate data suggest that some degree of financial restructuring (reducing the annual debt burden) would be a useful preliminary to further expansion. This kind of surgery is even more urgently needed for some individual plants. Failing such measures, financing will become a major constraint.

(b) Difficulties may be expected in project execution. Recent instances of poor project preparation and/or execution are the lack of water for the Drvar plant in Bosnia and the excessive starting difficulties at Vizcosa Loznica.

(c) There appears to be some lack of balance between the high increase in pulp production and the much lower projected increase in paper production which has not been adequately explained.

(d) The main question mark, however, is the technical and commercial constraints on the use of beechwood for paper production.

In sum, an action program for the forest industries should include the following elements:

(a) a major concerted effort to solve the technical and marketing problems for beechwood pulp;

(b) technical and financial restructuring of existing pulp and paper mills as needed for efficient production;

(c) some scheme for the orderly distribution of wood supplies between competing restructured units, including possibly a high degree of forest ownership, or leasing by these industrial units.

Such a master plan should not be compartmentalized within republic border lines. While it will take some time to develop, preliminary versions could serve as a frame of reference for urgent investment decisions.

Textiles and Clothing

Textile and clothing industries account for nearly 11 percent of the total industrial product and about 16 percent of industrial employment. Though the industry is fairly well-distributed over Yugoslavia, the share of development regions in textile industry employment (23 percent) is actually somewhat less than their share in total industrial employment (24 percent). Among the development regions it is only in Macedonia that the cotton textile industry has proven a leader in manufacturing growth. The success of individual textile and clothing mills in several of these regions, however, indicates a potential which would justify special promotion.

Yugoslav textile mills are highly dependent upon imported raw materials. Thus cotton fiber imports total roughly 75,000 tons as compared with about 10,000 tons of cotton produced in Macedonia, whereas wool imports total 25,000 tons compared with 2,000 to 3,000 tons of domestic wools used mainly for carpets. The lack of domestic production of cotton is not perhaps a major disadvantage; custom spinning of yarn for exports has developed strongly in recent years.[24] Yugoslavia also produces about 30,000 tons of cellulosic fibers and is a net exporter of such fiber. Nevertheless, imports of artificial and (mainly) synthetic fibers total 14,000 tons. Imports of textile raw materials are tightly coordinated through a joint agency, as are textile exports to centrally planned economies.

The four major textile subsectors are cotton mills, clothing factories, knitting mills and woollen and worsted mills in the order mentioned. There are about sixty cotton mills, mostly integrated with weaving, with a typical capacity in the range of 10,000 to 70,000 spindles; the Chamber of Economy is pushing for larger mill sizes, up to 100,000 spindles. However, there is some doubt whether farreaching specialization would be economically justified, and there is considerable local resistance to mergers, partly because of fear of reduced employment.

The cotton mills house about one million spindles, producing 100,000 tons of yarn per year (including artificial and synthetic yarns), with the more modern mills working on three, or even four shifts. This capacity is expected to grow to 1.2 million to 1.3 million spindles by 1975. Investment in spinning will be mainly for expansion; most of the mills were built after the war, and about one-half of them are said to have modern machinery close to Western European standards. There is, at present, a ready market for cotton yarn in Western Europe with relatively low customs protection, and production for export is profitable for efficiently run plants, keeping in mind the 20 percent allowed retention of foreign exchange earnings and relatively low Yugoslav wages.

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24. Nevertheless, assuming cotton would be priced according to the world market, there are two advantages in domestic supply. First, transportation costs would generally be lower, avoiding both ocean freight and possible inland transportation in the importing country. Secondly, qualities might be more uniform than world market procurement.

The position in the woven cotton fabrics sector is less favorable. Exports during the last five years have shown a downward trend and are now lower in value than yarn exports. Moreover, imports of synthetic fabrics have been rising. The slowing down of exports may be related to several factors: more severe quantitative import restrictions and tariff duties in major importing countries than for yarn, with no sign of more liberal policies ahead, greater need for market development, and the lack of stability in Yugoslav internal cost–exchange rate structure. Nevertheless, the structure of the Yugoslav weaving industry is less favorable than at the spinning end — with lower size of units compared with a theoretical optimum, lower capacity utilization (less than two shifts) and less modern plant.

Clothing exports, at US$82 million equivalent (of which rather more than one-half were made from woven fabrics and the rest mainly knitwear) are now of roughly the same order of magnitude as textile exports. Recent growth (about 5 percent per year) in recorded exports is rather disappointing, even allowing for the increase in custom sewing for export.

TABLE 5.21: Clothing Industry Contract Work for Foreign Firms and Straight Exports

(In Millions of Current Dinars)

	1965	1969	1970	1971
Imports for processing	1	299	478	1,029
Exports after processing	40	553	628	1,028
Value added	39	254	150	179
Clothing exports	—	1,247	1,228	994
Total value of clothing exports (lines 2 and 4)	—	1,790	1,856	2,202

Yugoslav clothing factories have adapted foreign technology and acquired marketing knowhow, and with federal export assistance, seem well placed for a more dynamic expansion phase.

Coal, Oil and Natural Gas

Despite the rapid increase in electric energy consumption, the role of thermal power generation, based on domestic low grade but cheap coal, has accounted for nearly half the total power generation (see Chapter 7). The production of metallurgical grade coal has stagnated. The demand for petroleum fuels has increased very rapidly, with a consequent sharp increase in net import requirements for fuels. These trends are shown in Table 5.22

Yugoslavia has large reserves of brown coal and lignite, with a favorable spatial distribution, ideally situated for power generation. About 90 percent of known reserves are concentrated in ten major basins; 71 percent of these can be exploited through open-pit mining. Production of hard coal, divided between Serbia and Croatia, is small and declining and apparently cannot serve as a basis for steel production. Nevertheless, exploration of hard coal resources is regarded as unsatisfactory. The main problem in brown coal and, particularly, lignite mining is said to be low recovery (about 47 percent for lignite).

Crude oil and natural gas have been found thus far only in the Danube (Pannonian) Basin (principally Croatia and Vojvodina). Combined production of oil and gas (measured in calorific equivalent) increased about 2.5 times in 1962–71. To date,

about 69 percent of the potential reserves of crude oil and 43 percent of the potential gas reserves have been explored; the rate of exploitation of known reserves, at 25 percent, however, is regarded as unsatisfactory. Apart from intensified exploitation of the Pannonian Basin, there is considerable interest in prospecting in the Adriatic Sea and lowlying coastal regions.

Yugoslavia's six oil refineries have the following capacities (million tons of crude oil throughput):

Rijeka	4.5 (INA)
Sisak (Croatia)	3.5 (INA)
Sosanski Brod (Bosnia)	3.5 (HANA)
Panchevo (Vojvodina)	1.5 (Napthagas)
Novi Sad (Vojvodina)	0.6 (Napthagas)
Lendava (Croatia)	0.5 (INA)
Total	14.0

Although refinery activity has been expanding fairly rapidly in the last two years (by nearly 20 percent per year), there is still a large unused capacity. In spite of this, plans are already being prepared for the expansion of Panchevo from 1.2 million tons to 3/3.5 million tons, and for erecting a new refinery in Macedonia where the total market is only 1/1.2 million tons. The labor productivity of Yugoslav refineries is surprisingly low; according to one source, 2,500 people are employed in the Rijeka five-million ton refinery, as compared with 500 people under best western practice. The reasons for this excess are not completely known but efforts are being made to absorb surplus manpower in secondary activities, e.g., petrochemicals, insecticides, etc. The market structure (heavily weighted towards fuel oil) favors a simple refining process. It is uneconomical, however, to increase the present proportion of fuel oil in the refinery output; this would be partly in replacement of asphalt production (of which there is a shortage) and essentially in competition with domestic lignite at a higher cost per calorie.

TABLE 5.22: Production and Trade for Major Minerals and Fuels

	1964	1965	1966	1967	1968	1969	1970	1971
Thermal power generation (% of total electric power)	46.5	42.6	42.4	42.8	43.2	36.9	43.5	47.1
Coal production, brown coal equivalent [a] (million tons)	23.1	23.2	22.4	20.3	20.6	20.3	21.2	22.9
Hard coal production (million tons)	1.3	1.2	1.1	0.9	0.8	0.7	0.6	0.7
Manufacture of metallurgical coke (million tons)	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Processing of oil and gas, index	42.0	52.0	70.0	76.0	75.0	82.0	100.0	119.0
Production of crude oil (million tons)	1.8	2.1	2.2	2.3	2.5	2.7	2.9	3.0
Production of natural gas (billion cu. m.)	0.3	0.3	0.4	0.5	0.6	0.7	1.0	1.2
Imports of crude oil (million tons)	0.8	1.1	2.2	2.5	2.7	3.2	4.5	4.9
Imports of mineral fuels (US$ million)	46.0	51.5	63.1	60.6	67.1	78.0	102.1	108.7
Exports of mineral fuels (US$ million)			6.1	5.9	5.3	8.3	9.0	

[a] Based upon 4,000 koal/kg. for brown coals; one ton of hard coal is counted as 1.5 tons and one ton of lignite as 0.6 tons of brown coal equivalent.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

CHAPTER 6

AGRICULTURE

Agriculture accounts for about one-fifth of the social product, constitutes roughly 15 percent to 20 percent of total commodity exports and employs nearly half the labor force of Yugoslavia. Though its role has been declining relative to rapid industrialization, it still remains a sector of basic importance in the overall development of the economy. Yugoslav agricultural policy has passed through various phases. After the abandonment of collectivization (see Chapter 1), the government concentrated on developing agricultural marketed production through a modern social sector incorporating the earlier state farms and agricultural cooperatives, which replaced the collective farms as the main basis for providing the marketed output for a rapidly growing nonagricultural population. In social sector agriculture, heavy investments were made to modernize and mechanize production, to increase the use of chemical inputs and to expand irrigation. The private sector was relatively neglected by government policy, which placed emphasis on voluntary cooperation between peasant farmers and the social sector agriculture as the major device for increasing production in the private sector. The social product in agriculture increased at an average rate of 3.2 percent per year during 1953–71, with the social sector output increasing at about 7.2 percent per year and the private sector at about 2.4 percent per year.

Regional Characteristics and Land Use

Yugoslavia is predominantly a mountainous country. Of the total territory of 25.6 million hectares, 14.6 million hectares are recorded as agriculturally productive, while the rest is taken up by forests, rivers and lakes. Of the agricultural land, two-thirds is arable and the rest permanent pastures. The soils in Yugoslavia, particularly in Vojvodina and some of the northern regions of Croatia, are more fertile than in other southern European countries. The fertile plain of Vojvodina and Slovenia in the northeast represents only one-sixth of the country's total area, but contains nearly a third of arable land and produces more than half of the country's output of wheat and maize and over three-quarters of its sugarbeet. The hills (land up to 500 meters in altitude) covering much of Serbia, Slovenia and Bosnia are important for livestock raising and fruit production, while cereals are grown in river valleys. The mountain region, covering 44 percent of the country, is generally unfavorable for crop production, but extensive upland pastures make livestock raising possible.

Since mixed cereal cropping and animal husbandry have remained the basic lines of production in all Yugoslavia, it is difficult to delineate the areas according to production. However, subject to certain conditions, it can be generally said that the Pannonian Plain, Yugoslavia's granary, produces 70 percent of wheat and 85 percent of maize of the country. Other crops in the Pannonian Plain are barley, sugarbeet and sunflower. Regional crops dependent upon the climatic pattern are flex hops, cotton and tobacco. Except for Montenegro, which is clearly a livestock based economy, no region is dependent on a single crop.

An important implication of the concentration of cereals in one area is that fluctuations in output affect overall farm output, and at times not only interfere with

trade, but also make the country dependent on sizeable imports to relieve shortages. Overall, it may be said that the distribution of production patterns has changed little, except where new products are concerned. However, the expansion of the social sector's supply to regional markets, and the technological revolution in agriculture are factors likely to lessen the variations in regional production patterns in the future.

The Institutional Framework for Agricultural Policy

At the federal level, coordination of agricultural policies is controlled by the Federal Chamber of Economy, and the Secretariat of Agriculture. The federal chamber has specialist committees for coordinating research, finance, etc., and the secretariat coordinates the plans, programs and legislation of the republics. Responsibility for agricultural policy implementation lies with the republic Secretariats of Agriculture. Due to decentralized decision making, all functions associated with policy implementation are hived off into autonomous self-governing organizations, and the secretariats only retain indirect control via fund disbursements.

Production plants are implemented by social enterprises, either existing *kombinats* and cooperatives, or in some cases by special enterprises. Even though they account for only about 30 percent of total farm land the *kombinats* are an effective medium for policy implementation regarding production etc., since they have a virtual monopoly of technicians and management skills.

Policy coordination is handled by the Agriculture Division of the Chamber of Economy, since all social enterprises, banks, etc., are its members. The republic chamber examines all legislation to be placed before the assembly, forecasts markets, provides economic services and scrutinizes plans of enterprises. At the local level, the commune is the link between the community and the enterprises, and seeks to reconcile their various interests, such as pressing for funds for enterprise development, determining and regulating retail margins on basic farm produce etc. The commune and the republic also have some influence on the credit availability to the enterprises. Difficulties of orderly coordination, lack of enterprise response to overall guidelines, and the nonparticipation of the peasant farmers in the decision making process, are the major shortcomings of the institutional system.

Research, education and provision of technical services are provided by some fifty independent institutes for research into specialized agricultural problems, in addition to the facilities for agriculture and veterinary science at various universities. The institutes are financed by the republics and the communes, and by payments for contract work done for enterprises. The universities are the training ground for managerial staff, and other technical workers. In addition there are some 200 educational centers where farm workers are trained.

The Social and Private Sector in Agriculture

One of the important characteristic features of Yugoslav agriculture is the separate existence of two sectors, social and private, with different farm structures. The social sector has its origin in the postwar collectivization policy, and received further impetus by the agrarian reform of 1953, which limited the size of private or individual holdings to ten hectares of cultivable land and twenty-five hectares of forest land, and brought 276,000 hectares of additional land under the social sector. Since then, the land resources of the social sector have almost doubled due to reclamation,

purchase and lease from private holders. The social sector in 1970 held 30 percent of the total farm land (of which half was arable), employed 4 percent of total agricultural manpower, produced 29 percent of the agricultural product and 44 percent of the market production.[1]

On the other hand, the private sector covers about 70 percent of farm land, and has 2.6 million individual holdings with an average of 3.9 hectares per holding. It employs about 96 percent of the farm population and accounts for 70 percent of the share of the agricultural product. Due to inheritance customs, fragmentation has led to a decrease in average farm size. However, about 60 percent of the total land in the private sector is still in holdings of five hectares or over. At the same time about 50 percent of the private holdings are in the mountainous regions where the conditions are less favorable for agriculture. The relative importance of the social and private sector in the production of major products is shown in Table 6.1.

TABLE 6.1: Output of Major Items in Socialist and Private Holdings[a]

(Share of Total Output)

	Average 1956/58		Average 1963/65		Average 1969/71	
	Social Sector	Private Sector	Social Sector	Private Sector	Social Sector	Private Sector
Wheat	11.3	88.7	27.0	73.0	36.4	63.6
Maize	11.8	88.2	14.0	86.0	17.7	81.3
Sugarbeet	28.1	71.9	64.9	35.1	57.9	42.1
·Sunflower	16.9	83.1	50.6	49.4	66.0	34.0
Fruit	3.0	97.0	4.0	96.0	4.6	95.4
Grapes	5.0	95.0	11.0	89.0	17.0	83 0
Meat	8.9	91.1	25.8	74 2	31.8	68.2
Milk	5.9	94.1	16.4	83.6	14.5	85.5
Eggs	0.6	99.4	4.0	96.0	37.3	62.7

[a]Eggs by count, milk in liters, and other products in tons.

SOURCE Statistički Godišnjak, Jugoslavije.

It is evident that while the share of the social sector has generally increased, the private sector continues to maintain its importance in maize, fruit and milk products. However, the private sector's role in market production is much less than in total production. For example only 25 percent of marketed milk supply comes from private farms, as against 85 percent of total milk supply. This illustrates the importance of social agriculture in the generation of a marketed surplus to fuel industrial growth.

The main reason for the increasing share of the social sector in agricultural production is that it absorbed the bulk of the gross fixed investment in agriculture in the postwar period (see Table 6.2). The relative neglect of the private sector meant that almost all the investment on the peasant farms was from their own savings. Despite heavy investment in social sector agriculture, the share of agriculture in total investment has declined since the early sixties (see Table 2.6), a fact which is being redressed in the proposed social agreement on agriculture discussed later in this chapter.

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1. In 1969, there were 2,073 social sector holdings, averaging 2,134 hectares of total land and 716 hectares of cultivated area per holding.

TABLE 6.2: Gross Fixed Investment in Agriculture (1966 Prices)

(In Billions of Dinars)

	1953–60	1961–65	1966–70
Total gross fixed investment	14.9	12.6	13.0
Share of social sector (%)	62.0	74.0	71.0
Share of private sector (%)	38.0	26.0	29.0

SOURCES: *Investicije, 1947–69;* and Federal Institute of Statistics.

Until about 1965, most of the investment in private agriculture was in structures and livestock. Thereafter, a larger proportion came to be invested in orchards and vineyards, along with emphasis on mechanization. The result has been an increase in the number of livestock, tractors and consumption of fertilizer in the private sector. In the social sector as well, from an initial emphasis on basic buildings and equipment in the early fifties, there was a shift in later years to an emphasis on mechanized equipment. Recently there was a shift in emphasis to structures again, as outlay was undertaken in land development, orchards and large-scale livestock farming. The general tendency for increasing capital intensity after 1965 (see Chapter 3) was also present in social sector agriculture, with the fixed capital per worker increasing from 27,000 dinars (1966 prices) in 1961 to over 96,000 dinars in 1970. At the same time, the capital output ratio has increased from an average of 2.86 during 1959–61 to 4.43 during 1968–70.[2]

Other reasons for the more rapid growth of the social sector in agriculture were (a) differences in the "intellectual input"—highlighted by a 54 percent increase of university trained workers in the social sector between 1964–70, while the total number of permanent workers decreased by 28 percent in the same time; and (b) differences in the production potential of both sectors—caused by the relatively greater importance of the social sector in the fertile plains in the developed regions, and in the fertile valleys of the mountain areas, especially in Macedonia and Kosovo. The rapid growth of land and labor productivity in the social sector has resulted in a growing gap between the two sectors. Average yields per hectare in crop production are almost twice as high in the social sector, while milk yields per cow are more than four times higher. The relative differences appear to be independent of the quality of land in wheat and maize production. In milk production, the disparity is mainly due to differences in the volume and quality of fodder produced, but also to the quality of the breeding stock.

The Social Sector

The social sector is made up of a spectrum of working organizations, or enterprises, which have many similarities but different origins. They include: (a) agroindustrial *kombinats;* (b) agricultural estates (both general agriculture and livestock farms) and (c) general agricultural institutions including schools and institutes. All these organizations operate under the same principles—of self-management and the division by the workers of net income—and have the same status in the economy as other enterprises. During recent years many *kombinats* have established cooperative

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2. A three-year average is taken to allow for fluctuations in crop production; 1968 and 1970 were poor crop years, and so were 1960 and 1961.

units, either by assimilating existing cooperatives or by forming new units, in order to link part of the production of individual farms to their processing industry.

The general agricultural cooperatives are called "general" in order to distinguish them from the peasant working cooperatives, which correspond to the soviet *kolkhoz* type of cooperative—of which a few still exist. However, they do not correspond to the traditional western type either. They are not associations of producers for doing business with members and nonmembers. Rather, they are social agricultural organizations, which provide services to individual farmers, while, in a growing number of cases, maintaining and expanding their own agricultural production.

A notable feature of the development in the social sector during the later 1960s is the decrease in the total number of holdings by about 30 percent, and the number of cooperatives by almost 50 percent. The decrease in the number of holdings is merely the result of a process of mergers among *kombinats* and the integration of cooperatives into *kombinats*. For, at the same time the volume of production increased by about 28 percent, land input by 10 percent, while the level of investment remained practically unchanged. There was, however, a significant decline in the labor input amounting to about 30 percent.

The Private Sector

Despite the decline in agricultural population (see Chapter 2), increased fragmentation and subdivision of holdings was a basic feature of smallholdings. The number of peasant holdings rose from 2.1 million in 1945 to 2.6 million in 1961 and remained at the same level since then. The rise in the number of smallholdings was accompanied by a decrease in their total land area, from 11.3 million hectares in 1945 to 11.1 million hectares in 1960 and a further drop to ten million hectares in 1969. Thus, the average land per holding declined from 5.3 hectares in 1945 to 4.2 hectares in 1960 and 3.8 hectares in 1969.

The agrarian law, which limits the maximum size of private holdings to ten hectares of farm land and twenty-five hectares of woodland, has been changed recently for the mountainous areas. No size limit is now imposed on private farms in these regions. The number of persons that may be employed on a wage basis by private farmers is also legally restricted, to a maximum of two persons. There is, in addition, a limit of three hectares on the size of holding that may be held by an absentee owner. Though renting and leasing within the private sector is not restricted by law, it exists only in rare instances.

The significant progress made by the private sector farms during the last fifteen years, despite a 10 percent decline in total land and a sharp decline in the agricultural labor force, is evident from Table 6.3. The arable land area declined with total land area. The livestock population on the farms has fluctuated mainly due to market conditions and as a result of fluctuations in feed output. The growth of production in the private sector has, therefore, been the result of greater use of fertilizer, mechanization and improved practices, leading to increased average yields. Up to 1965 the main emphasis appears to have been on increased fertilizer use, but since then there has also been a rapid growth in the number of tractors on the private farms. This is both a reason for and a result of increased production and productivity.[3]

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3. A change in regulations permitting the import and purchase of tractors by private farmers, and the large number of Yugoslavs, often from rural areas, working abroad who could finance purchases for their families, explains the rapid increase of the number of tractors.

TABLE 6.3: Basic Data on Smallholdings

	Arable Land (Thousand Hec)	Livestock Numbers (Thousand Tons)	Number of Tractors	Fertilizer Consumption (Thousand Tons)	Value Added in Private Sector Agriculture (1966 Prices—Billions of Dinars)
1955	9,420	4,002	na	283	15.0
1960	9,230	5,020	1,000	565	17.2
1965	8,840	4,866	5,024	826	16.6
1970	8,664	4,769	39,046	860[a]	19.4
1971	8,641	4,683	39,016	—	20.3

[a]1969.

SOURCE. *Statistički Godišnjak, Jugoslavije.*

The average yields on private farms of some of the principal crops have risen sharply. For example, the average wheat yield rose from fourteen metric quintal/hectare in 1960–61, to twenty-one in 1970–71, maize increased from 19.5 to 30.6 metric quintal/hectare, sugarbeet from 140 to 350 metric quintal/hectare and sunflower from 12.6 to 16 metric quintal/hectare. In livestock breeding, the results were more moderate. Milk yield per cow increased from 1,040 to 1,085 liters a year, and the average live weight per cow from 600 to 730 kilograms during the last decade.

Cooperation between the Private and Social Sectors

Cooperation between the social and private sectors takes the form of trade in inputs and output, provision of services by the social sector such as supply of fertilizers, harvesting, cultivation, marketing and credit, and the contracting of joint production. Contract cooperation, in particular, is mainly concentrated on more developed regions and on relatively larger peasant farmers. The very small farmers, particularly in the underdeveloped mountainous regions are least affected by such cooperation. There has recently been a trend towards reduced cooperation (see Statistical Annex, Table 7.11). The reasons are said to derive from difficulties related to the instability of the market and increased production costs. During the past year, however, there has been much discussion in Yugoslavia of strengthening relations with the private sector in agriculture. Closer links would help to increase the prosperity of peasant farmers, thus preventing depopulation, particularly of the mountain areas, and would exploit the private sector's apparent advantage in livestock production.

About 30 percent of all smallholders cooperate with the social sector in one way or another, while 15 percent to 20 percent participate in contract cooperation. Contract cooperation decreased in the production of wheat and maize by 35 percent and 25 percent respectively between 1964 and 1970, but it increased by 80 percent in cattle production, in terms of livestock numbers. Cooperation in production of crops is practically restricted to Serbia (excluding Kosovo) and to the fertile plains of Bosnia and Croatia. Cooperative sheep production occurs mainly in Bosnia and Montenegro, while cooperation in cattle and pig production is practically restricted to Croatia, Slovenia and to Serbia (excluding Kosovo). Thus, cooperation between the social and the private sector is greater in the more developed and fertile part of the country, with some exceptions in sheep production.

One important interrelation between private sector agriculture and the social sector in general (as distinct from agriculture), exists in the supply of labor. An increasing number of peasants while living on the farm are engaged in part-time non-agricultural employment and this is an important source of income for peasant households.

The Underdeveloped Regions

In almost all respects, private agriculture in the underdeveloped regions is far behind private sector agriculture in developed areas. Livestock production and breeding play a relatively greater part than crop growing in the private sector for natural reasons. Modern methods of production have not reached these areas: for instance they have only 15 percent to 20 percent of the tractors as compared to 30 percent of the total cultivated area in individual holdings. There are considerable regional differences in yields, which may vary up to 100 percent for cereals between the less favored areas of Kosovo and Montenegro and the most favored areas of Vojvodina and Croatia. The differences are less pronounced for fodder crops and potatoes. In the breeding sector, there are also very great disparities: in Bosnia-Herzegovina and in Montenegro the average weight of slaughtered cattle is about half the national average. The difference is a little less for pigs. The yield of dairy cows is also very low in all these areas compared with Slovenia and Vojvodina.

The main constraints for further improvement/development of agriculture in the private sector are (a) lack of capital, (b) lack of credit facilities, for the purchase of better quality seeds, fertilizers and tractors, (c) poor mechanization, and (d) lack of extension services. At the republic level, a number of measures have been taken to improve existing conditions of the private sector. Extension service centers have been established and special funds are being set up extending loans only to private sector farmers, particularly for the improvement of livestock. However, while these facilities exist in one or two republics, they are inadequate. The progress of helping private agriculture through social cooperatives has tended to slow down as mentioned. Further, such cooperation is restricted to areas surrounding the social sector agricultural organizations. For example there is only one agricultural *kombinat* in Kosovo, and consequently cooperation between the private and social sector in agriculture is relatively less developed.

Aggregate Production and Consumption

Despite a rapid development of the Yugoslav economy over the past fifteen years, the continuing importance of agriculture is a reminder of its current stage of development. Agriculture still accounts for 21 percent of the national product, continues to employ 43.5 percent of the active population and contributes 15 percent to 20 percent to the country's exports. Aggregate agricultural production grew at an average annual growth rate of 2.2 percent between 1965–70, fluctuating between years from —4 percent to +7 percent, due to changing yields and varying growth rates of livestock production. Growth rates differed between products, sectors and regions.

Crop Production

The highly variable development of crop production over the last ten years is shown in Statistical Annex, Tables 7.2 and 7.3. Total production of certain crops has

shown annual increases of 70 percent, and others, decreases of as much as 33 percent. Despite this great variability from year-to-year, caused almost entirely by weather conditions, there is an overall upward trend in output, most of which has come from increased yields.

The area devoted to crops also fluctuates significantly from year to year. Wheat areas show a downward trend, even though total output has tended to increase. The area under maize has also varied annually, but shows a clear downward trend since 1967. This decrease in cereals has been accompanied by an increase in industrial crops, notably sunflower, cotton, and other oil seeds.

Livestock Production

The relatively more stable output trend for livestock products is shown in Statistical Annex, Table 7.9. The fluctuations in output that have occurred are the result of both weather conditions, affecting feed availability, and adverse market conditions. Beef production expanded steadily until adverse export conditions, of a temporary nature, caused a decline in 1969. The beef herd, after reaching a peak in 1962 was cut back due to a green fodder shortage in 1963–64. Subsequent to that it increased again until the cutback began in 1968. The high output of beef in 1968 reflects the cutback in breeding herds.

Pork production has also expanded, subject to short cycles related to market conditions. There has also been a marked expansion in the output of poultry, meat and eggs. Both pork and poultry are being produced to an increasing extent in the social sector, which by 1970 accounted for 47 percent and 38 percent of total production respectively.

The size of the sheep flock is beginning to fall, and the output of both wool and mutton is declining accordingly. This seems to be associated with lower prices for wool and mutton, the latter being related to the increase in pork and poultry production. The sheep flock is held almost exclusively on private farms (96 percent) and is comprised generally of low productivity multipurpose local breeds.

Consumption

The present structure of consumption has had the following characteristics: (a) meat consumption per capita is low compared with other southeastern European countries, like Bulgaria and Hungary with a lower per capita income; (b) pork is the most important meat consumed, though its share is declining; (c) wheat is the most important product for providing carbohydrates, followed by potatoes, sugar and maize; and (d) butter plays a minor role as a source of fats, while vegetable oil and pork lard are the most important.

The changes in the consumption structure during the last decade show the typical characteristics of changes following a rapid increase of per capita income. Meat, especially beef and poultry, eggs, and sugar have been the most "dynamic" products and are likely to be so in the next decade, with the exception of sugar and possibly of pork meat unless the price of pork increases at a considerably lower rate than the price of beef. The increase of consumption of meat, with the exception of poultry, exceeded the increase of production during the last five years.

Foreign Trade

The trade balance in agricultural goods has been mostly positive during the last decade, though sharply fluctuating, depending mainly on variations in yields of grain and maize. In 1970 and 1971, the export surplus dropped abruptly to close to zero, or even below, after it had reached peak levels between 1967 and 1969.

Imports of goods which domestic agriculture is capable of producing like sugar and wheat, have almost completely disappeared during the last decade—with the exception of vegetable oil. Traditional exports like beef, maize and tobacco more or less maintained their level. At the same time, new import needs arose from the demand for feeding stuffs; mainly protein concentrates, coffee, tea, tropical and subtropical fruit, and textile fibers.

Excluding those products which domestic agriculture is not capable of producing, the surplus in foreign trade which originates in the agricultural sector has more than doubled during the last decade. It is produced in three subsectors at present: (a) the grain-food-livestock economy, in which about 70 percent of the agricultural trade surplus has been produced on the average during 1968–70; (b) tobacco industry and production of beverages, which contributed 20 percent to the total surplus; (c) the fruit and vegetable sector, the net contribution of which to the trade surplus dropped from almost 40 percent in 1962 to 4 percent in 1968–70, mainly because of an increased import of tropical and subtropical fruit.

Food Processing

One additional stimulus to the growth in postwar agriculture was the development of the domestic food processing industry which before the war had been very poorly developed. Apart from its beneficial effects on exports (in 1970 processed foodstuffs constituted close to 30 percent of all agriculture based exports), the growth in food processing capacity led to an expanded production of high value industrial crops and vegetables at the expense of cereals. In 1939 the shares of industrial crops and vegetables in total agricultural production were 2.6 percent and 5.7 percent respectively. In 1970 these shares had grown to 5.2 percent and 11 percent.

Marketing and Prices

There is in the first instance the "organized" social market for agricultural products with "authorized purchases and sales," and then the "informal" private markets based on peasant market places. The value of authorized purchases amounts to 40 percent to 50 percent of total agricultural product at present; the rest is either consumed by the agricultural population or sold on the local markets. There is large regional variation in the relative importance of market production. In the less developed regions of Kosovo and Montenegro, it is only 20 percent to 25 percent of the total, but its share in Slovenia is more than 55 percent. Likewise, in the case of industrial crops such as tobacco, sugarbeet, sunflower, market production is more than 70 percent of total production while in the case of vegetables it is only 10 percent.

Three types of pricing arrangements are used in Yugoslavia according to the technical difficulties in the implementation of price policy on various markets. These are:

(a) *guaranteed minimum prices* applied to all important agricultural goods (cereals, meat, wool) for which implementation of a price guarantee is technically possible;

(b) *minimum prices,* without guarantee of the government, prescribed mainly for those agricultural goods which need processing, such as milk, sugarbeet and other industrial crops; and

(c) *prices free from intervention,* for goods which are marketed mainly on peasant markets or are highly perishable, so that effective price control is practically impossible.

The effectiveness of the minimum price system has not yet been seriously tested; the authorities were not able or willing to adjust the guaranteed minimum prices in accordance with changes in prices of production inputs or consumer goods other than food, nor to prevent actual prices from increasing above the tolerance limit of 10 percent above the minimum prices, over the last five years. The effectiveness of the price system should therefore not be overestimated. It can smooth short-run price fluctuations, at best, and then only if sufficient money and storage capacity are provided. It is not able, however, to guarantee "production cost" prices, or other desired price levels, if these do not correspond to market prices.

The price relationship between livestock products (with the exception of milk) and grain — especially maize — are at present more favorable than in most of those European countries with an efficient livestock industry. This situation has already stimulated an increase in production of pigs and broilers, such that the continuing investment climate may create capacities which will exceed the possibilities of the domestic market.

No basic changes of the existing price system for agricultural commodities are planned. However, the efficiency of the price system is likely to be tested more seriously in the next few years. Considering the limitations of the system it seems likely that this will have negative results at least in some fields. Even the most modest objective toward smoothing short-run price fluctuations will be achieved only if:

(a) storage capacity and revenues of the reserve fund are increased in order to facilitate control of seasonal price fluctuations, especially of maize, and to assure the present level of wheat prices;

(b) measures are taken in the field of production which diminish variation of yields, especially of grain and maize. The completion of the flood control and irrigation system in Vojvodina, Macedonia and Kosovo is likely to make an important contribution in this direction; and

(c) price guarantees are restricted to basic staple products like cereals and maize, and to prices of goods for which at least local monopoly markets on the demand side exist (sugarbeet, milk, and tobacco). In particular, the price guarantee on goods for which the price elasticity of production is relatively high and for which prices are closely related to the guaranteed prices of the basic staple products, should be abolished (pigs, broilers, potatoes, many vegetables). Price guarantees for these products should be replaced by improved market research.

Development Prospects and Problems

The Social Development Plan for 1971-75 projects an annual growth of aggregate agricultural production of 3.2 percent per year, with the social sector growing at 5 percent and the private sector at 2.8 percent per year. Though the planned growth rates are slightly lower than those in the previous plan, they are ambitious considering that they assume a significant acceleration of growth in the private sector.

As pointed out earlier the private sector has no extension service and there exist no specific agencies for rural development in Yugoslavia. The active transmission of technical knowledge and modern production techniques to the private sector has been left exclusively to the social sector. But, since only 30 percent of smallholders are cooperators, raising growth rates in the private sector requires substantial strengthening of the cooperative program of the social sector in the first place. Secondly, cooperation is not able to help the smaller farmers and those in the mountainous areas. A more direct means of helping peasant farmers has to be explored to complement the role of cooperatives and *kombinats*.

Considerable potential for expanding production however would seem to exist on smallholdings. For instance, the number of cows in the private sector increased by about 10 percent in the same period that the social sector cut back 30 percent— reflecting its comparative advantage under present circumstances. Therefore, expansion of livestock exports is likely to succeed only if the economy makes use of these advantages.

Production costs are not necessarily lower in the private sector. However, the marginal costs of a limited expansion within the existing capacity of buildings and labor are lower, mainly for two reasons: (a) existing building capacities are frequently not fully used and can be adapted to the requirements of a fairly rational production of limited size, by small changes carried out relatively cheaply by local craftsmen or village workers; (b) because of the existence of underemployment the opportunity costs of additional labor inputs are relatively low — subject to evaluation of individual preference — if the farmer and his family are unable to work off the farm or are not willing to do so. Thus there is scope for the mobilization of existing resources, including some savings in many cases. One obvious mechanism for achieving this would be through a "backward linkage" to the smallholder from investment in the processing capacity of the *kombinats*.

The level of participation of smallholders also significantly affects income distribution within the sector, particularly between regions. For example, 90 percent of pork and a large part of poultry production is located in the more developed republics where farm incomes are highest. Thus, any development which favors further expansion of production of pork and poultry in the developed regions will not be desirable from the viewpoint of income distribution. However, the government has only limited opportunity to prevent this, even if it would really like to do so. The allocation of a reasonable part of the FAD to projects which are based on cooperation between sectors is one of the few measures which might have at least a limited effect.

Another aspect of agriculture which should receive priority is the irrigation system. At present, of the total arable land, only 2.5 percent has modern irrigation (including lands supplied with movable equipment for sprinkling). In the current Development Plan, it is planned to increase the area under irrigation to 6 percent by the end of 1975. More than half of the total arable land of Yugoslavia is concentrated in three regions, viz, Vojvodina, Kosovo and Macedonia. However, these three regions account for only 4.5 percent of the total irrigated area and it is planned to increase this to about 9 percent by the end of 1975. Weather conditions cause large seasonal fluctuations in the country's total agricultural production; for instance in Vojvodina, during the last hundred years there were fifty-one years of drought.

The Agricultural Development Plan

To achieve the objectives of the Social Development Plan, in July 1973 the Republic and Federal Governments adopted an Agricultural Development Plan. This establishes a system of premium payments on selected agricultural products, to be paid to producers in the social sector. These premiums, which are expected to total 300 million to 350 million dinars per year and which are to be paid from the republic budgets, can only be used for agricultural investment. In addition domestic and foreign loans are being sought to supplement the premium payments for investment financing, and it is anticipated that about 465 million dinars will be available in 1975 for agricultural development and 750 million dinars in 1976 and 1977. The above funds are to be used on a great variety of agricultural investment projects. So far there is no plan which specifies the projects to be financed under the scheme. The selection process will be mainly done by agricultural producers who will propose projects to the authorities, whose permission is needed to use the development premiums. The distribution network of several irrigation systems will almost certainly be extended to make fuller use of the main canals and other central facilities. Other eligible projects concern food processing, storage facilities, equipment, flood control, land consolidation, livestock farming, vineyards, and orchards.

The Market Outlook

Although domestic demand can be expected to continue to expand slowly, the greatest stimulus to growth must come from exports. Export prospects for Yugoslav agriculture will be largely determined by developments in the enlarged EEC. The export prospects for agricultural products will certainly be worsened by the expansion of the Common Market area in general, but effects will be different for the major products.

Export of beef in fresh or chilled form, for direct consumption rather than for processing, will largely depend on the degree of self-sufficiency of the EEC, especially in Italy, the most important customer. Yugoslavia's competitive position to provide a considerable part of the needed imports, in fresh or chilled form for direct consumption, is excellent with respect to her location and with respect to import regulations, given the trade agreement with the Common Market signed in 1970. The trade agreement permits a reduction of import duties of about 20 percent for beef meat which amounted to 5 to 6 percent of the import price in fall 1971. Though this seems rather small in relation to the increase of production costs and domestic prices, it has been sufficient to revive exports to Italy and is likely to remain sufficient if costs and domestic market prices or exchange rates are adapted to the development of prices in the Common Market. The expansion of beef production to meet these opportunities is partly dependent on the development of irrigation, as described above, since the latter is needed to expand the production of fodder crops. It is noteworthy that all fodder-fed beef production is generally exported.

The existing EEC import regulations for pig meat give a distinct competitive advantage to producers within the Common Market. Considering the efficiency and dynamics of pig meat production in some of the old as well as new member countries, there is little doubt that these producers will use the opportunity provided by its

expansion. Yugoslavia's competitive position on the British market, to which it exports more than 40 percent of its canned meat exports, is decisively weakened and exports are likely to decrease, at least in the long run. Chances for the export of pig meat, if they exist at all, will probably be restricted to a few very specialized forms of processed meat, to occasional exports to Western Europe in the valleys of the pig cycle, and perhaps to some eastern European countries.

The production of fruit and vegetables, especially apples, pears and tomatoes, has increased in the main producer countries of Western Europe by 50 percent to 70 percent during the last decade. The trade balance indicating a net import need for the EEC countries as a whole in 1960, shows a large export surplus in 1970 for which no alternate market seems to exist. The trade position, and the resulting surplus supply situation, is not likely to change in the near future, at least not for apples and peaches, and probably not for all important vegetables, especially for processed goods. Yugoslavia's vegetable and fruit exports are fairly well-adjusted to this situation. It is split up into almost a hundred different products, some very specialized, and distributed among virtually all western European countries, the United States, Canada, the USSR, East Germany and Czechoslovakia, with some concentration in Austria and the Federal Republic of Germany — thus seeking the still empty spaces in the overloaded market. It seems likely that this tactic may be successful for the next two years, though prospects for increasing exports seem limited.

Supply Prospects

The objectives of the current Social Development Plan for production are well adapted to the export prospects, as shown in Statistical Annex, Tables 7.14 and 7.15. From this it would seem that the production of pork, poultry, eggs, lamb, mutton and sugar are, together with wheat, projected to follow the development of the domestic market, so that beef will remain the most important export product, followed by maize, tobacco, fruit and vegetables. Realization of these objectives presents difficulties of a very different nature for the various groups of products.

The potential and the dynamics of the production of pork, poultry and eggs are such that production will easily meet demand, and seems likely to exceed it even at the guaranteed minimum price, especially since exports will probably decrease. Hence, the stabilization of the market is one of the problems in this field.

The assumption that domestic wheat production will be equal to domestic consumption is based on average yields. Surplus and deficit situations are likely to occur, arising from annual variation in yields. Hence the maintenance of an equilibrium between production and demand requires expansion in storage capacity and a flexible scheme for imports and exports. In the long run a change of the price relations between wheat and maize seems unavoidable.

The planned expansion of beef exports is likely to meet the limits of the presently prevailing production potential, though its extent is difficult to estimate because of lack of information. However, according to rough estimates, more than 50 percent of the cattle are low-yield domestic breeds, which cannot contribute to exports for quality reasons. Thus, the present production potential which is roughly estimated at about 100,000 to 120,000 tons per year is limited to the production from the 1 million to 1.3 million cows belonging to the better-quality spotted cattle and other high yield breeds. Hence the objectives for beef production require an increase in the number of high quality breeding cows. Raising the number of cows required will be difficult

to achieve in the social sector under present conditions, where the number of cows has decreased continuously in the last decade and is now more than 30 percent lower than in 1964.

CHAPTER 7

INFRASTRUCTURE

Transport

The Transport Sector

Geography has been one of the major factors in shaping the country's transport system.[1] The main routes of communication have followed the easy paths and have avoided the mountain barrier along the coast and in the South. As a result, the main routes run Northwest to Southeast along the Sava-Danube Valley. They serve the rich agricultural areas in these valleys and in the North. They also provide easy access to the Balkan countries North and East of Yugoslavia and, at least relatively, to Austria, Italy and Greece. But the mountains have been a barrier for access to the coast.

This serious handicap of geography was further aggravated by the different historical development of the northern part of the country under Austrian rule and of the southern part under Turkish rule. In the northern and richer regions, such as Slovenia, there was a fairly dense and modern transport network comparable to that in Western Europe, while in the South the transport system was never adequately developed. This relatively underdeveloped transport system suffered enormous damage during World War II, and its rehabilitation absorbed large resources during the first postwar years.

A major aim of postwar transport policy has been to open up the less developed regions and to build a direct access route from the hinterland (around Sarajevo and Belgrade) to the sea by means of modern railways and roads. Another has been to open Yugoslavia to western European motor traffic by means of a modern highway from Italy and Austria to Belgrade and Greece and another down the Dalmatian coast from Rijeka to Titograd to Skopje, where it joins the other route. This policy is, in general, justified in that Yugoslavia aims to improve its integration with the world economy. The growth of foreign trade has tended to overload the facilities available in the old ports and of the railroad lines serving them. It is also justified from the point of view of exploitation of natural resources that are located in the mountainous regions but are hindered in their development by the absence of easy access to the sea. The policy is also in line with the regional development policies' effort pursued by the government. The major difficulties of this policy arise from the fact that the subsidiary network, perhaps more than the main lines of communication, is lacking in the mountainous regions and can only be created at considerable cost.

The transport sector has suffered from inadequate financing. Available information on investment in transportation and on its share in total investment and GNP is not wholly consistent and differs considerably as between sources. It appears, however, from the data of the Institute of Investment that investment in transport infrastructure and vehicles accounted for about 11 to 12 percent of total investment

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1 The section is based on a draft study (unpublished) of the Transport Sector in Yugoslavia prepared during 1971–72 in the World Bank

during 1951–55, and about 16 to 17 percent during 1956–60; however these shares declined to about 10 to 11 percent during the 1960s (in current prices). For a country with considerable gaps in the transport infrastructure and a rather high rate of growth, the resources devoted to investment appear to have been insufficient. This has been an important cause of the continued inadequacies of the transport system.[2]

In addition to insufficiency of resources, the transport sector has also suffered from inadequate coordination of investments. This has been partly the result of the decentralization process, especially since 1965, which left the Federal Government with only limited authority and responsibilities and made the republics and provinces primarily responsible for the development of transport. The existence of a large number of autonomous enterprises in the transport sector, although a source of dynamism, sometimes leads to wasteful use of resources. The railways have been affected most severely by the weaknesses in planning and financing of investment which developed with progressive decentralization. The modernization program of main lines, which began in 1964 and was due to be completed in 1968, has been held up by lack of finance, which also means that the benefits expected from the investments already made are only very slowly being realized. The provision of highway infrastructure in recent years has been the responsibility of the republics and provinces, which have been under public pressure to improve road transport. Five loans by the World Bank for highway projects have helped to ensure that major highway investments have been for high-priority projects. Planning and coordination of investments have been improving but are still inadequate. A substantial development of port facilities has been carried out during the past ten years but again the necessary coordination is not being achieved. Unlike the other modes, however, investment in ports has tended to run somewhat ahead of needs, and sufficient capacity exists to handle present traffic volumes. This appears to be due to the greater ability of the port enterprises to borrow domestically and abroad, which probably arises from the shorter-term character of part of the investments and the willingness and ability of the enterprises to incur heavy debt obligations.

The rapid growth of production and incomes has been reflected in a large expansion and structural change in transport demand. While the demand for the services of the railways has not grown significantly, the demand for road transport has been growing at the rate of 20 percent per year. One effect of decentralization has been the emergence of a competitive road transport industry of considerable size. The change in the relative shares of the main modes in total traffic is shown in Table 7.1.

The demand for transport services is likely to continue to expand rapidly and since there are still important backlogs to be met, investment needs will continue to be large in the coming years and to require new initiatives in the field of planning and financing of transport infrastructure. The most urgent need at present facing the transport sector is the completion of the railway modernization program begun during the past ten years with financing by the World Bank, which has been delayed by lack of funds.

The existing highway authorities have formulated plans calling for the investment of US$1.5 billion during 1971–75, but lack of finance makes it unlikely that this

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2. According to the *Annual Bulletin of Transport Statistics* (Geneva: Economic Commission for Europe, 1970) 27 (1971), during 1963–66 the share of transportation in total investment in Yugoslavia was the lowest in Europe. Since then this share has declined still further. It should be noted that the estimates of investment refer not only to infrastructure but also to vehicles.

amount can be mobilized. This would be larger than in the past in absolute amounts, but would represent about the same proportion of total resources devoted to highway investment.

The prospects of the seaports are closely bound up with the development of containerization. A diversion of port traffic to overland transport appears probable as containerization spreads in Europe. The crucial factor in determining the investment needs of the seaports during the coming years is therefore the number, location, timing and size of proposed container terminals. The various port enterprises have formulated large investment plans which appear to be based on optimistic projections of future traffic and which do not take into account the intention to build a container terminal in Yugoslavia. Therefore there is need for a much more careful study and scrutiny of requirements before new investments are undertaken.

TABLE 7.1: Traffic by Transport Modes[a, b]

	1960	1970
Freight		
Total (million ton/km)	20.5	41.5
Rail	74 0	47.0
Road.	15.0	41.0
Trucking enterprises	(5)	(16)
Own account	(9)	(26)
Inland waterways	10.0	11.0
Coastal shipping	2 0	1.0
Passenger		
Total (million passengers/km)	15.6	43.1
Rail	67.0	25.0
Road:	30.0	71.0
Bus	(18)	(33)
Car	(12)	(38)
Air	1.0	3.0
Coastal shipping	3.0	—

[a]In percent of total, unless otherwise stated.

[b]The statistics should be viewed with considerable reservations. On the one hand, the measurement of traffic in terms of ton/km is misleading and tends to exaggerate the role of long distance traffic. On the other hand, the estimates of road traffic on own account seem to include a substantial amount of urban traffic which is not usually included in such statistics and is not competitive with traffic on other modes. Finally, the estimates for inland water transport include a very large amount of dredging aggregates which are not really freight traffic. How the relative importance of the modes would change if these deficiencies in the estimates could be corrected is difficult to say, but since two of the deficiencies offset each other the above statistics probably give a rough approximation of the significance of the various modes for the economy.

SOURCE. Federal Institute of Statistics, Belgrade.

Railway Transport

The rehabilitation of railways was given top priority after the war. In the 1950s, more than half of the nation's total transport investment was in railways. Railway construction was accelerated, mainly to provide transportation for industrial and mining areas. About 1,150 route-kilometers of standard gauge line were constructed between 1951 and 1962, of which over half were in Bosnia. The industrial centers in Bosnia were thus connected for the first time by standard gauge lines with the other

parts of Yugoslavia. In this period, electric traction was extended to Llubljana and from Rijeka to Ogulin towards Zagreb. By the end of 1962, the Yugoslav Railways operated 9,174 route-kilometers of standard gauge lines and 2,618 kilometers of narrow gauge lines. Only about 8 percent of the standard guage lines were double-track. About half of the narrow gauge lines were in Bosnia-Herzegovina. The total of electrified lines (heavy duty lines across the Dinara mountain range) was 310 kilometers.

Changes in organization were made continuously during this period and in 1963 the network was subdivided into thirty-nine railway enterprises and thirty-nine auxiliary enterprises. A major reorganization carried out in 1963 considerably reduced the number of enterprises. The railway enterprises were organized into a number of Communities of Railway Enterprises within each region, which in turn formed the Community of Yugoslav Railways, responsible for supervision coordination, overall planning and general policy matters.

The Development Plan for 1961-65, formulated in 1960, had to be cancelled in 1962 due to shortage of funds and changes of priorities. In fact, railway investment during 1961-64 appears to have been considerably below the level of the preceding five years in real terms while highway investments increased sharply. A Railway Development Program for 1964-70, formulated in 1964, was subsequently revised and approved by the government only in 1967. The program envisaged a very large increase in investment during 1967-70. However, the slowdown in the rate of growth of the economy in the years after the 1965 economic reform and the slower growth in traffic, coupled with the lag in adjustment of rates in response to inflationary cost increases, resulted in financial resources being insufficient for the program.

The acute shortage of funds has delayed execution of the program. Only two-thirds of the modernization program which was originally due to be completed by the end of 1968 had been carried out by September 30, 1971, and even this had been possible only by reducing working capital, including essential maintenance stores, below levels required for efficient operations and through accumulation of unpaid bills. The latter are estimated to have represented the following proportion of total expenditures during the last three years.

			(In Billions of Dinars)
	1969	1970	Jan–Sept 1972
Investment	62.4	57.0	51.5
Of which: unpaid bills	5.3	12.3	19.8

The accumulation of debt and lack of working capital created acute financing difficulties.

Construction of the Belgrade-Bar railway had financing assured by special legislation, but its execution has been seriously delayed, primarily by geotechnical causes, and completion is not expected before 1976, compared with the original expectation that it would be in operation at the end of 1972.

A study carried out in 1971 by Transportation Systems and Market Research Ltd. (Transmark), a British consulting firm commissioned by the World Bank, contains a critical review of the existing organization and of official policies affecting the rail-

ways. The principal weaknesses of the railway system are described as follows: "Management organization, techniques and performance are inadequate and require to be strengthened. Coordination by the Community of Railways is weak: individual and corporate objectives and discipline are lacking; special weaknesses are apparent in planning, marketing, productivity and financial control."

In addition, the relations between the authorities and the railways require definition. The enterprises are required for social reasons to maintain rates, services and labor at uneconomic levels. At the same time, they face competition from road transport, which has attracted almost all the increase in traffic in recent years. For these reasons the railways have been unable to generate resources required to modernize their facilities and are operating with obsolete equipment.

Government support for modernization is required as well as the removal of restrictions on the freedom of enterprises to determine rates and other policies. If for social reasons this is not possible, the enterprises should be compensated for uneconomic operations imposed on them. Following the recent constitutional change, the problem has to be tackled by each Republic Government which until now have had only limited involvement in railways and in general "lack expertise in dealing with railway problems."

Added to this unfavorable framework are a number of serious inefficiencies in the management and performance of the enterprises themselves. According to Transmark the planning system: "does not at present coincide with, or even influence greatly, the real decision-making and management process ... it may even be questioned whether the work undertaken is worthwhile under existing conditions." The investment program for 1971–75 prepared by the enterprises was not based on any effective system of investment appraisal, and no quantitative assessment of the effects of the program on railway finances and performance had been made. The railways were largely organized for a monopoly stituation and were not equipped to deal with tough competition. Although the operating staff is of relatively high caliber it is not customer-oriented: punctuality, speed and regularity of transits require improvement. Serious accidents in 1971 are attributed to lack of modern signaling systems.

Improvement in all these areas is a precondition for improving the state of the railways. Appropriate policies and a proper balance between central coordination and delegation of powers should be the objective. First, the government must formulate appropriate policies. Second, the short-term role of the Community of Railways should be strengthened to improve coordination of planning, investment, marketing, productivity, service rationalization, operating, specialized services, research and engineering standardization. In particular, the planning organization at the community level should be strengthened, to ensure that a common planning methodology is used and that the plans of the enterprises are integrated into a coherent corporate plan for the Yugoslav Railways. Thirdly, the emphasis of investment should be on modernization of the present system rather than new investment.

In recent months, considerable progress has been made in clarifying the above issues. At present, the railway situation is the focal point of attention of the authorities at all levels, and basic legislation providing appropriate support may be enacted in the near future. Meanwhile, the railways are revising their investment and financing plans, which they intend to support with appropriate action plans for implementing major recommendations made by the Transmark study to rationalize their operations.

Highway Transport

The pre-World War II network was primitive and was heavily damaged during the war. Until 1957, road expenditures were relatively small, consisting mainly of rehabilitation of existing roads and the construction of a modern highway between Belgrade and Zagreb. Since then, road investment has been stepped up and has transformed the country's road conditions (see Table 7.2). During 1958–70, Yugoslavia appears to have devoted about 1 percent of GNP to highway investment, which in view of the existing backlog and the rapid expansion and modernization of the economy, has been insufficient to provide the needed road capacity.

TABLE 7.2: Roads Classified by Surface

(In Thousands of Km)

	1939	1957	1970
Paved	1.2	4.2	24.2
Gravel	42.5	48.6	41.6
Earth	37.0	29.5	25.4
Total	80.7	82.3	91.2

SOURCE: Federal Secretariat for Economy.

The most important projects carried out during the 1960s have been the completion of the central highway between the Austrian-Italian border in the North and the Greek border in the South; the construction of the Adriatic Highway along the coast; and the construction of a highway connecting the Central and Adriatic Highways.

For administrative purposes the network is divided into four categories. The federation determines all Category I roads, the republics and provinces all Categories II and III roads, and the communes all Category IV roads.

TABLE 7.3: Road Network in 1970

(In Thousands of Km)

Category	Total	Paved	Gravel	Earth
I	10.0	8.4	1.5	0.1
II	14.1	7.2	6.4	0.5
III	20.5	5 2	13.1	2.2
IV	46.7	3.4	20.7	22.6

SOURCE· Federal Secretariat for Economy.

A new classification is in order because the present categories fail to identify clearly those roads which are of interest to the country as a whole, those which are of interest to the republics and provinces and those that have a local character. The Association of Civil Engineers and two research institutes have already prepared the groundwork for a more satisfactory classification. However, the prospects are that the authorities may decide to include about 14,000 kilometers in the main highway network. Besides the important roads, this would include many roads carrying moderate · and even low traffic volumes. Functionally, this network would be too large because it would be uneconomic to set high construction and maintenance standards for all these roads and to give them all equal priority in the development program.

Overall, the density of the road network is reasonable, but too low in certain areas of the country. The density of the paved road network is low. The main problem is

that the road network is generally below standard for the present and expected increase in traffic. The main deficiencies may be summarized as follows:

(a) large sections of main arteries are heavily congested, especially during the tourist season (May to September); new four-lane expressways and two-lane highways will have to be provided;

(b) several roads paved recently have inadequate foundations and other poor design features for the traffic they carry;

(c) some gravel roads carry relatively high traffic volumes, justifying their complete reconstruction or new construction to paved standards;

(d) other gravel roads carrying more modest traffic volumes could be modernized;

(e) some primitive earth roads should be upgraded;

(f) no reasonable connections exist between some important cities and, as traffic increases, better connections will have to be built; and

(g) in cities and villages alike, better streets and access to roads are needed.

Highway administration has changed repeatedly during the postwar years and remains in constant flux, reflecting the changing political and economic conditions. Until 1960, it had been largely centralized. A Federal Secretariat with eight local directorates provided overall coordination and prepared and executed all major works, while local directorates were responsible for highway maintenance and minor works. Since then a considerable degree of decentralization has taken place. Thus, the republics and provinces became entirely responsible for planning, designing, constructing and maintaining all roads after 1967. Initially the responsibility for maintenance was, for practical purposes, vested in the hands of thirty-four Road Maintenance Enterprises (RME), which were expected to function as all other economic enterprises, with a large degree of autonomy and limited governmental control. These enterprises "sold" maintenance against certain revenues derived from earmarked motor fuel taxes collected in their territories. In recent years Road Funds or Road Councils have been established by the republics and provinces to supervise the RMEs, and as they have gradually strengthened their staff are currently playing an important role in planning investment and maintenance in addition to supervision. In general, road maintenance is reasonably efficient. Highway construction is done by independent construction firms, mostly after countrywide competition.

Modern highway planning methods were introduced recently and much progress has been made in collecting essential data as well as in preparing new projects. The progress, however, is primarily attributable to individual initiatives of the various Road Funds and as a result, it has been uneven and has tended to remain localized within each Road Fund. Countrywide comparisons of benefit/cost data, maintenance operations, and other data have been difficult to make because there has been no concerted effort on the part of the Road Funds to exchange information and to coordinate data collection, research, studies and other operations. In 1971, the Road Funds and Councils established a "Common Council" which is expected to play an important role in improving the situation, especially in helping to avoid duplication of research, to improve the quality of work, and to make countrywide comparisons possible.

Network planning on a regional basis is at an early stage, but is expected to improve during the next few years as the Road Funds gain experience with modern planning techniques. Countrywide network planning, at least of expressways and main highways, is also deficient. Two or three studies have been prepared recom-

mending a long-term program for developing the main highway network and could form the basis for the preparation of a more comprehensive and detailed program. Such a program, especially for developing a network of expressways, is highly desirable and should be undertaken. Otherwise, there is a risk that this network will be developed on an ad hoc basis by regional interests, without regard to other priorities and the interests of the country as a whole.

Project preparation and highway planning have paid relatively little attention to the development of other modes. This may be largely corrected since coordination is expected to be one of the main functions of the newly established Federal Secretariat for Transport and the corresponding secretariats in the republics and provinces.

Financing of Highway Infrastructure

Until 1961, the Federal Government met a major part of total highway expenditure. Since then its participation has been declining and a special tax on fuel (surtax) was introduced, whose revenue was earmarked for financing highway maintenance and reconstruction; the system of earmarked taxes was subsequently expanded.[3] The following table shows the changes in sources of financing between 1960-61 and 1968-70.

TABLE 7.4: Financing of Highway Expenditures

(In Millions of Dinars)

Expenditures			Financing				
Maintenance	Investment	Total	Federation	Rep. and Prov.	Communes	Road Funds and Enterprises	Other[a]
1960-116	378	494	216	31	29	150	69
1961-131	515	648	309	35	30	200	73
1968-541	1,421	1,963	168	255	189	947	582
1969-591	1,600	2,191	210	160	270	1,051	500
1970-672	1,892	2,564	209	83	210	1,259	803

[a]Loans, army, private contributions, etc.
SOURCE: Federal Secretariat for Economy, Belgrade.

One may conclude that during 1968-70, earmarked taxes met all maintenance expenditures and only about 30 percent of investments. The bulk of new investment was financed through a variety of sources, such as budgetary contributions from the republics and local authorities, contributions from the army, enterprises and private citizens, domestic loans and credits, and World Bank loans. The Federal Government no longer participates directly in financing specific highway projects, except for previous obligations.

Highway investments require as a rule careful long-term planning and it is doubtful that such heavy dependence on ad hoc resource mobilization, however resourceful, represents the best way to finance development. The need for larger ear-

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3. It should be noted that the Basic Law on Public Roads of 1967 prohibited the use of earmarked taxes for financing new investments. This was to ensure that highway maintenance and reconstruction of the existing road network would receive first priority. New investments had to be financed from other resources. This arrangement has created some difficulties because the distinction between major reconstruction and new construction is not always clear. The authorities are aware of these difficulties and the rules governing the use of earmarked funds are being reviewed and may be changed during the current revision of the basic law.

marked funds has been recognized by the republics and provinces, which have recently increased fuel taxes and earmarked part of the increase for highway investment. However, in view of the large and continuing needs in this area, it is probable that additional increases in earmarked tax resources will be required in the coming years.

In addition to the 1.2 billion dinars from earmarked taxes, revenues from nonearmarked taxes on road users accruing to the budgets of the federation, republics and provinces amounted to about 2.1 billion dinars. The principal sources of nonearmarked taxes paid by road users are turnover taxes on fuel, and customs duties on vehicles and parts. However, if only that part of the taxes which is in excess of the standard 18 percent turnover tax and 12.5 percent customs duty are considered as a levy on road users,[4] the total revenue from road user charges in 1970 was estimated at 1,640 million dinars, compared with total highway expenditures of 2,564 million dinars.[5] If this information is representative of the size and structure of road user charges which have been levied in Yugoslavia during the past years, one may infer from it that these charges (earmarked and nonearmarked) have corresponded fairly closely to total expenditures on highways.[6]

This does not mean that their levels and structure have necessarily been satisfactory. As already stated, investment in highways has been less than required, and this has been due mainly to lack of financing. Highway charges on road users, if used for raising the volume of investment, would have benefited both the users of the roads and the economy as a whole. Motor fuel prices in Yugoslavia before recent increases were lower than in most other European countries. It is doubtful, moreover, that taxes on large trucks are sufficient to cover their infrastructure costs. While vehicle registration fees in Yugoslavia are higher and rise more rapidly with vehicle weights than in most other European countries, diesel fuel prices remain low (taxes on diesel fuel were not included in the recent increases). The matter is complex and needs further study. On the whole, however, any undue advantage of road over rail transport resulting from more favorable tax treatment of the former is unlikely to be significant.

Development Prospects

According to the Five Year Plan for 1971–75, the increase in road traffic is expected to be smaller than in the past. The growth in demand for private cars, according to the theory of the plan, will slow down as the degree of motorization increases.

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4. Compared with the standard rate of 18 percent, turnover taxes on gasoline were about 82 percent and on diesel oil 52 percent. Customs duties on motor vehicles etc., compare as follows with the 12.5 percent standard rate·

	Rate (%)
Passenger cars	50
Buses	20–26
Trucks	20–36
Other motor vehicles	26–36
Tires	12–15

5. In 1970, 80 percent of fuel taxes and 100 percent of customs duties accrued to the federation, but under the new constitutional arrangements the proceeds of fuel taxes will in the future accrue wholly to the republics and provinces.
6. In 1970, revenues from road user charges amounted to 2,640 million dinars compared with total highway expenditures of 2,564 million dinars.

The demand for freight transport will increase less because the plan aims at promoting a higher degree of local processing of raw materials and at locating new production facilities closer to the markets. Additionally, railways may be able to attract a larger share of the expected increase in traffic than in previous years. However, the validity of these considerations seems doubtful. There are no definite indications that the demand for private cars is lessening. However, the demand may weaken if higher user charges are imposed, or if the growth of personal incomes slows down. The planned expansion of domestic production seems to suggest that car sales will continue to expand at a rapid pace. It is doubtful that railway services could be improved sufficiently in the immediate future to attract increasing numbers of passengers and a larger share of freight. The planned expansion of local processing of raw materials and of new production closer to markets is not likely to have a significant effect on transport before 1975 because the development of production at new locations is bound to take time. Thus, the expected increase of 7.4 percent per annum in the number of trucks during 1971–75, compared with 9.8 percent per year during 1960–70, seems conservative.

The current Social Development Plan allocates 12.8 billion dinars to road investments, and another 4.7 billion dinars for road maintenance during 1971–75, which amounts to an annual average of 2,560 million dinars for investment and 900 million dinars for maintenance. This compares with about 1,900 million dinars and 700 million dinars spent on road investment and maintenance respectively in 1970. The plan recognizes that the increase is modest in view of the large needs and the wide popular support for larger road investments, and points out that investment may be higher than planned if the republics and provinces prove capable of mobilizing additional resources.

Three major studies on the long-term development of the road network have recommended programs totalling over twenty-five billion dinars, compared with 17.5 billion dinars in the federal plan; plans prepared by the Road Funds contemplate expenditures of twenty-six billion dinars. However, given the shortage of available financial resources, the preliminary proposals of the Road Funds will probably have to be curtailed and an investment level closer to that of the federal plan appears more likely. One promising development is that the Road Funds have made considerable progress during the past three years in planning investment and maintenance. The maintenance programs are generally well-prepared, reconstruction and modernization programs are based on road and traffic surveys, and major new investments on feasibility studies and detailed engineering of relatively good quality.

Road Transport

In the immediate postwar years, road transport was concentrated in relatively large specialized road transport enterprises under direct government control. The system has since been decentralized and the enterprises are now autonomous with workers' self-management. In 1970 there were 185 specialized transport enterprises with an average of 150 buses and trucks per enterprise, and accounting for about 40 percent of freight traffic by road. The regulations and other conditions governing private sector participation in public transport were liberalized with decentralization, but ownership is limited to one truck of a maximum of five tons. Privately owned trucks account for about 10 percent of the freight traffic. Social sector enterprises operate trucks for their own account for about half of total road freight transport.

Inland Waterway Transport

The total length of Yugoslav navigable inland waterways is at present 1,853 kilometers. The principal waterways are the River Danube, between the Bulgarian and Hungarian frontiers (588 kilometers); the River Sava, from Belgrade to Sisak (585 kilometers); some 377 kilometers of navigable canals completed to date in the Danube-Tisa-Danube system, running parallel to the Danube between Bezdan and Palanka; and stretches of the Rivers Drava and Tamis. Of these, the Rivers Danube, Drava, Tisa and Tamis are international waterways. Traffic is seasonal, due to low water conditions (which might last up to two or three weeks) and intermittent closure caused by ice.

Traffic with the USSR and Eastern Europe accounts for a substantial proportion of the total. Oil, coal and steel are the principal commodities exchanged. Tonnage carried on inland waterways appears to correspond to somewhat less than 10 percent of rail tonnage. Projections of future traffic are difficult to make, but there is no indication that international trade will increase significantly in the coming years. While inland water transport may be competitive for large bulk, low value cargo flows, it is seldom so for high value manufactured goods. This is especially so where transport is seasonal because of river conditions and ice, as in Yugoslavia. As land communications improve, the proportion of general cargo carried by water will probably therefore tend to decrease, the only exceptions being perhaps such items as heavy machinery, and automobiles from Eastern Europe. The idea held by some river port and shipping enterprises that general cargo is likely to increase substantially may not be well-founded, and the provision of additional facilities for such traffic should be carefully scrutinized.

The Institute for Maintenance of Inland Waterways, a quasi-independent federal body, is responsible for the maintenance, improvement and provision of navigational aid for all international waterways and certain other waterways. The institute is headed by a council composed of representatives of the Federal and Republican Governments, the army and the Federal Chamber of Economy. The institute has a program of maintenance and minor improvements for the whole of its waterways. This is drawn up annually, within the framework of a general five-year plan and within the limits of its budget for the year concerned.

Large projects to improve inland water navigation are underway and under consideration, but it is not clear what their effect on inland waterway traffic will be. The principal development schemes in progress are the Djerdap project, a hydroelectric/ river control scheme on the Danube below Belgrade, and the first phase of the Danube-Tisa-Danube canal system, a drainage/irrigation/navigation project.

Yugoslav river shipping is owned and operated by ten enterprises, most of them small. Some are active in fields other than river shipping as such, such as road transport, dredging aggregates, construction (particularly riverine construction) and riverport operations, and some port enterprises have river transport fleets. It is difficult to arrive at a clear picture of the purely transport operations of the enterprises because of this diversification; however, it may be said that only six enterprises play a significant role as public carriers. Of these the Yugoslav River Shipping Enterprise (JRB) is the most important, with about 50 percent of total capacity in 1970. The shipping enterprises' major function is the transfer of goods from the dredge to distribution points on shore, and as in the case of riverports, the part they play in the general transportation picture tends to be overstated. The average haul is

about 330 kilometers. There is a relatively unimportant passenger traffic, amounting to 62,000 passengers and thirteen million passenger/kilometers in 1970, carried almost entirely by foreign ships.

Seaports

The sea coast of Yugoslavia extends for some 600 kilometers, as the crow flies, along the northeastern shore of the Adriatic Sea. The whole of the coastline is separated from the interior of the country by mountain ranges of considerable height. In consequence, the more important ports are sited in the vicinity of passes through which roads or railways could be built. The Adriatic is virtually tideless, and the coastline has sunk in the past, so that port sites with a good depth of water and no siltation problems abound. However, over much of its length the mountains rise sharply from the water's edge and the provision of sufficient upland area at otherwise suitable sites becomes expensive.

Rijeka is at present the most important port in Yugoslavia. It is connected with the main Yugoslav and European railway system by two electrified lines, to Llubljana and Zagreb respectively, of which the former is used to capacity, and the latter is subject to operating difficulties because of steep gradients. Rijeka is on the main "European" coastal highway and has Class I highway connections with Llubljana, Zagreb and the interior of the country. The relative importance of the other ports is indicated in Table 7.5.

TABLE 7.5: Selected Data on Major Ports, in 1970

	Capacity (Thousand Tons)		Operating Revenues (Million Dinars)
	General Cargo	Dry Bulk Cargo	
Rijeka	3,000	4,500	256
Koper	950	75	91
Split	620	1,700	39
Ploce	700	3,060	55
Bar	350	1,050	19
Total	5,620	10,385	460
Other	na	na	51

SOURCE: Federal Chamber of Economy.

The ports account for about 40 percent of foreign trade in terms of tonnage, but there is a tendency towards a decline in their share in favor of land transport (see Table 7.6).

Most ports are operated by a single enterprise which provides and maintains port facilities and carries out ship, shore and warehouse cargo handling. Exceptions are Ploce, now owned by the Sarajevo Railway Enterprise and operated by one of its departments, and Split, where the port enterprise provides and maintains the infrastructure, while the stevedoring enterprise handles cargo on ship and shore.

The major problems faced by the seaports are, firstly, general cargo congestion in Koper and Rijeka and evidence of incipient congestion at Split. Secondly, a lack of streamlining in general cargo handling as a whole. The underlying causes of these problems are partly the inadequate service provided by the railway enterprises. Apart from nonavailability of railcars in some ports, the railway layout is not conducive to

speedy operations. Most suitable general cargo is palletized, but a second reason is that although there is a basic supply of mechanical handling equipment such as forklifts and mobile cranes, this sometimes appeared to be a minimum.

The investment plans for 1971/75 prepared by the individual port enterprises total nearly 2.3 billion dinars, or US$135 million. The Seaport Group in the Federal Chamber of the Economy reviewed these plans and scaled them down to 1.7 billion dinars. However, the group does not appear to have succeeded in eliminating duplication, either in the estimates of future traffic or in the extent of the new facilities to be provided.

TABLE 7.6: Transport of Yugoslav International Trade

(In Thousands of Tons)

	1968		1969		1970	
	Import	Export	Import	Export	Import	Export
Rail	4,443	2,981	5,267	3,704	6,294	4,057
Road	570	785	712	864	1,092	857
Inland waterway	2,111	1,308	1,738	1,018	3,111	961
Seaborne shipping	6,111	3,333	6,120	3,232	8,325	3,053
Air	2	2	2	2	3	3
Total	13,237	8,408	13,839	8,820	18,825	8,931

SOURCE Federal Chamber of Economy.

The crucial issue in estimating future seaport requirements is the effect of containerization on the utilization of Yugoslav seaports. As containerization develops, the proportion of Yugoslav general cargo exports and imports passing through the seaports may decrease, since Yugoslav traffic with Western Europe is likely to move increasingly by road or block train, while traffic with North America is likely to move increasingly through northwestern European ports. The reason for this is that container rates are competitive with sea rates and that time saving and flexibility would be greater through these routes. However, such diversion can take place only if efficient road and rail services are made available.

Electric Power

Organization

Till 1965 the power sector consisted of a multitude of individual enterprises (generally one enterprise for each power plant), whose operation was controlled by the Federal Government which planned the development of the sector and financed it through the YIB. Since then, there has been a transition to the present system, based on regional enterprises responsible for planning the operations and development of the sector in each republic and autonomous province.

The power industry is broadly separated into a distribution sector and a generation and transmission sector. The twenty-six distribution enterprises are organized in an association and are represented on a Federal Committee for Coordination. The distribution enterprises and twenty-seven bulk consumers buy power from the generation and transmission enterprises. The detailed organization of the power sector in generation and high voltage transmission differs among the republics, but in all of them it includes basically a certain number of enterprises, and in some cases associated organizations, responsible for one or more generating plants located in the same geographic area and for the transmission networks in the respective republics.

All generation and transmission enterprises are members of the Union of Yugoslav Electric Power Industries (JUGEL). JUGEL, which also includes six research institutes, two business associations and one firm of consulting engineers, has so far performed mainly the function of a professional association. It is responsible for overall coordination among its members, planning and operations of interconnected systems, preparation of tariff proposals, technical regulations, etc. The recent World Bank loan for transmission expansion, has been made to various enterprises with JUGEL acting as the coordinating agency. The loan, involving JUGEL deeply in the completion of the project, should be instrumental in substantially improving its effective position as a coordinating agency. System planning, setting of priorities, effective coordination between the enterprises, etc., which have been weak in the past, are expected to develop, gradually leading to comprehensive planning for the sector and improved efficiency in operations.

Growth of Power Production and Consumption

Selected indicators of the development of the electric power industry during the last two decades are shown in Table 7.7. It is evident that the sector has grown very rapidly during this period. The installed capacity increased tenfold and power production and consumption elevenfold. Per capita consumption, which is a little over half of that in Italy, has grown at an average rate of 11.5 percent per year during 1950-70. The high growth rate is partly the result of the low base. However, the growth rate averaged about 9.2 percent per year during 1965-70, when the base was quite high.

TABLE 7.7: Selected Indicators of Development of Electric Power Industry

	1950	1955	1960	1965	1970
Installed capacity (MW)	673	1,220	2,468	3,712	6,879
Gross production (GWh)	2,408	4,340	8,925	15,523	26,023
Total consumption (GWh)	2,260	4,112	8,518	15,370	24,976
Per capita consumption	139	235	463	787	1,224

SOURCE. *Development of Electric Power Production and Consumption in Yugoslavia, 1971-81* (Belgrade: YUGEL, 1972).

There has been a change in the pattern of power consumption particularly since 1960 (Table 7.8). Retail consumption, both domestic and commercial, has increased more rapidly than total power consumption as a result of rising incomes and higher standards of living. The trend is expected to continue. Power losses in transmission were reduced at the end of the 1960s, following the completion of a 220 KV transmission network during 1968-70. However, they are expected to increase again because of the saturation of the network until the planned 380 KV transmission system is in operation.

There are wide regional differences in the levels and pattern of power consumption reflecting mostly the levels and rates of general economic development. In 1970 the per capita consumption in Slovenia was about 3.6 times that in Bosnia-Herzegovina. This is partly the result of differences in access to electric power. In Slovenia, almost all the population centers have electric power, as against only about 70 percent in

Bosnia-Herzegovina and about 90 percent in the country. Similarly the share of retail (domestic and other) consumption ranged from about 21 percent of total consumption in Macedonia to 41 percent in Croatia and Serbia. During 1960-70 the growth of consumption was slowest in Bosnia-Herzegovina, the region with the lowest rate of economic growth in this period, and highest in Macedonia which also had an above average growth of GNP.

TABLE 7.8: Pattern of Electric Power Consumption

(%)

	1950	1955	1960	1965	1970
Retail (domestic and commercial)	19.4	21.3	23.5	28.8	34.7
Industry	67.0	64.9	61.5	56.3	51.9
Traction	1.3	1.4	1 1	1.1	1 5
Losses	12.3	12.4	13.9	13.8	11.9

SOURCE. *Development of Electric Power Production and Consumption in Yugoslavia, 1971-81.*

The development of power generation in Yugoslavia has been influenced by the desire to construct power projects based on Yugoslav resources. Consequently power generation based on imported liquid fuels accounted for only 3 percent of installed capacity in 1969. This orientation did not create distortions because of Yugoslavia's rich resources for hydro- and thermal power. A second characteristic of the strategy of power development has been to construct power plants in the richest catchment areas and coal basins and to transmit to the major consumption areas. This makes transmission facilities of crucial importance.

Yugoslavia's harnessable hydropower potential is estimated at about sixty-four billion KWh per year of which about 37 percent has been exploited (including schemes under construction). Bosnia-Herzegovina, Croatia and Serbia each have about one-sixth of the country's hydropower potential. Yugoslavia also has about 21.7 billion tons of coal resources, of which 90 percent is lignite which provides a good basis for thermal power generation. About three-quarters of the usable lignite reserves are in Serbia (including Kosovo).

In the early postwar period, heavy emphasis was given to the development of hydroelectric power. By 1960, its share in total output was more than two-thirds. Hydropower was, and continues to be, subject to vagaries of rainfall and its seasonal distribution. In spite of the increases in storage capacity in recent years, there is still a substantial drop in output in the low water season. Output varies also between wet and dry years. The need to secure firm supplies has been one factor which led to a greater emphasis on thermal power in recent years. Other reasons were the need to build plants quickly to make good existing shortfalls and to keep pace with the expected fast growth in demand, and the lower capital costs of thermal plants which became more attractive as it became difficult to secure finance for investment in power generation.

There are substantial imbalances in the various regions of the country between power resources and power demands. The existing transmission system is insufficient to overcome these imbalances by transfers of power between regions, particularly in the East-West direction, and to permit an economic and reliable operation of the system. The relatively large shares of run-of-river plants (about 50 percent of total hydro capacity), the outputs of which are affected even by short-term dry

periods, accentuate the problems. There have been deficiencies in the supply, including power shortages, in the last ten years in all the six republics, but more acutely in Macedonia, and in Slovenia and Bosnia up to 1966.

TABLE 7.9: Generation of Electricity

(In Millions of KWh)

	Hydro	%	Thermal	%	Total
1960	5,984	67	2,944	33	8,928
1965	8,985	58	6,538	42	15,523
1970	14,741	57	11,282	43	26,023
1971	15,644	53	13,865	47	29,509

SOURCE· *Development of Electric Power Production and Consumption in Yugoslavia, 1971–81.*

Development Problems and Prospects

The total demand for power is expected to increase at over 12 percent per year during 1970–80 and at 7 percent per year thereafter.

	1975	1980
Total consumption (GWh)	47,240	78,632
Retail (domestic and commercial)	36.5%	39.5%
Industrial	50.1%	47.5%
Electric traction	1.1%	1.1%
Losses	12.3%	11.9%

On the basis of the existing installed capacity (7,430 MW) and the capacity under construction (1,610 MW) it appears that projected demand will not be met adequately for the next few years. Although various plans for construction of additional capacity exist, only three contracts for about 750 MW of thermal capacity have been signed. It is expected that by 1975, assuming average hydro conditions, the deficit in power will amount to one to two TWh or 2 to 5 percent of requirements.[7] To meet the projected demand, additional thermal power plants with a capacity of about 2,000 MW would have to be completed by 1976 and an additional 1,000 MW in 1977.[8] Given the lead time from the start of construction to availability of installed capacity, early decisions and commencement of construction of new projects are very important.

As pointed out, the country has abundant hydroelectric and thermoelectric (lignite) resources, and there are sufficient possible new power plant projects to permit a suitable program of construction to meet the demand in the next decade. However, the period of transition from 1965 has been characterized by a lack of overall coordinated planning of new projects and also by the very limited construction of new generation and transmission projects. The last federal construction program, prepared in 1965, was aimed at meeting the demand through 1973; there has been practically no

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7. If a number of industrial plants now being planned but not yet under construction should be completed by 1975, the deficit would be much larger. However, the possibility of the industrial plants being completed by 1975 is doubtful.

8. *Development of Electric Power Production and Consumption in Yugoslavia, 1971–81,* p. 150.

new general planning since then, and the only new projects undertaken outside the federal plan were proposed by individual enterprises which could provide the necessary finance.

The first overall plan of expansion of the sector since 1965 was under preparation by JUGEL and the union enterprises late in 1970 and was expected to be completed in 1971. A report submitted to the World Bank at the end of 1972 defines the requirements in some more detail, but it is not apparent that adequate measures have been taken to implement new constructions.[9] Any further delay in determining and implementing the necessary coordinated program of construction would accentuate the difficulties that can be foreseen for the rest of the present decade.

The Tariff System and Finance of Investment

In 1965, the Federal Government established the maximum power rates to be paid by the distribution enterprises and direct industrial consumers to the transmission enterprises, and these levels were not changed until April 1970 when they were raised by 10 percent. The rates the distribution enterprises charge their consumers are approved by the Federal Institute of Prices, and vary between regions. The tariff policy based on keeping power rates low as a basic input has led to significant problems. It has resulted in low internal generation of funds in power enterprises for investment needs and, in addition, affected their ability to secure bank financing. It has also provided insufficient incentive to consumers for economizing power consumption and tended to encourage investment in power intensive industrial activities and processes.

It is estimated that total investment needs of the power sector during 1972-78 would be about US$2.5 billion, about one-quarter of which would be for thermal stations, another quarter for transmission lines and the rest for hydro stations and investments needed to maintain orderly development during the next decade. The need to establish the financing of power investment on a sound basic is thus imperative.

Up to 1962, all the investments for generation and transmission of power were financed by credits from the General Investment Fund through the YIB. Some of these loans, repayable in fifty years, were for transmission of hydroelectric plant projects; another, maturing at thirty-five years, were for thermal plant projects. Both loans carried interest rates of 2 percent. In 1962 the YIB credit periods were shortened to twenty-five and twenty years respectively. These terms and interest rates remained unchanged until the 1965 Electricity Act. In 1963 and 1964 the Federal Government established a new system of financing by which part of the investments would be financed from funds self-generated by the enterprises and from republic and local credits. The proportions of total investment finance to be provided from the General Investment Fund was fixed. In addition, up to 1965, there was a "Fund for Losses," provided from the federal budget, from which enterprises were granted compensation for their economic "losses." Subsidies from the fund and other subsidy-type payments amounted to 18 percent of total receipts of the electric power industry in 1965.

The new system, established in 1965 to finance investments in power generation and transmission, envisaged that 80 percent of the finance would be provided by en-

9. *Development of Electric Power Production and Consumption in Yugoslavia, 1971-81.*

terprises from own funds and bank loans at 4 to 7 percent for periods from five to fifteen years. The remaining 20 percent would be provided by the YIB at 6.5 percent for fifteen years. Many power enterprises faced great difficulty in generating internal funds and raising bank loans. During 1965-70 internal funds of power enterprises amounted to only 11 percent of fixed investment in power, as against the planned ratio of 30 percent. Since 1961, the power enterprises have had to finance investments without assistance from the Federal Government and various devices have been explored to provide this finance. For example, a correction charge based on demand (Croatia) and surcharges on new industrial investment (Slovenia) have been imposed to raise investment funds. The raising of tariff rates to economic levels so that the enterprises may be able to generate a significant volume of its own funds is clearly necessary. One of the conditions of the recent World Bank loan for the construction of a 380 KV transmission system is that the principal bulk suppliers of power fix tariffs at such a level as to provide at least 35 percent self-financing for power investments after meeting operating costs and debt service. To help meet this objective, tariffs were raised by 15 percent in 1972. The fear of increasing inflationary pressures is, however, presenting difficulties in raising tariffs to economic levels. Consequently, the financial problems of the power sector may continue.

Housing

The most important factors responsible for the present relatively low standard of housing in Yugoslavia are: (a) the destruction of housing during the war which left the country with less than 75 percent of the prewar stock of houses; (b) the rapid increase in urban population, reflecting accelerated rural-urban migration; and (c) the decline in the size of households which implied a larger demand for dwellings for a given total population.

During the period 1945-48, government policy emphasized repair and reconstruction of existing dwellings rather than new construction. Also, in order to make for a more equitable distribution of existing housing, all dwellings with more than three apartments were brought under social ownership. Repair and maintenance were entrusted to "tenants' councils" and were financed by the rents. During 1948-56 there was greater emphasis on investment in new dwellings, and 236,00 new units, mostly one and two bedroom apartments were built.[10]

Even after the start of decentralization, housing was the responsibility of the Federal Government and all financing for construction came from budget appropriations and other social allocations. In 1957 a new system for the financing of new dwellings was adopted, with the creation of Housing Funds at the communal and the republic level. The resources for the funds were derived from fixed contributions out of personal income paid by all work organizations. Initially, the contributions were set at 10 percent of gross personal income, but were subsequently lowered to 6 percent. The resources of the republic Housing Funds were distributed among the communes. The system resulted in a rapid increase in the level of investment in housing (financed from social sources), with rising personal incomes, the level in 1965 being twenty-three times larger than 1952.[11] In view of the fact that building costs rose

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10. This does not include construction in the countryside in the private sector.
11. *Yugoslav Survey* 8 (February 1967): 95.

substantially, the real increase in investment was in fact markedly smaller. From 1952 to 1965 real investment in terms of constant prices increased at an average annual rate of 18.7 percent.

Around 800,000 new units were built during 1957–65. In addition, 340,000 units were built by the private sector during the same period. However, up to 1960 the increase in the number of units lagged behind the increase in the number of new households, so that the housing deficit rose by 290,000 units. This was due to the increase in population and to the decline in the average number of persons in the household.[12] One of the measures taken by the government to obviate the increasing scarcity was the establishment of official standards for newly built units, aimed at reducing the relative properties of three and four bedroom apartments in new construction. With this law the building of small units increased, particularly in the republics where the housing shortage was more acute such as Macedonia, Bosnia-Herzegovina, and Montenegro. The official standards were abolished in 1964, and in 1965 apartments with four or more rooms accounted for 4.8 percent of the total number of dwellings built in the social sector. Initially little attention was paid to the quality of the dwellings.

With the reform of 1965, a decision was made to raise rents to more economic levels so that more funds for investment in housing would be generated from rents. At the same time, however, the compulsory contribution to the Housing Funds was reduced to 4 percent of gross personal incomes. The proposal for increasing the rents as adopted envisaged a rise of 100 percent on 1965 levels in four annual steps starting in 1966. The measure was unsuccessful in its objective because the rise in construction costs exceeded the contemplated rent increase. Also with the inflationary pressures which emerged in 1969, rents were frozen at 1968 levels till 1971.

The contributions to the Housing Funds continue to be collected at the enterprise level. Part of the resources of the funds are used by the enterprises for construction of apartment buildings for their employees, and part go to the communal and republican funds. The funds kept with the enterprises are used either:

(a) to build apartments owned by the enterprise and rented by its employees;

(b) to build units which are sold to the employees; or

(c) to grant credits to employees for down payment in the acquisition of apartments.

One result has been that the role of the banks in financing housing purchases has increased. The mechanism by which the banks grant credits for housing is as follows: the individual deposits 50 percent of the purchase price of the apartment in a time deposit with a bank and is given a bank credit in the amount of the purchase price in *quid pro quo*. The credits are granted at 4 percent with twenty-five years' maturity.

The construction of apartments in the social sector is carried out by Housing Enterprises and Housing Management Units, in the proportion of 85 and 15 percent respectively. The Housing Enterprises, established at the time of the reform, are independent enterprises that build apartments and manage the Housing Funds. The finance for the construction of apartments comes partly from the Housing Fund, and partly from private savings. The latter take the form of advance payment by the individual purchaser of the full cost of the apartment at the time of commencement of construction of the building.[13] The Housing Management Units are housing depart-

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12. The number of persons per household was 4.29 in 1953, 3 99 in 1961, and 3.82 in 1965
13. As pointed out above, the individual may raise the purchase price as a loan from the banks

ments within the big enterprises, which build dwellings and manage the Housing Funds of enterprises.

Following the recent constitutional changes, each commune and republic may adopt independent policies to improve housing standards. The mandatory contribution to the Housing Funds from gross personal income has been abolished and each of the communes may determine the percentage deduction. Because of the inequalities in housing conditions among different communes, the law has provided for the creation of special funds for "social apartments" — for individuals who do not have financial resources to buy, or for individuals who are retired or disabled. An example of such a special fund is the system adopted in Belgrade. The mandatory contributions from the gross personal income are set at 4½ percent, out of which 4 percent goes to the Housing Fund and ½ percent goes to a special fund for "social apartments."

The increasingly important role of private dwelling construction, particularly after 1956, resulted from the growth of personal incomes. During 1954-65 investment in private dwellings increased at about 13 percent per year. After 1965, investment in private dwellings increased even more rapidly, partly because of the availability of credits (either from enterprise or commune Housing Funds or from banks) to individuals for the purchase of houses. Another source of finance for privately owned housing is through housing cooperatives. During the 1966-70 period, 630,000 apartments were built. Of these, 65 percent were privately owned.

Table 7.10: Selected Indicators of Development in Housing

	1951	1961	1971
Total Yugoslavia			
Number of dwellings (thousands)	3,490.0	4,138.0	5,043.0
Floor space per person (sq. meters)	41.3	45.5	49.6
Persons per dwelling	4.7	4.5	4.1
Urban areas[a]			
Number of dwellings	889.0	1,167.0	2,104.0
Proportion with 3 bedrooms and over	20.9	15.5	22.8
Proportion with electricity (%)	86.6	93.7	98.4
Proportion with water supply (%)	26.4	45.0	62.6

[a]The number of urban areas was 346 in 1951, 324 in 1961 and 467 in 1971.
SOURCE. *Statistički Godišnjak, Jugoslavije.*

While there has been a rapid increase in the number of dwellings, there has been less progress in the quality of housing (Table 7.10). The floor space per person increased by less than 25 percent in twenty years. In the urban areas, the share of apartments with three bedrooms and more is more or less the same as in 1951, and nearly 40 percent of the dwellings still do not have running water. There are also large variations between regions in the quality and quantity of housing. In 1971, for example, 60 percent of the urban dwellings in Kosovo did not have running water, while the proportion in Slovenia was 10 percent. One factor in poor housing has been the high and rising building costs, so that the increase in dwellings has lagged behind the increase in real investment. The average number of hours per square meter of construction was 46.7 in the first half of 1972. This, compared with other countries, is very high. The hours of work per square meter of construction in Czechoslovakia, the Netherlands, and France were respectively 23.1, 19.6 and 32.0. There has also

been poor planning and coordination. Due to the shortage of housing units, many large housing units were started in the cities without adequate planning. For example, new buildings often did not have any health and education infrastructure facilities in the neighborhood, and as a result tenants were not able to move in.

Education

Before World War II the backwardness of the educational system was in line with that of the rest of the economy. Four years' elementary education was compulsory, but in practice this was not enforced. The illiteracy rate of the population of over ten years was 40 percent and in some of the republics as high as 75 percent. The overall school enrollment ratio was 11 percent, and university enrollment about 0.11 percent. After the war, Yugoslavia gave major importance to the improvement and development of education, and changes were introduced in the educational system in line with those in the social and economic system.

At present, education is free at all levels and compulsory for all children between the ages of seven and fifteen, though the full period of primary education is not ensured in all areas. After the eight years of primary compulsory education the following alternatives are available at secondary and higher levels:

	(a)	General secondary schools
	(b)	Classical secondary schools
	(c)	Teacher training schools
1. Secondary Education	(d)	Technical and vocational training schools
	(e)	Art schools
	(f)	Trade training schools
	(g)	Two-year post secondary schools
	(h)	Art academies
2. Higher Education	(i)	Colleges
	(j)	Faculties (University)

Secondary Education

The general secondary schools offer four-year courses in social science and languages, or natural sciences and mathematics. At the end of the first year the student has to choose which stream to take. The classical secondary schools are oriented more toward the social sciences and languages, while teacher training schools train elementary school teachers. Technical and vocational schools' programs are oriented toward an academic rather than practical training for various occupations. The courses last four years and are open to the elementary school graduates and to workers who have acquired a certain degree of skill. The art schools provide education in theatre, ballet, music and other expressions of art. In some circumstances persons who have not graduated from elementary schools but are specially gifted could be admitted. The trade training schools put more emphasis on practical training. The students are trained to be skilled workers and most of the courses are given in the workshop of the school or in the plants of enterprises. Most of the students attending these schools work in enterprises related to the course they follow, e.g., metal workers, electricians, barbers, hotel receptionists, etc.

Higher Education

The two-year post secondary schools accept students who have finished secondary education, or highly skilled workers and technicians with at least four years' experience in the field they want to study. The main purpose of these schools is to train professional people to work in industry and government and teachers for elementary and vocational training schools. The schools at this level are: for technology (industry and mining), transport and communications, economic affairs, agriculture, medicine, social work, administration, teaching and social insurance. After two years in post secondary school the student may continue to faculties.

The Financing of Education

The distribution of resources for education were under government control until 1960. The schools were government institutions and the teachers civil servants. The financing of costs and investment for education was mainly the responsibility of the Federal Government budget. In 1957 the financing for investment in education was obtained from the federal budget (42.3 percent), funds for education of personnel in enterprises (47.8 percent) and funds for loans for housing construction (9.9 percent).

In 1960, the Basic Law on Education Financing attempted to make education more independent of the government budget. The financing of education (with the exception of higher education) became the responsibility of the sociopolitical communities. One effect of the law was that each commune began to restrict enrollment of students from other areas. Also, due to the inequalities of the degree of development among the different regions, there emerged a gap in standards and facilities.

With the reform of 1965, a new system for financing education was set up under which education was financed by:

(a) contributions to an education fund from the gross personal income of all employed persons in the social sector;

(b) part of the contribution to be paid by farmers and selfemployed to the communes;

(c) part of the republican and communal turnover taxes (only if additional funds are required);

(d) part of the funds for education in the sociopolitical communities;

(e) additional funds (not mandatory by law) could be collected from the enterprises to finance those spheres of education in which they are engaged; and,

(f) voluntary donations by citizens' associations.

The system did not undergo major change following the recent Constitutional Amendments, expect that a major participation is expected of the enterprises. The enterprises are expected to decide on the fields of education needed for a particular region, and indicate the degree and type of skilled personnel required for the present and future development of the area. On this basis, a plan for education for the commune is to be adopted. Until now, there was no defined plan to establish schools offering the kind of education and training which would be needed for fulfilling objectives of the social development plan. Because of inadequate provision of technical schools (vocational training) the majority of students tended to continue with higher education, i.e., high school and university. As a result, there are a great many young people in Yugoslavia with a "broad education" but little prospect of employment.

These individuals are forced to accept jobs for which they are overqualified while, at the same time, the economy lacks people with technical or specialized education in a number of particular fields. The 1971–75 Social Development Plan aims to tackle this problem through fuller participation of economic organizations in determining education requirements.

The staff shortage problem appears more in the underdeveloped regions than in the developed because they are unable to train their own staff. There is little incentive for teachers to move to those regions. The problem is being solved gradually but still persists in the poorer regions of the underdeveloped republics and provinces.

CHAPTER 8

REGIONAL DEVELOPMENT: PROBLEMS AND POLICIES

Wide disparities in the levels of economic development and standards of living between different republics and autonomous provinces have been recognized as a major political, economic and social issue in Yugoslavia throughout the postwar period. While there are less developed areas even within the richer republics, the inter-republic differentials have been the center of attention both because of their magnitude and because they are compounded by differences in language, nationalities, religion, and culture.[1]

The official definition of underdeveloped regions has varied over time. The first postwar Five-Year Plan (1947–51) designated Bosnia-Herzegovina, Macedonia and Montenegro as underdeveloped republics to receive special assistance. The Five-Year Plan for 1957–61 modified the definition to include Kosovo and exclude Bosnia-Herzegovina (on the grounds that per capita investment in the republic up to 1956 had exceeded the national average). The plan for 1961–65 designated Macedonia, Montenegro, Kosovo and parts of Croatia, Serbia and Bosnia-Herzegovina as underdeveloped regions, giving federal cognizance, for the first time, to the existence of underdeveloped regions within the developed republics. With the gradual progress of decentralization, however, the underdeveloped areas within the developed republics were regarded primarily as a concern of the republic itself, and the problem of regional development in the context of national economic policy in the 1960s has concerned the development of Bosnia-Herzegovina, Kosovo, Macedonia and Montenegro.

Growth of the Underdeveloped Regions

The underdeveloped regions as at present demarcated account for 40 percent of the area, 35 percent of the population and only 21 percent of GMP of Yugoslavia. They are characterized by per capita incomes markedly lower than the national average (see Chart XIII), and are also relatively backward from the point of view of social indications relevant in any assessment of standard of living and economic welfare, such as, infant mortality, population per hospital bed and the percentage of illiterates (see Table 8.1). However, as is clear from the selected indicators in the table, the underdeveloped regions are not homogenous in their resource endowments, their present level of development, their development experience in the postwar period or their medium-term development prospects.[2] In particular, the development

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1. The underdeveloped regions, comprising in general the area to the South of the River Sava, were either part of the Ottoman Empire or buffer zones in the defense of Europe against Ottoman expansion. The more developed northern republics and provinces (Slovenia, part of Croatia and Vojvodina) were under central European influence and formed a part of the Austro-Hungarian Empire (see Chapter 1). Historical factors are more important than geography in explaining the relative lag in the development of the underdeveloped regions. Southern Yugoslavia has large mineral and energy resources, though its mountainous character which makes North/South communications very difficult has made transportation a problem and retarded the exploitation of these resources.

2. This is also true of the developed regions. Slovenia is the most advanced, with a per capita GMP 94 percent higher in 1971 than that of Serbia, the developed republic with the lowest per capita GMP.

CHART XIII

GMP PER CAPITA BY REGIONS
(1966 PRICES)

100%   100%

	1953	1960	1965	1970
Less Developed Regions	72.7	65.3	63.9	61.3
Yugoslavia	100.0	100.0	100.0	100.0
Developed Regions	112.7	117.0	118.5	120.6

LESS DEVELOPED REGIONS ▨   YUGOSLAVIA ☐   DEVELOPED REGIONS ■
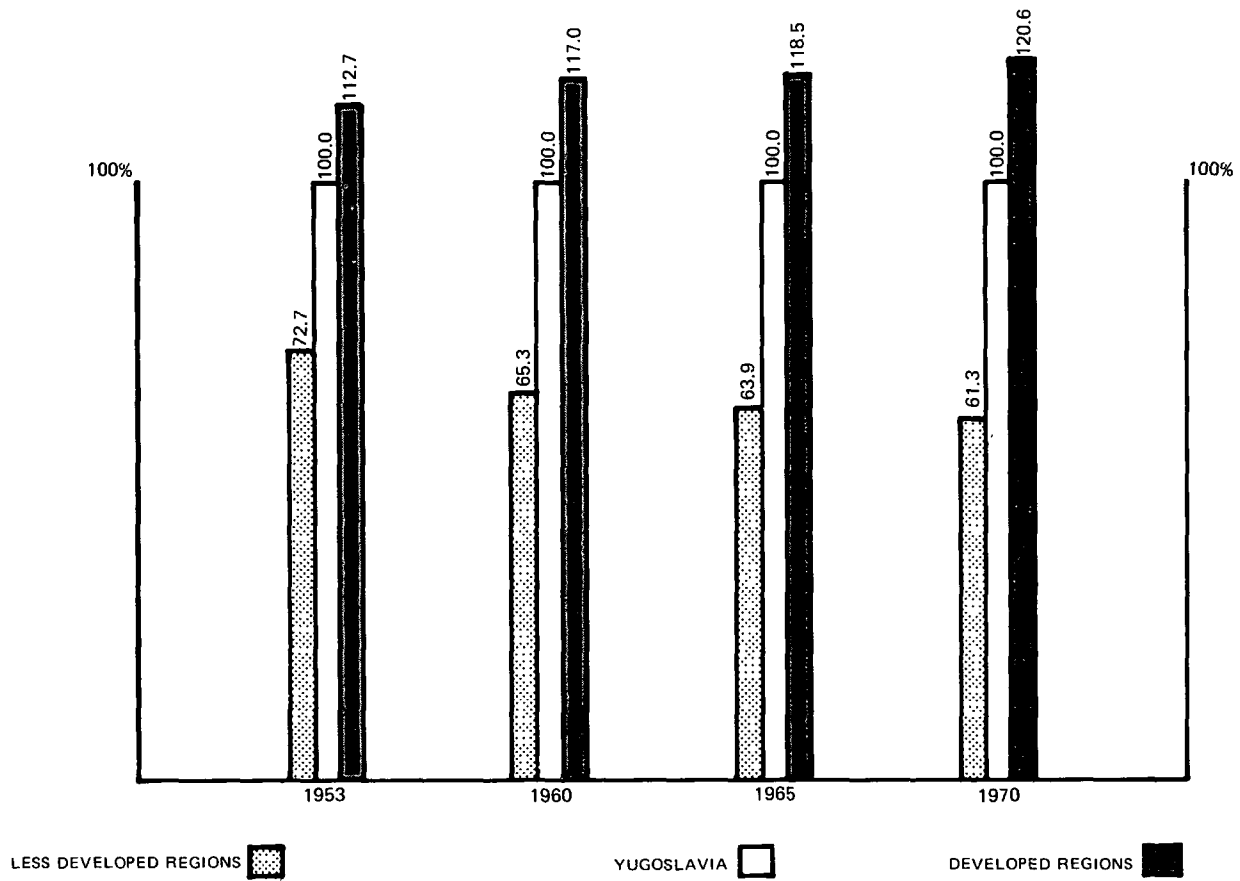
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TABLE 8.1: Selected Development Indicators

	Bosnia-Herzegovina	Kosovo	Macedonia	Montenegro	Under-developed Regions	Developed Regions	SFRY
Per capita GMP, 1971	441.0	196.0	424.0	430.0	394.0	807.0	663.0
Growth rate of GMP 1953–71 (1966 prices)							
Total	6.3	6.6	7.6	7.6	6.7	7.4	7.3
Per capita	4.9	4.2	6.3	5.3	5.2	6.8	6.3
Gross fixed investment as % of GMP (1966 prices)							
1953–69	29.9	29.1	43.8	52.6	35.0	24.2	26.6
Share of agriculture in GMP (1966 prices)							
1953	39.6	51.8	46.5	38.5	42.3	39.2	39.9
1971	19.5	26.2	26.3	15.1	21.5	19.5	19.9
Share of industry in GMP (1966 prices)							
1953	18.5	24.2	12.5	7.4	16.9	23.3	21.8
1971	38.9	35.9	33.1	28.5	36.2	37.1	36.9
Share of agricultural population in total population							
1953	62.2	71.7	62.7	61.4	63.7	59.3	60.7
1971	38.0	50.6	36.3	35.4	39.6	35.7	37.1
Social sector employment as % of total active population							
1953	22.7	13.8	20.5	21.6	21.0	23.4	22.7
1971	44.8	34.1	46.6	50.6	43.4	49.2	47.6
Fixed assets per worker in social sector (thousands of 1966 dinars)							
1952	31.8	49.1	30.8	30.3	33.0	46.8	43.3
1970	84.1	97.7	63.8	123.6	83.2	76.4	78.1
Fixed assets per worker in industry (thousands of 1966 dinars)							
1952	43.6	52.4	44.2	71.3	45.7	51.4	50.2
1970	109.8	124.1	84.2	152.5	108.2	85.9	91.3
Share of fixed assets in social sector							
1952	12.66	1.75	3.84	1.03	19.28	80.72	100.0
1970	14.46	2.58	5.18	2.86	25.08	74.92	100.0
% of illiteracy (population ten years and over)							
1953	40.2	54.8	35.7	30.1	40.4	19.1	25.4
1971	22.7	32.2	18.0	17.2	22.7	11.7	15.2
Population per hospital bed							
1950	503.0	820.0	467.0	264.0	484.0	261.0	304.0
1970	253.0	364.0	185.0	165.0	236.0	153.0	174.0
Infant mortality per 100 live births							
Average 1950–54	134.0	154.6	138.8	88.6	135.7	101.1	115.7
1971	53.6	89.6	81.9	34.6	68.2	31.6	48.9
Share of fixed assets in industry							
1962	12.80	1.89	2.88	1.29	18.86	81.14	100.0
1970	17.14	3.25	4.86	2.74	27.99	72.01	100.0
Share of industrial production							
1953	11.6	2.6	3.1	0.6	17.9	82.1	100.0
1970	12.1	2.0	5.0	1.5	20.6	79.4	100.0

SOURCE World Bank, Economic and Social Data Division.

problem and experience of Kosovo, the least developed region of Yugoslavia, is in several respects distinct from that of the other underdeveloped republics. The average per capita GMP in Kosovo is only 45 percent of that of the other under-developed republics, and it is the only republic (or autonomous province) in which the agricultural population increased in absolute terms during 1953–71. The demographic experience is also distinctive. In the underdeveloped regions excluding Kosovo, the total number of births per year *declined* by over 25 percent during 1950–70 as a result of a significant decline in the birth rate, but in Kosovo the number *increased* by over 35 percent, reflecting the relatively stable birth rate. In the following discussion, however, the underdeveloped regions are considered as a group, with the specific situation of each republic being left for detailed study elsewhere.[3]

The underdeveloped regions have undergone rapid development and structural change during the last two decades (see Table 8.1). The growth rate of GMP averaged 6.7 percent per year during 1953–71, with the share of industry in GMP increasing from about 17 percent to 36 percent. The proportion of the agricultural population in total population declined from about 64 percent to around 40 percent over the period. At the same time significant progress was also made in the "quality" of life as indicated by several indices of social development—the proportion of illiterates in the population aged ten years and over was reduced from two-fifths to about one-fifth, and the infant mortality rate was halved. The average rate of economic and social development since 1953 was not uniform among the different regions. During 1953–71, Macedonia and Montenegro experienced significantly more rapid growth of total as well as per capita GMP than Bosnia-Herzegovina and Kosovo. The major explanation for these differences appears to have been the investment/GMP ratio. It is significant that in the period as a whole the two most rapidly growing under-developed republics had an investment/GMP ratio substantially higher than the others.

Trends in Regional Inequality

The regional development problem in Yugoslavia is thus not a problem of economic stagnation in the less developed republics. It is one of increasing regional differences between developed and less developed republics *despite* rapid growth in both. The increasing regional differences are most clearly seen in relative levels of per capita income. The average per capita income in the underdeveloped regions was about two-thirds of that in the developed regions in 1953, but the proportion declined to less than half in 1971. The greatest decline in relative per capita income in this period occurred in Kosovo, followed by Bosnia-Herzegovina and Macedonia. The growing inequality results from the fact that the average per capita incomes in the less developed areas grew at a substantially slower rate than in the developed areas during 1953–71, as a result both of the slower growth of their total GMP and their significantly more rapid population growth rate. For underdeveloped areas as a whole each of these factors contributed about half of the actual decline in relative average per capita incomes during the period (see Table 8.2). If the population growth

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3. The Bank is engaged in a series of studies of each underdeveloped republic. A special study of Kosovo is under preparation and one of Bosnia-Herzegovina is planned for this year.

rate in the underdeveloped regions had been the same as in the developed regions, while their total GMP increased at the rate it actually did, the index of their relative per capita income would have still declined from sixty-five in 1953 to fifty-seven in 1971. Thus the widening of the per capita income differentials is not merely a reflection of differences in population growth rates.[4] The widening of the differential in regional per capita GMP has been accompanied by an increase in the gap between the richest and the poorest regions. The per capita GMP in Kosovo was about 28 percent of that in Slovenia in 1953 and only about 15 percent in 1971.

TABLE 8.2: Index of per Capita Incomes

	1953	1971 (1966 Prices)		
	Actual	Actual	Same Population Growth[a]	Same GMP Growth[b]
Developed regions	100	100	100	100
Underdeveloped regions	65	50	57	56
Bosnia-Herzegovina	74	53	60	65
Kosovo	42	28	37	29
Macedonia	60	56	62	55
Montenegro	60	58	64	53

[a]Population increase assumed to be the same as that for Yugoslavia—17.4 percent in both regions. The column indicates the impact of differences in growth rate of GMP on relative per capita income.

[b]GMP increase assumed to be the same as that for Yugoslavia, 240.9 percent, in both regions. The column indicates the impact of differences in growth of population on relative per capita income.

The changes in regional per capita income differences during the period 1953-71 may be studied with the help of an index of regional inequality suggested by J.G. Williamson (see Table 8.3).[5] Williamson, using in this study both country cross section and time series data, found support for his hypothesis that: "the early stages of national development generate increasingly large (regional) income differentials. Somewhere during the course of development some or all the disequilibrating tendencies diminished, causing a reversal in the pattern of interregional inequality. Therefore a statistic describing regional inequality will trace out an inverted "U" over the national growth path..." (pp. 10-11).

During 1953-71 the regional inequality index had a rising trend, though it fluctuated from year to year. The degree of inequality was larger for per capita regional income in current prices as compared to 1966 prices, though the difference in recent years has been less than it was during the 1950s. This indicates that the structure of relative prices existing during much of the period was relatively unfavorable to the underdeveloped regions. During the 1950s, the unfavorable price structure reflected price policies that depressed agricultural and basic industrial commodity prices which are relatively more important in the social product of the underdeveloped regions. In recent years the differential, though smaller, has reappeared, and results perhaps from the greater concentration in the developed republics of the production of finished industrial goods less subject to price controls and regulations, while the underdeveloped regions still tend to have a greater proportion of the production of

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4. It is clear that for Kosovo, Macedonia and Montenegro the difference in the population growth rate had a bigger impact on relative per capita income than the difference in the growth rate of GMP. In the case of Bosnia-Herzegovina, the reverse is true. For the region as a whole, the two factors are roughly equally important.

5. J.G. Williamson, "Regional Inequality and the Process of National Development," *Economic Development and Cultural Change* 13 (July 1965), Part II.

"basic" commodities (power, metals etc.), whose prices are more strictly regulated.

The variations in the regional inequality index from year to year are related inversely to the growth of national income (net material product, NMP), and directly to the rate of inflation as measured by the growth of the implicit price deflator for the national income.[6] During the last two decades, rapid growth of national income has, therefore, tended to be associated with a decline in the regional inequality index, and rapid inflation with an increase. The tendency, if it continues to persist, would appear to have significant and obvious policy implications for the target growth rate for the future.

TABLE 8.3: Index of Inequality of per Capita GMP[a]

	Current Prices	1966 Prices	% Difference
1952	0.3494	0.2603	25.2
1955	0.3360	0.2973	11.5
1960	0.3619	0.3186	12.0
1965	0.3508	0.3585	2 2
1966	0 3296	0.3296	—
1967	0.3485	0.3386	2.8
1968	0 3682	0.3513	4 6
1969	0.3712	0.3553	4.3
1970	0.3918	0 3699	5.6
1971	0 3876	0.3798	2.0

[a]The index is calculated using per capita net material product (NMP) for each of the eight republics and autonomous provinces, according to the formula:

$$V_w = \sqrt{\frac{i\,(y_i - y)^2 \cdot f_i/n}{y}}$$

where f_i = population i^{th} region, n = total population, y_i = NMP per capita of ith region and y = national NMP per capita for Yugoslavia. The higher the index, the higher the degree of inequality

Factors Influencing Regional Inequality

The inequality of regional per capita incomes and standards of living is the result of many complex factors, whose interrelationships are not fully understood. However, the demographic characteristics of the population to some extent help to perpetuate and intensify per capita income differentials. The less developed regions, with 35 percent of the total population of Yugoslavia, have about 32.5 percent of the working age population and less than 28 percent of the economically active population. The inequality of per capita national income is therefore significantly more than the inequality in national income per economically active person, the difference reflecting the greater proportion of dependents in the population in the less developed regions. The relative difference between the UDRs and the DRs in national income *per active person* increased during the 1950s, but appears to have stabilized during the 1960s—a trend that is in contrast with the trend in relative levels of national income *per capita*.

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6. During 1952–71 the regression equation for growth in the index of inequality on growth of national income and of the implicit price deflator for national income was Gv = .84112 − .6978Gy + .5010 Gp, where Gv = growth of index of regional inequality, Gy = growth of national income and Gp = growth of the implicit deflator.

TABLE 8.4: Indices of NMP

<div align="right">(1966 prices)</div>

	NMP per Capita			NMP per Active Person		
	1953	1961	1971	1953	1961	1971
Developed regions	100	100	100	100	100	100
Underdeveloped regions	65	54	49	80	68	69

The Labor Force and Productivity. It is clear, however, that differences in the productivity of the economically active population is a major factor underlying regional income differentials. Not only do the less developed republics have fewer workers relative to population, but they also tend to produce less. A small part of the lower productivity is explained by differences in the sectoral distribution of the labor force. In the underdeveloped republics a relatively greater proportion of the labor force is engaged in agriculture, in which output per worker is less. Thus, if the sectoral distribution of the labor force in the underdeveloped regions had been the same in 1971 as that in the developed areas, the index of output per active person would have been 75 percent and not 68 percent of that in the developed regions.[7] However, as is clear from Table 8.5 the inequality in output per worker is much more than a question of sectoral distribution of employment. The NMP per worker in all sectors is substantially lower in the underdeveloped regions, and the gap in value added per worker in each of the "productive" sectors has not changed much during 1953–71, except in construction where it has increased.

TABLE 8.5: Indices of NMP[a]

	1953		1961		1971	
	Developed Regions	Underdeveloped Regions	Developed Regions		Underdeveloped Regions	
Agriculture	100	82	100	76	100	80
Industry	100	77	100	85	100	77
Construction	100	82	100	51	100	68
Transport	100	85	100	86	100	85
Trade, handicrafts and utilities	100	75	100	61	100	70

[a]The NMP per worker is calculated by dividing the NMP by the number of workers in the sectors which generate material product.

One explanation of the lower NMP per worker is that the proportion of the population employed in the social sector is relatively much smaller in the less developed republics, and the social sector is largely identical with the modern sector of the economy. In 1971, in the underdeveloped republics, about 43 percent of the total labor force was employed in the social sector as compared to over 49 percent in the developed republics. Since in both regions the average product per worker in the social sector is over five times that in the private sector, an increase in the proportion of the labor force in the social sector would imply a significant increase in the average product per worker for the total labor force.

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7 In 1953, however, there would have been no change in the average NMP per active person in the less developed regions, if the sectoral distribution of their labor force was assumed to correspond to that of the developed regions.

Even within the social sector, however, productivity appears to be lower in the underdeveloped regions. NMP per worker in the social sector in the less developed regions was about 78 percent of that in the developed regions in 1971, and 77 percent in 1961. Following is a more detailed investigation of the pattern of growth in the less developed republics, and factors influencing it in those areas which might explain the persistence of substantial regional differences in productivity.

Table 8.6 shows the pattern of growth of output for employment and productivity in the less developed republics. It should be noted that the employment data relate only to those employed in "productive" sectors which contribute directly to material product. It is clear that during 1953-61 regional income, employment and productivity increased more rapidly in the developed regions, largely because of the more rapid growth of nonagricultural activities, other than industry. The growth of industrial output, employment and productivity was, however, appreciably faster in the underdeveloped regions. The decline of the active population in agriculture was much slower in the underdeveloped republics. In general, therefore, in the 1950s, growth performance in the underdeveloped areas was poor relative to that in the developed areas. In the 1960s the relative difference between the rates of growth between the two regions narrowed, mainly as a result of improved performance in the underdeveloped regions. There was a general slowdown in the growth of total "productive" employment reflecting the policy of "intensive" rather than "extensive" development (see Chapter 2). However, the growth of nonagricultural employment accelerated in the less developed regions, as did the rate of decline of the employment in agriculture.

In Table 8.7 the growth of NMP is decomposed, with one component showing the growth deriving from the growth of the number of workers, and another showing the effect of increase in output per worker. The increment in output deriving from increase in output per worker is further subdivided into (a) the increase resulting from change in the sectoral distribution of the labor force (structural change) and (b) the increase in output per worker abstracting from such changes.[8] It appears that the role of these three elements in the growth of national income has not differed significantly between the developed and the underdeveloped regions. The growth of the labor force played a relatively small role in the growth of output. Growth in "standardized" output per worker (assuming that there was no change in the sectoral distribution of employment) contributed over half the growth of total product in the 1950s, and about three-quarters in the 1960s in both regions. In the 1950s changes in economic structure, as reflected in changes in the sectoral distribution of the labor force accounted for a somewhat greater proportion of the growth of product in the underdeveloped regions (about two-fifths). However, the importance of structural change as a factor in productivity growth declined in the 1960s, to a level somewhat lower than that in the developed regions.

The "Productivity" of Investment. While the factors influencing the growth of national product on the side of the labor force did not differ significantly between the two

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8. The formula used is $Qt/Qo=Lt/Lo. Pt/Po$, where Qt/Qo = increase in output between period o and 5, Lt/Lo = increase in labor force and Pt/Po = increase in productivity per worker. Pt/Po is itself divided into two parts, (pti.Loi/Poi Loi.) = increase in productivity per worker in each sector i, assuming that the proportion of total labor employed in each sector in year t is the same as in year o; and (Pti.lti/Pti.loi) = the change in the product of each sector resulting from the change in the proportion of total labor force in sector i between year o and year t, assuming that the output per worker in the sector is unchanged over the period.

TABLE 8.6: Growth of Output, Employment and Productivity

(% per Year)

	Total		Agriculture		Nonagriculture [a]		Industry	
	1953–61	1961–71	1953–61	1961–71	1953–61	1961–71	1953–61	1961–71
NMP [b]								
Yugoslavia	6.9	6.8	2.4	3.0	10.0	8.2	11.3	9.1
Developed regions	7.4	6.9	2.4	3.2	10.4	8.1	10.9	9.1
Underdeveloped regions	5.8	6.6	2.5	2.6	8.3	8.4	13.0	9.0
Employment [c]								
Yugoslavia	0.7	0.1	−1.3	−1.9	5.5	3.0	7.8	3.5
Developed regions	0.7	0.0	−1.5	−1.9	5.9	2.6	7.6	3.3
Underdeveloped regions	0.5	0.2	−0.5	−2.0	3.9	4.4	8.2	4.2
NMP per worker [b]								
Yugoslavia	6.2	6.7	3.6	5.0	4.3	5.0	3.3	5.4
Developed regions	6.7	6.9	3.9	5.1	4.2	5.4	3.1	5.6
Underdeveloped regions	5.3	6.4	3.0	5.6	4.3	3.9	4.4	4.6

[a] Industry, construction, transport, communications, trade and catering, handicrafts and utilities.
[b] At 1966 prices.
[c] Active population as reported in the Census of March 31 of respective years in sectors contributing directly to material product.
SOURCES: *Jugoslavije 1945–64; Statistički Godišnjak, Jugoslavije;* and *Kretanje Drustvenog Proizvala i Narodnag Dohotka Jugoslavije 1952–1968* (Studije analize i prikazi 45, Belgrade, 1969).

regions, the impact of investment did. As a result of national policy of channelling investment to them, the ratio of investment to GMP has been consistently much higher in the developed regions (see Table 8.8). However, the ICOR has been much higher too, and consequently the growth rate of output has been lower. There are, however, wide variations between the experience of the different underdeveloped areas. Montenegro has tended to have above average ICORs (perhaps as a result of its geographic configuration). During the 1960s, Macedonia too had above average ICORs, partly because of the impact of the Skopje earthquake of 1964 and the reconstruction that followed but also because of the poor showing of the Skopje steel works. Bosnia-Herzegovina and Kosovo had below average investment ratios, so that the growth of their social product during the period as a whole was the lowest of all the republics and regions.

TABLE 8.7: Components of Growth of NMP, 1953–61

	Developed Regions	Underdeveloped Regions
Increase of NMP	77.40 (100)	57.44 (100)
(a) Increase of labor force	5.74 (8.8)	4.36 (8.7)
(b) Increase of output per worker	67.80	50.86
of which:		
(i) Standardized output per worker	38.47 (58.8)	26.61 (53.1)
(ii) Change in economic structure	21.20 (32.4)	19.15 (38.5)
1961–71		
Increase of NMP	94.07 (100)	89.92 (100)
(a) Increase of labor force	0.0 (0)	1.92 (2.4)
(b) Increase of output per worker	94.07	86.34
of which:		
(i) Standardized output per worker	59.86 (73.7)	60.47 (77.1)
(ii) Change in economic structure	21.40 (26.3)	16.12 (20.5)

SOURCE. *Statistički Godišnjak, Jugoslavije.*

The relatively higher ICORs in the underdeveloped regions may be largely the result of the pattern of investment. It is generally believed that the greater proportion of investment in the underdeveloped regions has gone into capital intensive sectors like electric power and basic metals, and in the provision of infrastructure, which have relatively higher ICORS. The sectoral allocation of investment in the developed and underdeveloped regions is shown in Table 8.9. The most significant difference in the investment allocation between the two regions is that the proportion of "economic" investments was higher in the underdeveloped areas and a much larger share of it went into mining, manufacturing and power. Investment in industry (including power) has, however been characterized by ICORs significantly higher than those in the developed regions. One reason is the pattern of industrial investment (see Table 8.10). More than 52 percent of the gross fixed investment in mining and manufacturing in the underdeveloped areas during 1952–69 was in four industries— coal mining, steel, nonferrous metals and nonmetallic minerals. Only 30 percent of the industrial investment in developed areas went into these industries. In the same period rapidly growing industries like metal products, electric equipment and chemicals absorbed only 6 percent of the industrial investment in the less developed regions, as compared to about 14 percent in the developed regions. Thus the industry "mix" explains, at least partly, the higher level of the ICOR in industry in the underdeveloped areas.

TABLE 8.8: Investment and Output by Regions

(1966 Prices)

	Bosnia–Herzegovina	Kosovo	Macedonia	Montenegro	Underdeveloped Regions	Developed Regions	Yugoslavia
1953–59							
Investment/GMP	30.5	21.9	32.7	65.8	32.9	17.2	20.6
Growth rate of GMP [a]	6.5	5.0	6.7	5.8	6.4	8.3	7.9
ICOR [b]	4.7	4.4	4.9	11.3	5.1	2.1	2.6
1960–64							
Investment/GMP	32.1	44.3	54.8	61.9	41.2	29.0	31.6
Growth rate of GMP [a]	5.8	8.8	8.5	10.9	7.2	6.9	7.0
ICOR [b]	5.5	5.0	6.4	5.7	5.7	4.2	4.5
1965–69							
Investment/GMP	27.9	25.8	43.2	38.5	32.1	25.4	26.9
Growth rate of GMP [a]	5.3	6.6	7.2	6.4	6.0	6.4	6.3
ICOR [b]	5.3	3.9	6.0	6.0	5.4	4.0	4.3

[a] Growth rate of GMP during 1953–60, 1960–65 and 1965–70 respectively.
[b] The investment/GMP ratio divided by the growth rate of GMP.
SOURCES: *Investicije, 1947–1969;* and *Kretanje Drustvenog;* and *Statistički Godišnjak, Jugoslavije.*

TABLE 8.9: Sectoral Allocation of Investment

(%)

	1952–60		1961–69	
	Developed Regions	Underdeveloped Regions	Developed Regions	Underdeveloped Regions
Total (million 1966 dinars)	85,625	27,830	151,554	56,111
(%)	100.0	100.0	100.0	100.0
Economic	68 6	81.7	70.0	72.5
Of which: Agriculture	9 0	10.4	9.2	7.9
Mining and manufacturing	25.3	40.2	22.6	39.6
Electric power	7.1	13.2	7 7	9.5
Transport	14.3	13.7	12.2	13.6
Trade, handi- crafts, etc.	12.9	4.2	18.3	1.9

SOURCE. *Investicije, 1947–69.*

TABLE 8.10: ICORs for Industry[a]

	1953–59	1960–64	1965–69
Developed regions	2.6	2 4	2.7
Underdeveloped regions	4.7	4.0	6.4
Bosnia-Herzegovina	4.0	3.1	5.5
Kosovo	7.1	5.4	10.7
Macedonia	4 4	5.5	6 0
Montenegro	11.5	5.3	6.0

[a]Including electric power. ICOR is defined as the sum of gross fixed investment at 1966 prices in industry during each period, divided by the increment in value added at 1966 prices between the beginning of the period and the year after the end of the period. For example in column 1 the sum of gross fixed investment during 1953–59 is divided by the increment in GMP during 1953–60.

SOURCES ·*Investicije, 1947–69;* and *Statistički Godišnjak, Jugoslavije.*

There is also, however, a tendency for the ICORs in a number of industrial sectors to be higher in the underdeveloped regions (see Table 8.11). The difference is particularly large for steel, but for chemicals, wood products, electrical equipment, metal products, and food manufactures as well the ICORs have been higher in the less developed republics both in the 1950s and the 1960s. If it is assumed that the distribution of investment among the industrial branches was the same as it was in the developed regions during 1953–61, the ICOR in the less developed republics for the industrial sector would be 4 instead of the actual 4.9. This is still much higher than the ICOR for the developed republics in the same period. On a similar assumption about the allocation of industrial investment for 1962–70, the ICOR for industry in the less developed regions would be 3.5. This indicates that during the 1960s a larger proportion of the relatively high ICOR in the underdeveloped regions could be attributed to the greater importance of capital-intensive branches of industry.[9] This reflects a narrowing of the gap between the two regions with respect to ICORs.

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9. In other words, of the difference between the ICOR for industry during 1953–61 between the two regions, about 40 percent was due to the greater share of capital-intensive industries in the investment in the less developed regions, the rest resulting from higher ICORs for the same branch of industry. During 1962–70, this proportion increased to 56 percent.

TABLE 8.11: ICOR by Industrial Sectors[a]

	1953-61		1962-69	
	Underdeveloped Regions	Developed Regions	Underdeveloped Regions	Developed Regions
Electric power	12.8	8.5	6.0	8.3
Coal and coke	3.7	7.3	13.9	—[b]
Petroleum	3.5	5.4	5.8	2.8
Ferrous metals	6.2	3.6	23.3	5.3
Nonferrous metals	4.0	4.8	8.1	4.3
Nonmetallic minerals	5.3	2.3	7.9	1.2
Construction materials	2.1	2.8	2.5	1.7
Metal products	1.7	1.3	1.5	1.2
Electrical equipment	2.6	0.9	1.5	1.0
Chemicals	6.4	2.9	3.1	1.5
Wood products	3.6	1.7	2.1	2.2
Textiles	2.5	1.1	2.3	1.7
Food	3.3	1.8	2.4	1.9
Industry, total	4.9	2.6	4.9	2.4

[a]ICOR defined as the ratio of the sum of gross fixed investment in 1966 prices during the period, divided by the increment in value added from the beginning of the period to the year after the end. For example for 1953-61, the sum of investment during 1953-61 is divided by the increment in output between 1953 and 1962.

[b]The output declined during 1962-70.

SOURCES: *Investicije, 1947-69;* and data provided by the Federal Institute of Statistics.

Capital and Employment. The development of the underdeveloped regions, like that of the country as a whole, has been characterized by a large increase in capital stock per worker, reflecting the rapid modernization of the economy and the adoption of modern technology. In the social sector, for which capital stock data are available, the fixed assets per worker were much lower in the less developed republics in the early 1950s. However, in the 1960s there has been little difference in the fixed assets per worker between the two groups of republics (Table 8.12). More than half the capital stock of the social sector is in industry, in which the fixed assets per worker are much higher in the underdeveloped regions. This implies that in other parts of the social sector (including fields like health and education as well as activities like transport and communication), the average fixed capital stock per employee is significantly less. Given the labor surplus position of the less developed republics (see Chapter 2), this may not be necessarily bad, for given the capital stock a relatively larger number are employed in the nonindustrial social sector. In industry on the other hand, the pattern of resource endowment and development has resulted in relatively lower total employment relative to the capital stock. The conclusions are somewhat different when one considers the relationship between increments of employment and investment. There was a very rapid increase in the ICOR for the social sector, in both the developed and less developed regions, but the increase was much greater in the developed regions, particularly in the latter half of the sixties. In industry, the situation has been quite the reverse, with the less developed republics showing a much larger investment per job created. There is little doubt that this is the result of the pattern of industrial investment.

Regional Development Policy

The attainment of regional equality in levels of economic development has been an explicit policy objective throughout the postwar period. The aim has been to at-

tain, through high rates of investment, a growth rate of GMP significantly higher than the national average, so that existing differences in regional per capita income can be eliminated. The outlines of regional development policy, as enunciated in the First Five-Year Plan (1947-51), already incorporated all the features that have characterized the policy during the postwar period. The interpretation and the manner of implementation of these outlines has, of course, changed over time. The plan stated that one of its "basic tasks" was "to ensure a speedier tempo of development in the economically backward republics and remove all consequences of uneven development." This was to be attained by a very large increase in total investment and an above-average increase in the value of industrial production in these republics, to be achieved "by the judicious distribution of new factories." Development was to be resource oriented—towards "those branches of the national economy which are based on local raw materials."[10]

TABLE 8.12: Capital Labor Ratios[a]

					(In Thousands of 1966 Dinars)
	1952	1955	1960	1965	1970
Social sector					
Bosnia-Herzegovina	26.8	36.2	42.5	49.9	68.4
Kosovo	26 5	25 2	25.0	41.1	65.1
Macedonia	24.2	18.7	26.1	35.5	49.1
Montenegro	19.9	12.9	32.9	170.6	89.9
Underdeveloped regions	25.8	29.1	35.8	46.9	64.6
Developed regions	35.9	32.7	36.3	45.9	64.1
Yugoslavia	33.3	31.8	36.1	46.2	64.3
Industry					
Bosnia-Herzegovina	43.6	61.8	71 7	82.3	109.8
Kosovo	52.4	46.7	51.0	76 7	124.1
Macedonia	44.2	34.3	55 4	64.9	84 2
Montenegro	71.3	63 6	110.8	134.9	152.5
Underdeveloped regions	45 7	55.7	68.7	81.8	108.5
Developed regions	51.4	47.5	51.9	63.9	86.0
Yugoslavia	50.2	49.2	55.6	68.1	91.3

[a]The total value of fixed assets in 1966 prices divided by the total employment.

SOURCES· *Neki Pokazatelji, Razvoja Jugoslavije, 1950Ç1970* (Belgrade Federal Institute of Statistics, 1971); and *Statistički Godišnjak, Jugoslavije.*

The System of Financing Regional Development, 1946-65

During the period of administrative planning, investments were allocated directly from centralized investment funds. There was no explicit regional allocation of investment, but in fact about 30 percent of the total investment went to underdeveloped republics during 1947-52. Most of it went into large-scale industrial projects for exploiting the power and mineral resources, with little investment into the

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10. The quotations are from Articles 5 and 21 of the "Law on the Five-Year Plan for the Development of the National Economy of the Federative People's Republic of Yugoslavia in the period from 1947 to 1951" (Belgrade, 1947) Boris Kidrič, Yugoslavia's first planner, in his "Ideal Model of Dynamic Regional Development" (Belgrade Office of Information, 1947), proposed a system of differentiated regional growth rates, varying from an average of 13.6 percent per year from Slovenia to 21.5 percent per year in Kosovo during 1947-62, so that output per capita would be equalized by 1962 A summary is presented in F.G.I. Hamilton, *Yugoslavia: Patterns of Economic Activity* (New York: Praeger, 1968).

development of infrastructure. Investment in industry accounted for 48 percent of total social sector investment in the less developed regions during 1947–52, the proportion being about 64 percent in Kosovo.

After 1952 there was a change, both in the method of financing the development of underdeveloped regions as well as in the making of investment decisions. Increasingly federal investment funds were given to the republics with general sectoral allocation specified. Actual allocation among projects was left to the republics. The special facilities given to the underdeveloped regions included (a) subsidized interest rates, (b) the waiving of repayment of loans received from the Federal General Investment Fund in favor of the investment funds of the republics, and (c) the direct allocation of federal resources to the investment funds of the republics, either in the form of interest free credits or tax remissions. These facilities were continued during the Five-Year Plan for 1957–61, which also instituted the system of "guaranteed investments," under which the Federal Government "guaranteed" a certain volume of investment to the underdeveloped regions out of the Federal General Investment Fund. During 1957–62 such "guaranteed investments" amounted to between 46 and 64 percent of total investments in Macedonia, Montenegro and Kosovo.[11] (For the rest of Yugoslavia the share of participation from the General Investment Fund averaged 32 percent.) However, the selection of projects and the allocation of investment financed by the "guaranteed" investment was done by the Federal Government, as in the days of centralized planning, while implementation was in the hands of the republics. Most of the projects financed under the scheme related to infrastructure and basic industries. This system of ensuring a high rate of investment in the less developed regions had major disadvantages. First, the system did little to encourage local initiative and enterprise. Secondly, it also tended to encourage wasteful and slow execution of projects by the republics. The federal funds used for financing "guaranteed" investments were to be repaid to the republic investment funds. This meant that the larger the construction cost of a project, the larger the "bonus" in the shape of streams of repayments into the republic investment funds.

The system came under increasing criticism during the late fifties, with the heightened concern for productivity and efficiency in resource allocation, particularly from the developed republics. Also the shift in emphasis from basic industries to production of finished goods at that time decreased the significance of the resource endowment of underdeveloped regions on regional investment allocation. The Five-Year Plan for 1961–65, while still stating that "the basic way of developing underdeveloped regions consists in establishing industry more quickly and intensively in these regions," regarded this industrial development in broader terms than just basic industries. While the General Investment Fund would finance the development of basic industries, infrastructure and agriculture, a special federal fund was proposed for financing investment in the less developed regions. The special fund was established only in 1965.

After the economic reform, the system of subsidies and incentives was continued to encourage investment in certain industries (such as tourism, transport and agriculture) and in the less developed regions. An additional 3 percent interest was given by

11. Bosnia-Herzegovina was not designated an underdeveloped region at this time. Underdeveloped areas in Bosnia-Herzegovina, Croatia and Serbia proper, were eligible for a small volume of "guaranteed" investment, with the proviso that the republics match the federal contribution at half the rate considered normal for the designated underdeveloped regions.

the federation to the banks on funds invested in these regions. The Federal Government also continued to be of national importance in basic industries and infrastructure. Following the constitutional changes in 1971, the federal system of subsidies for investment became the responsibility of the republics involved, and given the shortage of resources in the less developed regions, has ceased to be important. The federation's involvement in basic projects is also being phased out with the completion of ongoing projects. The FAD thus remains the sole institution for ensuring a high rate of investment in underdeveloped republics through transfer of resources.

The Fund for Accelerated Development of Underdeveloped Regions (FAD)

The FAD, though proposed in 1961, was established in 1965 and began operations only in 1966. It makes financial resources available to the underdeveloped republics as loans on concessional terms. The main resources of the fund are derived from a compulsory contribution of 1.85 percent of the social product of the enterprises in the social sector. This contribution percentage was raised to 1.94 percent in 1971, and its character changed from that of a levy to a compulsory loan at 4 percent interest, with three years' grace and fifteen years' maturity. A second source of funds is from repayment of credits granted to the less developed republics by the federation since 1961. Foreign loans received by the FAD may be a third source of resources in principle, but none have been negotiated. The regional allocation of resources is specified by the government for a five-year period, coinciding with the Social Development Plan, on the basis of a number of criteria including population, the level of per capita income, the program of investment, and other sources of supply of funds, etc.[12] The allocation of funds received from the FAD is, in general, in the competence of the republics, though it broadly indicates the general sectoral allocation, in line with the priorities indicated in the Social Development Plan. The fund also makes credits for technical assistance, but this activity has not been very important. It is evident from Table 8.13 that during 1966–69 the bulk of the fund's resources were used for financing industry (mainly basic industry). The pattern of actual use of FAD resources thus appears to have been determined primarily by the investment pattern adopted by the republics. The tendency was to use the funds for a small number of key capital intensive projects. Thus during 1966–69 in Bosnia-Herzegovina 40 percent of the fund's resources were used for only six projects,[13] and in Kosovo about 46 percent went to two projects.[14] The FAD has, therefore, tended to be merely a channel for finance to the less developed republics and has not had any substantial influence on the use to which this is put and the effectiveness with which it is utilized.

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12. The regional allocations are as follows (in percent):

	1966-70	1971-75
Bosnia-Herzegovina	30.7	34
Kosovo	30.0	30
Macedonia	26.2	24
Montenegro	13.1	12

13. Two power plants, an oil refinery, an iron and steel works, a cellulose factory and construction of a railway line between Sarajevo and Ploce.
14. The Kosovo thermoelectric plant and the Trepca mines.

TABLE 8.13: Allocation of FAD Resources by Regions and Sectors, 1966–69

	Bosnia-Herzegovina	Kosovo	Macedonia	Montenegro	UDR
Total	100.0	100.0	100.0	100.0	100.0
Type of loans					
Global (allocation unspecified)	4.2	13.4	4.7	7.3	7.4
General purpose specified	94.7	86.5	94.9	91.7	92.0
For technical assistance	1.1	0.1	0.4	1.0	0.6
By sector					
Industry	73.4	83.7	85.6	51.9	76.9
Agriculture	6.8	11.7	9.0	2.7	8.3
Transport	16.7	1.9	4.7	14.1	8.8
Commerce and catering	1.8	1.2	0.3	29.5	4.8
Other	1.3	1.5	0.4	1.8	1.2

SOURCE: FAD.

Budgetary Grants for Social Expenditures

The Federal Government has also provided budgetary support to the governments in the less developed regions for maintaining a higher level of social services (namely health and education) than they could from their own resources. During 1957–63, these subsidies amounted to 2,050 million dinars. Under the Basic Law on the Financing of Social and Political Communities adopted in 1964 the Federal Government guaranteed additional resources for social welfare, health and education to all republics whose per capita revenue was below the average for Yugoslavia. The budgetary subsidies for "expenditures on collective consumption," as they are termed, amounted to 9.2 percent of the total federal budget in 1971, with Bosnia-Herzegovina receiving 40 percent, Kosovo 30 percent, Macedonia 19 percent and Montenegro 11 percent.

Problems of Regional Development Policy

Emphasis on Investment. Yugoslav regional development policy has tended to concentrate too exclusively on accelerating the growth of underdeveloped republics by ensuring (through means that have varied over time) a higher than average rate of investment through transfer of resources. For most of the period, the allocation of much of this investment was determined by the Federal Government and concentrated, in the interest of Yugoslav economic development, on the development of power and mineral resources. The development of infrastructure, particularly transport, and of industries producing final goods was relatively neglected. With progressive decentralization, the investment allocation was increasingly determined at the level of the republic and the commune. This resulted in no special change in the pattern of investment, which as shown earlier, continued to be oriented toward basic industry and was characterized by very high capital output and capital labor ratios. Thus the impact on the growth of per capita output and on employment has not been as favorable as that of investment in the developed republics.

Impact of General Economic Policies. There has been an insufficient recognition in Yugoslavia that all policy measures may have favorable or unfavorable implications for regional development. It has already been pointed out how price policy has tended to increase regional differentials in per capita income, particularly in the

1950s. Similarly, the benefits of the policy of opening up the economy to international competition *may* have implied greater benefits for the developed regions with their more highly developed industry and infrastructure. It is not argued that the policy of liberalization of foreign trade was harmful, but that its impact on different regions may not have been the same.

Decentralization. The progressive decentralization does not appear to have resulted in a reduction of concern and of assistance for the less developed republics. Their share of the total gross fixed investment did decline from about 34 percent in 1950-54 to about 24 percent in 1955-59. However, it increased to an average of over 27 percent during the 1960s. With decentralization, the less developed republics have gained by the institutionalization and formalization of the resource transfer for investment. They have also received the power of deciding how these resources are to be used. There was much criticism of earlier regional development policy as a reaction to the large number of "political" factories established, mainly during the period of centralized planning, and the tendency to wasteful expenditures during the period of federal "guaranteed" investments. It is believed that with the responsibility for the use of transferred resources being given to the republics, and the banking system, more effective use of funds would be made. It is not clear to what extent this object has been attained. Decentralization has perhaps encouraged a narrow "territorial" view towards development which sometimes has led to a duplication of projects in certain industries. The marginal capital output ratio in the less developed republics, particularly in industry and mining, continues to be higher. As pointed out, to an increasing extent this reflects the resource endowment of the less developed regions which has led to emphasis on power generation and extractive industries which are capital-intensive, where investment is slow yielding and prices are controlled. However, the availability of federal funds at nominal interest rates and relatively long maturities have probably also encouraged suboptimal resource allocation. The general biases towards wasteful use of capital present in the Yugoslav system, and pointed out elsewhere, are only reinforced in the less developed republics, where the quality of evaluation of "profitability" of proposed projects and the capacity to identify, prepare, execute and operate projects is relatively weak (see Chapters 9 and 10).

New Lines for Regional Policy

On the basis of past experience, it is clear that the focus of regional development policies in Yugoslavia should shift from simply aiming at accelerated income growth through a transfer of resources, to the development of interregional linkages between developed and less developed republics and within less developed republics. Regional growth should contain stresses as well as competitiveness. The development of strong linkages in products and productive factors would lead to more regionally integrated processes of growth. Thus, transfer of resources to the less developed republics would appear not as simply accelerating their development, but through the linkages having a large positive impact on the developed republics too.

It is necessary that the transfer of resources to the less developed republics should be continued, at least at contemplated levels, but there should be much greater effort devoted to ensuring effective use of resources than in the past. First, a realistic interest rate on loans to enterprises from the resources received by the republics at subsidized interest rates from FAD would raise the cost, and thus help to ensure

more effective use of these resources.[15] Secondly, use of resources should also be rationalized by the use of vigorous cost benefit criteria, more attention to marketing considerations and the improvement of project analysis and lending criteria of banks. It may be desirable to require at least that all projects receiving support from the FAD are subject to some common and systematic form of analysis. Thirdly, greater technical assistance should be provided along with federal funds to ensure their efficient use.

An effort should also be made to attract knowhow and enterprise from the developed republics. Enterprises should probably be given incentives to expanding operations in the less developed republics, perhaps in the form of a subsidy on labor, to reflect their larger supplies of underemployed labor and to compensate for their higher unit labor cost. The obstacles to the mobility of enterprises and enterprise capital are, however, formidable. The low productivity and relatively high personal incomes in the social sector imply that unit costs in industry are perhaps higher in the less developed republics. The social ownership of assets results in uncertainty about the parent enterprise's control over permanently transferred funds to subsidiaries. Nationality questions may also inhibit flow of personnel and profits from joint ventures with enterprises of developed republics, even though the recent constitutional amendments allow for them.

Mobility of labor from the less developed republics should also be encouraged, particularly by greater emphasis on vocational training and skill development. There is, of course, the possibility that often the migrants would go to Europe rather than to the developed republics. However, remittances and the absorption of underemployed labor in the private sector implied by such migration would still help to narrow regional income inequality.

Prospects

The Social Development Plan for 1971-75 continues to emphasize the traditional policy of accelerated development of the less developed republics relative to the average national growth rate through a transfer of resources. The GMP of the less developed regions is planned to grow 25 percent faster than the national target growth rate of 7.5 percent per year, so that by 1975 the average per capita GMP in the less developed republics should reach 60 percent of the average for Yugoslavia, compared to the present ratio of less than 50 percent. The objective assumes that one-third of the total fixed investment in the plan would be in the less developed republics, and their ICOR would be less than 20 percent higher than that for Yugoslavia. Thus the targets envisage a rise in the share of the underdeveloped regions in total investment, as well as an increase in the effectiveness of the investment in generating growth of output. Given the increase in the proportion of social product that is being allocated to the underdeveloped regions through the FAD, there is some possibility that their share in total fixed investment may increase. However, unless steps to improve the utilization of these funds are taken, it is unlikely that the planned growth rate of social product will be achieved. In this context, the relatively

15. The FAD should continue to provide the funds to the less developed republics on subsidized terms. However, the republics should make it available to enterprises at conventional terms normally charged by the banking system.

low growth rates of 1971 and 1972, and expected in 1973, already make the plan objective of raising the relative per capita incomes in the less developed republics to 60 percent of the national average infeasible.

The longer-run prospects for regional development are explored in a recent study by Ivo Vinski.[16] By 1985 the underdeveloped regions would have nearly 40 percent of the total population, as compared to 35 percent at present. Assuming that about one-third of the fixed investment during 1970-85 would be allocated to the less developed republics, and that there was an appreciable decline in the marginal capital output ratio, Vinski concludes that the per capita income in the less developed regions would increase to about 71 percent of the average for Yugoslavia in 1985. Vinski's assumptions and conclusions are summarized in Table 8.14 and compared with the trends during the last two decades. It is evident that the projections assume a significant decline in the ICOR for the underdeveloped regions as compared to that for 1953-69, because a significant acceleration in the growth rate of social product is projected without any increase in the ratio of investment to social product (except for Kosovo). The projected share of the underdeveloped regions in fixed investment is also significantly larger than in the past (32.4 percent versus 27.4 percent). Only on these favorable assumptions is there a reversal of the trend toward increasing differences in regional per capita incomes. However, even then, Kosovo would have a per capita income of less than half the Yugoslav average in 1985. These figures indicate the economic magnitude of the Yugoslav regional development problem, even when other aspects of the question are ignored, and emphasizes the need for a new approach to regional development policy along the lines indicated above.

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16. Ivo Vinski, "Regionalna podjela drustvenog proizvoda Jugoslavije, 1968-1985," *Ekonomski Pregled* 1-2 (1972); and "Investicije i fiksni fundovi Jugoslavije, 1970-85," *Ekonomski Pregled* 7-58 (1972).

TABLE 8.14: Regional Development

	Investment/GMP (%)		Growth of Social Product		Growth of Social Product per Capita		Share of Total Investment		Index of per Capita Social Product	
	1953–69	1970–84	1953–69	1970–85	1953–69	1953–85	1953–61	1970–84	1971–85	
Yugoslavia	27	26	7.3	7.0	6.3	5.9	100.0	100.0	100	100
Bosnia-Herzegovina	35	30	6.3	9.1	4.9	6.9	12.7	17.3	65	76
Kosovo	29	40	6.6	10.5	4.2	8.0	3.0	4.7	34	46
Macedonia	44	31	7.6	8.6	6.3	6.9	8.6	7.4	68	78
Montenegro	53	36	7.6	8.4	5.3	6.7	3.1	3.0	73	81

CHAPTER 9

RESOURCE MOBILIZATION AND ALLOCATION, 1947-71

Changes in monetary and fiscal institutions and policies have constituted both a part of and a response to the progress of decentralization in Yugoslavia. During the era of rigid central planning, about 90 percent of domestic savings was mobilized and allocated through the national budget. By 1971 it was the economic enterprises and households which accounted for over 90 percent of domestic saving formation. With the gradual increase in enterprise autonomy, the once all-encompassing national budget was broken down into federal, republic, and communal budgets and extrabudgetary funds. Until the mid-1960s the state retained a major role in savings' mobilization and allocation through the system of *social investment funds*. It was not until these were abolished in 1963 that investment banking really came into its own, though the banking system for "short-term operations" had already developed a long way since the monobank days of central planning. With the abolition of social investment funds and certain taxes which financed them, and the devolution of their assets and liabilities to banks, the role of investment banking in resource mobilization/allocation was significantly increased. The reduction in the state's fiscal burden on enterprise income (roughly value added), coupled with the consolidation of enterprise autonomy in accordance with the 1963 Constitution, led to the increased importance of savings by enterprises and households—the latter from increased personal incomes. With a much higher proportion of decentralized autonomous savings, the potential role of efficient financial intermediation has increased a potential which remains to be fully developed. The relatively slow growth of financial mechanisms and instruments was in part due to the inflation in the postreform period. The extension of market forces after the reform was accompanied on the one hand by strong investment demand arising from the low real interest rates, partial insulation of enterprises from financial risk and a desire to catch up technologically with Western Europe. On the other hand, there was a prolonged consumption boom fed by increased allocation to personal incomes from enterprise incomes, and "demonstration effects" passed on by Yugoslav workers in Western Europe. These factors lent an inflationary bias to the Yugoslav economy and brought the problem of short-term demand management to the foreground. Selective price control has not reduced these inflationary pressures. If anything, it has increased the costs of inflation by distorting the relative price structure. Monetary policy has had an impact, but its efficiency has been limited by a number of features, including the partial insulation of enterprises from financial constraints by patron state units, whether republics or communes. The fiscal manifold, composed of a multitude of budgetary and extrabudgetary units, with independent revenue and expenditure authority, has proved to be a clumsy tool for coordinated demand management.

Thus, the 1965-71 period has been characterized by these twin foci of policy concerns:

(a) mobilization and allocation of resources according to ambitious plan targets, in the context of highly decentralized savings'/investment decisions;

(b) the management of aggregate demand to encourage rapid economic growth without running into western-developed-economy-type "overheating" problems of inflation and/or excessive balance of payments deficits.

The 1971 Constitutional Amendments have not materially altered these policy concerns. The further devolution of state economic power to republics and communes has, if anything, increased the problems of coordinating economic management. The amendments further increased the share of social product (GMP) at the command of the enterprises. This, together with the fact that enterprises accounted for about half the total domestic savings in 1971, led to the institution of incomes' policy agreements in each republic in an effort to stabilize, and perhaps to raise, the rate of enterprise savings. While these agreements may turn out to be powerful instruments for shoring up enterprise savings and weakening inflationary pressures, the main current concern on the resources side is to improve the mechanism for their allocation. Commercial banks, virtually the sole financial intermediaries, have a number of structural defects which suggest the need for reform, or development of alternative modes of financial intermediation. Improvements in the financial mechanism are likely to be closely linked with the success of the present stabilization policies. Such improvements in resource allocation appear to be most urgently needed in the less developed republics. This chapter, and the one following, focus on questions of resource mobilization and allocation. Chapter 11 is concerned with issues in stabilization policy. The section on central planning in this chapter briefly outlines the system of resource management during the central planning years. The next section covers the period 1952–63, describing the development of enterprise autonomy, banks and the new system of social investment funds, and the implications of these changes for the structure of savings in the economy. The following section, on decentralization from 1964 to 1971, describes the mid-1960s economic reforms and examines their impact in the postreform period of 1965–71, paying special attention to the trends and structure of savings, the new role of financial intermediation, and the quality of resource allocation.

Central Planning, 1947–51

In this period, production was centrally planned and administratively controlled, and enterprises merely acted as agents for carrying out the annual plans, which laid down production quotas, factor inputs to be used and rules for allocation of the product. The national budget operated as a component of the central planning mechanism. In addition to the classical tax expenditure functions, the national budget was the vehicle for appropriating and deploying the surpluses of social sector enterprises. In this way, the mobilization and allocation of savings and investment in the social sector was under full administrative control, leaving no intermediate role to the financial mechanism. Through taxes on income and turnover, the fiscal system also channelled some private sector resources into the social sector via the national budget.[1]

The financial mechanism during this period was relatively simple. In effect, it consisted of a monobank system (the National Bank with its 400 odd branches) designed to provide money as a unit of account and means of payment. For the social sector, monetary policy was concerned mainly with meeting the transactions' demand for

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1. There were further resource transfers through fixing relatively low private sector prices for products delivered to the social sector.

money through short-term credits. Monetary policy did have a limited role in affecting expenditure decisions in the private sector.[2]

Though the structure of administrative planning was subsequently dismantled, the process occurred at different speeds for different sectors. For example, administered prices continued to prevail in important segments of the economy until the end of the 1960s, with considerable impact on intersectoral and interregional resource allocation.

Decentralization, 1952–63

The state retained considerable, though gradually diminishing, control over the mobilization and allocation of resources throughout this period. Prices of goods and services in major segments of the economy remained under state control. Until 1957, when the "net income system" was first introduced to enterprises, the state continued to regulate wages and salaries. By setting the rates of the "interest on business funds (capital) of enterprises" (a form of tax on socially owned capital) and the terms of lending from the new system of social investment funds, the state effectively decreed the cost of capital to enterprises. Though the planning mechanism was decentralized and "indicating" the state wielded enormous influence over sectoral choices through the deployment of the social investment funds. Despite major changes in the system of foreign trade and exchange, it remained the most tightly controlled segment of the economy.

However, the steps towards decentralization should not be minimized. After 1957 wages and salaries were increasingly determined by enterprises, which also took over an increasing role in voluntary savings' formation. The banking mechanism developed rapidly. Though banks were not allowed to engage in investment credit until 1963, the foundations of the investment banking system were laid during this period (see Chapter 1).

Social Investment Funds

The all-encompassing national budget was decentralized vertically to the Federal, Republic and Communal Governments, and horizontally (at each of these independent levels) across budgetary and extrabudgetary transactions. While budgetary transactions were concerned with fairly classical public expenditure functions, the extrabudgetary operations included the new system of social investment funds. Unlike proper financial intermediaries, the social investment funds lent their resources but did not borrow them in the first place, thus creating no assets for primary savers. These semifinancial intermediaries relied on fiscal resources of various kinds (mainly the tax on owned capital of enterprises and contributions levied on the income of enterprises) which were then channelled to enterprises in the form of credits according to the economic plans of the relevant government unit.[3] Some idea of the relative distribution of the resources of these funds across different levels of government may be obtained from Table 9.1.

2. Useful discussions of this role are contained in D. Dimitrijević and G. Mačešić, *Money and Finance in Yugoslavia* (New York. Praeger, 1973), and J. J. Hauvonen, "Postwar Developments in Money and Banking in Yugoslavia," *IMF Staff Papers* 17 (November 1970).

3 For a fuller description of these funds see S. Sekulić, "Investment Capital of Socio-Political Communities," *Yugoslav Survey* 11 (November 1970).

TABLE 9.1: Assets of Social Investment Funds at End 1963

	Million Dinars	%
General Investment Fund	21,021	66.8
Republic investment funds	6,304	20.0
District and communal investment funds	4,158	13.2
Total	31,483	100.0

SOURCE: Sekulić, "Investment Capital."

The social investment funds were not legally independent agencies. Their assets were managed by banks in conformity with plans of government units. For example, in the case of the General Investment Fund, the sectoral distribution of resources was determined by priorities in the annual federal plans, leaving the allocation to specific enterprises up to the managing banks (mainly the YIB in this case). The terms of credits were agreed upon with the Federal Executive Council. Parallel procedures existed for investment loan funds at other levels of government. Thus the banks acted largely as agents of the state units, with little control over regional and sectoral allocation of funds, although they gradually took over the important role of supervising the terms and conditions of each individual credit. However, even toward the end of the period, state influence in the allocation of these investment funds often reached to individual credits, which were granted on sociopolitical rather than economic grounds.[4]

Two other kinds of investment funds were created at republican and communal levels during this period:

(a) Housing Funds (1955) fed from levies on the income of enterprises and deployed to finance housing projects in the social sector;

(b) Joint Reserve Funds (1962), again financed through compulsory contributions of enterprises, and used to credit enterprises in temporary difficulties.

In both cases the appropriate state unit had the most say in the allocation of these resources. By 1963, all the investment loan funds numbered nearly two thousand.

The Changing Role of Enterprises

Enterprise command over resources increased significantly after 1957, and by 1963 their contribution to voluntary savings' formation was sizeable. Though the share of enterprises in total domestic savings was already 29 percent in 1953, most of it represented compulsory savings according to rules decreed by the state. In 1957, with the adoption of the net income system, the base was laid for growing worker control over enterprise accumulation decisions. In fact, the system underwent significant changes after 1957, especially in 1969. But the principle of treating the payments to labor as a part of "net income" rather than an element of operating costs remained as the distinguishing feature of all variants of the system.

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4. See Sekulić, "Investment Capital" and Hauvonen, "Postwar Developments." In the early 1950s there was an attempt to allocate these investment credits on market criteria through "investment auctions." The attempt was abandoned largely because the profitability incentives embedded in the distorted price structure indicated sectoral choices which were at variance with planned priorities, and the "irresponsible" approach of enterprises in making bids.

TABLE 9.2: The Net Income System

I.   Gross Revenue
II. Operating Costs
III. Social Product (Gross Value Added = I—II)
IV. Depreciation (Legal + Accelerated)
V.   Net Income A (Net Value Added = III—IV)
        Obligations
           Contractual Obligations
              (a) Interest and Service Charges on Bank Credit
              (b) Insurance Premia
              (c) Contributions to Chambers of Commerce, etc.
           Statutory Obligations
              (a) Interest on "Business Fund"—Abolished in 1971
              (b) Turnover Tax
              (c) Legally Imposed Contributions for Water, Land, Housing
              (d) Other Legal Obligations
        Net Income B
           Gross Personal Incomes
              (a) Net
                  Personal
                  Incomes
                  (take-
                  home
                  wages)
              (b) Contributions
                  from
                  Personal
                  Incomes
                  Including
                  those
                  for
                  Education,
                  Social
                  Insurance,
                  etc.
        Enterprise Funds (Allocations to)
           (a) Reserve Fund
           (b) "Business Fund"
           (c) Welfare Fund

SOURCE   Adapted from Gorupić and Paj, *Workers' Self-Management in Yugoslav Undertakings*

Table 9.2 presents the functional breakdown of gross revenues earned by an enterprise according to the net income system after the definitive changes adopted in 1969.[5] It is clear from the table that the enterprise did not have full autonomy on the allocation of Net Income A because of contractual and statutory obligations and certain mandatory deductions from gross personal incomes. A better estimate of the distributional authority of the enterprise is obtained by adding together net personal incomes, enterprise funds and depreciation (to be called residual enterprise income, REI) and comparing it to the social product generated in the enterprise.[6] Between 1958, when enterprises were first put on the net income system, and 1963, the share

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5. The main differences with the variants prevailing before were· (a) some of the "contractual obligations" in the post-1969 system were formerly charged against operating costs; and (b) after 1966, depreciation consisted of a newly instituted legal minimum component plus a voluntary accelerated component.
6. The comparison is preferred in terms of gross (of depreciation) concepts, because depreciation included varying proportions of voluntary and legally fixed elements during the last two decades

of gross value added under enterprise control showed a mild upward trend (Table 9.3). The major increases in this share occurred later, with abolition of social invest-ment funds in 1963 and 1964 and other tax changes associated with the 1965 eco-nomic reforms.

Table 9.3: Share of Enterprise REI in Gross Value Added

					(%)
1958	1959	1960	1961	1962	1963
44	47	48	50	49	49

SOURCE Based on data from *Statistički Godišnjak, Jugoslavije.*

Trends in the Structure of Savings

The impact of these institutional innovations on the mobilization of savings is shown in Table 9.4. First, there was a significant increase in voluntary savings emanating from changes in enterprise control over value added. Secondly, there was a dramatic increase in the share of "decentralized savings," reflecting both the "returning of resources to the economy" by giving increased autonomy to en-terprises, and the devolution of fiscal authority within the state sector towards repub-lics and communes. Consequently, after the initial structural changes between 1950 and 1953, the state's share in savings declined much less than the share of the federation because the role of nonfederal state units increased. Finally, the impor-tance of social investment funds during the entire period is clearly brought out; they accounted for 42 percent of total savings in 1958 and 34 percent in 1963.[7]

TABLE 9.4: Structure of Total Savings   (%)

	1950[a]	1953	1958	1963
State	90	54	48	45
Federal	90	47	25	18
Government		(na)	(0)	(0)
Investment Loan Funds		(na)	(25)	(18)
Other state units		7	23	27
Government		(na)	(6)	(11)
Investment Loan Funds		(na)	(17)	(16)
Enterprises		29	42	35
Households and private producers		10	9	9
Other (including unclassified)		7	1	11
Total	100	100	100	100
Decentralized savings' share[b]	10	53	75	82
Voluntary savings' share[a]	10	19	33	38
GNS as % of GNP	24	31	30	35

[a]Estimates from Dimitrijević and Mačešić, *Money and Finance in Yugoslavia.*
[b]Decentralized—nonfederal.

SOURCES. *Annual Reports* of the National Bank of Yugoslavia; Dimitrijević and Mačešić, *Money and Fi-nance in Yugoslavia;* and mission estimates of national income.

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7. The sectoral breakdown of savings is based on the money flow accounts of the National Bank. Strict comparability with Yugoslav national accounts data (prepared independently) is not assured, but broad trends are probably accurate. Both the money flow data and the Yugoslav national accounts on income and product include an element of capital gains on inventory, which is consistent with usual national in-come accounting practice. While a correction for this has been incorporated in the mission's national in-come estimates (see Statistical Note) and subsequent discussion of savings, this correction, positively cor-related with inflation, was small until 1963, and has been omitted from Tables 9.3 and 9.4 above.

The Development of Banks

The banking system developed rapidly after 1955, when the monobank system of the central planning era was dismantled. Table 9.5 summarizes the banking institutions existing at the end of 1963.

Banks were not allowed to mobilize time deposits or engage in investment credits until 1963. But the experience gained during this transitional period, in managing the investible resources of the social investment funds, provided a valuable foundation for the pivotal role of investment banking in resource allocation after 1963.

An important nonbank financial institution, the Social Accounting Service, was created in 1962 (previously it had been an arm of the National Bank) to police the conformity of all transactions with the various earmarking provisions prevailing, and to provide a comprehensive accounting and statistical service.

TABLE 9.5: The Banking System at End 1963

Bank	Year Established	Purpose
Federal		
National Bank (including 6 republican offices)		Central bank operations.
Yugoslav Investment Bank	1955	Manages resources of the General Investment Fund and long-term foreign credits
Yugoslav Bank for Foreign Trade (Jugobanka)	1955	Provides credit for foreign trade operations.
Yugoslav Agricultural Bank	1959	For credits to socialize agricultural sector.
Postal Savings Bank	1959	Accepts savings deposits, but places its resources at the disposal of National Bank.
Republic		
Republic Banks (6)	1961	Manage investment policy of Republic Government.
Communes		
Communal Banks (220)	1955	Engage in short-term commercial operations and manage communal social investment funds.

SOURCES· Hauvonen, "Postwar Developments in Money and Banking in Yugoslavia"; and Dimitrijević and Mačešic, *Money and Finance in Yugoslavia.*

Decentralization, 1964–71

1965 is usually singled out as the year of the economic reform. In fact, the changes in institutions and policy which were important in the monetary and fiscal fields occurred over 1963–66. The major changes of this period were: (a) abolition of the social investment funds, and the devolution of their assets and liabilities to the banks (mainly) and to government bodies; (b) abolition of some of the taxes which financed these funds; (c) strengthening of enterprise autonomy over the disposition of value added; and (d) the passage of new laws regulating the formation and function of the banking system. These changes and their impact on mobilization and allocation of resources and stabilization policy are discussed below.

The Trends and Structure of Savings

The institutional changes between 1963 and 1966 altered the distribution of national income in favor of enterprises and households, and away from the state. This had two fundamental consequences. First, GNS as a proportion of GNP declined significantly from 33 percent in 1960–63 to 29 percent in 1967 (Table 9.6), implying that the marginal propensity to save of enterprises and households was lower than that of state units at whose expense their incomes had increased. Second, the institutional changes dramatically altered the sectoral structure of savings.

TABLE 9.6: Trends in Aggregate Savings and Investment

(% Shares; Current Prices)

	1960–63	1966	1967	1968	1969	1970	1971[a]
GNS / GNP	33.2	32.6	29.3	27.8	28.2	28.4	27.7
GDS / GDP	32.7	32.0	28.8	27.2	27.1	26.4	24.7
NFI / GNP	−0.2	−0.1	0.2	0.4	1.0	2.2	3.4
GDI / GDP	35.5	33.0	30.3	29.0	29.4	31.6	31.0
(GNS−GDI) / GNP[b]	−2.3	0.0	−1.0	−1.0	−1.0	−2.4	−2.2

[a]1971 estimates are provisional.
[b]Deficit (−) on the current account of the balance of payments.

SOURCES Mission estimates of national income; Statistical Annex Tables 2.1 to 2.4.

The decline in the rate of aggregate savings between 1960–63 and 1967 should not, by itself, be viewed as a reflection of poor performance. Increasing the share of consumption in national product was a deliberate objective of the reform.[8] After this initial decline, the GNS ratio remained remarkably stable until 1970, indicating an impressive performance in maintaining the high savings' ratio of 28 percent to 29 percent. However, the ratio of GDS to GDP declined further after 1967. As an index of savings' performance, the GDS ratio is misleading in a context of large and growing net factor income (NFI) from abroad—after 1967 Yugoslavia benefited from a surge of worker remittances from abroad.[9]

The institutional changes also dramatically altered the sectoral structure of savings. Table 9.7 presents the sectoral composition of domestic savings according to two sets of data. The unadjusted ratios are based on current price data as available in Yugoslav statistical sources. The adjusted ratios incorporate an inventory evaluation adjustment (also present in the aggregate savings' data).[10] The Yugoslav National Bank's

8. This does not mean that a *trend* decline in the aggregate savings' rate may be viewed with equanimity. Given ambitious investment targets in the 1971–75 Social Plan, stabilizing the rate of aggregate savings at the 1970 level is important. See Chapter 10.

9. The national income accounts for Yugoslavia (and for many other countries) estimate consumption as a residual, by subtracting independently estimated investment from available resources (− GDP + the deficit on goods and nonfactor services' account in the balance of payments). This estimate of consumption is appropriate for the GNP concept of income. GNS, which is defined as GNP minus consumption, correctly measures the country's savings' effort from available income (GNP). However, GDS, which is defined as GDP minus consumption, makes the unsupported assumption that all of net factor income from abroad is saved. The GNS figures in Table 9.6 also include net current transfers from abroad. Though much less than net factor incomes, this item, which is excluded from GNP, does bias the GNS ratio upwards slightly as a measure of savings' performance. However, as a ratio of GNP, there was no observable trend in this item, implying that its inclusion in GNP does not bias the trend in savings' performance.

10. Briefly, the Yugoslav data on product and income include an element of unrealized capital gain on inventory, which is inconsistent with national comparability; this element has been estimated and excluded from the income and saving figures (see Appendix A).

money flow accounts (on which Tables 9.7, 9.10, 9.16, 9.17, and 9.18 are based) have been periodically revised. As a result, the data prior to 1963 are not fully comparable to that for subsequent years. But conclusions based on broad trends remain sustainable. During 1973 a new revision was undertaken. The resulting changes for earlier years were very minor, and since the details of these changes were not available at the time of revision of this report, the older figures were allowed to stand. The 1972 data, compiled only on the new basis, are therefore not completely comparable to earlier years. Both sets of data reveal two important features. First, the sharp decline in the state's role in savings' mobilization, associated with the abolition of the social investment funds. From an average share of 38 percent in 1960-63 (36 percent for the unadjusted data), the state's share fell to 18 percent in 1970 (15 percent for the unadjusted data).[11] Though spread over all levels of the state, the decline was swiftest at the federal level, due mainly to low or negative federal budget current surpluses.

TABLE 9.7: Structure of Savings

(%)

	1960–63	1967	1968	1969	1970	1971	1972
	Unadjusted Data						
State	36	23	24	20	15	3	9
Federal	14	11	10	7	5	—4	....
(a) Government	(—9)	(2)	(2)	(1)	(—3)	(—4)	....
(b) Investment loan funds	(23)	(9)	(8)	(6)	(7)	(0)	....
Other state units	22	12	13	13	10	7	....
(a) Government	(8)	(4)	(4)	(5)	(4)	2	....
(b) Investment loan funds	(14)	(8)	(9)	(8)	(6)	(5)	....
Economic enterprises	45	49	52	45	45	58	49
Other social sector organizations [a]	6	8	9	10	9	8	10
Households and private producers	9	26	26	31	28	35	35
Unclassified	4	—6	—11	—6	3	—4	—3
Total	100	100	100	100	100	100	100
	Adjusted Data [b]						
State	39	24	24	22	18	4	
Federal	16	11	11	7	6	—4	
(a) Government	(—8)	(2)	(3)	(0)	(—3)	(—4)	
(b) Investment loan funds	(24)	(9)	(8)	(7)	(9)	(0)	
Other state units	23	13	13	15	12	8	
(a) Government	(8)	(4)	(4)	(5)	(4)	(3)	
(b) Investment loan funds	(15)	(9)	(9)	(10)	(8)	(5)	
Economic enterprises	42	48	51	38	34	46	
Other social sector organizations [a]	6	8	9	12	11	10	
Households and private producers	10	26	27	35	33	44	
Unclassified	3	—6	—11	—7	3	—5	
Total	100	100	100	100	100	100	
GNS/GNP (current prices)	33	29	28	28	28	28	
GDS/GDP (current prices)	32	29	27	27	26	25	

[a] Includes social insurance organizations and banks in their capacity as working organizations, not intermediaries.
[b] Adjusted for inventory evaluation (see Appendix A: Statistical Note).

SOURCES *Annual Reports,* Yugoslav National Bank and mission estimates (see Statistical Annex, Table 6.2). The unadjusted data are based on the money flow accounts of the National Bank. Strict comparability with Yugoslav national accounts data (prepared independently) is not assured, but broad trends are probably accurate.

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11. The 1971 figures reflect changes due to the constitutional amendments, and are discussed later.

The second characteristic consists in corresponding increases in the share of households and private producers and enterprises. While the share of households increased steadily, the enterprise share declined after 1968, reflecting a fall in the rate of enterprise savings from income at their command (see the following paragraph). The adjusted data show lower shares for enterprises than the unadjusted data. This is because the inventory valuation adjustment (downward) is concentrated on the income and savings of this sector.[12]

Enterprise Savings

Between 1963 and 1965 the system of social investment funds was largely abolished, along with some of the taxes on enterprise income which had financed these funds. As a consequence, the proportion of gross value added under the distributional authority of the enterprise increased from an average of 47 percent in 1960–63 to an average of 58 percent in 1967–71.[13]

TABLE 9.8: Enterprise Savings' Rate out of REI[a]

								(%)
	1960–63	1964	1965	1967	1968	1969	1970	1971
A. Unadjusted data[b]	42	45	47	43	42	37	37	41
B. Adjusted data	38	33	34	42	41	31	28	32

[a]Enterprise savings = depreciation + allocations to "enterprise funds."
REI = enterprise savings + net personal receipts of workers.
[b]A = Ratios based on current price data as available in Yugoslav statistical sources.
B = Adjusted for inventory evaluation.

SOURCES. *Statistički Godišnjak, Jugoslavije;* and mission corrections for inventory valuation (see Statistical Annex, Table 6.5).

The increase in proportion of income under the distributional authority of the enterprise was accompanied, particularly after 1968, by a significant decline in the rate of enterprise savings out of REI (Table 9.8), suggesting a tendency of workers to vote increasing proportions of personal income distribution to themselves. This trend is accentuated in the adjusted series.[14] The apparent improvement in savings' performance by enterprises in 1971 is partly illusory. As a result of the constitutional amendments the "interest on business funds" tax, which was an extrabudgetary revenue source to the federation, was abolished.[15] But enterprises were required instead to grant loans to the FAD. This replacement of a tax by a compulsory loan shifted the savings to the enterprises' accounts, but such savings do not represent a voluntary increase.

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12. The size of the adjustment, and hence the discrepancy between the two sets of data, is positively related to the rate of inflation during the year, the source of the unrealized capital gains on inventory.

13. These figures, from Statistical Annex Table 6.3, refer to data adjusted for inventory evaluation. The corresponding percentages for unadjusted data are 51 and 61, respectively.

14. Note that this observation contrasts strongly with the assertions of stable enterprise savings' performance in the "Korać study," M. Korać et al., *Politika Dohotka u Samoupravnoj Privredi* (Incomes Policy in Workers' Self-Management Economy). (Belgrade: Institut za Ekonomski Investicije, 1972). Aside from the inventory adjustment factor, the differences arise from choice of differing concepts of enterprise income and saving. Those adopted here seem more appropriate.

15. The same levy is sometimes referred to as the "tax on business capital" in Yugoslav literature.

Savings of Households and Private Producers

The rapid post-1965 growth of savings by households and private producers, in both absolute and relative terms, was a direct result of the economic reform. The reform increased the share of net personal receipts in value added in both the social and private sectors of the economy (see Table 9.9). In the social sector this increase was due to the rise in the share of REI in gross value added resulting from the reduction in the tax burden coupled with an initially unchanged, and subsequently declining, enterprise savings' rate out of REI. (For a definition of "residual enterprise income" [REI] see Table 9.8.) In the private sector, the increased importance of personal receipts in value added may be ascribed to the reform-induced rise in relative prices of agricultural products, which increased private farm incomes significantly.

TABLE 9.9: Share of Net Personal Receipts in Social Product

(%)

	1960	1963	1967	1970
Social sector	28.1	28.2	35.7	37.0
Private sector	72.0	71.4	77.7	80.5
Total economy	38.9	37.9	45.2	45.0

SOURCE· *Statistički Godišnjak, Jugoslavije.*

The surge in workers' remittances from abroad after 1966, and the increased activity in the private services sector also contributed to the growth of disposable incomes of "households and private producers." This increase in the share of GNP accruing to this sector was the main factor behind both the increased share of consumption (lower aggregate savings) in GNP after 1966, and the rapid increase in the share of gross savings made by "households and private producers." Depending on whether one chooses the adjusted or unadjusted data, the share of this sector in total domestic savings increased to either 44 or 35 percent respectively, by 1971, from a prereform base of about 10 percent.

In judging the savings' performance of this sector, the ratio of savings to net personal receipts is not an adequate indicator. The inclusion of private producers in the savings' data requires the expansion of the corresponding income concept to include gross value added in the private sector, not just net personal receipts. Social insurance benefits should also be included, as well as workers' remittances from abroad. The most readily available and inclusive income concept is the total current receipts of this sector as defined in the National Bank's money flow tables, from which the savings' data originate.[16] This ratio (Table 9.10) rose from an average of 7 percent between 1960–63 to a range about 15 percent to 17 percent after the reform. This performance is particularly encouraging given (a) the relatively poor financial incentives for saving that existed during this period[17] and (b) the wide ranging social insurance

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16. It is subject to the criticism of being gross of production costs incurred by private producers.

17 The record of financial saving was, as a result, less encouraging.

provided by the state which dilutes the precautionary motive in savings. While no adequate investigation of the determinants of household savings in Yugoslavia has yet been conducted, it seems plausible that income and the rate of change in income are important determinants.[18]

TABLE 9.10: Ratio of Savings to "Income" by Households and Private Producers

1960–63	1967	1968	1969	1970	1971
7	16	15	17	15	17

SOURCE: *Annual Reports*, National Bank of Yugoslavia, money flow accounts.

Financial Intermediation

The changing pattern of savings' generation was accompanied by parallel changes in the institutions for resource mobilization and allocation. The reduction of the state role, and the growing share of decentralized autonomous savings by nonstate units, substantially increased the potential role of the financial mechanism (institutions, instruments and rules) in sustaining an adequate level of savings and securing efficient intermediation of this to appropriate investing units. With the abolition of the social investment funds, the burden fell on the newly reformed banking structure. In 1963, the General Investment Fund was abolished and its assets (from past credits) and liabilities (from incomplete commitments) were transferred to the three specialized all-Yugoslav banks, chiefly the YIB. In the next two years republican and communal social investment funds were abolished and a similar transfer of their assets and liabilities to corresponding banks in their territory took place.[19]

TABLE 9.11: Domestic Sources of Finance for Fixed Investment[a]

							(%)
	1960–63	1964	1965	1966	1969	1970	1971	1972
Economic organizations	30	26	29	39	28	27	27	30
Other social organizations	7	6	8	7	6	6	7	8
State finance	60	36	27	15	16	16	15	20
Federal	(33)	(7)	(3)	(6)	(9)	(9)	(7)	(2)
Republic	(8)	(8)	(4)	(3)	(3)	(2)	(4)	(14)
Communes	(19)	(21)	(20)	(6)	(4)	(4)	(4)	(4)
Banks	3	32	36	39	49	51	51	42
Total	100	100	100	100	100	100	100	100

[a] Includes all investments financed out of social resources, plus private investment financed through bank credit.

SOURCE: *Statistički Bilten*, various issues, 1972 and 1973.

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18. A draft study of the capital market, prepared by a team of Yugoslav officials and economists suggested these and other hypotheses, but failed to provide empirical discrimination. This is clearly an important area for future study.

19. See Sekulić, "Investment Capital," for details.

The Rise of Investment Banking

The swift replacement of the state by investment banks in channelling investment resources is apparent from Table 9.11. While the share of the state in total domestic finance of fixed investment fell from 60 percent in 1960–63 to 16 percent in 1970, that of banks increased from 3 percent to 51 percent.

For banks to cope with their new investment role, reform was necessary. The pre-1963 banks were largely creatures of the government units within whose territory they were obliged to operate. In nearly all cases the banks had been established by these state units, which also appointed their management. To adapt banks to their new expanded role, the Banking and Credit Law (March 1965) was passed. The new legislation was designed to accomplish three main goals:

(a) decrease the influence of government units and increase that of enterprises in the allocative decisions of banks, and thus, hopefully, expand the role of economic criteria;

(b) empower banks to operate across the entire country, and to take on the new task of mobilizing fresh investment resources through savings' deposits; and

(c) stimulate mergers of the large number of communal banks into a smaller number of more efficient units (now termed "business banks").

Table 9.12 demonstrates rapid fulfillment of the third goal, and spotlights the rising dominance of "mixed" (commercial plus investment) banks.

The number of banks is a little misleading. In 1968 the ten largest banks accounted for nearly 60 percent of short-term credits, while nearly all investment credits were concentrated in ten banks.

However, the decentralization of the banks was modified by the state's continued influence over the allocation of the resources transferred from the abolished social investment funds. In 1966, the state units, especially the republican authorities, exercised their right to withdraw most of these transferred resources (usually referred to as "state capital") from the credit funds of banks. While a small part of the withdrawn resources was retained by the state units for extrabudgetary investment in the economy, the bulk was relent to the banks in the form of credits, for the financing of specified projects or purposes. In this way, the state retained considerable control over the allocation of "state capital."[20] Even after the withdrawal of federal "state capital" from the banks' balance sheets in 1969, about 30 percent of the business banks' stock of investment resources (liabilities) were accounted for by the item "credit for investment financing," which consisted mainly of funds earmarked by government units (Table 9.13).

The advent of banks in investment financing was accompanied by a new system of accounting. Business banks were required to prepare two sets of balance sheets, one for short-term operations and the other for investment (long-term) operations. While short-term credits could be granted against both short- and long-term resources, investment credits could only be granted against specified investment resources. Short-term resources consisted of sight deposits and all bank bonds, time

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20. In October 1969 there was a further change, when the Federal Government decided to allocate this "state capital" in its own name. The assets and liabilities corresponding to the earlier arrangements whereby the government credited the banks which, in turn, credited the final year, were shifted from the balance sheets of the banks to special federal accounts (see *Annual Report,* 1969, National Bank of Yugoslavia) Despite the formal balance sheet changes, the banks continued to administer these resources on a commission basis, resulting in no effective change in the allocative procedure.

deposits and foreign credits of less than one-year maturity. Long-term resources are classified in Table 9.14. Out of these resources nearly all investment credits, other than housing, were directed to enterprises.

TABLE 9.12: Number of Business Banks at End of Year

	1963	1966	1967	1968	1969	1970
Communal banks	220	—	—	—	—	—
Commercial banks	—	62	54	28	22	—
"Mixed" banks	—	40	40	36	36	55
Investment banks[a]	—	9	9	9	9	9
Total	220	111	103	73	67	64

[a]These are the offspring of the three federal specialized banks and the eight republican banks which existed at the end of 1963 (see Table 9.5).

SOURCE. Dimitrijević and Mačešić, *Money and Finance in Yugoslavia.*

TABLE 9.13: Balance Sheet of Investment Operations of Business Banks at End of Year[a]

	Million Dinars			%		
	1969	1970	1971	1969	1970	1971
Assets (uses)						
Investment credits	66.3	83.5	99.4	70.8	70.6	70.9
Housing credits[b]	17.3	21.9	26.1	18.5	18.5	18.6
Investment credits in foreign exchange	2.4	5.3	6.5	2.6	4.5	4.6
Unused sources	4.1	3.7	3.0	4.4	3.1	2.1
Other	3.6	3.9	5.2	3.7	3.3	3.8
Total	93.7	118.3	140.2	100.0	100.0	100.0
Liabilities (sources)						
Credit funds (equity)	13.8	14.4	14.3	14.7	12.2	10.1
Time deposits[c]	20.1	25.9	28.5	21.5	21.9	20.3
Bonds[c]	0.4	0.6	1.1	0.4	0.5	0.8
Restricted deposits	3.3	4.7	6.1	3.5	4.0	4.4
Credits obtained for financing investment[a]	28.7	34.2	41.7	30.6	28.9	29.7
Foreign borrowing[c]	3.4	6.3	10.9	3.6	5.3	7.8
Use of short-term resources[d]	2.0	3.3	1.3	2.1	2.8	0.9
Funds for housing[b]	18.2	21.7	25.3	19.4	18.3	18.1
Other	3.8	7.2	11.1	4.2	6.1	7.9

[a] Interbank dinar credits for investment finance have been netted out of both assets and liabilities.
[b] In 1966, the resources of the investment loan funds for housing, which had been established in 1955 at republican and communal levels, were transferred to the banks' investment operation balance sheets.
[c] Of greater than one year maturity.
[d] Legal provisions and National Bank regulations could allow use of short-term resources for investment purposes under specified circumstances.

SOURCE: *Annual Reports,* 1969–71, National Bank of Yugoslavia.

The performance of business banks in mobilizing "free" investment resources was mediocre. Even towards the end of the period, only about 42 percent of the increment in investment resources (liabilities) could be regarded as freely formed (see Table 9.14). And even this is an overestimate, since time deposits often represented a kind of involuntary "matching" deposit, which allowed the depositor (typically,

enterprises) better access to bank credits.[21] A greater proportion of investment resources, 44 percent, was formed out of earmarked contributions or interest on past credits of abolished investment loan funds, which were put at the disposal of banks for specific purposes. These ratios are more indicative of the continued role of state units in investment credit allocation than of the overall financial mobilization performance of the banking system. For that, the growth of short-term banking system liabilities have to be included in the picture. The short/long accounting distinction diverts attention from the fact that what really matters for intermediations' potential is the *stability* in holdings of financial liabilities. A permanent increase in holdings of short-term bank deposits allows real resource intermediation, irrespective of any legal short/long distinction. The performance of banks and other financial institutions in stimulating financial savings and investment is discussed in greater detail in later sections.

TABLE 9.14: Flow of Investment Resources into Business Banks

| | In Million Dinars | | % | | |
	1970	1971	1970	1971	Average
"Free" resources	10.9	8.6	44.3	39.3	41.8
Credit funds	0.6	—0.1	2.4	—0.5	1.0
Time deposits	5.8	2.5	23.6	11.4	17.5
Bonds	0.2	0.5	0.8	2.3	1.6
Foreign borrowing	2.9	4.3	11.8	19.6	15.6
Restricted deposits	1.4	1.4	5.7	6.5	6.1
Earmarked resources	9.0	11.1	36.6	50.7	43.6
Credits obtained for financing investment	5.5	7.5	22.4	34.3	28.3
Funds for housing	3.5	3.6	14.2	16.4	15.3
Other (including use of short-term resources)	4.7	2.2	19.1	10.0	14.6
Total	24.6	21.9	100.0	100.0	100.0

SOURCE Derived from Table 9.13.

Other Financial Intermediaries

By 1966 the only extant category of investment loan funds was the Joint Reserve Funds, established in 1962. Shortly thereafter two new funds at the federal level were established: the FAD and the Fund for Financing of Export Credits. And, as noted earlier, portions of "state capital" withdrawn from the banks' accounts, were used in 1966 and 1969 to set up extrabudgetary accounts for financing investment at different levels of government. Interest and repayments of past credits served to finance this new breed of investment loan funds, which grew up after 1966. The two new federal funds mentioned above, and the Federal Fund for Financing Investment[22] also received revenue from the "interest on business funds of en-

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21. A great number of time deposits are compensatory transactions (i.e., a prerequisite for granting of investment credits or housing construction credits).

22. This, like the new investment loan funds at other levels of government, was simply an extrabudgetary account—not an independent entity—set up to accommodate the "state capital" withdrawn from the banks in 1969.

terprises"—a tax which still remained in force. Both in terms of savings' generation
and investment financing, the new set of investment loan funds was far less impor-
tant than the prereform system of social investment funds.[23]

Social security institutions are essentially nongovernment, self-managed bodies
existing at republican and communal levels. Financed mainly through compulsory
contributions levied on personal incomes, the bodies are organized on a current ex-
penditures equals current receipts basis, with no scope for premium reserves which
could be deployed on a financial market. There are a small amount of premia-funded
life insurance businesses; but the magnitude is negligible, and in any case, require-
ments to invest these funds solely in bank deposits made them a rather inefficient
form of intermediation.

Finally, one should note that the constitutional character of Yugoslav socialism
ruled out the institution of equity capital as understood in capitalist economies. This
placed a constraint on resource mobilization and allocation, since the potential avail-
ability of venture capital was not fully exploited.

The Mobilization of Financial Resources: Performance

The substantial transfer of resource intermediation from state organs to business
banks implies a substitution of fiscal flows by financial flows. The subsequent
growth in financial investment of nonfinancial sectors (sometimes called "ultimate
lending") after 1965, as a proportion of both GNP and savings, certainly underlines
the expanded role of the financial mechanism (Table 9.15).[24] But these aggregate
trends should not be freely used as indices of performance in mobilizing financial
resources. A deeper look at the composition of financial investment suggests consid-
erable scope for improvement.

TABLE 9.15: Financial Investment by Domestic Nonfinancial Sectors

	1958	1963	1967	1968	1969	1970	1971
Financial investment as % of:							
GNS	33	42	62	92	91	99	113
GNP	10	15	18	26	26	28	32
Adjusted financial investment as % of: [a]							
GNS	12	29	26	52	49	50	40
GNP	4	10	8	14	14	14	11

[a] Adjusted to exclude financial investments in "direct credit," which consists mainly of involuntary
trade credit.

SOURCES: *Annual Reports*, National Bank; mission estimates of GNS and GNP in current
market prices.

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23. Briefly, the Yugoslav data on product and income include an element of unrealized capital gain on
inventory, which is inconsistent with national income accounting methodology. To achieve consistency
and comparability, this element has been estimated and excluded from the income and saving figures (see
Appendix A).

24. Nonfinancial sectors comprise enterprises and other work organizations, households and govern-
ments (excluding their investment loan funds). For any unit or sector, financial investment is the gross in-
crease in holdings of financial assets and represents that unit's gross supply of financial resources.

A disaggregation of these financial investments by type of financial instruments reveals two salient features (see Table 9.16). First, a large and increasing proportion of financial investment is in the form of "direct credits," mainly interenterprise trade-credit. Second, the rest of the financial investments are composed exclusively of liabilities of the banking system. There are at least two reasons against the inclusion of "direct credits" in any aggregate index of financial development. To begin with, the allocation of such direct credits is not subject to a market test or any other unified selection process. Furthermore, in Yugoslavia, much of those direct credits consist especially in recent years of *involuntary* trade credit.[25] This uncontrolled expansion in unpaid bills is symptomatic of a *failure* in the financial system, and should not be included in any index purporting to measure financial performance. Cleaned of "direct credits," the ratios of financial investment to GNS and GNP do not reveal a rising trend after 1968 (Table 9.15). The second feature, the predominance of banking system liabilities as vehicles for financial investment, is not a cause for concern as long as banks are regarded as efficient agents for allocation. As pointed out later there are doubts that they are. And in that context, the absence of alternative financial channels between borrowers and lenders is disquieting. An examination of a stock index of financial growth, the ratio of financial (excluding "direct") liabilities held by nonfinancial sectors to GNP, reveals the same trends.[26] This ratio climbed from a base of 0.55 in 1962 to 0.67 in 1968, as a result of the reforms, and stagnated thereafter; it was 0.66 in 1971.

Finally, the temporally changing term-structure of annual ultimate borrowing by domestic nonfinancial sectors suggests that the financial system has not been able to replace the social investment funds as a reliable source of long-term finance to spending units in the economy. In 1963, the final year of the social investment funds, 53 percent of the new funds made available to nonfinancial ultimate borrowers were long- and medium-term credits, that is with maturities in excess of one year. In contrast, this proportion averaged only 40 percent for the years 1968–70.[27] There is every reason to believe that this shortening term-structure of incremental borrowing by spending units was a result of supply constraints and did not reflect a change in borrower preferences in favor of shorter loans.

Evidence of poor performance in financial mobilization is also revealed by the trends in *net* supply of financial resources by different sectors in the economy. Taking the total of all positive financial savings[28] by different sectors in the economy as ratios to GNP and GNS, the evidence shows a sharp decline between 1963 and 1967, followed by stagnation in these ratios (see Table 9.17). Apparently the loss of financial saving associated with the abolition of the social investment funds was not adequately compensated for by increases in other sectors like "households and private producers."

Table 9.17 also demonstrates the continued importance of investment loan funds (the new generation) in supplying net financial resources. Until 1970 half or more of positive financial savings came from these sources. It is interesting to compare the

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25. This is the "illiquidity" problem which dominates discussion of short-term economic policy.

26. Given the predominance of banking system liabilities in Yugoslavia, this is almost equivalent to the ratio of banking system liabilities to GNP, a ratio often favored in the literature as an index of financial maturity.

27. See Dimitrijević and Mačešić, *Money and Finance in Yugoslavia*.

28 Financial saving of a unit or sector is the excess of gross savings over real investment. It is the *net supply* of financial resources by the sector.

TABLE 9.16: Financial Investments by Domestic Nonfinancial Sectors by Instruments

(% Shares)

	1958	1963	1967	1968	1969	1970	1971
Money	16.1	33.7	−6.5	16.7	9.9	12.2	7.2
Currency	7.0	10.0	4.8	4.8	6.2	5.8	4.8
Deposits	9.1	23.7	−11.3	11.9	3.7	6.4	2.4
Deposits	24.8	14.6	38.5	26.8	34.6	30.1	23.8
Savings and other sight deposits	25.5	−6.5	3.8	4.5	6.8	4.9	1.8
Restricted deposits		17.5	2.9	5.1	7.3	5.2	2.0
Time deposits		11.6	20.0	11.0	16.6	14.0	6.2
Foreign exchange deposits	−0.7	−8.1	11.8	6.2	3.9	6.0	13.8
Securities		3.5	−0.6	0.6	1.0	2.6	2.3
Government		1.6	—	1.0	0.4	2.0	1.6
Banks		1.9	−0.6	0.4	0.2	0.6	0.7
Economic organizations		—	—	—	0.4	—	—
Contributions to credit funds of banks		—	2.7	1.8	1.7	0.7	0.5
Direct credits	62.8	31.5	58.9	43.8	46.8	49.5	65.2
Unclassified	−3.7	16.7	7.0	10.3	6.0	4.9	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCES: Annual Reports of Yugoslav National Bank, money flow accounts; Capital Market Study (for 1958 and 1963)—recent studies of the Yugoslav financial system, carried out by the Foreign Trade Research Institute, and the Institute for Investment Research in Belgrade, in cooperation with the World Bank and IFC, under the direction of D. Dimitrijević of the National Bank of Yugoslavia. 2 vols, 1972 and 1973, mimeographed.

TABLE 9.17: Financial Savings of Domestic Sectors[a]

	1958	1963	1967	1968	1969	1970	1971	1972
Financial savings as % of:								
GNS	51	46	35	30	32	31	23	26
GNP	15	16	10	8	9	9	7	9
% share in financial savings of:								
Households and private producers	6	2	28	16	31	29	72	62
Investment loan funds	92	79	55	62	50	50	21	25
Federal	(55)	(42)	(29)	(30)	(22)	(26)	(1)	
Other	(37)	(37)	(26)	(32)	(28)	(24)	(20)	
% share in total savings:								
Households and private producers	9	10	27	27	35	33	44	
Investment loan funds	44	36	18	17	17	15	6	
Federal	(26)	(19)	(9)	(8)	(7)	(7)	(0)	
Other	(18)	(17)	(9)	(9)	(10)	(8)	(6)	

[a] The total of financial savings in this table comprises all positive amounts by all sectors. Negative amounts (for example, enterprise generally shows negative financial savings) are excluded.

SOURCES: Annual Reports, National Bank of Yugoslavia, money flow accounts.

shares in positive financial savings with those in total savings. Between 1967 and 1970 the investment loan funds accounted for only 15 percent to 18 percent of total savings, while their share of financial savings varied around 50 percent to 60 percent. There is no correspondingly dramatic difference in the shares of the "household, etc." sector. The reason is simple. Investment loan funds put their entire savings into financial assets.[29] The "household, etc." sector, on the other hand, allocates

29. This is simply an implication of their role as semifinancial intermediaries.

its savings between real and financial assets (see Table 9.18). The time profile of the share allocated to financial savings until 1970 suggests considerable scope for financial resource mobilization in this sector. It is too early to judge whether the significantly increased share in 1971 reflects an upward trend or temporary adjustment factors associated with the 1971 Constitutional Amendments.

TABLE 9.18: Savings of Households and Private Producers

(% Shares)

	1958	1963	1967	1968	1969	1970	1971	1972
Savings in real assets	68	91	65	83	70	71	56	56
Savings in financial assets	32	9	35	17	30	29	44	44

SOURCE   Annual Reports, National Bank of Yugoslavia, money flow accounts.

Problems in Financial Resource Mobilization

The undistinguished performance in mobilizing financial resources, documented above, was due to a number of factors operating in the postreform era: (a) legal limits on bank lending interest rates; (b) inflation; (c) absence of bond markets; and (d) historical aversion to financial investment.

With bank liabilities constituting the main vehicle for voluntary financial investments, the effective rate of interest on such deposits was undoubtedly a significant determinant of their volume and growth. Table 9.19 juxtaposes the relevant rates with the rate of change in prices.

TABLE 9.19: Interest Rates and Inflation

	1966	1967	1968	1969	1970	1971
Retail prices (% change during year)	7.0	5.0	6.0	10.0	11.0	18.0
Interest rate on sight savings' deposits	5.0	6.0	6.0	6.0	6.0	6.0
Interest rate on time savings' deposits	6.0	7.0	7 0	7.5	7 5	7.5
Interest rate on bank credits	8.0	8.0	10.0	8.0	8.0	8.0

SOURCES· Annual Reports, National Bank; and Dimitrijević and Mačešić, Money and Finance in Yugoslavia.

It is obvious from this table that the real rates of interest on sight and time savings' deposits were extremely low or negative throughout the period. They offered little encouragement for financial investments in bank liabilities, especially to households (enterprises with large deposits often received noninterest benefits such as improved access to credits). Indeed, financial investments in these instruments would probably have been much less, but for the "compensatory transactions" aspect (see section on *Other Financial Intermediaries*) which eased access to bank credit by potential borrowers. The interest rate limits on bank lending clearly held down the rates they could offer on their own deposits.[30]

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30. It has been argued (and subsequent experience after freeing of interest rates supports the argument), that even without such interest rate ceilings, business banks would have held lending (and hence deposit) rates down, because the banks' ownership-management structure allows domination by borrowing founder member enterprises.

Aside from a general inhibiting influence on all financial investments, inflation and inflationary expectations biased them towards short-term instruments which allow an investor a quicker opportunity to switch his portfolio towards preferred assets (perhaps nonfinancial), if his expectations of real return are frustrated by inflation. The rapid growth in the share of "direct credits" (Table 9.16), mainly "involuntary" accounts receivable from the lenders' viewpoint, probably also reflected the encouragement to all fixed interest borrowing, including accounts' payable, that an inflationary climate provides.

The share of financial investment in *bonds* was observed to grow somewhat. But nearly all the increase was attributable to bonds of state units, which were often placed in a semicoercive manner. In 1970 enterprises were allowed to float long-term bonds with interest rates which were not subject to the constraint on bank lending. However, there has been little response in this field. Inflation aside, the absence of a security market, which can ensure liquidity and reduce risk, is regarded as an important destimulant. The only condition under which bonds may become relatively liquid is the participation of banks in bond issues either on their own behalf or as guarantors. Such participation on a sufficiently large scale could lead to the creation of a bond market in which bonds are actively traded with banks being ready buyers. This would be greatly helped by the extension of some rediscounting facilities by the National Bank to such bonds. Such developments are yet to occur.

Finally, the development of financial investment and savings in Yugoslavia must be seen in a historical context. The experience of virtually complete depreciation of financial investments during the First and Second World Wars has left a legacy of bias against financial investments in general, and bank deposits in particular. This adverse conditioning remains an important determinant of portfolio behavior amongst households and private producers. The distrust of bank deposits may be seen in the high proportion of the financial assets' portfolio devoted to *currency*. As late as 1968, currency holdings accounted for 37 percent of all financial assets held by households and private producers.[31] Seen in this perspective, the developments in financial mobilization by banks in the few short years since the reforms are less discouraging.

Resource Allocation

Measuring the overall efficiency of investment allocation is notoriously impracticable. The approach adopted here will be to identify the institutions responsible for various aspects of allocation and gauge the efficiency of their policies qualitatively. Allocative efficiency in Yugoslavia may be seen in at least three dimensions: interenterprise, intersectoral and interregional.[32] The first two dimensions were the results of interplay between banks, enterprises and state units, with banks and enterprises increasing their influence at the expense of state units, over time. Though, in theory, banks could play a major role in interrepublic allocation, the "territorialization" of their operations left this field to the state. The Federal Government assumed overall responsibility for interregional transfers of subsidized finance, using the FAD as a channel, but leaving intraregional allocation of these resources in the hands of republican governments and banks.

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31. The subsequent decline in this ratio to 32 percent in 1971 is mainly due to opportunities to hold foreign exchange accounts (a preferred asset in terms of expected real returns) opened by the rise of worker remittances from abroad.

32. The factor-proportions' aspect is considered elsewhere in this report. See Chapter 3.

Before proceeding with the discussion along these lines, it is important to emphasize a general point about the post-1965 situation. Since the reform, banks, enterprises and other investment allocating agents in the social sector have operated in an environment of *excess demand* for investible resources. On the supply side, the relatively unsatisfactory performance in mobilizing financial resources has already been discussed at considerable length. Investment demand, on the other hand, has been sustained at a high level by a number of factors:

(a) the interest rate ceiling on bank credits, coupled with inflation, cheapened the effective price of capital.[33] This was reinforced by the partial insulation of enterprises from financial risk, owing to implicit standby support from patron state units;

(b) the desire to "catch up" technologically with Western Europe placed heavy demands for new, capital-intensive methods of production;

(c) the demands created by restructuring the economy according to more market-signalled lines of production;

(d) the worker-management system biased enterprise growth in favor of capital-intensive processes, given the overall incentive to maximize value added per existing employed worker, over time. This tendency was strengthened by the prevalence of wage-based taxes which increased the relative cost of additional labor to the enterprise;

(e) the high demand for investment in social infrastructure; and

(f) the cheapening of imported capital equipment due to dinar overvaluation.

TABLE 9.20: Enterprise Financing of Investment

	1960–63[a]	1967–71
Gross borrowing as % of investment[b]	99	136
Net borrowing as % of investment[b]	46	41
Share of "direct credits" in gross borrowing	24	44

[a]1962 data have been excluded, since enforced mutual cancellation of debts led to negative entries under "direct credits," which would have exaggerated the difference with postreform data.
[b]Investment data have been adjusted for inventory valuation factor.

SOURCES *Annual Reports.* Yugoslav National Bank; and mission estimates of inventory correction.

Excess demand, by definition, is an *ex ante* concept. Consequently, it is hard to point to *ex poste* data which can prove its existence. Inflation and balance of payments deficits on current account are consistent with the hypothesis of excess demand, but may also be symptomatic of supply factors like cost push and "structural" export/import aspects. In addition to the a priori factors mentioned above, some data on enterprise financing lend weight to the hypothesis of excess demand. Table 9.20 shows that, as compared to the prereform period, gross borrowing as a percentage of real investment increased from 99 percent to 136 percent, even though the *net* utilization of external resources by enterprises (financial dissaving) declined slightly. It is

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33. Compared to the bank credit interest ceiling of 8 percent, the nominal opportunity cost of using own funds was slightly higher, since it consisted of the "interest on business funds" (tax on business capital), which averaged 3 percent to 4 percent (but varying across sectors) plus the opportunity foregone on time deposits of 6 percent.

interesting that the postreform data on gross borrowing show a much higher propor-
tion of "direct credits," 44 percent as compared to 24 percent. These trade credits,
mainly accounts' payable to other enterprises, do not constitute *net* sources of fi-
nance to the enterprise sector as a whole. However, they may be plausibly in-
terpreted as vehicles through which enterprises attempt unsuccessfully to appropri-
ate resources. Their increased share in total enterprise borrowing does suggest
sharper competition for scarce resources by enterprises.[34] Such observations are con-
sistent with the hypothesis of excess demand.

Interenterprise Allocation

Given this situation of excess demand for investment funds, and the neglect of the
interest rate mechanism for rationing credit, efficient investment allocation de-
pended on the application of consistent and appropriate project selection criteria,
which could substitute for, or improve upon, the inhibited market forces. There was
no systematic development and application of such criteria during this period. In the
last couple of years, interest in project selection criteria has grown, spearheaded by
the larger banks which have an all-Yugoslav outlook. Though such interest is en-
couraging for the future, until 1971 the impact of these innovations was small.

To begin with, the domain over which allocation decisions were taken was
severely fragmented by a number of factors. First, the continued importance of the
state in allocating funds, nominally channelled through banks, led to a "territorializa-
tion," by boundaries of state units, of the arena for investment allocation. Second,
though the banks could deploy their "free" resources across territorial boundaries,
the effective control of their credit policies by founder enterprises tended to limit
their domain of investment allocation of these firms. Such a compartmentalization of
the capital market suggests that the financial mechanism often failed to match the
best investment opportunities with the availability of funds. Within this fragmented
capital market, a wide variety of project-selection criteria was employed, including in
some cases, largely political ones. Typically, state units, banks and large enterprises in
a region mutually supported each other, which often led them to minimize purely
economic criteria in investment decisions.[35]

By failing to pay its trade debts on schedule, an enterprise may preempt resources
for its own use at the expense of other enterprises. Though the growth in involuntary
trade credit is not a source of net finance for the enterprise sector as a whole, it is a
vehicle for interenterprise competition for scarce resources.[36] There was no
guarantee that in such a competition more efficient enterprises would win out. In a

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34. There are, of course, other reasons for the rising share of "direct credits." In particular, the move to
a more market-oriented economy could be expected to lead to a greater role for trade credit between en-
terprises. The real issue is how much of these credits were involuntary. Informal indications suggest that
much of them were.

35. "By using their influence, the socio-political communities obtained Bank credits for the financing of
projects which had no adequate economic basis and in return the socio-political communities would pro-
tect them in cases of application and implementation of sanctions foreseen in the case of violation of
policy rules as regards liquidity ... and other credit policy measures." The quotation is from a study of the
capital market being done in Yugoslavia by a team headed by D. Dimitrijević of the National Bank.

36. The "illiquidity" problem reflected in the expansion of involuntary trade credit is sometimes seen
as a symptom of working capital shortage. But there was sufficient fundability between short and long
sources and uses of funds for "illiquidity" to be symptomatic of a more general scarcity of investment
resources.

system of venture capital there is some presumption that inefficient enterprises would be more squeezed for funds in a scarcity situation, since the costs of financial irresponsibility are relatively higher and include bankruptcy. But bankruptcy, the ultimate sanction in a system of venture capital, while legally possible, has seldom been used.

Enterprises are generally successful in persuading patron sociopolitical committees and creditor banks to bail them out of a sticky financial situation. This partial cushioning from the risks of insolvency encouraged expenditure in excess of available financial resources by inefficient enterprises, with the expansion of involuntary trade credit acting as the medium for such real resource competition.[37]

The past history of state sponsorship of economic enterprises also played a role in sustaining a large number of loss making enterprises in operation. Even if these enterprises did not grow, support of their existing operations through subsidized credits and grants (often channelled through the Joint Reserve Funds which are mainly controlled by state units) implied examples of suboptimal interenterprise resource allocation.

Intersectoral Allocation

Most of the remarks on interenterprise allocation are equally applicable here, except that the state units play a greater part in intersectoral allocation through the medium of the social plans. To the extent that intersectoral allocation is based on money prices of goods and factors, the foreign trade and payments' system and selective price control influenced choices, though the departures from international relative product prices were much less after the reform than before. The underpricing of capital through interest rates ceilings, and the "overpricing" of labor due to wage-based bases, biased incentives in favor of capital-intensive sectors.[38] These incentives, together with the structural bias in favor of capital-intensive growth of worker-managed enterprises, may help account for the capital-intensive course of Yugoslav industrial development.

Interregional Allocation

Official Yugoslav policy repeatedly emphasized the need to ensure equitable interregional resource allocation. Specifically, government policy was aimed at narrowing the gap in per capita income between the underdeveloped regions (the republics of Macedonia, Montenegro and Bosnia-Herzegovina and the autonomous region of Kosovo) and the rest of Yugoslavia (see Chapter 8). This was accepted as a federal responsibility and discharged through the FAD. During the 1966–70 plan period, this fund transferred the equivalent of 1.85 percent of the Yugoslav social product in the form of investment credits, for relending to investment banks in the designated underdeveloped regions. In this way, 27 percent of investment in these areas was financed through funds originating from the special fund. Another 17 percent of investment finance came in the form of federal participation in infrastructure projects.

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37. For recent policy measures to improve financial responsibility, see below. Enterprises were not alone in this problem of "uncovered investment" State units also acted similarly with their direct investments

38. In 1970, proportional taxes and contributions on net personal incomes in the social sector increased the cost of labor to the enterprise by about 45 percent.

These latter resources were channelled through the Federal Fund for Investment Finance.[39] In addition, current transfers from the federal budget of about 1 percent of the Yugoslav social product annually, were weighted in favor of the poor republics.

The credits from the FAD to the investment banks in these areas were on highly concessionary terms: 1 percent interest and thirty-year maturity for highway projects, 2 percent and twenty years for heavy industry, transport, agriculture and tourism, and 4 percent and fifteen years for all other purposes. Though the intraregional allocation of these funds was left in the hands of the recipient investment bank and its corresponding Republic Government, the terms of the ultimate loans had to match those mentioned above. This reflection of the concessional terms to the final user did not encourage efficient use of the scarce capital transferred. Even if subsidies were deemed necessary to the final user, cheap capital hardly seemed to be justified in a situation where most underdeveloped regions were facing serious unemployment problems (see Chapter 3). Resource allocation is likely to have been more efficient if the investment banks in these regions had relent the concessionary loans from the special fund at higher rates, and used the profits to provide output or employment-related subsidies, if subsidies to final users were considered necessary.

The confinement of bank and enterprise activity within republican boundaries has already been mentioned. Within an underdeveloped republic, the problems of intersectoral and interenterprise allocation are considerably magnified, relative to the developed republics. The fragmentation of the capital market is sharper, and state intervention with noneconomic criteria more frequent. These problems are reflected in the low productivity of investment, both in terms of ICORs and labor productivity ratios.

Finally, the selective price control policy which operated during the postreform era is believed to have contributed to unintended interregional resource transfers in the wrong direction. For example, holding down energy prices operated as a tax on Bosnia-Herzegovina, Kosovo and Montenegro, which were net exporters of power. The implied subsidy accrued to the net importers, the developed republics (see Chapter 8).

From the above discussion, it is clear that the mechanisms and policies for investment allocation left considerable scope for improvement. Basically, the improvement in factor allocative mechanisms has not kept pace with those in the product markets. An aggregate index of resource allocational efficiency does not exist. The objections to using ICORs as an index of resource allocational efficiency are numerous and well-known, especially in a country like Yugoslavia, where relative prices have been subject to varying degrees of administrative control. However, as crude guides, the data on ICORs are consistent with the view that resource allocation efficiency, a prime goal of the reform, has not improved dramatically (see Chapters 2 and 3).

Some of the "distortive" features in resource allocation discussed earlier, like the enterprise bias towards capital-intensive expansion, were embedded in the Yugoslav system of worker-managed enterprises. But others, like the interest rate ceiling, wage-based taxes, the fragmentation of the capital market and lending policies to final users in underdeveloped regions, were susceptible to policy reform. Perhaps the most encouraging aspect of the potential for improvements in this field, is that the bulk of allocative deficiencies fall into the latter category.

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39. Unlike the FAD, this was not a legal entity but just an extrabudgetary investment account.

CHAPTER 10

RESOURCE MOBILIZATION AND ALLOCATION: PROSPECTS

Institutional Changes, 1971

The changes initiated by the 1971 Constitutional Amendments, particularly in the area of tax and expenditure policy, are still in process. The significant changes in the realm of fiscal and financial institutions are summarized in this section. The next section discusses the prospects for domestic resource mobilization in the new environment. This is followed by a section which continues the discussion of Chapter 9 on some issues in resource allocation. The final section raises some questions about the efficiency of public expenditure and revenues.

Changes in the Fiscal System

The expenditure responsibilities of the Federal Government were reduced—in particular, its extrabudgetary investment role was abolished. The assets and liabilities of the Federal Fund for Financing Investments were decentralized to the republics on the basis of past credits, except in the case of expenditure on ongoing projects in the less developed republics and provinces. These expenditure responsibilities were temporarily (for two years) retained with the federation and channelled through the federal budget. To finance them, the repayments and interest on past credits due to these regions were also kept with the federation and transferred to the revenue side of the federal budget (see Statistical Annex, Table 5.1). Both the FAD and the Fund for Export Credit and Insurance are continuing in operation, but the responsibility for financing is now shared with republics and enterprises.

The revenues of the federation were drastically altered. Only customs duties and minor fees and charges remained as budgetary resources. The federal tax on personal income was abolished and the receipts from the federal turnover tax were turned over to the republics. Since the federation's budgetary expenditure responsibilities remained largely unchanged (defense, administration and various transfers to other public bodies), the abolition of these taxes created a financing gap. The excess of budget expenditure over revenues is now financed by contributions from individual republics, in proportion to their share in Yugoslav social product. The "tax on business capital," formerly an extrabudgetary resource for the federation, was also abolished. The FAD is now financed through compulsory loans from enterprises, calculated on the old base of "business capital." Unlike before, the rates (of loan amounts to the base) are set independently by each republic and may vary. Indeed, republics are free to meet their obligation of transferring 1.94 percent of their social product to the fund through alternative devices, but none have departed from the practice of the complusory loan from enterprises.

While the constitutional amendments and attendant laws have codified the federal-republic fiscal relationships, the restructuring of expenditure roles and revenues at the republican and communal level is still in process. The issues involved are discussed in the section on resource allocation.

Changes in Financial Institutions

Two laws governed the changes in the banking system. The "National Bank Law" created eight new Republican (and Provincial) National Banks, one for each republic and province. In fact, these new banks simply represented an increase in autonomy of the former branches of the National Bank. Their increased authority was limited to the allocation (by purpose) of Central Bank rediscounts. Under the new system, a significant proportion (40 percent in 1972) of the planned amount of rediscounts is delegated to the Republican National Banks to distribute according to purposes determined in the Republic Governments. Under the new law the nine-man Board of Governors of the Yugoslav National Bank includes all the eight Governors of the Republican and Provincial National Banks. This delegation was in response to criticism that the earlier National Bank monopoly over deciding the type (by purpose) of credits eligible for rediscounting, had undesirable and differential regional effects. For example, rediscounting of export credits primarily favored the developed republics. The proportion of planned rediscounts to be delegated to republics and provinces, and the shares of each unit, are reviewed by the interrepublican committee on monetary questions and decided by the Federal Executive Council.[1] In practice, since the Governor for each Republican National Bank is a member of the nine-man Board of Governors of the Yugoslav National Bank, rediscount proposals are fairly easily agreed upon. Overall monetary policy continues to be proposed and executed by the Yugoslav National Bank. And the Federal Executive Council and Federal Assembly continue to be the final arbiters on annual "monetary policy resolutions." The effective control over monetary instruments, other than rediscounting, remains with the Yugoslav National Bank, though republican views are represented in its Board of Governors.

The role of "other banks" underwent several significant changes:

(a) all business banks were made "universal," i.e., allowed to engage in both commercial and investment credit business;

(b) the relatively minor innovations in ownership-management structure, if anything, strengthened the power of founder members over a bank's general credit policy;

(c) ceilings on bank lending interest rates were abolished;

(d) the short/long distinction of bank balance sheets and operations was removed. However, reserve requirements for all sight deposits (except savings) remained different from those on time (and sight savings') deposits. The legal maximum on the first was brought down from 35 to 30 percent. The second was kept at 3 percent;

(e) the allocation to bank reserve funds was legally increased; this was a part of a set of measures aimed at penalizing bank "illiquidity" (temporary inability to meet its obligations) in the hope that banks would be less ready to support financial irresponsibility by client enterprises;

(f) founder members now have unlimited liability;

(g) the old anonymous "credit funds" have been abolished;

(h) the law also removed legal barriers to the creation of nonbank financial institutions.

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1. One of the five high-level coordinating committees created by the constitutional amendments (see Chapter 1).

One should also take note of the Law on Securities passed somewhat earlier. This enables introduction of a new kind of security, "certificates of ownership" which could be issued by one enterprise and held by another, allowing the latter a claim on profits. Individuals are disallowed from trading in these quasi-shares. Despite its potential significance, there has been hardly any use of this instrument for raising funds. The lack of an established market is undoubtedly the major inhibiting factor. But their potential for improved interenterprise allocation is strong.

Incomes' Policy Framework

The constitutional amendments provided for the institution of social and self-management agreements on incomes.[2] Each republic could formulate an incomes' policy, establishing guidelines for personal income payments in different enterprises. Broadly, incomes' policy was aimed at (a) influencing and harmonizing the savings' behavior of enterprises and (b) reducing personal income (wage) differentials across workers, both for the same skill category across branches and enterprises, and over the entire range of personal incomes paid in the social sector. The social agreements on incomes are tripartite arrangements between the Republic Government, trade unions and Chambers of Economy. The principles of the social agreement are implemented through self-management agreements, which apply to industrial sectors and groups of enterprises, and take into consideration the special circumstances of the relevant industry or group.

Prospects for Domestic Resource Mobilization

Domestic Resource Requirements

The prospects for savings' generation have at least two important dimensions: (a) the requirements for aggregate savings, and (b) the mobilization of an adequate share of these savings for use in the social sector. The Social Development Plan for 1971–75 does not provide a thorough analysis of resource requirements. For example, there is no overall savings' target, let alone disaggregation by sector. However, some implications for aggregate savings may be pieced together. The plan projects a domestic investment (including both "economic" and "noneconomic") rate of 34.9 percent out of social product in 1975, compared to an actual achievement of 33.8 percent in 1970. The 1975 projection may be converted to a rate out of GNP of 30.7 percent.[3] Background documents to the plan project that *net* foreign capital inflow will finance about 6 percent of total investment. Thus, 94 percent of gross investment will have to be financed from domestic resources. This reduces to a target of GNS/GNP ratio of 28.9 percent in 1975. In terms of recent history (Table 10.1) this rate of aggregate savings is at the upper end of the range experienced between 1967 and 1971, and somewhat higher than results in the last couple of years. The further erosion of the state saving role in 1971 means that this saving will have to be generated almost entirely by nonstate units: enterprises, other social sector organizations, households and private producers. Enterprise savings' behavior and the efficiency of the financial system in encouraging savings by households and private producers, are crucial to the realization of the plan's ambitious savings' target.

2. The term "income policy" is used here as shorthand for the complicated agreements on the distribution of value added in enterprises in Yugoslavia. Its connotation is rather different from that in capitalist economies. See Appendix D on Incomes' Policy.

3. Between 1966 and 1970 GNP was, on average, 13.5 percent higher than the social product in current prices The conversion assumes constancy of this relation.

TABLE 10.1: Key Trends in Savings' Behavior

(%)

	1967	1968	1969	1970	1971	1972
GNS/GNP (current prices)	29.3	27.8	28.2	28.4	27.7	—
Share of savings by nonstate units						
Unadjusted data	77	76	80	85	97	91
Adjusted data[a]	76	76	78	82	96	—
Share of savings by households and private producers						
Unadjusted data	26	26	31	28	35	35
Adjusted data[a]	26	27	35	33	44	—
Financial savings/GNS	35	30	32	31	23	—

[a]Adjusted for inventory evaluation factor.
SOURCES: Tables 9.6 and 9.7.

Even if the aggregate savings' target is achieved, there is no guarantee that the resources can be intermediated to appropriate sectors. The plan does not, unfortunately, disaggregate the investment program by sectors, either social/private or enterprise/household/state, etc. Consequently it was not possible to compute a resource gap (investment minus savings) for the social sector, which could then be used as a target for financial intermediation.[4] However, the growing importance of savings by private producers and households, coupled with the declining ratio of financial savings to GNS, suggests the need for a major effort to mobilize savings from the private sector for channelling to social sector enterprises.[5] The prospects for such an effort are discussed below.

Enterprise Savings'/Incomes' Policy

The increased importance of enterprises in aggregate savings and the recent background of a declining savings' rate added up to a strong case for instituting an incomes' policy to stabilize (and perhaps raise) the rate of enterprise savings.

Prior to 1971, several features combined to put adverse pressure on the rate of enterprise savings:

(a) the availability of cheap credit based enterprises in favor of borrowed funds. As pointed out earlier, the opportunity cost of using own resources for financing investment was slightly higher than bank loans;

(b) the relatively high wage payments by capital-intensive sectors created strong pressures for increasing personal incomes in other sectors;

(c) the "demonstration effects" from Western Europe for increasing consumption, noted earlier;

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4. The plan does provide projected sources of investment finance by allocative agent. But this information cannot be transformed into savings-investment gaps and surpluses by sector.

5. The current phase of the study on capital markets being carried out in Yugoslavia is focusing on such financial imbalances in the plan. Its results should quantify the implicit targets (and potential shortfalls) for financial intermediation.

(d) Yugoslav enterprises were under considerable pressure to allocate higher personal incomes to prevent qualified workers, especially in the developed republics, from migrating in response to higher incomes in Western Europe;

(e) the social security system, which computed pensions on the basis of the final few years of service by a worker, embodied an incentive, amongst older workers, to vote high shares of personal incomes (i.e., low enterprise savings).

The incomes' policy agreements, which were gradually instituted in the various republics during 1972, were aimed at countering these pressures towards lower enterprise savings' rates. While the policies vary between republics, they have certain features in common. For example, all of them relate the total personal incomes that an enterprise can pay out (and hence, by elimination, enterprise savings) to "enterprise income per standardized worker."[6] Enterprises with higher "enterprise income per standardized worker" are allowed to pay higher "personal incomes per standardized worker," but are also required to save at a higher rate out of enterprise income. The "standardized" work force of an enterprise is computed on the basis of skill coefficients (weights) which purport to reduce each skill category into equivalent units of unskilled labor, which could then be aggregated into a unique total. The skill coefficients are common within a republic but vary slightly across them. The functions and schedules, relating allowed "personal income payments per standardized worker" to "enterprise income per standardized worker" are generally based on sample data enterprises from previous years. For policing the agreements, most republics rely on direct control through the Social Accounting Service. In Slovenia, a progressive tax was established for personal income payments in excess of incomes' policy norms.

Analytically, the incomes' policy device may be viewed as an attempt to isolate the return to "owned" capital ("business capital") of an enterprise and protect this return from distribution in the form of personal incomes. Under the unmodified worker self-management system, enterprise differences in personal income for labor with similar skills (the differences were sometimes 300 to 400 percent) were due both to differences in efficiency as well as in capital endowments. Capital-intensive industries could afford to pay much higher wages (personal incomes) by distributing part of the return to capital as wages. In a system where all capital is supposed to be socially owned, personal income differences due to varying capital endowments seemed inappropriate. A possible approach would have been to charge a socially agreed accounting price for "owned" capital, which would then determine the division of enterprise income between savings (return to "owned" capital) and personal incomes. The old "tax on business capital" was a weak attempt at this. Instead, most of the incomes' agreements attempt to isolate the return to *labor*, decree this as allowable personal income payments, and obtain the return to "owned" capital as a residual in the form of savings. Consequently, correct identification of the return to "owned" capital presupposes correct identification of the return to labor.[7] Since labor is not homogeneous, but consists of many different skill categories, the attempt first to isolate the total wage bill, which, in some sense, corresponds to the notion of "payment according to work," is very difficult.

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6. The concept of enterprise income varies across republics. However, in all variants it excludes legally required depreciation, unlike the concept of REI used in this report earlier

7. This is necessary but not sufficient Correct identification of the return to "owned" capital also requires that other factor payments, such as interest on bank credit, reflect efficiency prices, which they do not

The existing incomes' agreements are open to certain criticisms. First, the economic meaning of the skill coefficients is not clear. It is unlikely that they represent ratios of marginal products. They are, in any case, at such a high level of aggregation that it would seem difficult to police reclassifications at enterprise initiative to permit higher personal income payments. Second, the use of historical enterprise data to frame schedules relating enterprise incomes to allowable personal incomes (and hence savings) vests the past experience with an aura of optimality which it may not deserve. Third, except for the incomes' agreements of Serbia and Montenegro, there is no way of assuring an average savings' rate for all enterprises in a republic. While these considerations are important for the long-term evolution of an efficient incomes' policy, they may be downgraded on the grounds that the overriding concern at present is to develop a constitutionally feasible policy instrument for an improvement in the rate of enterprise accumulation. Finally, it is clear that these incomes' agreements constitute a dimunition of self-management autonomy of enterprises. However, it can be argued that since "owned" capital in an enterprise is really socially owned, the society has a right to intervene in the allocation of the return. Incomes' agreements may then be interpreted as an exercise of this societal right.

Viewed as a practical instrument of policy, it is still too early to gauge the success of incomes' policy agreements. Potentially, it is a powerful instrument for stabilizing, perhaps raising, the rate of enterprise savings. One feature which has already attracted attention is the possible effects of divergent republican policies; for example, their impact on location of new enterprises. Coordination and harmonization of basic principles and concepts is recognized as an important project. A coordinating commission is currently working on achieving such an agreement across the republics.

Resource Mobilization by Banks: the Role of Interest Rates

With the reduction of the federal investment financing role in 1971, banks have become even more important in the task of mobilizing financial resources. The removal of the legal ceiling on bank lending rates has led to a small increase in all interest rates, but not enough to compensate for inflation. Banks now arrive at a "gentleman's agreement" on lending rates. Towards the end of 1972, these jointly agreed rates averaged around 12 percent. Deposit rates varied from 7.5 percent on sight savings to 10 percent on time deposits above two years' maturity. Inflation during 1972 is estimated to have been around 15 percent, and the rate is not expected to decline lower than 10 percent in 1963. Clearly, the rates on savings' deposits offer little encouragement for financial saving.

Several factors impede a major increase in interest rates to promote improved financial mobilization and allocation. First, banks in Yugoslavia are not independent profit maximizing institutions. "Financial capitalism" is ideologically frowned upon. Rather, banks are organizations run by, and in the interests of, their founder members, mainly borrowing enterprises. Thus banks have been compared to cooperatives "whose aim is to ensure to members ... benefits ... irrespective of their own (the banks') profits."[8] This does not mean that banks cannot refuse individual founder enterprise credit on occasion. But it does mean that the overall credit and interest policy of banks is decided jointly by an assembly dominated by enterprises who are

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8. The ongoing study of the capital market referred to earlier accords prime importance to "borrower control" of bank policy in explaining the low interest rate structure.

also the chief borrowers from the bank. By itself, founder member control of bank policy does not explain the readiness with which banks jointly acquiesce in a policy of cheap real rates of interest. *If* the interest-sensitivity of financial savings in bank deposits was high, it would be in the interest of banks and their patron enterprises to raise the interest rate structure to encourage more financial savings, so long as the costs of doing so were outweighed by the benefits accruing to the enterprises'-bank complex from additional investment enabled by the incremental resources. There seems to be a prevailing belief that *in fact* the interest-sensitivity of financial savings is low. This belief, combined with effective founder member control of bank policy, explains the resistance to significant upward interest rate adjustments.[9] This resistance is strengthened on the deposits' side by an ideological bias against high rates of "unearned" (by labor) remuneration from private financial assets ("financial capitalism" again).

In fact, the evidence on the interest-elasticity of financial saving is far from clear. The historical record of legally constrained nominal rates of interest impeded empirical investigation, since variations in real rates were low. The mediocre record of financial mobilization is consistent with a high interest-elasticity of financial savings. The incentives for financial mobilization were poor during 1965–71. In any case, in a relatively young and rapidly developing financial system, the past record on interest-sensitivity may be misleading about future behavioral prospects. The success that banks have recently had increasing deposits in foreign exchange accounts from households and private producers, indicates considerable sensitivity to real returns on the part of these agents. In 1971, the devaluation windfalls on these assets more than compensated for inflationary erosion. By the end of 1971, domestic foreign exchange accounts constituted 18 percent of financial assets held by "households and private producers," compared to 4 percent in 1967. Admittedly, this increase may be largely attributed to the increased *supply* of foreign currency-denominated resources in the form of worker remittances; these increased from US$90 million in 1967 to 650 million in 1971. But banks do testify to increasing household interest in holding these financial assets, like foreign exchange accounts, which provide some hedge against inflation. This growing sensitivity to real returns in private portfolio behavior should be exploited to increase the share of financial savings in savings and perhaps to increase private savings as a whole.

The real return on bank deposits may be improved by either: (a) increasing nominal interest rates offered by bank, or (b) reducing the rate of inflation, or (c) linking the value of bank deposits to a price level index, i.e., "indexing." The first alternative may be accomplished either by persuading banks and "owner" enterprises that the interest-elasticity of financial saving is higher than they believe, or by reforming the banks to give more weight to savers in formulating bank interest and credit policy. The current prospects, however, of a bank reform which reduces the policy prerogative of founder enterprises are limited. Even if such reform went through, uncertainty about future rates of inflation would make it difficult for banks to compensate for inflationary expectations through money interest rates on long-term contracts. However, some increase in money interest rates under the existing institutional set up should still be possible and, in the current inflationary context, is clearly desirable.

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9. The interest rate issue is complicated by the past history of allocative distortions stemming from earlier, nonmarket investment mistakes and price control. Both have left a legacy of loss making enterprises, which exert a pressure for low interest rates (a form of subsidy)

Though reducing inflation has been a major policy goal for several years, the result so far has not been too encouraging. The introduction and strict implementation of the new incomes' agreements may weaken the inflationary process, but on balance the tools for controlling inflation would appear to need further improvement (see Chapter 11). Part of the difficulty is that in a situation of "sticky" nominal interest rates, price level changes (and the expectations they induce) feed back to fuel inflationary pressure via low real costs of capital, which encourage excessive investment demand.

If inflation continues to be an intractable problem, the proposal of "indexing" or value linking of financial assets and liabilities may have to be seriously considered. Compared to compensatory revisions in money interest rates, value linking is far more effective in reducing uncertainty about real rates of return. In Yugoslavia, value linking is a particularly attractive practical proposition, given the relatively simple composition of financial assets and liabilities, most of which pertain to the banking system. One would, of course, face the usual problems of which index to link to and precisely what assets and liabilities should be "indexed." For example, in Yugoslavia, it might be important to include the category of "direct credits" in the "indexing" exercises; otherwise the "illiquidity" problem may be aggravated. Neither of these problems would appear to be insurmountable, though a thorough study of possible pitfalls is necessary before such a radical solution is adopted.[10] Value linking should not, of course, be a substitute for controlling inflation. There are other costs of inflation, such as intersectoral incentive distortions, balance of payments pressures and undesired income distributional effects, which would still argue for effective anti-inflationary measures.

Improvements in the real rates of return are also likely to benefit the term-structure and composition of financial investments. Outside the banks, the most promising (in the long run) alternative channels of financial intermediation are enterprise bonds and premium life insurance. As pointed out earlier, the development of the bond market will require enthusiastic participation by banks. The long-term scope for funded life insurance is believed to be sizeable. And the increased supply of long-term funds would certainly be welcome, But to encourage growth, life insurance institutions must be able to invest in instruments which offer adequate real rates of return. Consequently, as with financial saving in bank deposits, life insurance development depends on the successful control of inflation, or insulation from destimulant effects via "indexing." From an allocative viewpoint, both enterprise bonds and funded life deserve to be developed to breach the virtual monopoly of banks over financial intermediation.

Resource Allocation

The analysis of resource allocation during 1965-71 (Chapter 11) remains applicable. The jointly agreed limits on bank lending interest rates still imply low or negative real rates.[11] An increase in real interest rates, through any of the means discussed above, should improve the allocation of credit amongst competing users and uses,

10. The experience in other countries such as Brazil, Finland and Israel which have introduced value linked financial instruments to alleviate inflation-induced distortions of savings and investment, while not conclusive, is not discouraging.

11. It should be noted that banks sometimes lend to nonfounder enterprises (and very occasionally to founders) at nominal interest rates as high as 25 percent. But the volume of such lending is believed to be small, in the order of 5 percent of total credits.

and by raising the cost of capital, reduce the bias in favor of capital-intensive techniques and sectors. The increase in the cost of capital should also encourage more efficient use of existing capital stock. With the present low real interest rates, the chronic excess demand for investible resources continues and banks and state units remain important in the nonprice rationing. There are some encouraging signs that banks are increasingly turning to vigorous project analysis techniques in making allocation decisions. But the fragmentation of the capital market continues to limit the benefits of this trend. The most serious effort at improving resource allocation has been aimed at the "illiquidity" phenomenon, which reached crisis proportions in 1971.

"Illiquidity" and Resource Allocation

"Illiquidity," the inability to meet financial obligations on schedule, is mainly a manifestation of excess demand in the capital market. The growth in involuntary interenterprise trade credit reflects, and is a vehicle for, a fierce competition for scarce resources. The danger to efficient interenterprise allocation stems from the ability of inefficient enterprises to preempt resources from more efficient ones through this means. At bottom, this "irresponsible" financial behavior reflects the lack of an adequate framework of penalties and incentives. As long as patron state units and banks insulate enterprises from the risk of bankruptcy, it remains difficult to impose financial responsibility. But bankruptcy, as was noted earlier, is unsuited for an economic system where venture capital is absent. Conceptually, what is required is a financial sanction which is appropriate for the ownership management structure of Yugoslav enterprises.

The self-management system vests decision making authority with workers. Thus, designing sanctions aimed at worker-managers would appear to be the correct approach.[12] Recognizing this, the Federal Government has recently passed laws, effective January 1973, which limit personal income payments in an enterprise guilty of prolonged net accounts' payable (the detailed conditions are specified) to 90 percent of the past year's level until the obligations are fulfilled. New laws are on their way to extend this sanction to officials and personnel of state units which are guilty of similar prolonged net debts. This is an interesting departure from previous anti-"illiquidity" measures which concentrated on eliminating investment by "illiquid" enterprises and state units through various account-blocking devices. The latter type of measures continue in effect, as well as several others, all part of a three-year phased attack on the problem. The measures taken since the beginning of 1972 include:

(a) multilateral cancellation of debts organized by the Social Accounting Service. Enterprises with net debts were forced to issue special bonds (acceptance certificates) of a limited maturity. If these were not paid on time, the expenditure accounts of the enterprise at the Social Accounting Service were blocked;

(b) increase in the allocations to reserve funds of enterprises. These increments can only be used for specified purposes such as reducing net accounts' payable;

(c) "sanation laws": this is a complicated multistage process, in effect from January 1973, which attempts to bring order to the processes of creditory support for en-

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12. Bankruptcy is certainly a sanction against the enterprise's workers But because it is too drastic, it invites rescue operations by patron state units and banks.

terprises in financial difficulties. If creditors cannot, or will not, see the enterprise through its period of financial difficulties, then bankruptcy proceedings have to be initiated;

(d) corrective pressure on net creditor enterprises. A new law requires that 25 percent of net receivables outstanding beyond ninety days be regarded as a cost in the enterprise's net income statement. After a second ninety days, another 25 percent of net receivables is counted as cost. Thus, by threatening to shrink the net income available for allocation to savings and wages, creditor enterprises are given incentives to speed collection of receivables.

Some of the above measures, particularly the "sanation" laws also apply to enterprises making repeated losses.[13] The case of loss making enterprises should, strictly speaking, be separated from the more common case of "illiquidity" arising from unpaid debts, discussed above. The existence of a large number of loss making enterprises, in part reflects the process of adjustment from a controlled economic system to one where market factors dominate. Some enterprises set up at state initiative in the 1950s have subsequently been found to be uneconomic in terms of the prices which prevailed after the liberalization of foreign trade and domestic markets. In some cases, losses may be attributed to residual, and selective, price control by the state. Recognizing the special adjustment problems for such enterprises, new laws have recently restructured the Joint Reserve Funds. Resources continue to come from compulsory contributions by enterprises. These resources can now only be used for sustaining minimum personal incomes in loss making enterprises, and for retraining labor to ease shifts to more viable sectors. The control over the allocation of these resources has also shifted from state units to self-management bodies dominated by enterprise representatives. In this way, it is hoped that the resources will be used for aiding market-induced intersectoral resource shifts, rather than for bailing out financially irresponsible enterprises, which have close connections with state units.

It is too early to judge the impact of all these measures, many of which became effective in January 1973. The antiilliquidity sanctions aimed at personal incomes may well be very effective. According to recent newspaper reports: "it is estimated that in the economy (the enterprise sector) about 1,000,000 persons will be affected by the measures on reducing personal incomes because of illiquidity, while outside the economy personal incomes of about 1.2 million persons will be frozen."[14] As for eliminating fresh investment by "illiquid" and loss making enterprises, by the end of 1972 about 10 percent of all enterprises had their accounts at the Social Accounting Service blocked. This represents almost a doubling of "blocked enterprises" as a result of measures taken during 1972.

Past experience, however, should restrain optimism about the result of these measures. The Social Accounting Service, the chief policing agent, remains inadequately staffed with inspectors. Their number needs to be increased. State units have in the past, and may again, interfere with the implementation of anti-"illiquidity" regulations. But the backing of the Communist Party, plus the new and austere political climate, suggest a higher probability of success for the implementation of these regulations. By damping "uncovered investments," the new austerity should also reduce disproportions in the capital market which fuel the problem of "illiquidity."

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13. "Losses" occur when an enterprise cannot cover personal incomes from net enterprise income.
14. *Borba* (Belgrade), December 22, 1972.

Finally, one should note that excess demand for investment resources is a key cause of the "illiquidity" phenomenon. Any increase in supply or reduction in *ex ante* demand should reduce excess demand, and hence the competition for resources which generates "illiquidity." Increased enterprise savings through the manipulation of incomes' policy, improved financial mobilization, intermediation and the reduction in investment demand via increased real interest rates can all aid in containing the "illiquidity" phenomenon.[15]

Interregional Allocation

The FAD remains the key institution responsible for interrepublic resource transfers. Each republic contributes 1.94 percent of its social product for allocation by the fund. Under the allocations recently finalized for the 1971–75 period, special attention is being devoted to the least developed region, the autonomous province of Kosovo.[16] The resources, obtained so far through compulsory enterprise loans decreed by the responsible republics, are lent to intermediating banks in the poor regions for fifteen years at 4 percent interest. Unlike before, the banks in these regions are free, in consultation with corresponding republican governments, to determine the terms to the final borrower. However, the policy of passing on the concessionary terms to final users remains in operation. This policy needs to be reexamined for reasons outlined earlier.

The gradual phasing out (to be completed by 1973) of the federal role in direct financing of infrastructure projects is likely to reduce the net transfer of resources to the poorer areas. Though the abolition of certain federal taxes has increased the resources available to the republics, the benefits are likely to be disproportionately small for the poorer regions, owing to the small size of the social sector (the main source of the previous federal tax revenues) in these regions.

The system of federal budgetary grants for current social services' expenditure in the poorer republics was another major source of funds in the past. These grants will continue, but under the new system of joint republican financing of the federal budget they are likely to come in for continuous scrutiny. There is a draft federal law proposing to transfer the equivalent of 0.83 percent of the Yugoslav social product to the poorer regions through such federal grants during 1971–75.

The prospects for interrepublic resource transfers through banks and enterprises remain poor, as long as the generalized excess demand for investible resources persist, and the quality of economic infrastructure and services in poorer regions remain markedly lower than in the rest of the country. The 1971 constitutional changes did not promote voluntary interrepublic resource mobility. If anything, the further devolution of state economic power to the republics strengthened the geographical territorialization of the capital market.

Within the republics, the respective governments have launched programs to promote development in backward areas. The main tools are direct investment by Republic Governments and subsidization of interest rates on credit to enterprises to in-

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15. The importance of reducing excess demand for investible resources to alleviate illiquidity is realized in official circles. Hence the classification of the law on upward revaluation of fixed assets as an anti-"illiquidity" measure.

16. Of the 1.94 percent of social product targeted for such transfers, 0.09 percent (the increment over the 1966–70 ratio) is reserved for Kosovo

duce location in such areas. Once again, the choice of the capital price as the mode of subsidy seems inappropriate and at variance with employment objectives in these backward areas.

Public Expenditure and Revenue: Some Issues

Despite the phasing out of the state in saving and "economic" investment, the gross flow of public expenditures, including social security payments, remains very high, about 30 percent of GNP.[17] It is concerned mainly with providing:

(a) classical public goods like administration, defense and justice;

(b) "special public policy" expenditures, such as those to promote exports, regional development and subsidies to specific industrial sectors;

(c) social insurance and education.

The second category is partly in the budget, but mostly outside in various extrabudgetary institutions and accounts. The third is almost wholly extrabudgetary.

So far, the 1971 Constitutional Amendments and ensuing laws have defined the federal expenditure role and federal-republic relations. The definition of republican-communal roles and relations are still in process. Essentially, the discussion centers on the following issues:

(a) should public expenditure roles at republic and communal levels be reorganized? In particular, should there be some reform of the current framework of extrabudgetary expenditures?

(b) what sort of *revenue system* should be adopted to finance the necessary state role?

The Expenditure System

There seem to be two somewhat contradictory tendencies. First, the term of "returning resources to the economy" may be seen in the creation of new "interest communities" for certain kinds of expenditures. These would give more representation to citizens (who receive the service), institutions (like schools, which administer the service) and enterprise/workers (who pay for the service). The second theme reflects disenchantment with the past proliferation of extrabudgetary funds and institutions. The proliferation is easy to understand in terms of the historical thrust towards decentralization and self-management. But it is now felt that the institutional fragmentation of public expenditure has gone too far. Administrative costs have risen too high and coordination has become increasingly difficult.[18] Basically, reorganization will attempt to recapture some of the lost economies of scale in public expenditure. For example, the new "interest communities" are to be regionalized in each republic to embrace quite a few communes.

The problem of uneconomic scale in public expenditures is likely to persist in Yugoslavia. It is a cost implied in the decentralization of the state's expenditure responsibilities. For example, the decentralization of the federal role for infrastructure investment financing removes an agent capable of financing and coordinating

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17. If payments by social insurance funds (mainly for pensions and health) are excluded, the ratio drops to approximately 19 percent.

18. A recent report claimed that there were 2,000 extrabudgetary funds in Serbia alone. Of these, seventy were road funds.

major projects like the Belgrade-Bar railway. Reforms, like those mentioned above, are best viewed as attempts to minimize the costs of decentralization subject to fundamental, political and institutional constraints.

The Revenue System

The current discussions on revenue reform focus on rationalizing and improving incentives for enterprises in the social sector. Since the institution of the "net income system" in 1958, revenues have relied increasingly upon proportional taxes and contributions based on personal incomes. Table 10.2 disaggregates the fiscal burden on enterprise value added by base of revenue instruments. By 1968, 46 percent of the total was accounted for by revenues based on personal incomes, compared to 28 percent in 1959. With the recent abolition of the "tax on business capital," the proportion has probably increased further. By 1971, even after the abolition of the federal income tax on social sector wages, contributions and taxes on personal incomes amounted to 40 percent of net personal incomes ("take home" wages) earned in all economic organizations in the social sector.

TABLE 10.2: % Composition of Revenues on Enterprise Value Added, by Base

	1959	1963	1968
Capital stock	16.8	19.4	22.9
Turnover	20.7	21.9	28 7
Net income	31.1	19.9	0 4
Personal incomes	27.8	36.5	45.9
Other	3.6	2.3	2.1
Total	100 0	100 0	100.0

SOURCE. Adapted from Groupić and Paij, *Workers' Self-Management in Yugoslav Undertakings.*

This concentration on personal income taxes is criticized on the following grounds:

(a) they increase the relative cost of labor, and thus bias production choices in favor of capital-intensive techniques and sectors;

(b) the tax-take is invariant with business conditions, so that poorly performing enterprises have to pay as much as successful ones (if the wage bill is equal);

(c) more generally, the fact that the state's draft on resources does not change with the business cycle is viewed critically, since the state no longer contributes significantly to the economic sector via productive investment.

The main aim of revenue reform is to substitute some of these personal income taxes with alternative taxes based on some variant of enterprise income, while putting the residual wage taxes on a more genuinely contributory footing. During the mission's visit, official discussions were underway to decide on the most appropriate base for the new tax. Though the new taxes would be republican, a serious effort was being made to ensure interrepublic harmony on questions of the tax base, rates, maximum allowable depreciation rates, definition of payee, etc. Whichever tax is adopted, it will have to be consistent with the incomes' policy agreements.

CHAPTER 11

STABILIZATION: INSTITUTIONS, INSTRUMENTS
AND POLICIES

The implementation of the 1965 reforms created a new problem of short-term economic management.[1] With the extension of the role of the market, the freeing of foreign trade, and the growth of enterprise autonomy, Yugoslavia began to experience external and internal imbalance problems typical of demand-determined western economies.[2] In Yugoslavia, there was a bias towards "overheating" due to: (a) consumption pressures emanating from the increased share of personal receipts in the social product, and the "demonstration effects" from Western Europe passed on through freer trade and migrant workers; and (b) the investment demand stemming from the underpricing of capital, partial insulation of enterprises from financial risk, and ambitious plan goals to modernize the capital stock.

Unfortunately, the decentralization process did not provide the government with adequate instruments for economic management. On the contrary, the erosion and dispersion of state economic authority severely constrained governmental control over major macroeconomic variables. Fiscal authority was fragmented across numerous public entities, which made its coordinated use for stabilization policy cumbersome. Domestic stabilization policy relied almost exclusively on monetary tools. These were also targeted on the external balance goals, where they were bolstered by foreign trade and payments' measures, including the resource to exchange rate changes in recent years. First, a discussion of the policy framework. The first two sections describe the fiscal and monetary systems in operation after the economic reforms. The following section discusses the nature of the stabilization policy problems. Next comes a review of recent experience in stabilization policy and the final section sketches the prospects for aggregate economic management after the 1971 Constitutional Amendments.

The Fiscal System

Though the scale of public expenditure and revenues remained quite large after the reform (the gross flows were nearly a third of GDP), suggesting a vast potential for anticyclical fiscal policy, the commitment to decentralization had led to the dispersion of fiscal power to numerous independent points of control. Dispersion existed vertically across the three levels of government (federal, republic and communal), and horizontally at each level between strictly budgetary expenditures and several extrabudgetary institutions. Under the decentralized regime, only the "essential state role" remained in the budget. Other activities, including social services and investment financing, were financed through extrabudgetary institutions where the principles of self-management could be brought into practice. This two-dimensional dispersion characterized both the structure of public expenditure, and that of public revenues, and severely limited the potential for demand management through either expenditure control or tax policy.

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1. This chapter draws heavily on the World Bank Economic Reports for 1971 and 1972.

2. Such imbalances also existed in prereform years. But the state could more easily suppress them through administrative control. Economic management through indirect instruments became a major policy concern after the reform.

Public Expenditure Roles

The federal budget was spent largely on classical state items such as defense, administration and some current grant items. This reflected a deliberate policy of reducing federal current expenditure to the minimum state role that had to be centralized at the federal level. To the extent the Federal Government took on additional responsibilities these were exercised through extrabudgetary institutions. The FAD has been discussed. The Federal Fund for Financing Exports was also a legal entity providing resources for export credit and financing. These credits were administered through eighteen authorized business banks. The Federal Fund for Financing Investment was not a legal entity, but simply an extrabudgetary account through which the federation participated in financing major infrastructure projects, such as the Belgrade-Bar Railway and the Djerdap project. In addition to these funds there were some extrabudgetary special purpose accounts, or funds such as the Fund for the Reconstruction of Skopje, which was wound up in 1970. The operations of these all-federal extrabudgetary institutions are aggregated in Statistical Annex Table 5.3.

Expenditure roles in the republics and communes were similarly divided between budget and extrabudgetary institutions. The latter controlled a much greater share of public expenditures at these levels than at the federation level, mainly because social service expenditures were concentrated in republican and communal extrabudgetary institutions, and defense was a very minor item in budgets at these levels. The precise structure of extrabudgetary institutions varied with the republics, but there were broad similarities. The most important items of extrabudgetary expenditure were education and social insurance (health, pensions, and so on). These were administered by the Communities for Education, and Social Insurance Funds, respectively. They were essentially self-managed entities financed by contributions levied on personal incomes. Republics and communes also engaged in extrabudgetary investment financing. There were both extrabudgetary investment accounts, repositories of former "state capital" (see previous chapter) and independent Joint Reserve Funds. These were financed by compulsory contributions from enterprise value added, and the resources were used to support enterprises in financial difficulties. The other major items of extrabudgetary expenditure were for various current and infrastructure maintenance services, which were also administered by bodies such as the Road Funds and Water Funds. These depended on earmarked taxes, fees and other charges for their revenue.

A comprehensive consolidation and functional classification of this highly fragmented body of public expenditure is beyond the scope of this report. A rough consolidation and classification based on data supplied by Yugoslav authorities is presented in Table 11.1. It should be noted that though the final total gives the volume of public expenditure which may be potentially manipulated for aggregate demand management, it exaggerates the public sector's draft on national product, since it includes gross values of various transfers and intermediation operations.

Public Revenues

Decentralization is again the key element in understanding the revenue structure. The creation of multiple institutions for public expenditure implied a parallel revenue structure whereby these institutions could retain some financial independence. This was achieved through a combination of three different devices: indepen-

dent revenues from original taxing power, revenue sharing and earmarking, and interbudgetary grants. The need for independent revenues from original taxing power was accepted as early as 1952, when the republics and the communes were given independent taxing power. The post-1965 tax system also provided for independence of revenue sources for certain horizontally decentralized institutions. Thus, at the federal level, the "tax on business capital" was explicitly designed to enable financing of federal extrabudgetary expenditure and provide about 40 percent of the current inflow to this account (Statistical Annex Table 5.3). At the republic level, both the Education Communities and the Social Insurance Funds had independent sources of revenue obtained from contributions on personal income, levied at rates determined by these institutions within limits set by law.

These attempts at providing financial independence through independent tax power did not however suffice to finance the extraordinarily fragmented expenditure system described above. Hence it was supplemented by a very complex system of revenue sharing and earmarking, whereby a part of the revenue from a tax levied by one authority was siphoned directly into another. The precise details of tax sharing arrangements varied between republics but in general they were of two types:

(a) horizontal: tax revenues from certain taxes were often shared at each governmental level in a specified proportion between the budget and extrabudgetary institutions at the same level;

(b) vertical: tax revenues accruing from the original taxing power of a higher governmental level were shared between the budget at that level, and either the budget or an extrabudgetary fund at a lower level.

Table 11.1: Public Sector Expenditures

	1967	1968	1969	1970
				(% of Total)
Budgetary				
National defense	14.2	15.8	14.7	13.8
Administration	11.2	10.6	10.4	10.5
Grants and subsidies to social sector	2.7	2.4	2.0	2.2
Social security and health protection	1.7	2.8	2.9	2.8
Communal activities	1.0	1.1	1.2	1.2
Regional development	0.3	0.5	0.6	0.5
Grants to nonbudget institutions	2.7	2.8	3.1	2.9
Noneconomic investments	2.9	3.0	2.9	2.8
Other	1.2	1.0	1.3	1.3
Subtotal	37.9	40.2	39.1	38.0
Of which: federal share	(20.2)	(20.7)	(19.3)	(18.6)
Republican and communal share	(17.7)	(19.5)	(19.8)	(19.4)
Extrabudgetary				
Social insurance	30.1	30.1	28.4	30.1
Education	10.9	11.6	12.5	13.0
Export credit finance	2.2	1.8	2.2	2.4
Investments	13.0	14.4	14.9	14.9
Other	5.9	1.8	2.9	1.6
Subtotal	62.1	59.8	60.9	62.0
Of which: federal share	(14.3)	(12.9)	(15.2)	(14.0)
Republican and communal share	(47.8)	(46.9)	(45.7)	(48.0)
Total public expenditure	100.0	100.0	100.0	100.0
Public expenditure as % of GNP (market prices)	32.2	31.4	31.6	31.6

SOURCE Federal Chamber of Economy, Belgrade.

In addition to revenue sharing there were interbudgetary grants between budgets at different governmental levels (federal budget grants to republican budgets and republican budget grants to communal budgets) and budgetary grants to extrabudgetary institutions such as Road Funds and Education Communities.

The fiscal instruments underlying this complex revenue system were themselves fairly simple in design. The major direct taxes were those on gross personal incomes and a tax on the capital value of owned assets of an enterprise. The major indirect taxes are customs duties and turnover taxes. The main source of nontax revenues were contributions to the Social Insurance Funds and Communities for Education. Table 11.2 presents a rough consolidation of the various public revenues. A brief commentary of the major taxes follows.

(a) *The direct taxes on personal income* were an important source of revenue for all three levels of government. Direct budgetary taxation of personal income existed for three classes of income—personal income from employment contracts (wages), income from work for self-employed persons such as artisans, professional work, authors, entertainers, etc., and agricultural income in the private sector.[3] Each class was taxed according to a separate schedule specifying proportional rates of taxation. The federal tax for each class was common to all republics but the rates of republican and communal taxation for each class varied between republics. In addition to these proportional taxes, there was a communal progressive "tax on total earned income from all sources" which had an exemption of 20,000 dinars per family and progressive rates from 3 to 70 percent of taxable income. Though potentially an important resource to local authorities, the tax was reportedly subject to massive evasion. Contributions for social insurance and education were "contributory" in name only, as they took the form of compulsory proportional "contributions" (taxes) on personal income. These revenues accrued directly to the independent extrabudgetary institutions concerned. Surpluses generated were held with the banking system on their account.

(b) *The tax on "business capital"* of an enterprise was levied at different rates for different sectors on the accumulated "business funds" (analogous to equity) of an enterprise. It averaged at 3 to 4 percent during this period. As a federal tax, the revenues fed the extrabudgetary operations of the federation.

(c) *The system of turnover taxes* enabled each governmental level to levy indirect taxes on specified ranges of items. These taxes were levied only at the point of retail or final consumption, so that, unlike the previous period, there was no taxation of intermediate goods entering as inputs into production of other commodities.[4] Federal turnover tax was levied at a fixed rate of 12 percent on all commodities, except fuel and alcohol, for which the tax rates are higher, and certain items, such as educational equipment, children's clothes and food which were exempt from turnover taxation. The republics and communes also levied turnover taxes at rates varying between republics, but generally much lower than the federal rate. Republican tax rates varied between 1.5 and 3 percent while communal rates varied between 3 and 6 percent. The taxing power of the republics and communes was not absolute but governed by

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3. Agricultural income is calculated on a cadastral basis and is fixed in money terms over a given period, no allowance being made for price inflation Agricultural income estimated on this basis substantially understates income from private farming. Hence the apparently high rates of taxation on this class of income.

4. The post-1965 turnover taxes were simply single-stage retail sales taxes.

a federal law which laid down limits and exemptions. These turnover taxes were subject to very complex earmarking provisions.

(d) *Customs duties* were an important source of revenue, accruing directly to the federal budget (their effective protective impact is discussed elsewhere in this report).

(e) *Other nontax revenues* consisted mainly of interest and repayments on state credits, including those arising from former "state capital."

Throughout this period there was a downward trend in the rates of taxes, especially federal ones, in keeping with the goal of "returning resources to the economy."

TABLE 11.2: Public Sector Revenues

				(% of Total)
	1967	1968	1969	1970
Tax revenues				
Direct taxes	53.7	54.4	53.9	55.2
Taxes on business capital	7.6	7.5	7.1	5.5
Taxes on personal income	22.9	22.7	20.8	22.0
Social insurance contributions	23.2	24.2	26.0	27.7
Indirect taxes	29.5	30.2	31.3	34.1
Turnover taxes	23.1	23.4	24.9	26.6
Customs duties	6.3	6.8	6.4	7.6
Subtotal	83.2	84.6	85.2	89.3
Nontax revenues				
Fees and charges for services	1.5	1.4	1.5	1.5
Repayment of principal and interest				
on investment credits	3.6	3.2	3.3	2.4
Interest income from National Bank	1.7	1.3	1.2	1.2
Other revenue	2.9	4.5	4.1	1.6
Resources of nonfederal extrabudgetary funds	7.0	5.1	4.6	4.0
Subtotal	16.8	15.4	14.8	10.7
Total	100.0	100.0	100.0	100.0
Public revenues as % of GNP (market prices)	31.1	32.0	32.4	31.6

SOURCE Statistical Annex, Table 5.6

The Monetary System

The role of money had increased significantly during the decade preceding the 1965 reforms. With production decisions freed of rigid controls, the expenditure plans of economic units had become increasingly susceptible to liquidity considerations. In essence, changes in money now led to attempts at portfolio adjustments in the stock of real assets. However, complex earmarking provisions continued to dilute the "moneyness" of money. Enterprises were required to hold money balances in a number of functionally-separated accounts, earmarked for different expenditures.[5] Such a fragmentation of the money supply meant that expenditure decisions were more responsive to changes in the components than the aggregate money supply, and changes in the latter had a highly uncertain incidence. The increased role of money suggested greater importance for monetary policy. But monetary policy during this period was characterized by great specificity. The earmarking provisions referred to above allowed monetary authorities to engage in specific blocking/deblocking of these accounts to influence the composition of aggregate demand.

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5. For example, a giro account for current transactions, an investment account for net investment, a depreciation account for replacement and a "collective consumption" account for social needs met by an enterprise.

Credit policy was similarly differentiated by purpose; no general purpose credits were available. Towards the end of the period, as the earmarking provisions were gradually relaxed, the control of aggregate money supply and credit became more important. And the instruments for such control increasingly resembled those in a market economy, especially after the transfer of the National Bank's short-term credit operation to other banks in 1961.

The 1965 reforms greatly diluted the compartmentalization of the money supply resulting from the system of earmarked accounts operating in the previous period. Thus the "moneyness" of money, and the potential scope for monetary policy, was greatly increased. However, the balance-sheet distinction between short and long operations continued to be a constraint on portfolio behavior of banks and other economic agents. The impact of this constraint was somewhat uncertain, since there were ways of parlaying short-term into long-term resources by various backdoor means.

The Institutional Framework

The reforms did not significantly alter the role of the National Bank. The "monetary authorities" consisted of the Federal Assembly (the highest legal authority), the Federal Executive Council, the Secretariat of Finance and the National Bank of Yugoslavia. Monetary policy was framed in the context of annual economic policy resolutions which were voted on by the Federal Assembly. Guided by these resolutions, the Federal Executive Council decided on the monetary targets on the basis of proposals prepared by the Yugoslav National Bank. The authority to draft and initiate these resolutions and other proposals gave the National Bank enormous influence over policy formation. Once accepted in the monetary policy resolution, the implementation of the policy targets was the responsibility of the National Bank.

In 1967, monetary planning was introduced, based on the money flow accounts of the National Bank.[6] Basically, the system involved projecting the money flow accounts for the upcoming year on the basis of past trends, anticipated institutional and behavioral changes and ultimate economic goals. The methodology was aimed at identifying the increase in money supply consistent with the economic policy goals. Attached to this primary target was the expansion in short-term bank credit. Once these two targets were determined, the monetary planning system proceeded to deduce the implications for changes in the supply of "high-powered money," and finally the policy tools through which such changes could be efficiently secured. By 1969 this method of monetary planning was firmly established in the policy making process.

Targets and Instruments

The ultimate economic goals of monetary policy were changes in the price level, real product, employment and the balance of payments. The immediate targets were the changes in the supply of money and short-term bank credit. Monetary policy essentially influenced expenditure decisions through operating on the availability of credit. The tools available for securing these immediate targets are schematized in Table 11.3.

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6. See D. Dimitrijević, "The Use of Flow-of-Funds Accounts in Monetary Planning in Yugoslavia," *Review of Income and Wealth* 4, Series 15 (March 1969).

TABLE 11.3: Monetary Policy Tools

Tools for regulating credit capacity of business banks:
   Tools for regulating changes in high-powered money:
      Rediscount mechanism (selective);
      Special Central Bank credit to business banks;
      Central Bank credit to business banks for liquidity purposes.

Tools regulating the money-multiplier:
      Changes in the reserve requirement ratio;
      Changes in the obligatory liquidity ratio;
      Other obligatory deposits with the Central Bank;
      Central Bank credit to the Federal Government and other direct credit.

Other tools for regulating the supply of bank credit:
   Tools regulating use of (e.g., short v. long) bank resources;
   "Gentlemen's agreements" and moral suasion;
   Credit ceiling.

Tools regulating the demand for credit:
   Interest rates, in particular the discount rate of the Central Bank;
   Regulation on creditworthiness for application by business banks.

SOURCE. Adapted from Dimitrijević and Mačešić, *Money and Finance in Yugoslavia*.

The range of tools is impressive.[7] All were used at some time or other after 1965. A couple of general points may be noted. First, though the tools tabulated above operate on both the *supply* of and demand for credit, only the former was important in Yugoslavia. This is what one would expect in a situation of excess demand for credit, where the interest rates are precluded from playing an equilibrating role. The rediscount rate of 6 percent was not changed during the period. Second, the rediscounting mechanism was an important vehicle of selective credit policy, aimed at compensating for the lack of well-differentiated financial markets. The strategic instruments during this period were the rediscounting operations, reserve requirement changes (subject to a legal maximum of 35 percent on short-term deposits) and credit ceilings.

Instability and Inflation since 1965

Relative to stated goals, the policy problems were: wide fluctuations in the rate of growth of real GDP, continuing and increasing inflation, and a growing imbalance on the "goods and nonfactor services" account in the balance of payments (Table 11.4).

TABLE 11.4: Symptoms of Instability

	1966	1967	1968	1969	1970	1971
% change in retail prices during year	7	5	5	8	10	18
% change in cost-of-living during year	7	6	6	11	11	18
Balance on "goods and nonfactor services" account as % of GNP (current prices)	−1.0	−1.4	−1.8	−2.3	−5.1	−6.0
Growth rate of GDP (1966 prices)	5.0	0.9	3.5	9.3	5.7	7.7

SOURCES *Annual Reports*, National Bank of Yugoslavia; and mission estimates of national income.

While these trends clearly identify a major role for stabilization policy, the diagnosis of underlying causes is more difficult. The thesis of secular excess demand

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7. A detailed description and evaluation of these tools is obviously outside the scope of this report. A clear analysis is provided by Dimitrijević and Mačešić, *Money and Finance,in Yugoslavia*.

pressure is certainly consistent with both inflation and balance of trade deficits. However, it is worth noting that both inflation and balance of payments deficits may also result from other causes. Some pressure on the balance of payments was unavoidable in the course of structural change accompanying the establishment of a decentralized market-oriented economy. This is reflected, for example, in the widening deficit in the balance of trade with convertible currency countries, compared with the overall balance. Furthermore, the deficit on "goods and nonfactor services" account reflects not just a "spilling over" of excess demand, but also rigid and heavy import requirements associated with a production structure in the process of modernization and development, coupled with limits on export growth. The evolving pattern of imports does suggest increasing use of foreign equipment and raw materials. However, by itself, this does not imply "structural" dependence on imports. While the import equations in the estimated model (see Appendix C on the Projection Model) show close relationships of imports, by categories, with value added (and changes in value added) by broad sectors, they do not allow discrimination between competitive and noncompetitive imports.[8] It is only the latter which fit into a "structural" view of imports.

TABLE 11.5: Chain Indices of Prices: Data for December in Relation to December of Preceding Year

	1966	1967	1968	1969	1970	1971	1972
Cost of living	107	106	106	111	111	118	116
General index of retail prices	107	105	105	108	110	118	114
Industrial products							
Retail	108	104	106	108	111	118	114
Producers'	103	101	101	104	112	116	109
Agricultural products							
Retail	104	105	103	107	116	119	121
Producers'	114	91	102	118	115	124	125

SOURCE: *Annual Reports*, National Bank of Yugoslavia.

Similarly, alternative explanations of inflation in Yugoslavia are easy to find. In particular, the cost-oriented variants see inflation as a product of autonomous income increases in excess of productivity growth and externally determined increases in the prices of imports. It is extremely difficult to discriminate between the relative importance of demand and cost factors, especially since they may have changed over time. Econometric investigations, notably those by Bajt and Popov, have so far failed to settle the issue.[9] The problem is that the data are usually consistent with both types of explanation. For example, a close correlation of prices (say, for a given industrial sector) and personal incomes paid would be observed, irrespective of whether increased incomes caused higher prices, or were the result of increased nominal value added arising from demand-induced price increases. Furthermore, even if causality could be reasonably established through the judicious use of lagged variables, the

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8. A reason often cited for the increased use of foreign equipment and materials was the easier availability of foreign suppliers' credits compared to the tight domestic credit situation.

9. A. Bajt, *Cene i Dohodki, 1966-71* (Llubljana: Ekonomski Institut, 1972), favors a demand-variant, while S. Popov, "Interbranch Structure of Personal Income," *Gledišta* (1971), comes down on the side of cost factors. The statistical methodology of both may be questioned.

identification of, say, cost push, would not be the end of the story for policy purposes. The strength of the cost push factors itself may depend on the degree of excess demand.

Econometric investigation is also complicated by the changing intensity and incidence of price control during the postreform period—as late as 1970 nearly half industrial sales were at controlled prices. Such changes were clearly part of the explanation for significant differences in the rates of inflation in producers' and retail prices, for both agricultural and industrial products (Table 11.5). This problem is magnified for any investigation of inflation which employs sectoral disaggregation (see, for example, Popov, "Interbranch Structure").

The object of these remarks is not to be negative about the study of inflation in Yugoslavia, but rather to caution against accepting single-equation regression results purporting to provide "the" explanation, from which appropriate policy may be deduced.[10] The explanation of the problem favored in the report would: (a) include a major role to excess demand; (b) include upward movements in personal incomes as an integral mechanism for shoring up private consumption demand; and (c) recognize the important role of cost push factors, particularly in certain years, e.g., the devaluation of 1971 and the income increases in 1972. The role of interindustry and interenterprise links in personal income pressures (sometimes described as a wage— wage spiral) is also recognized. The pivotal role of personal income increases in fueling consumption demand pressures and reducing potential enterprise savings, creates scope for incomes' policy as an antiinflationary device.

Whatever the correct diagnosis of inflation, antiinflationary policy during the postreform period viewed it as a problem of excess demand, and relied on demand-deflation as a corrective. The relative inefficiency of the policy, evidenced by the data in Table 11.5, may suggest that the diagnosis was incorrect. But the inefficiency is more accurately ascribed to the lack of appropriate tools, and the environment of financial irresponsibility within which enterprises operated. Monetary policy was the main vehicle for demand management during this period. But before discussing efficiency, it is worth investigating the reasons for the dormant fiscal policy.

The Stabilization Policy

Limits on Counter-Cyclical Expenditure Policy

Defined in the widest sense to include social expenditures and investment credits by public bodies, public expenditures accounted for about a third of GDP. But the institutional fragmentation of this expenditure made discretionary centralized control very difficult. Table 11.6 summarizes the vertical and horizontal dispersion of public expenditure. If budgetary expenditure is taken as a measure of the portion under effective discretionary control, only 40 percent of public expenditure (13 percent of

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10. A full-blown attempt at econometric discrimination between alternative hypotheses is outside the scope of this report. An important impediment to a successful study is the lack of a good variable to proxy for the pressure of demand. Considering the way the Yugoslav labor market operates, data on vacancies and unemployment do not provide useful bases for such a variable. Data on delivery queues in major industries are also not available. A monetarist demand-pull explanation, based on identification of well-defined demand and supply functions for money, was investigated, but did not yield conclusive results.

GDP) fell into this category. Federal budgetary expenditure, potentially more amenable to central discretionary management, constituted only 20 percent of the total (7 percent of GDP) and consisted mainly of irreducible state expenditures such as defense. The commitment to decentralization inhibited direct central control of extrabudgetary expenditures. Of these, the federal expenditures could have been most easily controlled, but their focus on investment finance (including concessionary transfers to power regions) made them poor vehicles for deflationary demand management.

TABLE 11.6: Structure of Public Expenditure

				(%)
	1967	1968	1969	1967–69
Budgetary	40	41	39	40
Federal	22	22	19	21
Nonfederal	18	19	20	19
Extrabudgetary	60	59	61	60
Federal	12	13	14	13
Nonfederal	48	46	47	47
Total	100	100	100	100
Public expenditure/GDP	32	32	33	32

SOURCE. Data submitted to the World Bank by the Yugoslav authorities.

Despite these limitations, two types of deflationary control were attempted during this period:

(a) partial "sterilization" of revenue flows from specified revenue sources. For example, in 1970, revenues from turnover taxes and contributions from personal income were limited to levels planned, with all excess "sterilized" in special blocked accounts; and

(b) overall expenditure limits, like the 1971 ceiling on expenditure growth of 10.8 percent over 1970 levels.

Both types of expenditure control suffered from two deficiencies. First, the aggregate deflationary impact was uncertain, and second it was extremely difficult to introduce selectivity in expenditure curbs. For example, indirect control through revenue inflows' "sterilization," implied that the direct impact on expenditures was cushioned to the extent a public body was running a surplus. Where surpluses were large enough, such measures could leave expenditure unaffected.[11] And since the distribution of surpluses (deficits) across the multitude of spending units was somewhat unpredictable, so was the incidence of the expenditure curb through revenue sterilization. Similar problems of uncertain impact existed with the overall expenditure limits. Furthermore, in both cases, where the curbs were successful, the selection between types of expenditure to be reduced (consumption versus investment, for example) depended entirely on the decentralized institutions involved. There was no guarantee that the expenditure cutback (or restrictions, in a growth context) would fall on those expenditure categories which central discretionary policy might prefer.

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11. Since these surpluses were held in the banking system, this has an indirect effect upon expenditure through reduced availability of resources to the banking system. This effect was, however, identical to the effect upon "general liquidity" of monetary restriction by the National Bank, i.e, it suffered from the shortcomings of monetary policy described in the next section

Such measures clearly had none of the advantages of flexibility, selectivity and quantitative exactness that are often claimed for fiscal instruments in western economies. Nevertheless, the oft-voiced support in Yugoslavia for increased use of fiscal instruments in stabilization policy, referred mainly to the type of expenditure measures outlined above. There was a strong and successful resistance to the use of tax policy as an instrument of demand management.

The Limits on Counter-Cyclical Tax Policy

The main reasons why the government was not able to use taxation policy as an instrument in the short term were:[12]

(a) the commitment to reduce the overall tax burden on the economy, and especially reduce the share of the central unit (the federation) in total tax revenues; and

(b) the existing earmarking system, whereby additional revenues raised were distributed to several independent institutions, making it difficult to ensure that this "mopped-up" purchasing power was not redistributed through autonomously determined expenditure by these bodies.

Of these, the first was undoubtedly the dominant obstacle, mainly because any tax increase was viewed as a reversal of the trend to "return resources to the economy." However, the economic case for discretionary authority to increase taxation temporarily remains strong. Aside from control of aggregate demand, discretionary tax manipulations offer scope for discrimination between categories of final demand. In particular, they offer a chance to spread the burden of deflationary demand management to consumption expenditure;[13] investment tends to be the focus of monetary contractions (see below).

Monetary Policy since 1965

The importance of monetary policy followed from the limitations on fiscal policy discussed above. Table 11.7 juxtaposes the ultimate targets of monetary policy with changes in money supply and growth rates in real investment and consumption.[14] 1965 was a year of major structural adjustments associated with the reforms, including devaluation and rationalization of markets and prices. Real investment declined, real GDP stagnated and the retail price index rose 44 percent, mainly due to the restructuring of prices (both administrative increases and straightforward decontrol) and the increase in dinar import prices. As the secular demand pressures, identified earlier, made themselves felt, the economy recovered in real terms in 1966, the balance of payments moved from surplus to deficit, and prices continued to rise beyond the levels attained as a result of structural adjustments.

Beginning in the last quarter of 1966, monetary restrictions were introduced and maintained throughout 1967. As a result, the money supply actually declined during

12. There was an atypical attempt to use increases in the federal turnover tax (in certain categories) as a deflationary instrument in 1970.

13. It should be pointed out, that without an effective incomes' policy, the use of discretionary consumption taxes during this period may have been offset by self-managed enterprises voting higher personal income shares out of "residual enterprise income" to sustain the consumption demand.

14. Money supply is defined as currency in circulation, holdings on giro accounts and demand deposits used as payment media. There are some demand deposits which are not so used and float. Sight savings deposits are excluded.

the year. The characteristics of this most serious attempt at deflationary demand management through monetary policy are worth examining. In terms of the ultimate targets, the pace of inflation was slightly slowed, but the balance of payments deficit was not reduced. More importantly, monetary deflation was clearly inefficient and costly:

(a) the rate of growth of real GDP was sharply reduced, to about 1 percent, illustrating the classic dilemma between stability and growth, when management instruments are too few or too imprecise; and

(b) the burden of adjustment fell on real investment expenditure which declined by 6 percent.[15] In contrast, private consumption was largely unaffected, and grew by 6 percent.

TABLE 11.7: Aggregate Demand Variables

	1965	1966	1967	1968	1969	1970	1971	1972
% change in money supply during year	5	5	−2	24	12	18	14	42
% change in retail prices during year	44	7	5	5	8	10	18	14
Balance on "goods and nonfactor services" account as % of GNP (current prices)	0.2	−1.0	−1.4	−1.8	−2.3	−5.1	−6.0	..
Growth rate of GDP (1966 prices)	1	5	1	4	9	6	8	..
Growth rate of gross domestic investment (1966 prices)	−7	12	−6	−2	10	12	5	..
Growth rate of private consumption (1966 prices)	2	7	6	7	11	6	10	..

SOURCES: *Annual Reports*, National Bank of Yugoslavia, and mission estimates of national income.

Monetary policy was reversed in the latter half of 1968: by 1969 the recovery was in full swing, with a real GDP growth of 9 percent and real investment growth of 10 percent. This "go" phase of the cycle was accompanied by a further deterioration of the balance of payments and a faster rise in prices. But after the sobering experience of 1967, subsequent attempts at monetary deflation in the latter half of 1970, and again in 1971, were relatively mild and, in terms of the targets of inflation and balance of payments, ineffectual.

The slowing down in the growth of real investment in 1971 was a result of both monetary deflation, and the drop in savings associated with the ongoing institutional changes. The percentage share of GNS in GNP fell from 28.4 percent in 1970 to 27.7 percent in 1971.[16] It was this implied shift towards private and public consumption which buoyed aggregate effective demand and contributed to the retail price increases of 18 percent. The two devaluations in 1971 added to the inflationary pressure, both by switching demand to domestic products, and through cost effects.

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15. This includes the effect of a very sharp decline in inventories This was partly the result of monetary restrictions which had their speediest impact on inventories, owing to the bank balance-sheet distinctions mentioned earlier. But some of the fall in inventories may be ascribed to a secular downward adjustment in the need for inventories, as production adapted to a market orientation.

16. The 1971 national income figures are subject to revision. There is reason to believe that the share of investment and savings in GNP may be revised downwards, suggesting that the impact of deflation and institutional changes on savings and investment was stronger than the above figures indicate.

The behavior of enterprises in 1971, in the face of a decline in investment funds, lends some insight into the process (as distinct from cause) of inflation, and helps to explain the continued increase in prices (5 percent) during the severe deflation of 1967. Enterprises faced with a credit "squeeze" (but no slowdown in investment demand), attempted to generate resources by (a) not paying bills and thus exacerbating the "illiquidity problem," which in turn put pressure on policymakers to restore expansionary monetary policy; and (b) raising prices in an attempt to generate own resources for investment. The first move does not generate resources for the enterprise sector as a whole, though it very possibly results in interenterprise misallocation. The second move would be successful in raising real savings (and thus reducing aggregate effective demand) only if enterprises are able to impose a marginal savings' rate higher than average for the increase in nominal value added under their control.[17] The pressures for personal income distribution from the workers' councils prevented this, and thus the strategy of raising prices failed to increase real savings and reduce pressure. If contractionary monetary policy were maintained long enough, enterprises might be discouraged from raising prices in the face of slackening effective demand for their output. But the increase in "illiquidity" to crisis proportions, and the decline in real output and investment are typically too costly to justify prolonged deflation. Expansionary monetary policy is restored before the slackening in effective demand has a chance to discourage price increases.[18]

Prospects for the Stabilization Policy

Developments during 1971 and 1972 indicate that, first the resort to exchange rate adjustments to secure external balance was successful and, second, domestic stabilization measures failed to contain inflation. The importance of reducing inflation for better resource mobilization and allocation has already been emphasized. The prospects for achieving this slowdown in the new institutional environment are worth exploring.

The Monetary Policy

In spite of the partial decentralization of National Bank prerogatives over selection of credits for rediscount, monetary policy remains the main centrally coordinated demand-management tool. However, it suffers from a number of limitations. First, existing policy making procedures for the issue of high-powered money by the central banking system exhibit certain short-run inflexibilities, arising largely from the need to achieve interrepublic agreement. For example, the unanticipated balance of payments surplus in 1972 called for a reduction in the planned National Bank issue of high-powered money, if money supply targets were not to be exceeded. Inflexibilities in achieving this reduction was one reason for an increase in money supply of about

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17. The increased nominal taxes and contributions to the state resulting from expansion of the nominal tax base did not operate as an automatic stabilizer for two reasons. First, balanced budget provisions and income payments' goals of social security institutions in Yugoslavia often lead to compensatory reductions in tax rates. Secondly, throughout this period, the secular shedding of, or rate reductions in, revenue instruments left state units starved for funds in relation to their expenditure responsibilities. Consequently, revenue increases from the buoyancy of the tax base were quickly spent, unless there were blocking or "sterilization" measures in operation.

18. See D. Dimitrijević, "Financial Elements in Inflation" (Belgrade, 1972), mimeographed, for a similar interpretation of the inflationary process.

42 percent compared to the target of 21 percent. These rigidities are proposed to be reduced in future years by treating the National Bank high-powered money issues as a forecast (instead of a commitment) in the monetary policy document, which can be adjusted during the course of the year. Second, when faced with balance of payments surpluses, as in 1972, and legal limits on reserve requirements, the lack of a securities' market hampers sterilization of unwanted increases in money supply via open market operations.[19] Both these limitations relate to the immediate tools of monetary policy, and both have cropped up in 1972 owing to the atypical occurrence of a balance of payments surplus. However, the slippage in these tools for controlling the money supply can be overcome through the resort to more direct instruments like credit ceilings. It was the use of this instrument which finally slowed the growth of money supply in the latter half of 1972. More generally, existing policy tools concentrate on the supply of money and credit. Now that legal ceilings on interest rates have been removed, the possibility of demand deflation through higher real interest rates needs to be explored.

A more fundamental limitation of contractionary monetary policy is the high cost in terms of real investment and GDP growth pointed out earlier. To the extent monetary policy is effective, its impact is concentrated on investment expenditure. Furthermore, a "credit squeeze" exacerbates the imbalance between demand and supply in the capital market, thus fueling the competition for scarce resources through involuntary interenterprise trade credit, a process whose potential for misallocation has already been explored at length. Of course, to the extent the anti-"illiquidity" program is successful, this particular misallocative potential of monetary management will be diminished.

Monetary policy will clearly continue to be an important vehicle of domestic demand management. And the partial transfer of some rediscount authority to Republic National Banks has certainly increased the flexibility of selective credit policy. But there is a strong case for "spreading" the burden of demand management to other components of final demand, namely consumption, by using the fiscal framework.

The Fiscal Policy

The difficulties of coordinated demand management through fiscal policy, arising from the fragmentation of public expenditure roles, have been pointed out. The further devolution of federal fiscal authority to the republics has accentuated the coordination problem. Though the Interrepublic Committee on Financial Matters offers a forum for public expenditure coordination, the prospects for flexible expenditure policies, tailored for demand management, are not bright.

The prospects for using tax policy to absorb purchasing power in periods of excess demand are also uncertain. Though the current Social Development Plan includes reference to the use of tax policy to remove "discrepancies between supply and demand," discretionary revenue instruments with the federation have been reduced in number. True, the Federal Government can vary the rates on the federal turnover tax, but these measures will be ineffective unless accompanied by expenditure control at the level of republics, which now receive the revenue. Otherwise the increased revenue could simply be absorbed by increased public expenditure.

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19. The current moves towards closer linking of monetary policy and foreign borrowing policies will reduce uncertainties in this area.

The prospects for designing a central, discretionary fiscal tool within the given institutional framework are not hopeless. The federal turnover tax could still be adapted for this purpose. For example, the federation could impose a temporary surcharge on the existing rates, the revenues from which would be "sterilized" in blocked republican accounts as a part of deflationary policy. For expansionary policy, the accounts could be deblocked at federal initiative. To make the proposal consistent with the commitment to republican autonomy, the purposes for which the money is used could be left for the republics to determine. By concentrating the surcharge on private consumption goods, this device would spread the burden of deflationary demand management beyond investment expenditure, the usual target of monetary policy. Like the base rates of the federal turnover tax, the surcharge could vary across commodities, thus allowing some scope to direct its incidence onto the consumption of people in higher income brackets. There are no legal limitations to implementing such a proposal. The chances of success in reducing consumption demand through such surcharges are much higher now, since incomes' policy (if effective) reduces the scope for offsetting increases in the share of personal income voted in enterprises. In this way, the role of fiscal policy in short-term demand management may be bolstered, despite the underlying commitment to "return resources to the economy." Unfortunately, the current discussion of fiscal reform does not appear to place much emphasis on renovating the stabilization role of fiscal policy.

The Incomes' Policy

The incomes' agreements could, in principle, be used as instruments of short-term stabilization policy. But given the differences in policies across the republics, the prospects for coordination are difficult enough without adding short-term demand management to the existing incomes' policy objectives of (a) improving enterprises savings' rates in the medium-term and (b) reducing wage differentials across enterprises and sectors. In any case, monetary and fiscal policy (with the modifications suggested above) are better suited for short-term management. However, incomes' policy, even when directed towards medium-term enterprise savings'/personal income behavior, has some potential benefits for antiinflationary policy. First, by bringing some order to the field of personal income formation, the incomes' agreements set a limit to the possibilities for autonomous wage increases at the enterprise level. Second, through such limits, the climate for monetary and fiscal management is improved. For example, in the face of consumption taxes, aimed at reducing consumption demand, it is now harder to offset their effect through higher allocations to personal income by enterprises. Third, to the extent that the incomes' agreements are successful in improving the rate of enterprise and aggregate savings, they will reduce the secular bias towards excess demand which is believed to have plagued the Yugoslav economy and its management since the reform of the mid-1960s.

However, incomes' policy should not be regarded as a panacea. In particular, one should recognize the continuing scope for inflationary behavior by enterprises.[20] An

20. True, enterprises with higher income per standardized worker are required to allocate a higher proportion of their income to savings. But these rules do not operate as an automatic stabilizer in the face of inflation. The schedules linking enterprise income to savings' rate requirements are not absolute in money terms, but rather are normalized on the *average* behavior of all enterprises in a republic. Enterprises with income higher than *average* are required to save more according to the prescribed schedule (see Appendix on Incomes' Policy). This means that a general increase in all nominal enterprise incomes does not lead to a higher savings' rate for the enterprise sector, as a whole.

enterprise may raise prices in an attempt to increase the income available for allocation between savings and personal incomes. Price policy is not, at present, coordinated with the incomes' agreements.[21] Of course, in a situation of low aggregate demand pressure, such price increases are likely to be greeted with lower sales and incomes and inflationary behavior will be discouraged. The point is that there is nothing in the incomes' agreements which prevents excess demand pressure from encouraging price increases by enterprises. The need to manage aggregate demand remains. Finally, one should note that the incomes' agreements apply only to the social sector. Private sector income formation remains uncontrolled.

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21 The recent establishment of the Secretariat for Market and Prices, one of the objectives of which is to develop, formulate and implement a policy of price regulation and control, may enable better coordination of enterprise price policy with incomes' policy agreements than before

CHAPTER 12

THE BALANCE OF PAYMENTS AND FOREIGN TRADE

Institutional Change, Foreign Exchange and Trade Policy, 1947-72

During the postwar period, the foreign exchange and trade system and policy were an essential and integrated part of overall development policy. The system had two characteristics throughout the period: first it remained from its introduction in practice, though since 1961 not formally, a multiple exchange rate system with all its consequences for price distortions and resource allocation; second, there was continuing effort, after 1952, to reduce the multiplicity in the exchange and trade system and to liberalize and simplify it with the ultimate goal of integrating the Yugoslav economy with the world economy.

The Evolution of the Foreign Exchange and Trade System, 1952-60

The economic boycott of the Comecon on the one hand, and the need for implementing the Five-Year Plan (1947-51) forced Yugoslavia to establish trade and finance relations with the West.[1] This implied the difficult task of creating a foreign exchange system allowing for both an opening of the economy to world markets and at the same time maintaining a controlled socialist economy, at least for a transition period. As a first step, the exchange rate was adjusted. On January 1, 1952, a new official rate of US\$1=300 dinars replaced the old rate of US\$1=50 dinars.[2] A foreign exchange market (DOM) was created where exporters could sell part or all of their retention quota,[3] which was in the beginning fixed at 45 percent but later lowered to 20 percent of their total export earnings. A system of differential exchange coefficients combined with export premia varying from commodity to commodity by currency of transaction and by republic was established. Thus the domestic price structure continued to be out of line with external prices with the degree of distortion varying from commodity to commodity.

The exchange rate system during the period was meant to secure the minimum volume and necessary structure of exports and imports consistent with production and investment targets. Thus, the export exchange rate was kept low for agriculture products and high for the priority sectors of heavy industry, such as nonferrous and ferrous metallurgy, providing strong disincentives for exports of the former and stimulation for the latter. On the import side, a low exchange rate was applied to machinery, equipment and raw materials, while the import of consumer goods and luxury items was discouraged by a high exchange rate.

As a result, Yugoslavia's exports increased rapidly during the 1950s, industrial exports in constant prices at 15 percent per annum and agricultural exports at about 10 percent. Despite the significant increase in foreign trade, the weaknesses of the

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1. Comecon is more formally known as the CMEA (Council for Mutual Economic Assistance), a grouping of countries including the Soviet Union, Poland, Hungary, Czechoslovakia, Romania, Bulgaria and the Democratic Republic of Germany.

2 These exchange rates are in terms of old dinars. 100 old dinars = 1 new or current dinar.

3. The proportion of an enterprise's total foreign exchange earnings which it was permitted to retain.

system became increasingly apparent. The distorted price structure resulting from the multiple exchange rate system made any profitability calculation impossible. For enterprises it was easier to press for an increase in the export coefficients rather than to improve their efficiency and competitiveness. The relatively low exchange rate for imports increased the pressure on import demand and led to increasing import restrictions. Consequently another reform of the exchange and trade regime was attempted at the beginning of the sixties.

Foreign Exchange, Trade System and Policy, 1961–65

At the beginning of 1961, the foreign exchange and trade system was considerably simplified and liberalized, reducing in effect the extreme disparities between domestic and international prices. The multiple exchange rate system was replaced by a single exchange rate of US$1=750 dinars, combined with a system of custom tariffs, import quotas, retention quotas and foreign exchange allocations. The new exchange rate meant more favorable dinar prices for agricultural exports and less favorable ones for industrial exports. To avoid a large reduction of industrial exports, export premia and tab rebates were granted. The premia applied to about half of total exports but, nevertheless, many enterprises, particularly those previously exporting at the maximum effective exchange rate, had to absorb a substantial reduction in the dinar price of exports.

On the import side, tariffs were tailored to conform to the former foreign exchange rates in order to avoid widespread and drastic price adjustments. The highest tariffs, amounting to 60 percent of the ad valorem value, applied to final consumer goods. Investment goods were subject to duties averaging 34 percent and semifinished goods and raw materials to duties averaging 10 percent. Yugoslav producers also had the protection of a system of import licensing. Slightly more than 25 percent of imports could be freely imported and another 20 percent required only a general license. Imports of equipment, which represented about 15 percent to 20 percent of total imports, were controlled by the YIB; the remaining imports were regulated by quotas.

The attempt at liberalization and simplification did not succeed. The rising trade deficit during 1962–64 led to increasing import restrictions and expanding export premia and tax rebates, reestablishing in effect the old multiple exchange rate system.

Development since 1965

During the economic reform, the foreign exchange and trade system was revised with the stated objectives to further integrate the Yugoslav economy into the world market, to liberalize foreign trade and finally to achieve the convertibility of the dinar. The dinar was devalued, and the new exchange rate fixed at US$1=12.50 (new) dinars. Export premia and tax subsidies were abolished; retention quotas remained, with basic rates ranging from 7 to 20 percent and increasing with rising export shares and export growth rates (see Table 12.1). About one-quarter of imports was liberalized; the remainder was subject to varying degrees of restriction. Nominal tariff protection was lowered from an average of 23.3 percent to 12.3 percent. The differentiation of rates, however, remained, with rates increasing from nothing for electrical energy to 21 percent and 24 percent for electrical equipment and metal products respectively. The average nominal tariff on imports of industrial goods was 13.6 percent.

TABLE 12.1: Retention Quota Rates

	Basic Goods	% of Foreign Exchange Retained		
		Exporters of Selected Capital Goods and Pharmaceuticals	Exporters of Road Motor Vehicles and Tractors	Exchange Receipts from Catering Services
Rates based on ratio of exports sales to total sales				
Export shares				
0- 20%	7.0	10.0	12.0	20.0
21- 30%	8.4	12.0	14.4	24.0
31- 40%	9.8	14.0	16.8	28.0
41- 50%	11.2	16.0	19.2	32.0
51- 60%	12.6	18.0	21.6	36.0
61-100%	14.0	20.0	24.0	40.0
Incentive rates based on the rate of increase of exports over the past year[a]				
Annual growth of exports				
10-25%	8.75	12.5	15.0	25.0
Over 25%	10.50	15.0	18.0	30.0

Special fixed retention rates applying to exports of specific goods and services	
Organizing of international fairs	20.00%
Newly-mined gold sold to the National Bank	up to 20.00%
Hotels	20.00%
Representation of foreign firms	50.00%
Sales of stamps for philatelic purposes	50.00%
Travel agency services and organizing of hunting trips	60.00%
Sales of printed matter, films, gramophone records	100.00%
Construction, engineering, and other projects abroad	100.00%
Foreign exchange receipts of noneconomic institutions	100.00%

[a]Applicable only to firms whose export sales are less than 20 percent of their total sales.
SOURCE· Data supplied by the Yugoslav authorities.

Since 1967, when the new foreign exchange and trade system became effective, the trend towards simplification and liberalization has continued, though it was at times interrupted by short-term measures to restrict imports when domestic inflation resulted in an increasingly overvalued exchange rate and rising balance of payments pressure. In 1971, entirely liberalized imports accounted for 29 percent and the practically liberalized import categories (LB and GDK) shared about three-quarters of total imports (see Tables 12.2 and 12.3). In mid-1972 tariffs on 1,100 import items— mainly investment goods, transport equipment and raw materials— were reduced by 1 percent to 12 percent. Furthermore, in January 1973 about 1,500 commodity items, mainly raw materials and investment goods, so far imported under the global exchange or commodity quotas, were transferred to the completely liberalized import category. As a result, in 1973, entirely liberalized imports are expected to account for around 42 percent of total imports.

Developments since 1965 indicate, however, that an answer to the key question, how to combine rapid economic growth with balance of payments equilibrium, has not yet been found. With domestic inflation significantly exceeding world inflation, situations of increasing disequilibrium have developed. A policy of adjusting exchange rates has generally been adopted, rather than greater recourse to trade restrictions and administrative regulations. The dinar was devalued to US$1=15 dinars in

January 1971, and again to US$1=17 dinars in December 1971, following the international realignment of currencies. On the basis of a simple comparison of inflation rates in Yugoslavia and its main trading partners, and assuming that after the 1965 devaluation the exchange rate was close to an equilibrium rate, it appears that the exchange rate at the beginning of 1972 was again about equilibrium.

TABLE 12.2: Average Customs Tariffs by Production Sector

Industry	1967	1969	1971
Electric power	—	—	—
Coal and coke	0 5	1.0	1.3
Petroleum	5.0	6.9	6.8
Iron and steel	6 7	9.8	8.3
Nonferrous metals	2.3	3 0	2.7
Nonmetallic minerals	9.7	10.3	10 3
Metal products	24.0	25.1	21.3
Shipbuilding	1.8	1 1	1.7
Electrical equipment	20.4	21 7	19.4
Chemicals	7.9	10.1	9.8
Construction materials	3.1	5.2	4.2
Wood products	6.1	7.9	6.5
Pulp and paper	7.8	11.4	11.7
Textiles and clothing	9.1	11.2	11.6
Leather and footwear	10.8	13.1	13.4
Rubber products	9.1	7.6	10.5
Food processing	4.6	4.8	3.8
Printing	7.3	12.3	5.5
Tobacco manufacture	16.6	11.8	10.8
Film production	2.3	6.2	3 3
Total industry	13.6	15.0	13.1
Agriculture	2.4	1.9	1.5
Forestry	0.2	0.7	0.5
Total agriculture and forestry			
Overall total	12.3	13.9	12 1

SOURCE. *Statistički Bilten: o Radu Caunske Stujbe za 1971 Godisie,* special issue, 1972

TABLE 12.3: Distribution of Imports by Categories of Import Control System

(% of Respective Totals)

		Liberalized Imports (LB)	Conditionally Free Imports (LBO)	Global Exchange Quota (GDK)	Commodity Quota (DK and RK)	Licenses	Total
Total imports	(1967)	16.9	24.0	54 4	4.6	0.1	100.0
	(1971)	28.7	—	45 7	20.3	5.3	100.0
Reproduction materials	(1967)	24.7	34.4	39 9	0.9	0.1	100.0
	(1971)	40.1	—	35.7	22.9	1.3	100.0
Equipment	(1967)	0.0	0.8	99.1	0.0	0 1	100.0
	(1971)	1.4	—	79.5	7 6	11.5	100.0
Consumer goods	(1967)	9.7	15.3	51.6	23.3	0.1	100.0
	(1971)	20.4	—	42.6	29.5	7.5	100.0

SOURCE Federal Chamber of Economy, Belgrade.

New foreign exchange and trade regulations were introduced in June 1972. They provide for higher retention quotas, amounting to 20 percent for most exports of goods and services, 45 percent for tourism and 100 percent for exports of sectors operating abroad, and reductions in customs duties. Early in 1973, a limited foreign exchange market was also introduced. The market allows only authorized banks to participate on their own and on account of enterprises. The National Bank is to intervene in the market when necessary to maintain a rate within 2¼ percent of the parity. The establishment of the new foreign exchange market implies in practice little change for the functioning of the foreign exchange and trade system. It does, however, make the further liberalization of the exchange system possible.

Commodity Trade

The Regional Trade Structure

Yugoslavia's regional trade structure after World War II has to be seen in the context of its political situation as a nonaligned country, regionally located between Eastern and Western Europe, with a unique economic system which combines elements both of the eastern centrally planned economies and the western market economies. A member neither of the Comecon on the one side nor the EEC or EFTA on the other side, it is often looked at as an intermediary between the two trading blocs. Nevertheless, it had its own difficulties both with the Comecon as well as the West. The former results mainly from differences in the economic system; the latter from trade barriers and high indebtedness.

Trade with Comecon Countries

It was not until 1954 that trade contacts, broken off in 1950, were reestablished with the East, and it took another ten years to become an observer in Comecon, a status Yugoslavia has maintained since. Following the normalization of political and economic relations with the Soviet Union, trade with Comecon countries picked up again, and its share reached a peak of 28 percent of total trade in 1958 (see Chart XIV). Since then Comecon's share has been fluctuating. The main trading partners among Comecon countries throughout the whole postwar period were the USSR and Czechoslovakia, followed by East Germany and Poland.

The problems Yugoslavia faces with its eastern trading partners is indicated by the commodity structure of trade. Exports consisted largely of manufactured commodities both in the investment and consumer goods' categories. Imports were dominated by fuels and other raw materials. While eastern markets provided vast opportunities, little competition and few marketing difficulties for Yugoslav export products, they were severely limited in supplying goods which Yugoslavia needed. In particular, quality, design and technical sophistication were insufficient for Yugoslav enterprises competing domestically and externally with western suppliers. Moreover prices of both exports and imports in eastern trade are generally higher than in western trade. As the exchange rate did not differentiate between trade with East and West, exporters were oriented towards eastern markets and importers towards western markets. As a result, the trade balance with the nonconvertible currency area tended persistently toward a surplus, as against a deficit with the West. To avoid excessive accumulation of bilateral credit balances, exports were made, at times, conditional on an undertaking to import from such countries. Also, since Yugoslavia has

a surplus in the services balance, vis-à-vis the East, the trade balance had to be kept in deficit to balance the overall account. The cumulative merchandise deficit of Yugoslavia during 1961–71 was about US$400 million. The large surpluses in the services balance with the East, stemming from tourism and transportation, mainly paid for the trade deficit. Thus, the balance of goods and services was roughly achieved, taking the period 1961–71 as a whole (see Table 12.4).

TABLE 12.4: Trade Balance and Balance of Goods and Services by Region

	COMECON		OECD	
	Merchandise	Goods and Services	Merchandise	Goods and Services
1961	+3	+3	−378	−395
1962	−21	−22	−214	−213
1963	−34	−32	−211	−198
1964	−73	−69	−283	−281
1965	+89	+99	−258	−267
1966	−50	−37	−276	−279
1967	−3	+22	−417	−286
1968	−72	−6	−493	−229
1969	−82	−12	−561	−162
1970	−46	+43	−1,007	−390
1971	−108	−19[a]	−1,106	−118[a]
1961–71	−397	+8	−5,204	−2,816

(In Millions of US$)

[a]Estimate.

SOURCES IMF, *Balance of Payments Yearbook*, and National Bank of Yugoslavia.

Trade with the West

Trade with Western Europe and the United States was first stimulated by the hostile action of the Cominform at the end of the 1940s. The United States started a massive aid program, providing economic and military assistance, which helped Yugoslavia to overcome the economic blockade of the East. In the beginning of the 1950s, almost 90 percent of Yugoslavia's merchandise trade was conducted with the West. Throughout the following two decades the West has continued to be the primary source of Yugoslav imports and market for exports (see Chart XIV). Since 1960, a greater reliance on the OECD market as a source for imports rather than as a market for exports is apparent; while exports to the OECD countries accounted for approximately 50 percent of Yugoslavia's total exports, imports from that area were over 60 percent of total imports. As a result, the trade balance with the OECD area was persistently negative, reaching a peak of US$1.1 billion in 1971. The deficit on goods and services, however, remained fairly stable as increasing trade deficits were financed by fast rising receipts from tourism and workers' remittances.

Dividing Yugoslavia's trade with western markets into three major trading groups (EEC, EFTA and the US) some significant geographical changes become apparent. Yugoslavia's imports from the US declined from 41 percent of total imports in 1955, to a low of 6.6 percent in 1969, with the decrease in US economic assistance to Yugoslavia. The decline is largely due to decreasing imports of wheat. The substantial decrease in the share of the US was offset by increased imports from both the EEC and EFTA. In 1971, well over 60 percent of Yugoslavia's imports from western

markets (or almost 40 percent of total imports) were from countries of the EEC. Export markets present less pronounced trends. The geographic distribution of exports to the West is relatively stable, though there are slight yearly fluctuations. In the 1960s, exports to the US accounted for around 14 percent, to EEC markets for about 60 percent, and to EFTA for 26 percent of total exports to the West.

CHART XIV

GEOGRAPHICAL DISTRIBUTION OF TRADE (%)

DEVELOPING COUNTRIES

OECD & COMECON

COMECON

OECD

World Bank — 7509 (R)
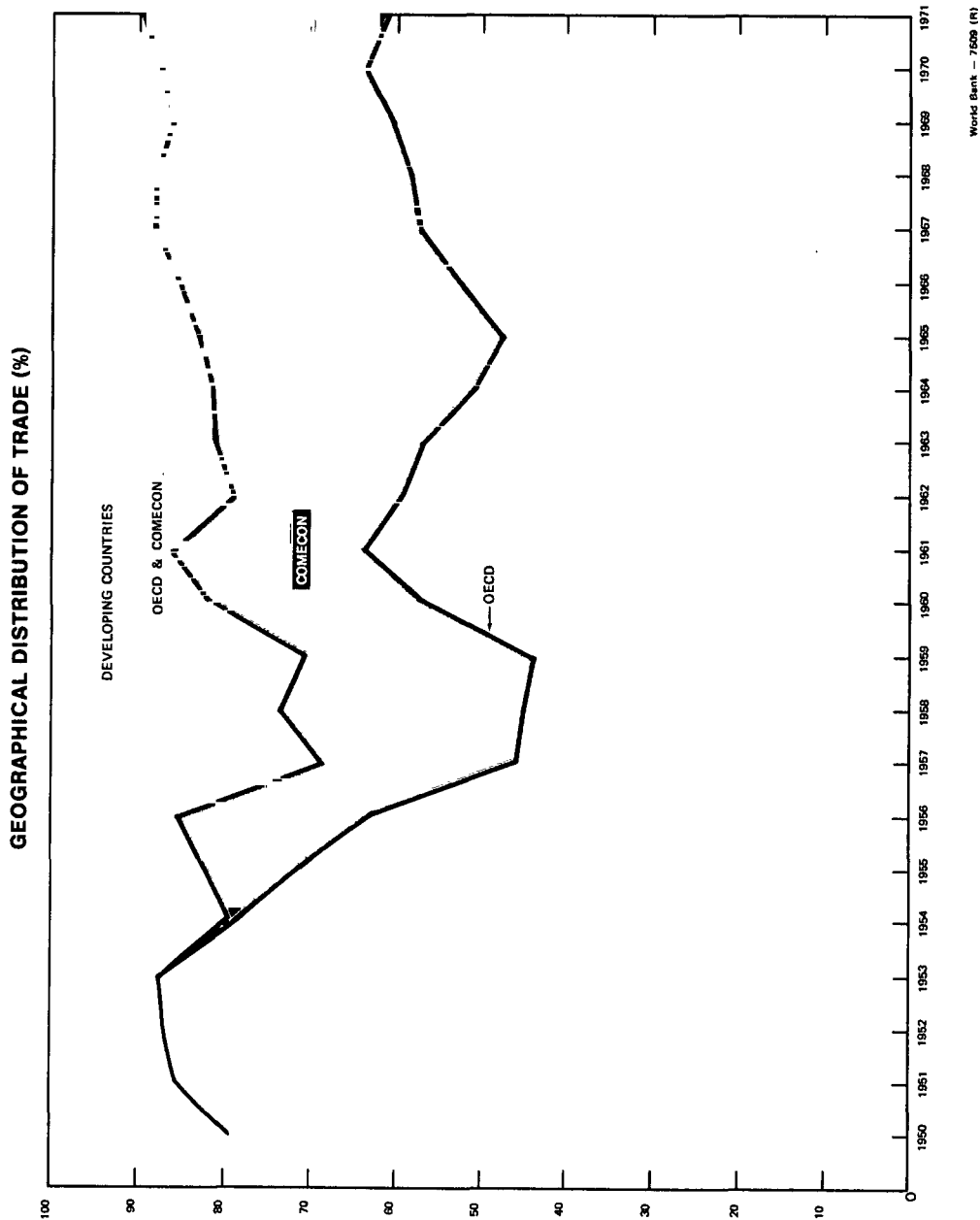
The country distribution of trade reflects the group pattern. On the export side, the relative position of each country is quite stable. In 1955, Italy (23 percent), Germany (19 percent), the US (16 percent) and the UK (13 percent) accounted for the bulk of Yugoslavia's exports to the West. In 1971, the order has changed little. On the import side, there were more significant changes caused mainly by the substantial decline of the purchase of US goods, and the increased importance of Germany.

Trade with Developing Countries

The less developed countries account for a small share of Yugoslavia's foreign trade. It amounted to about 13 percent of total trade between 1965 and 1971, declining from an average of about 22 percent during 1955 to 1961. The largest share of this trade was with the less developed countries of Asia and the Middle East. The less developed countries supply largely raw materials, and provide an outlet for Yugoslavia's industrial output. While industrialized countries of the West consider Yugoslavia's industrial products, especially machinery, transport equipment and more sophisticated engineering goods, with some reservations, these products have more favorable market conditions in certain developing countries.

Future Prospects

Reviewing the prospects of the future development of Yugoslavia's regional trade structure, it appears that factors significant for trade flows in the past will continue to be of major importance. Yugoslavia's trade with Comecon countries is conducted on the basis of bilateral trade agreements. Though some arrangements have been recently changed to provide for the possibility of balancing the accounts in convertible currency, the agreements nevertheless aim at balancing the trade and services account. The problem Yugoslavia faces in finding suitable import products in eastern markets severely limits the expansion of this trade. However, the credit deal of US$540 million with the USSR, if fully utilized, would permit a significant increase in the level of trade. The commodity structure, however, is expected to remain more or less unchanged.

The Yugoslav interest in maintaining a fair amount of trade with the East has several aspects.[4] The East, and the USSR in particular, exports capital and raw materials which fit the urgent needs of Yugoslavia. The repayment problem is less significant, since eastern credits are generally repaid in kind, i.e., with part of the production of projects they were financing or with other exports. There may also be political benefits in having a more balanced distribution of foreign indebtedness between East and West. On the export side, eastern markets provide vast opportunities for Yugoslav exports. Vis-à-vis these countries, Yugoslavia, due to its openness to the West, is far ahead concerning quality, design and selection. On the other hand, it faces serious difficulties in exporting to the West, in particular to the EEC, for well-known reasons. The EEC market is highly competitive, protected by tariff walls and characterized by long-established trade relations that are difficult to penetrate. Moreover, Yugoslavia has difficulty competing in terms of quality, design and selection in many fields of consumer durables and machinery. In addition, over 90 per-

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4. The Social Development Plan proposes to increase the share of eastern trade to about a third of total external trade.

cent of Yugoslavia's foreign debt is due to western countries. There may be limits to a further increase in foreign borrowing in the amounts required for a fast development of trade with western countries.

Though increasing trade with eastern countries may have significant advantages for Yugoslavia, there are limits to its expansion. Yugoslavia owes its competitive lead over eastern countries to the persistent exposure of Yugoslav enterprises to western competition and close connection with western markets. A reorientation of trade relations to the East with less stimulating competition pressure, may lead fairly soon to a loss of the lead in competitiveness. Moreover, the import content from convertible currency areas is relatively high in many of these exportable consumption goods. Unless eastern trade is increasingly transacted in convertible currency, it would be hardly to the benefit of Yugoslavia to import for convertible currency, and export these goods for nonconvertible currency. There is also a risk of stability of trade involved, both for economic and political reasons. Eastern centralized planned economies are essentially autarkic. This implies that whenever domestic producers will be able to supply previously imported goods, imports might be severed very abruptly. Further unexpected change in the political relationship with the East has shocked the Yugoslav economy twice. Based on this experience, Yugoslavia might not want to rely too exclusively on the benevolence of one single trading partner.

Yugoslavia's most important partner will continue to be the West, and foremost the enlarged EEC. The importance of the enlarged EEC for Yugoslavia may be illustrated by a few examples: about three-quarters of Yugoslavia's trade with western markets (40 percent of total trade) is currently with countries of the enlarged EEC; Yugoslavia relies for its imports of technology and knowhow largely on that area; of the sixty-eight joint venture contracts with foreign firms signed by the end of 1972, about two-thirds were with enterprises from the EEC; about two-thirds of the long-term manufacturing cooperation contracts have been concluded with firms from this area, furthermore, 65 percent of earnings from tourism and close to 90 percent of workers' remittances originate in EEC countries.

Despite close economic ties with EEC countries, Yugoslavia faces serious difficulties, in particular in the field of exports. The EEC market is highly competitive and, even more important, guarded by protective tariff walls and quantity restrictions. Though Yugoslavia has been included in the general preference scheme of the EEC for developing countries, and has been one of its major beneficiaries, it is still at a significant disadvantage as compared with EEC members or associated countries. As a nonaligned country, Yugoslavia's future for a closer cooperation with the EEC is limited. The trade agreement with the EEC, signed in March 1970, under which Yugoslavia enjoys preferential treatment for a number of agricultural products, particularly high quality beef, expired at the end of April 1973. The Yugoslav authorities expect that in the negotiations for renewal of the agreement, Yugoslavia will be conceded some additional preferences for export of cotton, lower tariffs and reduced quantity restrictions, mainly on farm products, and the abolition of some protective clauses and modalities. Yugoslavia also wishes to expand the agreement to allow for an intensification of cooperation agreements between manufacturing enterprises, and to promote joint operations in third markets. The ongoing negotiations seem to indicate that major changes in the relationship between Yugoslavia and the EEC will not occur in the near future.

Trade with less developed nations presents some problems of its own. First, this trade is often linked with economic aid and would imply that Yugoslavia, itself un-

derdeveloped, would be passing on a part of the aid it receives. Second, its main exports, largely manufactured consumer goods and machinery and transport equipment, have to compete with suppliers from industrialized countries which are still ahead in quality, design, technical knowhow, and goodwill. Moreover, as competition in international trade of capital goods is increasingly focussed on the terms of financing the supplier is able to offer, Yugoslavia faces serious difficulties to match the terms of western competitors. On the other side, Yugoslavia's import possibilities from less developed countries are limited to certain raw materials and agricultural goods.

The Social Development Plan aims at a regional trade structure of 50 percent to the West, 35 percent to Comecon countries, and 15 percent to less developed countries. The share to the East is about in line with Yugoslavia's long-term trade structure. It would quite realistically imply a slight increase from the presently achieved level. Trade with the West, however, is likely to take a higher share at the expense of trade with less developed countries, given Yugoslavia's intent to cooperate more closely with the West, and the difficulties it faces in its trade relations with the developing world.

Structural Changes in Yugoslav Foreign Trade: Commodity Structure of Trade

Before World War II, agricultural and forestry products accounted for about 62 percent of total exports, nonferrous ores and metals for another 20 percent. On the import side, consumer goods and machinery and equipment dominated with a share of 65 percent; raw materials and intermediates accounted for 20 percent. The picture changed drastically in the postwar period. The rapid structural change was the result of the development strategy followed then, which emphasized rapid industrialization as the chief method of development. The structural change of exports continued throughout the 1950s and 1960s (see Tables 12.5 and 12.6).

TABLE 12.5: Structure of Exports and Imports

(%)

	Exports		Imports	
	Agriculture[a]	Industry	Agriculture[a]	Industry
1939	62	38	5	95
Average				
1947–51	25	75	4	96
1952–55	28	72	22	78
1956–60	23	77	16	84
1961–65	19	81	15	85
1966–70	16	84	10	90

[a]Including forestry.

SOURCES Vladimir Pertot, *Ekonomika Medžunarodne Razmjene Jugoslavije* (Zagreb. Informator, 1972); and *Statistički Godišnjak, Jugoslavije.*

Trade in Agricultural Goods

Among agricultural exports, livestock more than doubled its share from 27 percent in 1952 to 57 percent in 1970, and is now the most important part of agricultural exports.

TABLE 12.6: Structure of Exports and Imports by SITC Groups

(%)

SITC Section	Food and Live Animals, Beverages and Tobacco, Animal and Vegetable Oil and Fats (0+1)(+4)	Crude Materials, except Fuels (2)	Mineral Fuels (3)	Chemicals (5)	Manufactured Goods Classified by Material (6)	Machinery and Transport Equipment (7)	Miscellaneous Manufactured Articles (8)	Other (9)	Total (0-9)
				Exports					
1939	46.5	34.5	0.2	3.0	15.5	0.1	0.2		100.0
1952 ª	34.6	31.8	1.4	4.8	25.8	0.7	1.0	0.1	100.0
1955ᵇ	33.0	27.6	1.2	4.8	26.6	3.3	2.8	0.1	100.0
1960 ᶜ	32.9	14.5	3.1	3.6	22.8	16.3	6.8	0.1	100.0
1965 ᵈ	26.4	10.7	1.4	5.1	22.9	21.7	11.7	0.1	100.0
1970 ᵉ	19.3	9.6	0.7	6.0	29.5	21.6	13.2	0.1	100.0
				Imports					
1939	5.1	15.1	6.6	7.9	40.7	20.0	3.6	0.04	100.0
1952 ª	26.3	13.2	7.8	4.5	15.0	31.7	1.4	0.0	100.0
1955 ᵇ	29.8	16.2	9.0	6.8	12.5	23.8	1.8	0.1	100.0
1960 ᶜ	15.4	13.5	5.5	8.8	19.1	34.4	3.1	0.2	100.0
1965 ᵈ	15.1	15.3	5.3	9.7	22.0	29.0	3.6	0.02	100.0
1970 ᵉ	7.6	11.7	4.9	9.8	27.2	33.5	5.4	0.0	100.0

ª Average 1952–53.
ᵇ Average 1954–56.
ᶜ Average 1959–61.
ᵈ Average 1964–66.
ᵉ Average 1969–70.

SOURCES: *Jugoslavija,1945–64*, p. 206; and *Statistics of Foreign Trade of the SFR Yugoslavia*.

TABLE 12.7: Structure of Agricultural Exports

(%)

	Cereals	Fruit and Vegetables	Livestock	Fishery	Homemade Products	Forestry, Hunting
1951–53	45	4	27	1	8	15
1959–61	30	3	46	1	10	10
1964–66	16	3	63	1	10	7
1969–70	21	2	57	1	11	8

SOURCES Pertot, *Ekonomika Međunarodne* Vol. II, Tables 38–47, and *Statistički Godišnjak, Jugoslavije,* 1971 and 1972, Tables 113–7.

More than 50 percent of the exported livestock products is beef, most of it in fresh, chilled or frozen form (54 percent of total meat exports). Processed meat ranks second among livestock exports, and its share declined from 38 percent to 29 percent during the 1960s; this is mainly due to increased export possibilities of fresh meat, in particular beef, to Italy.

Yugoslavia's traditional agricultural exports, i.e., beef, maize and tobacco, have more or less maintained their level over the last five years, after a rapid increase of livestock exports between 1952 and 1965 (about 15 percent per annum). Exports of maize kept more or less their share in total agricultural exports, despite rapid increases of livestock production, in particular pork. Changes in yields have caused heavy fluctuations of exports, and even led to imports of maize in 1970, 1971 and most likely in 1972. The rapid development of livestock exports in the 1950s occurred, despite heavy discrimination through the foreign exchange system.

Most important customers of agricultural exports were Common Market countries, foremost Italy and Germany; their share in agricultural exports increased from 40 percent to 56 percent between 1960 and 1970, mostly at the expense of EFTA and eastern bloc countries.

Agricultural imports increased significantly less than total imports, at 4.5 percent per annum during 1960 to 1970 as compared with 9.4 percent for total imports; their share in total imports decreased from 30 percent in 1955 to 8 percent in 1970. This was the only major sector where import substitution policy succeeded. Imports of goods which domestic agriculture was capable of producing were increasingly replaced by domestic production during the last decade, with the exception of vegetable oil. On the other side, the expansion of livestock production created new import needs mostly for protein concentrates; their share in total agricultural imports increased from 2.5 percent (or US$5 million) in 1962 to about 10 percent (or US$40 million) in 1970. Other relatively increasing import products were coffee, tea and citrus fruits; their increase followed the rise in per capita income. The source of agricultural imports shifted during the 1960s from the US (mainly for cereals) and the eastern countries to less developed countries, where in 1970 Yugoslavia bought more than 50 percent of its agricultural imports.

Industrial Exports

Industrial exports expanded almost twice as fast as agricultural exports, at 13.5 percent per annum in constant prices during 1952 to 1970. Industrial exports grew most rapidly in the 1950s and the first half of the sixties. In the latter half of the 1960s, though still increasing at 7 percent per annum in constant prices, export growth

slowed down somewhat. Although the high export growth rates during the 1950s reflect partly the creation of new industries during the first plan period 1947 to 1952 and the low starting level, it was essentially export promotion policy through the multiple exchange rate system that explains the dynamic export development.

If Yugoslav industries are classified into traditional industries (based largely on domestic natural resources), and new industries established mainly in the first plan period, the foreign exchange system prevailing till 1965 heavily favored exports of the new industries.[5] The four main traditional industries—nonferrous metals, nonmetallic minerals, wood and tobacco products—accounted for more than three-quarters of total industrial exports in 1952, and only 28 percent in 1965. On the other hand, the share of the new industries increased from 12 percent to over 45 percent in the same period (Table 12.8). After 1965, the extent of export promotion measures was reduced significantly. Export premia and tax rebates were largely abolished and the retention quota system, under which exporters were permitted to retain and freely use a proportion of their foreign exchange earnings, became the main instrument for export promotion. Though the retention quota increased with the share of total production exported and the increase of exports in the preceding year, it provided less stimulation to those exporters who previously enjoyed tax rebates and premia. It eliminated largely the support to new industries after they had had time to

TABLE 12.8: Structure of Industrial Exports by Sectors[a]

				(%)
	1952	1960	1965	1970
Domestic resource industries	84.0	49.6	38.5	38.9
Nonferrous metals	28.0	12.4	11.1	15.9
Nonmetallic minerals	4.0	3.2	3.2	2.9
Wood products	42.9	15.8	11.5	9.4
Pulp and paper	0.4	1.3	2.0	2.5
Food processing	4.7	12.1	7.3	6.3
Tobacco manufacturing	4.0	4.8	3.4	1.9
Newly created industries	6.8	39.3	45.6	42.5
Petroleum	1.1	0.9	1.7	0.9
Iron and steel	2.8	3.8	2.5	3.2
Metal products	0.4	16.3	18.1	13.6
Shipbuilding	—	8.0	9.5	10.0
Electrical equipment	0.2	7.2	7.9	8.2
Chemicals	2.3	3.1	5.9	6.6
Other	9.2	11.1	15.9	18.6
Textiles and clothing	3.3	7.2	10.2	12.1
Leather and footwear	0.7	3.3	5.4	5.9
Other	5.2	0.6	0.3	0.6
Total industry	100.0	100.0	100.0	100.0

[a] Exports in constant 1969 prices.
1952 = average 1951–53
1960 = average 1959–61
1965 = average 1964–66
1970 = average 1969–70
SOURCES Pertot, *Ekonomika Medzunarodne*, Vol. II; and *Statistički Godišnjak, Jugoslavije*.

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5. This classification of industries relies on a similar one made by Pertot in *Ekonomike Medžunarodne*, Vol. 1, pp. 77ff.

establish themselves both in the domestic and world markets. Only a few sectors, such as selected machinery and transport equipment industries, including shipbuilding, were stimulated by generally higher retention quotas, subsidized interest rates and special rediscount facilities for export financing. As a result, industrial export growth slowed down significantly during the second half of the decade. Export growth of only a few sectors (nonferrous metals, iron and steel, food processing, rubber production, textiles and clothing) accelerated during 1965 to 1970 as compared to the earlier period.

Diversification

The policy of promoting new industries contributed significantly to broadening and diversifying Yugoslavia's export base. Though four sectors still accounted for half of industrial exports in 1970, Yugoslavia's industrial export structure became increasingly diversified. Between 1961 and 1971 the number of exported items of manufactured goods[6] more than doubled, from 737 to 1,483 (Table 12.9).

TABLE 12.9: Number of Export Items[a] of Manufactures

SITC Category	Product	1961	1971
5	Chemicals	101	246
6	Manufactured goods classified by material	293	593
7	Machinery and transport equipment	196	372
8	Miscellaneous manufactures	147	272
Total 5 to 8		737	1,483

[a]Seven-digit items in the SITC-classification.

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia*, 1961 and 1971

The increasing diversification reflected a rapid expansion of highly processed manufactures, mainly at the expense of raw material exports, and to a lesser degree of semimanufactures and simply processed raw materials (Table 12.10).

TABLE 12.10: Structure of Exports by Degree of Manufacturing

(%)

	Raw Materials	Simply Processed Raw Materials and Semimanufactures	Highly Processed Manufactures
1939	55	39	6
1951–53	40	50	10
1954–56	36	45	17
1959–61	26	38	36
1964–66	14	35	51
1969–70	12	34	54

SOURCES: *Jugoslavija, 1945–64;* and *Statistics of Foreign Trade of the SFR Yugoslavia.*

The highly diversified export structure reflects essentially the broadly based industrialization strategy initiated in the first plan period. It was, however, also a deliberate policy, both of the government as well as individual enterprises, to reduce the risks involved in depending on a few export products sold to a few countries.

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6. Defined as seven-digit items of SITC sections 5 to 8.

Smaller quantities exported of individual products usually connected with more diversification reduce the danger of protective reactions and marketing difficulties. Yugoslavia's export success in highly competitive western markets seems to lend support to this hypothesis. "Capillary trade" as it is often referred to,[7] also increased the flexibility to adapt quickly to changes in the demand structure and thus to avoid big fluctuations in export earnings. The diversification strategy has enabled Yugoslavia also to exploit many export possibilities, and in that way significantly contributed to its good export performance. Capillary trade, however, may also have its drawbacks; it may prevent the full exploitation of economies of scale in marketing and possibly production, if the domestic market is limited. It is, however, doubtful, whether Yugoslavia, being geographically located between, and economically outside the big trading blocs in Europe, could have established a permanent export position through export concentration. The industrialized countries have too often shown their readiness to protect their industries if massive competition from abroad endangers their existence.

The diversified export structure contributed significantly to a favorable price development. Since 1952 export prices increased at an average of about 2 percent per annum, comparing favorably with price developments for exports of less developed countries and even industrialized countries. As export prices rose faster than import prices, there was an improvement of the terms of trade of one-half of 1 percent per year between 1952 and 1970. This compares favorably with the declining trend of the average terms of trade for all less developed countries. It seems also, that with increasing diversification, fluctuations of export prices decreased. While in the 1950s export prices moved in two cycles, there has been a steady rise since 1959, with a one-year interruption in 1968.

Main customers of industrial exports have been the EEC, EFTA and the Sino-Soviet countries. Their shares in the total vary, however, significantly by individual products. Chemical products, including pharmaceuticals, were largely exported to the eastern bloc, mainly to the Soviet Union and Czechoslovakia. The Soviet bloc countries were the principal buyers also for nonmetallic minerals, bauxite and aluminium concentrates, iron and steel manufactures, electrical and nonelectrical machinery, ships and clothing and footwear. In general, durable consumer goods and other highly sophisticated manufactured products were exported largely to the East and less developed countries, indicating that in these fields, where quality, design and selection play a major role, Yugoslav companies still have difficulties in competing in more competitive western markets. It should be noticed however that over the last decade the exports of these products to OECD countries grew rapidly. Thus, the share of exports of electrical and nonelectrical machinery to the EEC, in the total Yugoslav exports of these categories, increased from less than 1 percent in 1960 to 20 percent in 1970. The largest export shares to OECD countries in 1970 were in leather and textile manufactures and furniture, the latter being sold mainly to the US. Particularly in the field of metal industries, a large part of export increases to the EEC since 1967 can be attributed to the rapidly growing practice of cooperation agreements concluded with enterprises in the Common Market area, under which Yugoslav enterprises manufacture parts for production lines of EEC producers. Both labor shortages in EEC countries and free industrial capacities in Yugoslavia have encouraged

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7. The origin of the term is often ascribed to Pertot.

the expansion of cooperation agreements which benefit Yugoslav enterprises, apart from providing them with technical and financial assistance and marketing expertise through greater utilization of capacity.

Export Performance

Table 12.11 gives some indication of Yugoslavia's export performance during the last decade. Total commodity exports of Yugoslavia increased 1.5 percentage points faster than those of the European OECD countries. Only in four categories, food, beverages and tobacco, wood manufacturing, furniture and nonelectrical machinery, was Yugoslavia's export growth below the OECD average, while in the other thirteen categories listed its performance was better. To exclude the impact of Yugoslavia's easier access to eastern bloc markets on its export performance, a comparison is also made of the growth of Yugoslavia's exports to the OECD countries with that of exports of the European OECD countries into the same region (see Table 12.12). Yugoslavia's total exports into the OECD region increased slightly slower than those in the European OECD countries. However, in the field of manufactures, Yugoslav exports performed significantly better, particularly in paper products, electrical and nonelectrical machinery, textiles, and clothing and footwear.

TABLE 12.11: Average Annual Growth Rates of Exports by Commodity Group, 1960–70

			(%)
	European OECD Countries into World	Yugoslavia into World	Difference between Yugoslavia's and OECD Export Growth
	(1)	(2)	(3)=(2)—(1)
Food, beverages, tobacco	9.8	5.1	—4.7
Raw materials	1.4	6.0	4.6
Petroleum	7.5	14.6	7.1
Chemicals	12.2	15.5	3.3
Manufactures (SITC 6)	9.4	13.9	4.5
Of which:			
Leather products	10.2	14.6	4.4
Wood products	10.0	6.8	—3.2
Paper products	14.2	26.0	11.8
Textiles	8.2	16.0	7.8
Nonmetallic minerals	11.7	12.4	0.7
Iron and steel products	7.2	8.3	1.1
Nonferrous metal products	11.6	16.9[a]	5.3
Machinery, transport equipment	12.0	16.2	4.2
Of which:			
Nonelectrical machinery	12.2	10.4	—1.8
Electrical machinery	13.7	17.7	4.0
Transport equipment	10.8	18.7	7.9
Miscellaneous manufactures	13.7	18.7	5.0
Of which:			
Furniture	18.4	12.5	—5.9
Clothing	15.8	30.0	14.2
Footwear	17.0	20.0	3.0
Total exports	10.0	11.5	0.7

[a] 1970 over average of 1960 and 1961.

SOURCE. *OECD Commodity Trade Statistics,Series B* 3 and 6 (1961).

TABLE 12.12: Average Growth Rates of Exports into OECD Countries by Commodity Group, 1960–70

(%)

	European OECD Countries into OECD	Yugoslavia into OECD	Difference between Yugoslavia's and European OECD's Export Growth into OECD
	(1)	(2)	(3)=(2)—(1)
Food, beverages, tobacco	11.1	5.4	—5.7
Raw materials	8.2	7.4	—0.8
Petroleum	8.2	17.5	9.3
Chemicals	14.9	15.4	0.5
Manufactures (SITC 6)	11.9	18.3	6.4
Of which:			
Leather products	10.3	20.0	9.7
Wood products	11.4	6.7	—4.7
Paper products	16.5	49.0	32.5
Textiles	10.6	19.4	8.8
Nonmetallic minerals	13.1	14.5	1.4
Iron and steel products	10.0	14.7	4.7
Nonferrous metal products	13.0	21.0	7.0
Machinery, transport equipment	13.0	27.0	14.0
Of which:			
Nonelectrical machinery	14.7	37.5	22.8
Electrical machinery	16.8	38.8	22.0
Transport equipment	13.6	21.5	7.9
Miscellaneous manufactures	16.0	18.7	2.7
Of which:			
Furniture	22.8	12.9	—9.9
Clothing	18.3	31.5	13.2
Footwear	22.5	31.0	8.5
Total exports	12.8	12.2	—0.6

SOURCE   *OECD Commodity Trade Statistics, Series B* 3 and 6 (1961 and 1970).

A major drawback of both comparisons in judging Yugoslavia's export performance, is that they do not take into account that intra-EEC and intra-EFTA trade has been to a much larger extent free of trade barriers than trade with outsiders such as Yugoslavia. On the other hand, the comparisons make no adjustment for Yugoslavia's favorable regional trade structure with relative high export shares to fast growing countries such as Germany and Italy.[8] To eliminate the impact of Yugoslavia's regional trade structure, its performance in individual markets has been analyzed. In Table 12.13 the growth of imports from Yugoslavia is compared with growth of total imports for selected countries. It should be noted, however, that this method still includes a bias acting against Yugoslavia, since it does not take into account intrabloc trade. The table shows that while Yugoslavia suffered a decline in its share of the market in less developed countries, it increased its share in the markets of the industrialized countries and particularly in the EFTA. Yugoslavia's less favorable export performance in the EEC market reflects partly the massive increase in protective duties of the EEC in 1968.

8. The OECD *Economic Survey of Yugoslavia, 1971* (Paris: OECD, 1971), follows a procedure which adjusts for the difference in regional trade structure. It shows, then, Yugoslavia's loss of export markets during 1965–70 was almost 3 percentage points. The method, however, does not take into account the various trade barriers around the EEC and EFTA areas which significantly impair Yugoslavia's export chances.

TABLE 12.13: Growth of Total Imports and Imports from Yugoslavia in Main Foreign Markets[a]

(%)

	Annual Growth Rate 1965–70		
	Total Imports	Imports from Yugoslavia	Gain (+) and Loss (−) of Market Share
	(1)	(2)	(3)=(2)−(1)
World	10.2	9.0	−1.2
Less developed countries	8.3	6.3	−2.0
Industrialized countries	12.0	15.4	+3.4
Industrial Europe	11.9	16.4	+4.5
Of which:			
EEC	13.2	15.0	+1.8
Belgium-Luxemburg	12.7	7.0	−5.7
France	12.5	30.0	+17.5
Germany	14.2	15.6	+1.4
Italy	13.3	12.0	−1.3
Netherlands	12.4	22.0	+9.6
EFTA	9.3	20.0	+10.7
Of which:			
Austria	12.9	12.3	−0.6
Switzerland	12.7	24.0	+11.3
United Kingdom	7.2	22.0	+14.8

[a] Excluding eastern bloc countries.

SOURCES World Bank and IMF, Direction of Trade, 1961–65 and 1966–70; and *Statistics of Foreign Trade of the SFR Yugoslavia.*

Industrial Imports

The rapid expansion of total imports was mainly due to the increasing dependence of the economy on industrial imports, in particular raw materials and semimanufactures (Table 12.14). Consumer goods' imports, while in total of decreasing importance over the two decades, showed a significant structural change, with food imports declining relatively except for the early 1960s and durable consumer goods, foremost household appliances, automobiles, textiles, clothing and shoes, gaining significantly.

TABLE 12.14: Structure of Imports

(%)

	1954	1960	1965	1971
Raw materials and semimanufactures	52	57	62	64
Investment goods	22	29	20	21
Consumer goods	26	15	18	15
Of which: food	(24)	(8)	(12)	(5)
textiles, clothing and footwear	(.1)	(2)	(3)	(2)
other durables	(2)	(4)	(4)	(6)

SOURCE Statistical Annex, Table 3.8.

From two-thirds to three-quarters of raw materials and investment goods' imports are from convertible currency countries. In more detail, almost 80 percent of chemical imports and imports of machinery and transport equipment come from the OECD countries; for nonferrous metals and textile yarn and fabrics, the OECD share is 74 percent and 73 percent respectively. It is only in the category of iron, steel and fuels that imports from nonconvertible currency countries are of major significance.

The following indicators show in more detail the extent and development of the economy's import dependence during 1962 to 1970.[9]

	(%)		
	1962	1968	1970
Share of imported intermediates in their total consumption	12.0	13.6	16.4
Total import content[a] of gross output	11.0	11.4	13.4
Total import content[a] of final	18.3	18.8	21.3

[a]Direct plus indirect imports.

All three indicators show that import dependence increased moderately till 1968, but rapidly in 1969 and 1970. One reason for the increase has been the growing importance in the industrial structure of sectors with above-average import content of output, as well as increasing import dependence within these sectors.

TABLE 12.15: Total Import Content (Direct and Indirect) by Industrial Sectors and Annual Growth (Rank according to Import Content in 1970)

	Import Content as % of Production			Annual Growth (%)	Growth Rate of Import Content (%)
	1962	1968	1970	1962–68	1968–70
High import content industries (20% in 1970)					
Petroleum	17.2	34.1	39.6[a]	12.1	7.8
Rubber	32.8	31.0	36.1	—0.9	7.8
Shipbuilding	37.4	30.9	35.5	—3.2	7.2
Nonferrous metallurgy	14.8	26.5	34.4	10.2	13.9
Chemicals	22.7	29.7	33.2	4.7	5.7
Textiles	27.0	29.1	29.5	4.2	0.6
Electrical industry	19.6	22.3	27.9	2.2	11.9
Iron and steel	18.7	23.2	26.9	3.7	7.7
Leather and footwear	22.9	24.0	26.3	0.8	4.7
Metal industry	16.9	18.0	23.5	1.0	14.3
Paper industry	7.6	16.0	21.6	14.1	16.2
Medium import content industries (20%–13.4%[b] in 1970)					
Coal and coke	14.0	15.2	18.5	1.4	10.3
Wood manufacturing	5.9	12.0	15.9	12.6	15.1
Printing and publishing	7.2	10.5	14.3	6.5	16.7
Food manufacturing	9.8	13.2	14.1	5.1	3.3
Low import content industries (13.4%[b] in 1970)					
Nonmetallic minerals	9.2	12.3	12.5	5.0	0.8
Tobacco manufacturing	5.8	7.8	11.9	5.1	23.4
Building materials	8.0	7.8	8.4	—0.4	3.7
Electrical energy	5.8	5.6	5.8	—0.6	1.8
Total economy	11.0	11.4	13.4	0.6	8.4

[a] Estimated.
[b] Average import content of total production in 1970.
SOURCE. M. M. Sekulić, "Osjetljivost Jugoslavenske privrede na promjene uvoznih cijena struckturna analiza," Ekonomski Pregled 3-4 (1972): 17.

9. Source: M. Sekulić, "Osjetljivost Jugoslavenske privrede na promjene uvoznih cijena—strukturna analiza," Ekonomski Pregled 3-4 (1972): 137.

Tables 12.15 and 12.16 show the development of import dependence for individual industrial sectors, and the total economy in greater detail. They confirm the trend of moderately rising import dependence during 1962–68 and its rapid increase after 1968, particularly pronounced in the field of intermediate imports. The total import content of all sectors with only a few exceptions increased significantly faster after 1968. As a result, the relative importance of high import content industries increased. In 1962, the import content of production exceeded 20 percent for five industrial sectors, and these accounted for less than one-fifth of the value of industrial output. In 1970, eleven industrial branches had an import content exceeding 20 percent, and they accounted for about two-thirds of the total industrial production. There has also been a rise in the import content of certain components of final demand. In terms of final demand sectors, investments showed the highest import content in 1970, particularly investments in industry. Also, exports show a high and sharply increasing import content after 1968, while the import content of personal and public consumption remained stable at a relatively low level.

TABLE 12.16: Import Content (Direct and Indirect) of Final Demand

				(% of Total Category)
	1962	1966	1968	1970
Investment	26.5	24.7	26.0	28.1
Investment in industry	57.8	59.1	63 0	68.9
Consumption	15.1	16.2	15.4	16.1
Exports	14.5	15.1	16 8	21.7

SOURCE. Sekulic, "Osjetljivost Jugoslavenske privrede," p. 137.

These trends, towards increasing import dependence in the structure of production and the structure of final demand, were encouraged by a number of factors. First, though a fast increase of imports, in particular of investment goods and raw materials, is to be expected with rapid industrialization, the foreign exchange and trade system and the overvalued exchange rate both tended to lower prices for imports, and thus introduced an additional import encouragement. Second, the policy of integrating the Yugoslav economy into the world market and the concomitant liberalization put strong pressure on enterprises to improve competitive efficiency, to replace obsolescent machinery and introduce modern technology. The result was a high pressure on imports, which further increased when the economy entered a boom period in 1969–70 with investments increasing at more than 10 percent per year in real terms. Thirdly, the restrictions on foreign borrowing were significantly relaxed after the 1965 reform. At the same time the government embarked on a restrictive antiinflationary policy. With monetary policy carrying the main burden, domestic credit conditions became very tight. Enterprises facing increasingly harsh credit conditions domestically, resorted to imports financed by financial and suppliers' credits from abroad. Finally, the foreign trade regime not only proved inefficient in preventing the rapid import rise, but on the contrary provided a strong incentive for importing. The retention quota, i.e., the proportion of foreign exchange earnings left at the free disposal of enterprises, has encouraged them to develop import activities above and beyond their needs for production and investment.

Moreover, they started importing goods that had no connection with their production. Those imports could be sold on the domestic market with significant profit margins.[10]

To what extent the increasing import dependency of the Yugoslav economy is a structural phenomenon, or only temporary, is difficult to say. Some factors mentioned above had clearly a short-term character. Following the two devaluations in 1971, imports rose by only 5 percent in 1972, while production continued to increase at almost the same rate as the years before. This indicates that the explosion of imports in 1970 (35 percent) and 1971 (13 percent) was to a large extent due to devaluation expectations, and that in 1972, when stocks were declining, the import dependency of the economy was significantly reduced.

There remains, however, the structural problem of an increasing import dependence since 1961, partly reinforced by the bias toward importing inherent in the foreign exchange system. When in the late 1950s the emphasis shifted to the development of import substituting industries, in particular the manufacture of electrical equipment, textiles, clothing, chemicals and metal products, Yugoslavia experienced, as did many other countries, an increasing rather than decreasing dependence on imports. The import substitution industries were industries with relatively high import coefficients. Their faster development would have raised the overall import dependence on the economy by itself. Moreover, the import coefficients of these and most other industries rose over the 1960s as well. While this is partly due to the increasing insistence on modernization and international competitiveness, there was also a lack of coordination between primary production and manufacturing. The heavy promotion of manufacturing was accompanied by the neglect of the development of raw material production. Their prices were kept low and the foreign exchange and trade system discriminated against them. As a result, between 1961 and 1971, production of coal and coke increased annually at 1.6 percent, iron and steel at 7.2 percent and nonferrous metals at 6.5 percent, while manufacturing industries such as chemicals, electrical equipment and rubber products expanded annually at 17 percent, 13 percent and 11 percent respectively.

The disproportions in industrial development have clearly contributed to the serious structural problem for the balance of payments, making it the major constraint to fast economic growth. The current Social Development Plan, in recognizing this, gives more emphasis to developing the domestic resource base (see Chapter 14). While it is certainly a step in the right direction, it remains to be seen how fast and to what extent it would solve the balance of payments problem. Yugoslavia's recent efforts to negotiate larger, longer-term credits both from the East and West suggest that the government still sees the need for large capital inflow for some time to come.

Development of Services

Overall Development

Perhaps the most remarkable change in the structure of foreign exchange earnings over the two decades (see Chapters 14 and 15), was the increasing importance of invisibles since the early 1960s (Tables 12.17 and 12.18 and Charts XV and XVI). A

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10. There has also reportedly been some export and reimport activity to circumvent price controls which do not apply to import goods. Moreover, a good deal of import increase in 1970 and 1971 can be explained by stockpiling in the wave of devaluation rumors in 1970 and 1971.

tourism boom in Western Europe in the early 1960s, accompanied by a shift of tourism from traditional Mediterranean countries such as Spain and Italy to relatively low-priced Yugoslavia, boosted the receipts from tourism. The rapid growth of trade caused the rise in transportation receipts. Since 1965, workers' remittances showed the most rapid development of all invisible items, and were in 1972 the most important single item. The importance of earnings from tourism and workers' remittances goes well beyond their quantitative aspects, since they consist almost exclusively of convertible foreign exchange.

TABLE 12.17: Structure of Foreign Exchange Earnings

	1954	1960	1965	1971	1972[a]
Exports of commodities	86	85	63	53	51
Invisibles	14	15	37	47	49
Of which: Transportation	7	8	18	12	11
Tourism	2	2	7	10	11
Workers' remittances	—	—	3	18	18
Others	5	5	9	7	9
Total	100	100	100	100	100

[a]Preliminary.

TABLE 12.18: Foreign Exchange Earnings from Invisibles

(In Millions of US$)

	1954	1960	1965	1971	1972[a]
Transportation	31	78	194	424	470
Tourism	5	15	81	355	450
Workers' remittances	—	—	32	630	780
Other	14	43	98	226	377
Total	50	136	405	1,635	2,077

[a]Preliminary.

SOURCE National Bank of Yugoslavia.

Transportation

Income from transportation has developed largely in line with merchandise trade. In 1972 total receipts amounted to US$470 million, accounting for 11 percent of total foreign exchange earnings. About 80 percent of transportation receipts consisted of convertible currencies. Their future development is most likely to be in line with the overall development of exports of goods and services.

Tourism

Foreign exchange earnings from tourism became a substantial item in the balance of payments only after 1960, when tourism was recognized as an economic sector that could contribute significantly to economic development. The following table summarizes some of the principal indicators of Yugoslavia's tourist development in the 1960s.[11]

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11. Only foreign tourism is being considered here, unless otherwise stated.

TABLE 12.19: Tourism Development, Summary Indicators

	1960	1965	1968	1971	Average Annual Rate of Growth (%)			
					1960–65	1965–68	1968–71	1960/61–71[a]
Total tourist arrivals (in thousands)	1,157.0	8,316.0	23,206.0	29,392.0[c]	48.0	41.0	13.0[d]	38.0
Total tourist nights (in thousands)	3,510.0	11,240.0	17,210.0	25,849.0	26.0	15.0	15.0	20.0
Of which (in %):								
Western Europe	88.0	82.0	81.0	89.0		15.0	18.0	20.0
Eastern Europe	7.0	14.0	16.0	7.0		20.0	−11.0	26.0
North America	3.0	2.0	2.0	3.0		8.0	26.0	19.0
Other	2.0	2.0	1.0	1.0		5.0	15.0	11.0
Average length of stay (no. of nights)	4.0	4.2	4.4	4.9				
Western Europe	4.2	4.5	4.7	5.3				
Eastern Europe	4.4	3.6	4.1	3.9				
North America	2.7	2.5	2.5	2.3				
Other	3.6	2.9	2.9	2.7				
Tourist nights by republic (in %)								
Croatia	71.0	73.0	75.0	76.0		16.0	15.0	21.0
Slovenia	14.0	13.0	11.0	10.0		11.0	10.0	17.0
Serbia	9.0	6.0	6.0	5.0		12.0	6.0	13.0
Subtotal developed regions	94.0	92.0	92.0	91.0		13.0	14.0	19.0
Montenegro	3.0	5.0	6.0	7.0		17.0	23.0	36.0
Bosnia-Herzegovina	2.0	2.0	1.0	1.0		12.0	5.0	14.0
Macedonia	1.0	1.0	1.0	1.0		8.0	15.0	17.0
Subtotal less developed regions	6.0	8.0	8.0	9.0		16.0	19.0	29.0
Average annual occupancy rate[b] (in %)	40.0	36.0	32.0	34.0[c]				
Foreign exchange earnings (US$ million)	14.0	81.0	189.0	360.0	42.0	33.0	24.0	34.0

[a]Calculated as a ten-year period.

[b]For hotels and similar types of accommodation, including domestic tourism.

[c]1970.

[d]1968–70.

SOURCE: Federal Institute of Statistics.

CHART XV

FOREIGN EXCHANGE EARNINGS (%)

INVISIBLES

GOODS
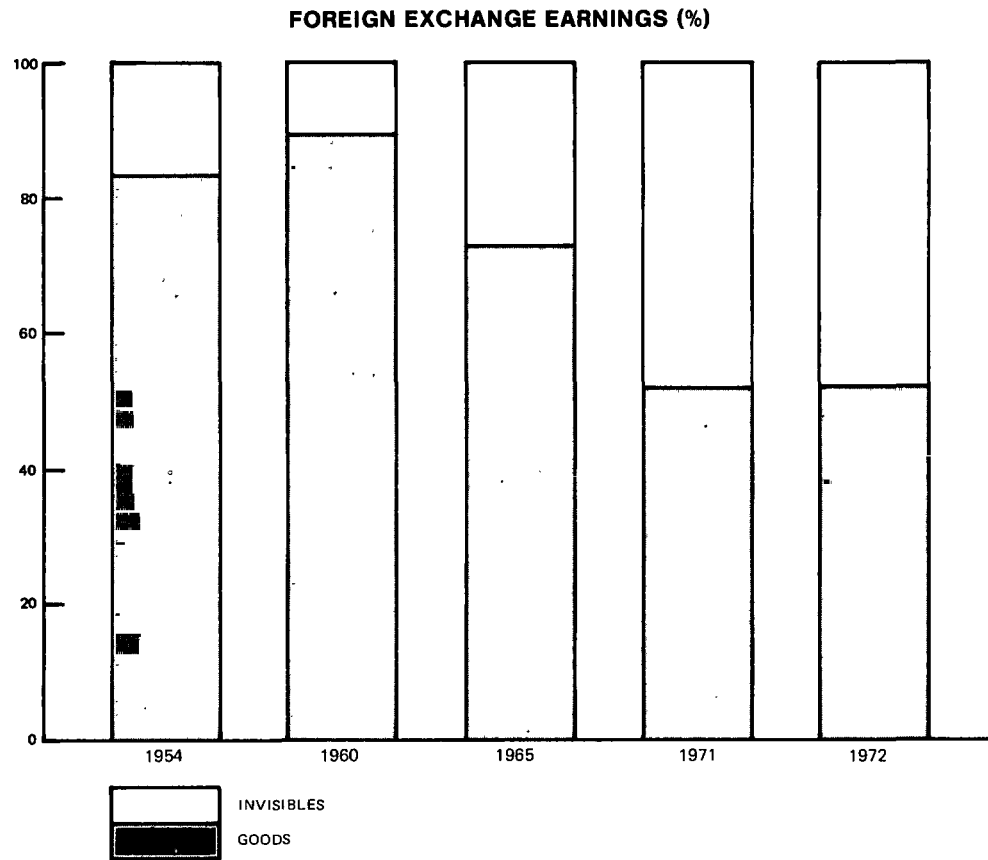
World Bank — 7722

Yugoslavia receives the third largest number of tourists from Western Europe among the Mediterranean and Adriatic countries. The number of tourist arrivals in Yugoslavia increased between 1960 and 1971 at an average annual rate of about 38 percent. Total foreign exchange earnings increased at an average annual rate of 34 percent; their proportion to merchandise exports rose tenfold from about 2 to 20 percent over the decade. The composition of tourists has shifted somewhat since the mid-1960s, as the proportion of western Europeans increased from 82 percent to 89 percent between 1965 and 1971, while the share of eastern Europeans has declined from 14 percent to 7 percent of total tourist nights. The dominant tourist generating country was the Federal Republic of Germany, followed by Italy, Austria and the United Kingdom.

A major problem of tourism development has been both its severe seasonality and the concentration on the coast. About 57 percent of tourist nights fall into the peak season July and August and another 28 percent into the adjoining months June and

CHART XVI

FOREIGN EXCHANGE EARNINGS FROM INVISIBLES (%)

	1954	1960	1965	1971	1972
Others	28.0	32.3	24.2	13.8	18.2
Workers' Remittances	10.0	10.3	7.9	38.6	37.4
Tourism			20.0	21.7	21.7
Transportation	62.0	57.4	47.9	25.9	22.7

TRANSPORTATION ▦   TOURISM ■   WORKERS' REMITTANCES □   OTHERS ▨
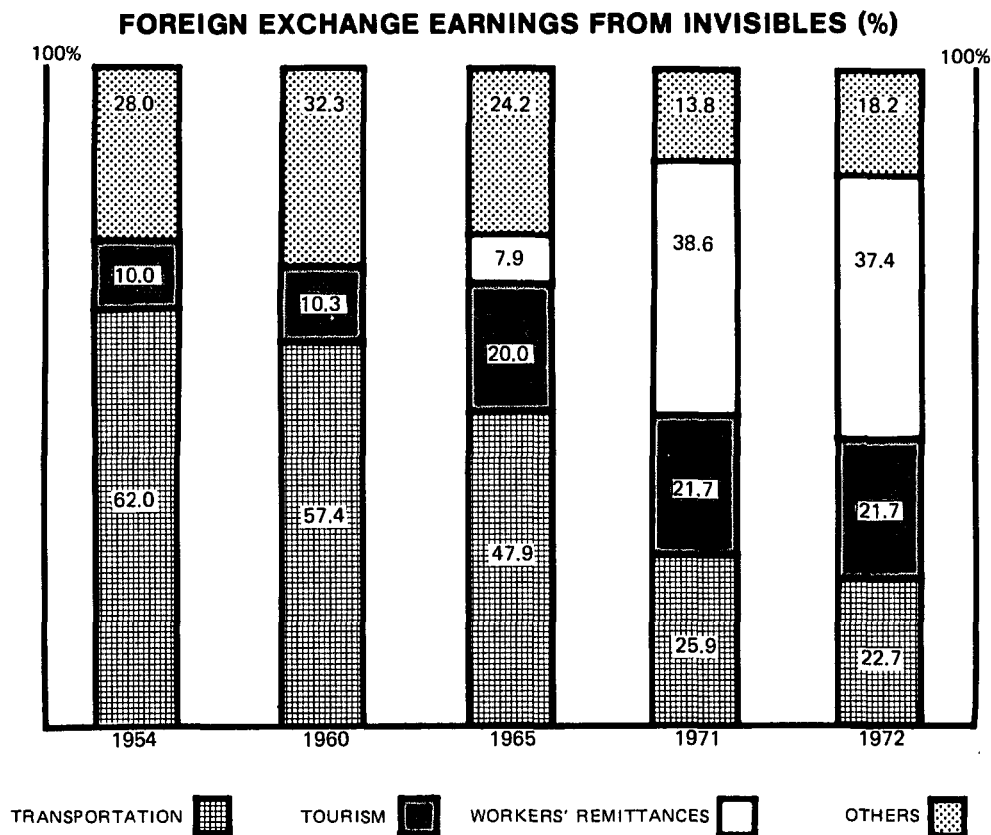
World Bank — 7511

September. Thus 85 percent of tourist nights are concentrated in only four months of the year. As a result, the average annual occupancy rate of around 34 percent was extremely low.[12] If Yugoslavia were to achieve a somewhat higher occupancy rate, this would permit an increase in tourist nights per year with the present capacity. It would also raise the profitability of hotel investment, which presently seriously limits the construction of new hotels. This would, however, require a successful promotional effort in spreading the peak demand over a longer period, admittedly a difficult undertaking given the climatic and market constraints. There have been efforts to attract international congresses, seminars, etc. during the low season. There are also plans to develop winter tourism, particularly in the less developed regions. This may also help to distribute tourism more evenly over the whole of Yugoslavia. It would be desirable to see the less developed regions, which presently participate only with less

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12. Bed occupancy rate in hotels, motels, and inns, including domestic tourism.

than 10 percent in total tourist earnings, enlarge their share. The heavy concentration in the coastal areas of Croatia — Croatia accounts for more than three-quarters of total tourist nights — may also set limits to a continuation of past expansion because of environmental reasons. There is need for expansion of infrastructure, transportation facilities as well as water supply and sewerage infrastructure, if tourism is to continue to grow as in the past. With decentralization, the responsibility for local infrastructure has been transferred largely to the communes and therefore intercommunal or even regional projects face significant administrative and financing difficulties.

Workers' Remittances

Remittances from Yugoslavs working temporarily abroad increased from about US$30 million in 1965 to an estimated US$800 million in 1972, surpassing even the most optimistic expectations. In 1972, they accounted for 18 percent of total and 25 percent of convertible foreign exchange earnings. The growth of remittances was the result of increasing migration of workers abroad.[13] It also appears that there has been an increase in the remittance rate (the proportion of their incomes the workers remit), and this has been an important factor for the increase in the remittance flow. Assuming that the migrants' average annual income increased in line with average annual earnings in the manufacturing sector in Germany, it would appear that the average remittance rate in 1970-72 was about 40 percent higher than in 1965-67.[14] The reasons for the increase in the remittance rate are complex and may be shortly summarized here. First, there is reason to assume that there is a close positive correlation between the remittance rate and the rate of income growth of workers abroad. Second, expectations of a dinar devaluation have probably induced migrants to hold back some of their savings during the pre-1971 period, which after the devaluations were repatriated to Yugoslavia. Third, there may have been an increasing flow of remittances stemming from accumulated savings of those migrants returning home. This factor may become particularly important in the future, as the number of migrants returning home increases. Finally, there may also have been offsetting influences tending to reduce the remittance rate. As migrants stay longer abroad, they tend to adopt foreign consumption standards; there is also a tendency for their families to join them abroad. It is difficult to say in our current state of knowledge and given the information available which of these factors had the most important or a significant influence on the past development of remittance flows. However, all evidence suggests that workers' remittances will for some time to come continue to grow and remain an extremely important factor in the balance of payments.[15]

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13. For a detailed analysis of external migration, its causes as well as the benefits and costs to the Yugoslav economy, see Chapter 3.

14. This estimate is based on data included in an internal study of the World Bank by Ian Hume, "Projection of Workers' Remittances to Turkey and Yugoslavia, 1972-80" (Washington, D.C.: World Bank, January 1973), mimeographed.

15. In 1973 the remittances have continued to increase rapidly and are expected to reach US$1,250 million, or 41 percent above the level of 1972.

CHAPTER 13

CAPITAL FLOWS AND EXTERNAL DEBT

Capital Flows

Evolution and Structure of Capital Flows

The expulsion from the Cominform and severance of economic relations with Eastern Europe was followed by a massive aid program from the US, under which more than US$2 billion was provided during 1949–61 — equivalent to an average of US$155 million per year.[1] About three-quarters of this amount was in the form of grants or grant-like contributions. Capital flows from the United States declined to a total of US$580 million during 1962–70, an average of about US$65 million a year, of which only 13 percent was in the form of grants or grant-like contributions. Western European countries were only providing small amounts during the 1950s but became increasingly important as suppliers of long-term capital during the 1960s.

Since 1965, gross inflow of medium- and long-term capital almost tripled, from US$330 million in 1965 to an estimated US$970 million in 1972, equivalent to an average annual growth of 17 percent. However, due to the even more rapid growth of amortization payments (from US$165 million in 1965 to US$630 million in 1972, a rate of 21 percent per year) the net inflow of medium- and long-term capital increased only from US$163 million to US$340 million during the period, averaging about US$250 million a year. About two-thirds of this were medium-term suppliers' and financial credits. The share of long-term government loans, accounting for 41 percent of the net inflow during the first half of the 1960s, decreased to 16 percent during 1967–71. The World Bank loans have been the main source of long-term capital during this period, accounting for 37 percent of long-term official capital. Credits from eastern countries have also become more important. They accounted for 14 percent of total net inflow during 1967–71 as compared with a net outflow in the mid-1960s (see Table 13.1). To some extent this inflow has been offset by Yugoslav export credits, which averaged about US$50 million annually during 1967–71.

There have been significant changes in the structure of loan capital (see Table 13.1). Capital from private sources, largely suppliers' and financial credits was relatively important in the second half of the 1950s, with a share of 96 percent of total net loan capital inflow in 1960. Its importance then declined to a share of 40 percent in 1965/66. In the subsequent years up to 1970, private capital again became the main source. By the late 1960s, the term structure of foreign borrowing had worsened significantly and the debt service became increasingly burdensome, due to the shift from long-term official capital to medium-term suppliers' and financial credits. The government rescheduled some debt in 1968, and eventually followed a more active debt management policy to regulate the amounts and improve the terms of capital inflow. Following the standby agreement with the IMF in July 1971, Yugoslavia limited external medium-term and short-term borrowing. The outstanding short-term credits at the end of 1972 were much lower than a year earlier, and the

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1. About US$700 million of this was military assistance.

growth in 1971 and 1972 of medium-term debt guaranteed by business banks slowed down significantly. There was no new short-term foreign borrowing in 1972. In addition, to improve the structure of the outstanding debt in 1970, Yugoslavia approached a number of countries to reschedule or refinance existing debts and to extend long-term credits. The United States agreed to reschedule US$58.6 million debt payments falling due in 1971 and 1972. Italy, Germany, France, Japan, Belgium and the Netherlands, have agreed to extend financial credits of US$75 million, US$142 million, US$120 million, US$30 million and US$5 million respectively.[2] The terms of these new loans and of the rescheduling are more favorable than the average terms of the outstanding external debt during 1972-74. Apart from this amount, totalling US$277 million for the period 1971-75, the Yugoslav authorities hope to receive some further credits from major creditors in the near future.

TABLE 13.1: Structure of Medium- and Long-Term Capital (Net)

						(%)
	1955	1960	1965/66	1967/68	1969/70	1971/72[a]
Official capital	14	4	61	9	24	41[b]
Eastern Europe	—	−3	−3	7	22	10[b]
Other bilateral	−57	9	49	−6	−8	21[b]
USA	(−43)	(14)	(48)	(4)	(−12)	(7)[b]
Other	(−14)	(−5)	(1)	(−10)	(4)	(14)[b]
International	71	−2	15	8	10	9
Of which: World Bank	(71)	(−2)	(15)	(8)	(10)	(9)
Private capital	86	96	39	91	76	59[b]
Total net inflow	100	100	100	100	100	100

[a] Preliminary.
[b] Estimated on the basis of data for 1971.
SOURCE Statistical Annex, Table 3.12

In late 1972 Yugoslavia also negotiated a long-term credit of US$540 million equivalent from the Soviet Union for financing imports of investment goods during 1973-75. Furthermore, the agreement foresees a continuation of financing the investment of goods' imports of US$450 million after 1975. These credits are expected to be used mainly to finance projects in the coal, oil, electric power, ferrous and nonferrous metal industries. The debt service burden of these credits will be fairly low due to the soft terms they carry, which are 2 percent interest per annum and thirteen years' maturity. Moreover, repayments are expected to be made in the form of raw materials from projects financed by these credits and of Yugoslav machinery and equipment.

Long-Term Private Capital

Since a continuous net capital inflow will be needed in the foreseeable future to maintain high growth rates, the government has tried tapping other sources of long-term finance. It has succeeded in placing several private issues in western capital

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2. Dollar equivalents at exchange rates prevailing at December 31, 1972.

markets. It is also exploring a public bond issue of US$20 million in the US capital market. Since 1967, the government has also tried to encourage private foreign investment through special legislation (see Chapter 5). However, the response of foreign investors has so far been disappointing in terms of its impact on the balance of payments. By the end of 1972, about sixty-eight joint venture agreements had been signed between local and foreign enterprises, committing the latter to invest a total of around US$100 million, or about US$20 million a year. Among the main reasons for the reluctance of foreign private firms to invest on a larger scale in Yugoslavia has been the rather vague and restrictive regulations of such matters as majority share of capital, management control and profit and capital transfer. There is also a lack of understanding of the economic and social conditions in Yugoslavia on the part of private foreign firms, which makes them apprehensive to place risk capital in a socialist country. There is also at times a basic conflict of interests. While partners from the West intend to build a base in Yugoslavia for gaining easier access to eastern markets, Yugoslavia's interest in joint ventures is focussed on increasing exports to western markets. In the light of this development the conditions for foreign partners in joint ventures with Yugoslav enterprises have recently been further improved. The constitution now includes a provision which protects foreign partners against any unfavorable change in regulations regarding joint ventures after conclusion of contract; the regulation by which the foreign partner had to reinvest 20 percent of his profits has been abolished; the portion of foreign exchange available for transfer of profits has been increased to 33 percent of the enterprise's total foreign exchange earnings. With increasing communication and familiarity with conditions and the recent change in regulations, the Yugoslav authorities expect the flow of joint venture capital to increase, particularly from the United States, following the enactment of a law in 1972 under which the US Government will be able to extend guarantees for private investments in Yugoslavia.

External Debt

Evolution and Structure

Yugoslavia's total foreign debt almost quadrupled in the eight-year period from the beginning of 1964 to the end of 1971, from US$700 million to US$2,700 million on a disbursed basis. This represented an average annual increase of 18 percent. Total debt, including undisbursed, over this period rose slightly less, from US$1,114 million (end 1963) to US$3,700 million in 1971. In relation to GDP (in constant 1966 prices) foreign debt rose over the period from 14 to 29 percent for disbursed, and from 22 to 42 percent for debt, including undisbursed.

The most significant changes in Yugoslavia's external debt were: (a) a shift from long-term public loans to medium-term suppliers' credits as the major source of lending after 1965; (b) a sharp rise in nonguaranteed suppliers' credits since 1967. The latter increased from US$124 million in 1967 to about US$800 million in 1971. The increase in nonguaranteed suppliers' credits was facilitated by decentralization measures under Yugoslavia's 1965 economic reform, which transferred the authority to contract and guarantee foreign credits from the state to banks and enterprises. This authority, however, was restricted by a requirement that foreign borrowing not exceed, on the average, three times the foreign exchange holdings of the borrower.

The debt management system after the 1965 decentralization up to 1971 was rather inefficient, both because it did not offer effective control either over amounts or on terms of new debt contracted. New regulations were introduced in 1971 and 1972. They are discussed below.

Table 13.2 reflects the changing structure of outstanding disbursed debt. Loans from governments amounted to US$337 million and accounted for about 50 percent of the total in 1963 and declined to 27 percent in 1971. At the same time suppliers' and bank credits became the most important source with a rising share from 32 to 62 percent. The World Bank share increased to 16 percent in the mid-1960s and declined thereafter to 10 percent of the total. A remarkable fact emerging from the table is that there was little change in the distribution between nonconvertible and convertible debt, with the latter accounting for about 75 percent both in 1965 and in 1971.

TABLE 13.2: Structure of Foreign Debt[a]

				(%)
	1963	1965	1967	1971
Loans from governments	49	48	43	27
Convertible	(39)	(43)	(37)	(18)
Nonconvertible	(10)	(5)	(6)	(9)
Suppliers' and bank credits	32	30	41	62
Convertible	na	(30)	(37)	(60)
Nonconvertible	na	(—)	(4)	(2)
IBRD	12	16	13	10
Others	7	6	·3	1
Total	100	100	100	100

[a]On disbursement basis.
SOURCE: World Bank, Economic and Social Data Division.

In the category loans from governments, the share of disbursed debt due to eastern bloc countries increased from 12 to 32 percent between 1965 and 1971.[3] Czechoslovakia became the main creditor among eastern bloc countries, with US$104 million debt outstanding in 1971, or 14 percent of debt due to governments, replacing the USSR (which used to be the main eastern creditor in the early 1960s) with US$80 million or 11 percent, and Poland with US$28 million or 4 percent in 1971. Major creditors from the convertible currency area in this category in 1971 were the US with US$311 million or 43 percent of total debt due to governments, followed by Italy with US$98 million or 13 percent, and the Federal Republic of Germany with US$78 million or 11 percent. This ranking did not change between 1963 and 1971, although the shares varied somewhat.

Within the category of suppliers' and private bank credits, debt due to nonconvertible currency areas was of minor importance (US$58 million or 3 percent of this category in 1971). Major creditors were the Federal Republic of Germany with US$413 million or 25 percent, US with US$372 million or 22 percent, Switzerland with US$204 million or 12 percent, Italy with US$145 million or 9 percent, the UK with US$140 million or 8 percent, and France with US$118 million or 7 percent.

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3. For the debt outstanding, including undisbursed, the share due to eastern countries is considerably higher, 32 percent in 1965 and 47 percent in 1970, due to a proportionately larger amount of undisbursed debt.

TABLE 13.3: Average Terms of Foreign Loans

	1963	1964	1965	1966	1967	1968	1969	1970	Average 1963–70
Interest rate (%)	5.4	5.1	3.8	4.8	2.7	6.3	5.8	7.1	4.9
Governments	4.5	4.3	3.2	4.5	2.3	5.6	5.5	4.1	3.5
International organizations	5.5	5.5	6.2	b	6.0	6.3	6.5	7.0	6.2
Suppliers	5.9	5.5	5.5	5.7	6.0	6.1	6.0	5.7	5.6
Private banks	5.2	5.8	6.0	b	b	6.5	5.8	6.5	6.2
Grace period (years)	2.5	3.1	3.0	2.4	2.9	5.2	2.8	3.9	3.1
Governments	2.2	2.3	3.2	2.5	2.9	1.2	1.6	2.7	2.7
International organizations	4.0	5.2	1.8	b	3.9	5.2	5.3	5.0	4.8
Suppliers	1.6	2.6	2.2	2.0	2.0	1.8	2.2	2.9	2.2
Private banks	3.3	5.5	3.4	b	b	5.4	5.5	4.3	5.1
Maturity (years)	14.2	14.4	15.3	12.8	18.0	14.7	15.2	14.9	15.1
Governments	8.8	16.7	16.9	13.8	18.5	4.0	13.5	6.8	16.2
International organizations	22.2	25.2	14.2	b	17.1	22.4	25.3	21.2	22.4
Suppliers	11.5	10.0	11.1	9.8	7.0	10.6	8.9	11.2	10.5
Private banks	9.9	8.5	11.3	b	b	8.4	8.5	6.4	8.7
Grant element of loans a (%)	25.0	28.0	35.0	27.0	45.0	22.0	24.0	17.0	30.0
Governments	23.0	33.0	41.0	29.0	48.0	10.0	22.0	22.0	38.0
International organizations	31.0	33.0	20.0	b	25.0	26.0	26.0	21.0	27.0
Suppliers	19.0	20.0	21.0	18.0	14.0	17.0	17.0	21.0	20.0
Private banks	23.0	21.0	20.0	b	b	17.0	21.0	14.0	19.0

a The grant element is the difference between the nominal value of the loan and the discounted value of its service payments, discounted at a rate that reflects the opportunity costs of capital. The discount rate used in this table is 10 percent.

b No debt commitments.

SOURCE· World Bank, Economic and Social Data Division.

Terms of Borrowing

The average terms on Yugoslavia's total foreign debt became significantly harder during recent years. Table 13.3, based on information as reported to the World Bank, quite clearly understates this trend, as it includes only public or publicly-guaranteed debt. It is, therefore, of limited use in analyzing the development of terms on total borrowing, in particular as nonguaranteed debt has become increasingly important since 1967, accounting for 50 percent of the total in 1971. Though the data in the table fail to indicate a clear trend over the period 1963–70, there was, nevertheless, a trend towards hardening of terms on public debt in recent years: interest rates increased and maturities decreased, while, on the other hand, the average grace period increased. The combined indicator, the grant element (see note b, Table 13.3), declined from 27 percent in 1966 to 17 percent in 1970. The exceptionally soft average terms in 1967 were mainly due to a US$160 million credit from the USSR, and a US$40 million credit from Czechoslovakia, with interest rates of about 2.5 percent and a maturity of more than twelve years. A large part of the explanation for the hardening of terms may be found in the rising interest rate of loans from western governments and international organizations and a shortening of the average maturity of the former.[4]

The structure of Yugoslavia's outstanding debt from the standpoint of the time profile of total amortization obligations became more favorable between 1964 and 1967 but unfavorable thereafter (Table 13.4). While at the end of 1964, 53 percent of the outstanding debt had to be amortized within the following three years, this share declined to 44 percent in 1967 and rose again to 52 percent at end 1970.

TABLE 13.4: Structure of Amortization Payments on Outstanding Debt

	End 1964	End 1967	End 1970
Amortization of following two years as % of debt outstanding	38	32	37
Amortization of following three years as % of debt outstanding	53	44	52

SOURCE World Bank, Economic and Social Data Division.

The changing amortization structure can be partly explained by the increasing importance of private nonguaranteed borrowing in recent years. Table 13.5 indicates the relatively unfavorable amortization structure of private debt in 1970. A significantly larger burden on the short-term debt servicing capacity is imposed by private (mostly suppliers') credits. Long-term maturities of World Bank and governmental loans were only partly able to compensate for the short maturities of private credits.

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4. OECD calculations, as shown in the *Termes Matrix 1967* and *1968, 1969* (Paris: OECD,1970 and 1971), indicate a lower grant element for total borrowing, averaging only 14 percent in 1968 and 13 percent in 1969, as compared with 22 and 24 percent, respectively, shown in Table 13 3. The lower OECD figures for the grant element reflect the harder terms of private borrowing. For "official development assistance" the average grant element was 37 percent in 1967, declining to 31 percent in 1969.

TABLE 13.5: Structure of Amortization Payments in 1970 (%)

	Public Debt	Loans from Governments	International Organizations	Private Debt
Amortization in 1971–72 as % of debt outstanding at end 1970	31	31	10	45
Amortization in 1971–73 as % of debt outstanding at end 1970	42	43	15	61
Amortization in 1971–74 as % of debt outstanding at end 1970	55	54	22	73
Amortization in 1971–75 as % of debt outstanding at end 1970	63	64	29	82
Amortization in 1971–76 as % of debt outstanding at end 1970	71	72	36	87

SOURCE. World Bank, Economic and Social Data Division.

Service Payments

Service payments, as reported to the World Bank, more than quadrupled since 1963, reaching almost US$630 million in 1971. Interest payments increased from US$25 million in 1963, to about US$105 million in 1971; amortization payments rose from US$104 million to US$520 million over the same period. Of the total debt service in 1971, US$600 million or about 95 percent was due in convertible currency. This compares with a share of convertible currency debt in total debt outstanding of 90 percent on disbursement and 83 percent on commitment basis. The rapidly rising debt service has caused the increase of almost all debt indicators, as shown in Table 13.6 since 1968. This indicates the significantly increased burden of =.2. V=.. foreign indebtedness on the economy. The debt service ratio[5] on total debt outstanding increased between 1967 and 1971 from 12 percent to 18 percent; debt service payments as percentage of GDS more than doubled between 1967 and 1971; and the debt outstanding as proportion of GDP also almost doubled between 1966 and 1971. As the debt service is due largely in convertible currency the burden on the economy goes well beyond what the above quantitative indicators suggest. Thus, the debt service ratio in convertible currency[6] is significantly higher. It rose from 17 percent in 1966 to about 23 percent in 1971.

TABLE 13.6: Selected Debt Indicators (%)

	1966	1967	1968	1969	1970	1971
Debt service payments/debt outstanding[a]	20.6	19.2	16.4	18.6	22.8	23.1
Amortization payments/debt outstanding[a]	16.2	12.6	12.6	14.0	17.9	19.3
Debt service payments/exports of goods and services including factor income	13.2	12.3	13.2	14.2	16.2	18.0
Debt outstanding[a]/GDP at constant 1966 market prices	13.0	15.6	17.2	18.2	19.8	24.2
Debt service payments/GDS at current market prices	8.3	8.3	9.0	10.3	13.9	17.6

[a]Disbursed only.

5. Debt service payments as percentage of exports of goods and services, including factor income.
6. Debt service payments in convertible currency over exports of goods and services, including factor income in convertible foreign exchange.

Debt Management

The projections below show clearly that the debt situation will continue to remain serious and that the government has to continue to give attention to external debt management.[7] The rapid increase in the external debt burden in recent years was partly the result of liberal regulations concerning foreign commercial borrowing after the economic reforms of 1965. The government has placed increasing emphasis on regulating the growth and structure of external borrowing, following the emergence of the external debt service problem. In July 1971, the National Bank instituted new reporting and registration procedures to help regulate the growth of external debt. Enterprises and banks must notify the National Bank of Yugoslavia before borrowing abroad, and register with it the debt incurred. The National Bank may refuse to register a loan undertaken on unfavorable terms or in excess of the estimated borrowing limit of the unit concerned. Banks are authorized to guarantee only those external loans that have been registered. Under the regulations governing external borrowing until April 1972, enterprises and banks were free to borrow abroad only within limits determined by their estimated capacity to repay in foreign exchange. In general, the borrowing limits of enterprises depended on the exchange available to them in the form of retention quotas and depreciation allowances in foreign exchange. Banks were allowed to incur or guarantee external loans to a limit dependent on their "foreign exchange credit fund," consisting of their purchases of retention quotas from enterprises, and earnings from their assets denominated in foreign currencies. In addition, a macroeconomic limit on aggregate external borrowing was determined each year jointly by the Federal Government and the National Bank of Yugoslavia, according to the estimated requirements for servicing existing debt and covering the foreign exchange gap. The limit was set at US$900 million in 1971, and kept unchanged for 1972. Of this, US$100 million was retained for foreign loans to be authorized by the government, and the rest allocated among the authorized banks according to their foreign exchange credit fund.

New Regulations for Foreign Borrowing

On April 28, 1972 new regulations were enacted for regulating external borrowing. These replace the previous system of limits on borrowing set for enterprises and banks, on the basis of their estimated capacity to repay in foreign exchange with one of the variable dinar deposits which would make external loans (particularly with relatively short-term maturity) costly and less attractive. The abolition of former quantitative limitations does not imply that a global limit does not exist any more. As mentioned, any credit arrangement with abroad (commercial or financial) has to have prior approval of the National Bank of Yugoslavia and be registered with the National Bank when concluded. The National Bank of Yugoslavia may at any time, and without giving any reasons, refuse to give the approval to any credit arrangement with foreign countries.[8] The dinar deposits are noninterest-bearing and have to be deposited with the National Bank before an external loan can be registered. The deposits are not repaid until the external loan has been fully repaid. They vary in size with purpose, maturity and location of the user of the credit.

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7 See Chapter 14 and Appendix C, "A Long-Term Projection Model for Yugoslavia."

8. At the end of 1972, the National Bank refused under this provision to approve credit arrangements with repayments within the first twelve months.

For commercial credits financing the import of raw materials and semifinished products, 66 percent of the contract value has to be deposited with the National Bank at registration time. The remaining 34 percent has to be deposited thirty days before each maturity. Moreover, the importer must have the right to buy foreign exchange (under the import regime) and his rights are blocked at registration for the full value of the contract. If the credit is to be repaid out of own foreign exchange funds (retention quota), the amount covering the full contract value is blocked. When machinery and equipment is imported on a credit basis, the deposits are 20 percent for credits of up to three years' maturity, and 10 percent if the borrower is from an underdeveloped region. For credits with a maturity of three to five years, the deposits are 10 percent and 1 percent respectively, and for maturities of over five years, the deposit is uniformly 1 percent.[9] In addition to the above deposits, the foreign exchange account of the importer, or the right to buy foreign exchange under the import regime, are blocked up to the amount of the deposit. If a bank guarantee is required to cover obligations undertaken under commercial credit arrangements, an additional deposit of 5 percent has to be transferred to the National Bank of Yugoslavia before the guarantee is issued, and remains deposited with the National Bank during the whole period of the validity of the guarantee without any interest. For financial credits, dinar deposits were set in July 1972 at 40 percent for credits with a maturity of less than two years, 30 percent for maturities of five to seven and a half years, 5 percent for maturities of seven and a half to ten years and 1 percent for maturities of ten years of more. In late 1972, dinar deposits were temporarily raised to 75 percent for the short-term maturities.

The effectiveness of the new regulations can be judged only with time, and when more detailed data on recent external borrowing is available. It is, however, reported that there was a significant decline in short-term borrowing. Credits with less than one-year maturity reportedly disappeared completely after April 1972. Though the new system abandoned the quantitative limit on external borrowing, the new dinar deposit and registration requirements provide the authorities with more effective instruments to regulate both amount and terms of new foreign borrowing. It also appears that the Yugoslav authorities are determined to utilize fully the new instruments to prevent a deterioration of the external debt situation. Thus, for 1973, an increase of dinar deposits for short-term and medium-term financial credits is considered. Moreover, the National Bank plans to coordinate foreign borrowing through the formation of a consortium of Yugoslav banks. Contracting credits outside the limits set by the consortium would be imposed with high dinar deposits, thus possibly amounting to prohibiting borrowing outside the consortium.

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9. There are some exemptions from these deposit requirements, concerning in particular credit obligations for the account of the Federal Government or the National Bank of Yugoslavia, for projects financed by international financial organizations, for shipbuilding, exports and credit obligations for joint ventures.

CHAPTER 14

DEVELOPMENT PROBLEMS AND PROSPECTS

The analysis of the development experience and problems of the Yugoslav economy presented in this report gives ground for a favorable assessment of future economic performance. The success with which Yugoslavia has combined rapid economic growth and fundamental institutional change over a long period of time, gives evidence of the basic soundness of the line of economic development and of the country's ability to face and to find reasonably effective solutions to the seemingly intractable economic problems—domestic and external—that continue to persist. The endowment of natural and human resources, together with the pragmatic and dynamic approach brought to bear on economic problems and issues, the readiness to consider and undertake institutional changes, and the general commitment to an open market-oriented economy are other reasons for confidence in development prospects.

The major factors likely to influence growth are: (a) the efficiency of the decentralized system of decision making, based on consensus among the republics in formulating, adopting and implementing general economic policy and in effectively coordinating regional investment programs; (b) the success in controlling inflationary pressures, which implies the development of an environment of financial responsibility where monetary policy can be more effective, implementation of an incomes' policy to restrict the growth of personal incomes, and the development of a more flexible fiscal policy; (c) an improvement in the tight balance of payments situation, depending partly on the attainment of domestic stability as well as on the rate of growth in western European countries, particularly Italy and Germany, which absorb more than a quarter of Yugoslav exports and are a major source of tourism earnings and workers' remittances; (d) an improvement in resource allocation, and maintenance of the rate of aggregate savings.

Institutional Change

The trend towards decentralization and greater self-management is likely to continue. The legislative framework required for the implementation of the Constitutional Amendments of 1971 is still being created, and the implications of these amendments have not yet been fully elaborated. The amendments have made the basis of certain institutions such as the Federal Assembly obsolete, and further constitutional changes are being formulated. The Constitution of 1963 has been amended to such an extent it is felt that instead of new amendments a new constitution is needed, to consolidate the developments of the last decade. A draft constitution has been prepared and is being discussed. The continuation of institutional change and its necessarily experimental character may be expected to absorb energy and attention. However, on the basis of past experience, it is unlikely to impede economic and social progress significantly in the short run. In the long run it is likely to further economic development, since the whole process aims at greater efficiency of the Yugoslav production structure, with increased market orientation and better integration with the international economy.

The crucial problem that has appeared in this process of institutional development, and which has not yet been solved fully, is how to secure a proper balance between decentralization and self-management on the one hand, and the essential requirements of coordinated economic, and particularly, investment decisions, and the macroeconomic management necessary at the federal level on the other. As has been indicated in this report, the Yugoslavs have experimented with a number of institutional constraints to achieve such a balance and with some success. The recent innovation of social and self-management agreements between involved parties and the state, which are legally binding, appears to have begun to work and the formalization of consultation and agreement among republics and provinces on all matters of common interest has also yielded decisions on a number of controversial questions. While much yet remains to be achieved, particularly in terms of the speed with which decisions are reached and implemented, the trend appears to be towards smoother and more effective coordination.

Employment

As a result of a relatively slow growth in the population and labor force, the dimensions of the employment problem in Yugoslavia are different from that in other developing countries with surplus labor in agriculture. In addition, Yugoslavia has been relatively successful in expanding nonagricultural employment, though migration of workers abroad has been important since 1965 in alleviating the pressure for such employment. The total resident population is likely to increase at about 0.8 percent per year, to reach about 22.5 million in 1985. Assuming that the participation rate remains unchanged at the 1971 level, the labor force would increase at the same rate as population. This would imply an average increase in the labor force of about 70,000 per year during 1971–85.[1] If social sector employment grows at the trend rate of 2.9 percent annually, an average of about 140,000 new jobs would be created in the social (primarily nonagricultural) sector during this period. If net external migration averages, say, 20,000 to 25,000 per year during the next decade, then by the early 1980s these developments would have more than absorbed what current estimates suggest to be the country's pool of underemployed (about one million in 1971) *plus* the expected increments to the labor force. Even if it were assumed that the average growth rate of social sector employment were to be only 2 percent per annum, about two-thirds of the trend rate, the number of new jobs created would exceed the projected increase in the labor force, and the main implication would be that the existing underemployment would not be fully absorbed by the 1980s.

It would appear, therefore, that there is some prospect of Yugoslavia being transformed into a labor scarce full-employment economy by the 1980s. This prognosis, however, may be academic in view of the following considerations:

(a) even achieving the above employment goals, it would still leave about 38 percent of the domestic labor force in agriculture;

(b) there would still be about one million Yugoslav workers employed abroad, i.e., about 11 to 12 percent of the labor force;

(c) the achievement of "full employment" in Yugoslavia does not rest on the achievement of simple global arithmetic goals, but on the achievement also of a suitable regional balance of new jobs and available workseekers.

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1. If the participation rate rises so that the labor force increases at 1 percent per annum, the average annual increment in the labor force would be about 88,000.

In 1971 Yugoslavia was creating about twice as many jobs in the social sector as there were net increases in the labor force (about 110,000 new jobs annually, as against labor force growth of around 50,000 a year). However, while most of the new jobs created were in the developed regions, a relatively higher proportion of the under-employed and those seeking work in the social sector were in the less developed republics and autonomous provinces.

The migration of workers abroad has played a very important role in Yugoslavia's success in reducing underemployment in the last few years. For reasons indicated earlier in the report, external migration is unlikely to play a similar role in the future (see Chapter 3).

The Dual Economy

In Yugoslavia the dualism, characteristic of developing economies, between the traditional and the modern sector broadly coincides with the distinction between the private and the social sectors. The private sector has played essentially a passive role in the development process, mainly as a reserve for labor and supplier of a part of the needs of the social sector for agricultural commodities, and its relative importance has tended to decline.[2] Since the bulk of the underemployment in Yugoslavia is in private sector agriculture, the prospect of reduction and perhaps elimination of the existing labor surplus in the 1980s would imply both an improvement in the economic situation of the peasant farms, as well as a decline in the number of people dependent on them. On the employment assumptions listed above, about 65 to 70 percent of the labor force would be employed in the social sector by 1985, as against about 50 percent today. The dualistic nature of the economy is therefore likely to persist for some time to come, but would tend to become less important.

Economic Growth and Structural Change

The growth rate of GDP that is likely to be attained would depend on the success in tackling the major problems that have prevented sustained rapid growth in recent years, and have slowed down the trend rate of growth of GDP to around 5 percent since 1965, namely inflationary pressures and balance of payments difficulties. An average growth rate of about 7.5 percent per year is the official target, considered necessary for the achievement of basic social and economic objectives within an acceptable time period.[3] It is, however, recognized by the Yugoslav planners that a rate of growth of 7 to 8 percent per year would not be feasible if recent measures for domestic stabilization are not successful. In that situation, a growth rate of between 5 to 6 percent per year is regarded as the minimum acceptable. These targets may be compared with the average growth of GDP of 6 percent per year achieved during 1953-71, and of 6.5 percent per year during 1953-65. On the basis of the analysis of the preceding chapters the mission believes that a growth rate of GDP of around 6 to 7 percent could be achieved in the medium and long term. Given the fairly low rate

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2. The bulk of the requirements for marketed agricultural production has been met by social sector agriculture. See Chapter 6.

3. This was the target growth rate in the Social Development Plan for 1966-70 as well as for the current Plan, 1971-75.

of population growth, this would imply a reasonably rapid increase of per capita GDP, from about US$700 in 1971 to a level around US$1,450 (in 1971 prices) in 1985.[4]

The pattern of structural change is unlikely to be different from past trends and from that found in cross-country investigations. The share of industry in output and employment may be expected to increase mainly at the expense of agriculture. With high levels of incomes and consumption, the importance of tertiary activities may be expected to increase. Here, however, it may again be pointed out that the the increase in nonagricultural employment in Yugoslavia has, to a much greater extent than in other developing countries, occurred in industry rather than in "spongy" service industries (see Chapter 3).

Industry may be expected to continue to be the leading growth sector, given the dynamism of the industrial enterprises, the outward orientation in industrial development, and the emphasis placed in national policy objectives on modernizing and increasing the efficiency of Yugoslav industry, partly by import of technology through joint ventures with western firms. A major factor determining the rate of growth of the industrial sector would be the availability of funds for investments. This implies both an improvement in the savings' performance of enterprises and in the intermediation of financial resources. Much will depend on the successful implementation of an incomes' policy which would leave more room for investment financing out of enterprises' own resources. It would also allow the Federal Government to relax monetary policy and credit restrictions somewhat, without exacerbating inflationary pressures. A second important determinant of industrial growth would be the growth of export markets, since domestic markets may be expected to grow rapidly with rising incomes. The recent increase in the number of joint ventures with foreign firms, the encouraging results for Yugoslavia of the system of generalized preferences for developing countries adopted by the EEC, and the active exploitation of market possibilities in the eastern bloc and in developing countries, all appear to augur well for the future. However, foreign markets for particular industries (such as textiles) may be difficult to extend. Weaknesses in industrial planning and coordination which result in fragmentation and duplication of capacity, and the existence of substantial idle capacity in some industries and regions, have also tended to be an important constraint on the progress of the industrial sector. The availability of skilled labor so far has not been a significant problem for industry. Regional and occupational imbalances are, however, a possibility, particularly considering the practical elimination of the labor surplus in the more developed republics, such as Slovenia and Croatia, partly because of the migration of workers abroad.

Savings' and Resource Allocation

The high levels of past average and marginal savings' rates seems to imply that the saving potential is quite high. Though there has been some erosion of the GDS rate since the economic reforms, the ratio of GNS to GNP has remained more or less stable at a very high level (averaging 28 percent of GNP during 1969-71). There is little reason to believe that this picture would change drastically in the medium term, particularly since there has been a shift in economic policies designed to keep the

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4. The 1985 per capita GDP corresponding to a growth of 7.5 percent per year and of 6 percent per year, would be about US$1,600 and US$1,350 respectively.

growth rate of private and social consumption somewhat lower than the growth of output, and efforts have also been undertaken to increase the rate of enterprise savings out of their net income through incomes' policy.[5] While it is important that the aggregate savings' rate be stabilized so as not to act as a constraint on rapid growth, it is even more important that the resources are intermediated efficiently to appropriate sectors and regions. Econometric projections using a Chenery-Strout gap model, indicate that a stable GDS rate of around 26 percent of GDP (slightly above the level of 1971) is consistent with a growth rate of GDP of 7.5 percent per year.[6] The analysis, however, also indicates that if the savings' rate is eroded gradually to around 20 percent, a GDP growth rate of even 6.5 percent is likely to be infeasible, in terms of the implied deficits in the current balance of payments and the levels of total external capital disbursements needed.

Improvements in resource allocation resulting in an acceleration of the growth of GDP, given the rate of investment or alternatively implying that a given rate of growth may be achieved with a lower rate of investment, are an important issue for policy. The distortions in resource allocation introduced by inflation, the low real interest rate, the weakness in financial discipline, the effects of price controls on relative attractiveness of particular industries, as well as the bias towards capital intensity in the institutional framework have been pointed out (in Chapters 3 and 9). Measures to tackle some of these problems are being undertaken and some progress is likely to be achieved. To the extent that this occurs, the rate of growth may be closer to the official objective.

The Balance of Payments

The balance of payments situation is likely to continue to be an important factor influencing the rate of growth. There are a number of reasons for the mission's generally favorable prognosis of the long-run balance of payments prospects. We foresee a continued fairly rapid growth of export earnings, and a high rate of increase in tourism receipts and workers' remittances. The explosive growth of imports in the past few years is expected to be contained to more sustainable levels. Consequently, while the trade deficit is anticipated to grow, the current account balance is expected to stabilize at quite acceptable levels.

Merchandise Exports

Merchandise exports may be expected to grow rapidly in line with past trends. Over the last two decades, Yugoslavia has successfully built up a strong export base, founded on a wide variety of industries with well-established channels into western and other markets. Industry's close association with leading western firms through cooperation agreements, including licensing and marketing contracts, has assured its enterprises access to modern technologies, knowhow and marketing. Yugoslav exports enjoy a favorable commodity structure with a relatively large share of high-demand elasticity products, such as beef, wine and certain fruits and vegetables among

5. An explicit objective of the 1965 reform and the 1966–70 Social Development Plan was to raise the ratio of aggregate consumption to GDP. The current Social Development Plan aims at stabilizing and even slightly reducing this ratio.

6. See Appendix C, "The Projection Model," for a discussion of the Base Run.

agricultural products, copper, lead, zinc among minerals, and a wide range of engineering manufactures. Moreover, a large portion of its exports are sold in fast growing markets in the West, and the prospects for increasing exports to eastern markets are good. Rapidly rising domestic wages and prices may constitute a major threat to fast expanding exports. However, the flexible exchange rate approach followed in recent years is likely to continue to compensate for the disadvantage Yugoslav exporters may have through higher inflation rates domestically than abroad.

The trend growth rates of merchandise exports by major export categories are shown in Table 14.1. It is evident that there has been a general slow-down in export growth rates during 1965-71, in line with that in economic growth in this period. On the basis of these trends, combined with informal discussion and judgements about expansion of production, and export market conditions, high and low projected growth rates for each export category are also shown (see also Appendix C on the Projection Model).

TABLE 14.1: Export Growth Rates: Past Trends and Future Assumptions

| | Trend Growth Rates[a] | | Projections | | | |
| | | | Low | | High | |
	1959-71	1965-71	1972-76	1977-88	1972-76	1977-88
Ferrous and nonferrous metals			11.4	11.6		
Ferrous	6.5	8.5	7.0	7.0	7.0	7.0
Nonferrous	12.2	15.2	12.0	12.0	14.0	12 0
Metal products			12.4	10.6		
Metal products	8.9	1.7	9.0	9.0	12.0	10.0
Ships	10.9	9.0	16.0	12.0	20.0	16.0
Electrical equipment	12.1	7.4	15.0	11.0	18.0	14.0
Chemicals	20.7	9.1	12.0	8.0	12.0	8.0
Wood products	3.4	1.9	6.0	6.0	8.0	8.0
Textiles			8.4	7.0		
Textiles	15.6	8.1	6.0	6.0	10.0	8.0
Leather and rubber	17.4	12.0	12.0	8.0	12.0	8.0
Food products	1.9	0.9	2.0	2.0	2.0	2.0
Other goods	2.3	−2.2	2.0	2.0	2.0	2.0

[a]In constant prices based on least squares, trend lines fitted to the data, using the expression $y = a(1 + r)^t$.

Tourism

Future prospects of tourism earnings depend essentially on the solution of internal constraints on the financing of hotel and infrastructure investments. External demand for tourism to Yugoslavia is not a bottleneck. The enactment of incentive legislation has been slow, and without new incentives and a quick solution to problems of domestic financing, not more than 40,000 beds seems likely to be added to present capacities between 1973 and 1976. Apart from increases in accommodation capacity, future development of foreign exchange earnings from tourism depend, firstly, on Yugoslavia's success in increasing the average occupancy rate through reducing the seasonality and expanding the peak season over a large time period, and secondly on successful promotion of entertainment facilities etc. to increase average daily expenditure per tourist. If one would assume *optimistically* that encouragement of winter tourism would succeed in raising the average occupancy rate by 8 percentage points between 1972 and 1977, and furthermore, if one expects an increase in the

average daily expenditure of 10 percent per year (slightly below the annual growth rate during 1965–71) foreign exchange earnings from tourism could rise at 20 percent per year. If one assumes, perhaps more realistically, a rise in the occupancy rate at only 3 percent per year, to 39 percent in 1977, and an increase of the average daily expenditure by 5 percent per year, from US$14 to US$19 per day in 1977, the annual growth of tourism earnings would be 14 percent per year. Thus the projections are very sensitive to assumptions concerning the occupancy rate and average daily expenditure.

Workers' Remittances

An accurate forecast of the volume of workers' remittances in future years is not possible because of the complexity of the factors affecting them. However, it seems possible to predict within the scope of a fairly broad set of assumptions reasonable upper and lower expected limits. On this basis the predictions offer a fairly optimistic outlook for remittances as a major (possibly still the major) source of foreign exchange into the 1980s. Calculations based on relatively conservative assumptions regarding the behavior of factors affecting remittances, suggest that the annual flow of remittances in 1980 is very unlikely to be much less than about US$1.5 billion, as a very low minimum, even if no further migration were to occur. Nominal wage increases abroad of 8 percent per annum and slightly rising savings' rates would be sufficient to sustain this figure. On the other hand, if the number of migrants abroad were to grow by 50,000 a year, this effect, together with that of the wage increase, will, according to our calculations, imply a remittance flow of about US$2.5 million in 1980 (an increase of 15 percent per year). The actual development may be expected to be in this range.

Possibly the key factor in these speculations is the question of the rates of future migration. If for some reason, which at the present time of writing would have to be quite unexpected, there was to be a large-scale repatriation of Yugoslavs from Western Europe, then certainly the foundations for the above calculations would not hold. If this were to occur, however, it seems likely that many workers would bring with them at least some portion of their unremitted savings which, by the evidence of recent sample surveys, are equal to about twice the amount remitted each year. The foreign exchange effect of such a repatriation, therefore, could well be significantly greater than the normal remittance effect. So to this extent, these considerations add yet further weight to the view that this part of the foreign exchange account is not likely to yield either to instability nor to a diminished importance through the current decade.

Imports

During the last decade, Yugoslavia became increasingly dependent on imports, due to factors analyzed in Chapter 12. In summary, they include: Yugoslavia's drive toward efficiency, modernization and international competitiveness; its liberalization of the foreign exchange and trade regime and external borrowing; the priority given to manufacturing and processing, neglecting the development of raw material production, and thus creating an imbalanced production structure with increasing dependence on raw material imports; inflationary developments in the domestic market; tight domestic monetary policies encouraging enterprises to import on credit in-

stead of buying on the domestic market; and finally a bias in the foreign exchange regime, inducing enterprises to use their retention quota for unnecessary imports to be sold profitably in the domestic market. As a result, the import elasticity increased from an average of about 1.7 during 1950–67 to 2.1 during 1967–71. The average import elasticity in recent years is too high for Yugoslavia to sustain its official high target growth rate despite the favorable growth of foreign exchange earnings, because the levels of disbursements of external capital implied do not appear feasible. Some decrease in import dependency can be expected with efficient implementation of stabilization and an incomes' policy, and the increase in the domestic content of investment and exports with the recent emphasis on the development of raw material and semifinished goods' industries. However, it is unlikely that the import elasticity will decrease much below its long-run level.

Long-Run Projections and their Implications

The interrelationship and the consistency of the long-term growth prospects and employment, savings and balance of payments developments discussed above was examined with the help of an econometric projection model (see Appendix C). The analysis covered a range of alternative growth rates, a high and a low projection of export earnings' growth, and the implications of a stable and declining savings' rate. It confirmed that with a GDS rate slightly higher than recent years, a favorable export performance and an import elasticity significantly lower than recently, a GDP growth of 7.5 percent per year would be feasible, considering the implied levels of external capital disbursements and debt service ratios.

The projection exercise rests on certain assumptions about the composition of future gross capital inflows, based on recent trends and judgements. Official capital inflows are assumed to be around US$300 to 400 million per year with maturity varying from three to twenty-five years,[7] and interest rates from 2 to 7.25 percent per year.[8] The remaining inflow is assumed to consist of financial and suppliers' credits on the following terms:

| | % of Total | Terms | | |
		Maturity (Years)	Grace (Years)	Interest (%)
Nonconvertible	10.0	5	1	6.0
Convertible				
Short-term	13.5	2	1	6.0
Medium-term	66.6	5	1	6.0
Long-term	9.9	12	1	6.0

SOURCE: World Bank, Economic and Social Data Division.

The mix of suppliers' credits in the future is based on an analysis of past trends, as well as likely future prospects based on discussions with officials of the Government of Yugoslavia.

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7. For the US Commodity Credit Corporation and the World Bank loans respectively.
8. For the USSR and the World Bank loans respectively.

The basic run of the model assumes a 7.5 percent growth rate for GDP, based on the growth assumptions of the recent development plan. This growth rate, plus an optimistic assumption for exports of goods and services results in the projections summarized in Table 14.2 below.

TABLE 14.2: Selected Results of Base Run

					(Constant Prices)
	Average	Actual	Projected		
	1965–71	1971	1971–76	1971–80	1981–88
Growth rates[a]					
GDP	5.2	7.7	7.5	7.5	7.5
Investment	5.3	4.7	8.5	8.3	7.7
Consumption	6.9	10.1	7.0	7.3	7.1
Imports GNFS	13.3	12.1	10.3	10.5	9.6
Exports GNFS	8.0	9.5	11.4	12.5	10.7
			1976	1980	1988
Values of					
S/y^b (%)	28.1	25.2	27.0	26.4	28.8
Marginal savings' rate	0.097	0.030	0.264	0.247	0.346
ICOR	6.3	3.9	4.0	4.1	4.2
Import elasticity	2.8	1.6	1.5	1.4	1.2
RG/Y^c (%)	3.0	6.7	6.5	7.8	6.6

[a]Past growth rates are least-squares' trends.
[b]Average savings' rate, based on GDS.
[c]Resource gap as a share of GDP.

The growth rate of 7.5 percent for GDP implies a slightly faster growth rate for investment, and as a result the ICOR tends to rise slightly during the projection period, from 3.8 in 1972 to 4.1 by 1980, and 4.2 by 1988. While exports of goods and nonfactor services grow at between 10 to 11 percent per annum, imports grow even faster, causing a widening of the resource gap. The resource gap as a percent of GDP tends to rise from 5.2 percent in 1972 to 7.8 percent in 1980, but then declines gradually to 6.6 percent by 1988. The increased capital inflow necessary to cover the widening resource gap permits the GDS level to remain at about 26 to 27 percent of GDP during the period, despite the higher levels of investment required. Although the gap between imports and exports grows wider over time, its impact on the current account is largely offset by factor income flows (see Table 14.3). The deficit on current account is largely affected by other factor payments and transfers—the chief items among these being interest on the external debt and transfers. As the growth of the resource gap slows down after 1980, the balance on current account eventually turns to a surplus by 1988.

Large inflows from foreign borrowings are still required, despite the small current account deficit (Table 14.4). This is largely a result of the heavy amortization payments due on existing debt, as well as the projected repayments on new obligations. By 1980, disbursements from foreign loans are projected to rise from about US$900 million in 1971 to US$1.8 billion, and amortization payments to rise from US$.7 million to US$1.4 billion. While direct foreign investment levels off at US$150 million, net export credits extended by Yugoslavia continue to grow as a result of an assumed growth of 12 percent per year in their gross disbursements. As workers' remittances largely offset the resource gap, future external borrowings are needed, mainly to cover the payments of interest and amortization on the external debt.

TABLE 14.3: Balance of Payments, Current Account: Base Run Projections

(In Millions of Current US$)

	1971	1976	1980	1988
Exports	2,835	5,791	9,882	29,292
Imports	3,743	7,251	12,538	34,461
Resource gap	−908	−1,461	−2,656	−5,169
Workers' remittances	650	1,412	2,535	5,944
Net current transfers	64	110	173	429
Net investment income	−26	−15	−24	46
Interest on debt	−104	−190	−299	−554
Balance on current account	−324	−143	−270	697

SOURCE. World Bank, Economic and Social Data Division.

TABLE 14.4: Balance of Payments, Capital Account: Base Run

(In Millions of Current US$)

	1971	1976	1980	1988
Direct foreign investment	20	130	150	150
Net export credits	−16	−111	−111	−276
Loan disbursement	857	1,283	1,849	2,754
Debt amortization	504	−1,023	−1,381	−2,667
Reserve change (− = increase)	49	−161	−261	−658

SOURCE. World Bank, Economic and Social Data Division.

Even with the high amounts of external borrowings, debt service payments remain relatively small in relation to total foreign exchange earnings. The debt service ratio in fact declines from 20.2 percent of foreign earnings in 1972, to 13.3 percent in 1980, and 9 percent in 1988 (see Table 14.5).

TABLE 14.5: Debt Service Ratios, Convertible and Nonconvertible Areas: Base Run

(%)

	1972	1976	1980	1988
Debt service ratio				
Convertible	25.2	19.7	15.8	11.1
Nonconvertible	4.6	8.0	6.5	3.6
Total	20.2	16.5	13.3	9.0

SOURCE· World Bank, Economic and Social Data Division.

Alternative Runs

These results for the balance of payments projections are conditioned by somewhat optimistic assumptions about the growth of exports and workers' remittances. Alternative (more pessimistic) hypotheses for these two items produce markedly different results. In Variant A, workers' remittances are assumed to grow at a slower rate, and in Variant B, both workers' remittances and exports of goods grow at slower rates. Workers' remittances are assumed to grow at 13 percent per annum for the 1972–79 period, as opposed to 16 percent in the base run, and then decline to a growth rate of 7 percent by 1985, as compared to 10 percent in the base run. Exports of goods are assumed to grow at the lower ranges given in Table 12.1, which means an average growth rate of 8 to 9 percent for total exports, as compared with 10 to 11 percent in the base run. All other assumptions are held the same as the base run.

TABLE 14.6: Balance of Payments, Sensitivity Results: Alternate Runs

(In Millions of Current US$)

	1976			1980		
	Base	A	B	Base	A	B
Resource gap	−1,461	−1,461	−2,110	−2,656	−2,656	−4,590
Balance on current account	−143	−293	−999	−270	−821	−3,080
Total disbursements	1,283	1,477	2,453	1,849	2,752	6,662
Debt service ratio	16.5	17.5	23.8	13.3	17.2	38.4

SOURCE· World Bank, Economic and Social Data Division.

A lower growth rate for workers' remittances (Variant A) has a major but not catastrophic effect on the balance of payments. In Variant B, however, the effects are much more marked. With both low export commodity growth rates and lower remittances, the deficit on current account jumps to US$1 billion by 1976 and US$3.1 billion by 1980, and the debt service ratio reaches 38 percent by 1980. This is an untenable position, not only because of the high debt service ratio, but also because of the implied level of disbursement of external capital of US$6.7 billion a year. This amounts to 90 percent of projected fixed investment in that year and about 50 percent of total imports. Thus it seems clear, that the 7.5 percent growth rate assumption is incompatible with an assumed growth rate of exports of only 8 to 9 percent per annum.

To illustrate what would be a more feasible level of growth, given the more pessimistic assumptions about workers' remittances and exports, alternative rates of growth of GDP were analyzed. In Variant C, a 6 percent growth rate of GDP, when combined with the low workers' remittances/low export assumption produced a result similar to the Base Run. The balance on current account remains low, and in fact shows a small surplus by 1980. Total disbursements in that year would be about US$1 billion, and the debt service ratio is 11 percent. It is evident that if the export assumptions of the Base Run prove too optimistic, a reduction in the growth rate will be necessitated by the inability either to borrow or absorb the large capital inflows necessary to sustain 7.5 percent growth. A reduction in the average growth rate of exports of goods and services of 1 percent appears to necessitate about a 1 percent reduction in the growth of GDP.

The validity of these projections depends upon the ability of Yugoslavia to maintain a fairly high, by world standards, savings' rate. The model projects an average GDS rate of about 27 percent for 1972–80. This is somewhat higher than the recent past which has seen a tendency for the GDS rate to decline. After reaching a peak of about 32 percent (calculated in constant prices) in 1966, the domestic savings' rate has fallen to 25.2 percent in 1971. The average for the 1955–71 period is 27.4 percent, or close to the average for the projected period 1972–80.

The implications of a lower savings' rate are illustrated in Variant D of the Base Run (Table 14.7). In this run, a savings' gap approach was used in the projection exercise. A marginal savings' rate of 20 percent was used as an exogenous estimate of a lower savings' performance, while all other assumptions of the Base Run were maintained. This has the effect of causing the average saving rate to fall from 25.2 percent in 1971 to 22.7 percent in 1980.

The lower savings' performance with the same overall growth rate is compensated for by a higher level of imports. The balance on current account shows a US$1.7 billion deficit in 1980 as compared to US$300 million in the Base Run, and total ex-

ternal capital disbursements are US$3.2 billion higher. Clearly, this is an infeasible situation. Thus it is evident that even with an optimistic growth of exports and workers' remittances there must be an improvement in, or at least no deterioration of, saving performance in the future, if a 7.5 percent growth rate of GDP is to be sustained.

In conclusion, the projection exercise essentially demonstrates that while a rapid growth rate is attainable it depends upon a continuation of high export earnings and the stabilization, and perhaps slight reversal of the trend towards lower GDS. Considering the uncertainty regarding export earnings in the future, in particular the rather uncertain nature of workers' remittances, and the institutional problems concerned with savings' mobilization, it appears quite possible that the target GDP growth rate of 7.5 percent per year will not be attained. However, the lower limit of GDP growth of about 6 percent per year set out in the current Social Development Plan appears to be attainable, even under the pessimistic assumption of the growth of export earnings and workers' remittances.

TABLE 14.7: Selected Results of Variant D
(Lower Savings' Performance)

	Actual	Projection		
	1971	1976	1980	1988
GDP — growth rate	7.7	7.5	7.5	7.5
S/Y	25.2	23.6	22.7	21.5
MSR	3.0	20.0	20.0	20.0
Import elasticity	1.6	1.5	1.3	1.3
ICOR	3.9	4.0	4.1	4.1
Current account				
Balance	−324	−916	−1,722	−5,594
Total disbursement	857	2,574	5,048	17,978

APPENDIX A

STATISTICAL NOTE

The statistical system of Yugoslavia is mainly organized around three important institutions:

(a) the Federal Institute of Statistics (FIS);
(b) the Social Accounting Service (SAS);
(c) the Institute of Economic Investment.

Directly depending on the Federal Institute of Statistics are three statistical sectors:

(a) economic: agriculture, industry, transportation and prices;
(b) national accounting with input-output and consumption surveys;
(c) population and social services with demography, education, employment and wages.

The Social Accounting Service, which was created in 1953 as an inspection branch of the National Bank of Yugoslavia, and became a separate department in 1960, is in charge of the monetery control of all transactions of the economy within the socialized sector (which is about 80 percent of the total economy). The functions of the SAS are as follows:

(a) auditing;
(b) recording financial statistics;
(c) analysis of financial statistics;
(c) giro operations among social accounting.

Auditing is essentially concerned with fiscal control and all legal prescriptions, not so much connected with salaries but with investment. All enterprises including banks, schools, are required to submit balance sheets to the SAS which are inspected quarterly, semiannually or annually as appropriate. Taxes (and in particular turnover taxes) are carefully analyzed. Depreciation allowances are not controlled, but by the end of 1966 minimum levels for such allowances were established. Some enterprises which are in effect complexes of industries often provide a separate statement sheet for each unit. Alternatively they prepare a special reporting sheet for the use of the national account unit of the FIS.

Up to 1969, the estimates of gross fixed investment were prepared by the Institute of Economic Investment. While the basic current price data are estimates from the SAS, the price indices used for deflating to derive real investment are calculated in the institute. For construction, different price indices are prepared for the various areas. For equipment, prices are the same all over the country. The fixed investment would probably understate the true fixed investment because some investment is covered by maintenance. Estimates of investment in the individual sector are prepared on the basis of private construction statistics which are available in the communes, the use of input-output tables, and import data. Estimates of individual investment in irrigation and livestock have a weaker statistical basis.

The principal characteristics of the national account system in Yugoslavia are the three main accounts: "C-1" relates to producers of goods and productive services, private as well as public; "C-2" relates to individuals as consumers; "C-3" relates to public services, health, education and personal services not included in account "C-1."

The Federal Institute of Statistics prepares estimates of GMP at current prices, both by industrial origin and by end use—consumption, investment and foreign balance. These accounts are the ones used in the country and published by the United Nations in the *National Accounts Yearbook*.

GMP includes the market price value added of those sectors which produce goods (industry, agriculture, handicrafts, forestry and construction) plus the value added by the activities contributing to the production and distribution of these goods and thereby increasing their value—transport and trade. It also includes passengers, transportation and all hotel services.

In order to adjust the GMP to GDP, account "C-3" should be added to the GMP. The main difference between the two is the concept of production, which for Yugoslavia relates to production of material goods and services. The main difference between "nonproductive" and productive services, according to the Yugoslav system of national accounts, is that "nonproductive" services are classified as those rendered to individuals. Historically GDP is higher by about 14 percent than GMP.

GMP by Industrial Origin. The main source of the data used in preparing estimates of GMP is the SAS. These data cover the entire socialized sector (mainly enterprises), which is estimated to represent 80 percent of the total economy. The data are submitted to the SAS on a special type of balance sheet which is then made available to the national accounts' division of the FIS, where the GMP estimates are prepared. These reports have to be supplemented by additional information derived directly from enterprises with mixed output and/or branches in the various republics. This approach facilitates the classification of the product originating in those enterprises by republics as well as industrial origin. Two classification systems are applied in Yugoslavia:

    (a) classification by organization principle; and

    (b) classification by establishment principle.

The first focuses on the legal entity, and thus lists each enterprise by sector according to its prevailing production line. The establishment principle takes a more technical view and classifies the production units of enterprises according to the respective industrial sector. The difference between using the classification by organization and by establishment principle is shown in the table below.

TABLE 1: GMP by Industrial Origin, 1970

	(In Millions of Current Dinars)	
	Establishment Principle	Organization Principle
Total GMP	157,207	157,207
Industry and mining	54,250	55,285
Agriculture and fishery	27,734	31,312
Forestry	2,104	2,207
Construction	18,985	14,173
Transportation	12,701	14,070
Trade and catering	35,290	30,377
Handicrafts	5,253	8,478
Communal activities	890	1,305

SOURCE: *Statistićki Godišnjak, Jugoslavije.*

In the social sector of the economy, sector value added in each industrial sector is estimated from material inputs data provided on the annual balance sheets of the enterprises. In Yugoslavia, the value of production is obtained as the amount of invoiced realization adjusted for the net difference between extra income and extra ex-

penditure, and for changes in stocks of finished and unfinished products and unfinished production with producers. This gross value of production is decreased by the purchase value of trade goods sold, materials and waste, in order to obtain the gross value added. The agricultural statistics of the social sector are derived from the balance sheets of the *kombinats*. The area under crops for the social sector is reported to the FIS, while for the private sector government surveyors provide estimates through the commune for the different areas. They also provide yield estimates which are checked against production data after the harvest, as well as estimates of inputs and stock used by the enterprises.

In the total GMP, the *individual* (private) sector plays an important role in agricultural production (80 percent) and in handicrafts, although it has relatively little weight in total product. Rural handicrafts are included in agriculture. The *individual* sector is also important in construction, transport, catering, and retail trade.

Private sector production statistics are used by the FIS as a base for the estimates of value added by individual sector. Value added for each sector is obtained by applying appropriate coefficients of value added to gross production for major commodities in the accounts of the social sector. They are, however, adjusted downwards because of the low degree of capitalization and lower productivity in the individual sector.

Constant Price Estimates

The method used to estimate value added at constant prices by each sector, is that of constant value added — that of the base year — per unit of product. The value added per unit of product is estimated at a very disaggregated level, such as a meter of cloth, etc. The value added per unit is multiplied by the number of units produced in each year. *Agriculture* value added is obtained by subtracting the total volume inputs of material from total physical output, both priced at the base year prices. In the *transport* sector, the physical indicators used are ton and passenger/kilometers, whereas for *hotels,* the indicator is tourist/night. None of the constant price estimates is obtained through the deflation of current price value added by a price deflator.

One shortcoming of the methodology used by Yugoslavia in preparing both constant and current price series of GMP is the incorrect valuation of *changes in stocks.* This is explained in the next section.

Expenditure on the GMP. The components of expenditure on the GMP are defined as private consumption, collective consumption, gross fixed investment, including change in stocks, net exports and statistical discrepancy (which includes price differentials, custom duties, time lags, etc.). *Private consumption* estimates are derived mainly from retail sales' data, to which is added the estimate of own account consumption (mainly in the agricultural sector) and goods sold in the market. The components of consumption are checked against the results of the households surveys, as one measure of their accuracy. The estimates of expenditure on productive services are based on the data supplied by the communes.

Collective consumption includes only the goods and productive services bought by the general government; thus it excludes the wages and salaries paid to employees engaged in public administration.

Up to 1966, gross fixed investment was estimated from SAS data. The SAS data record investment on a cash flow basis, that is to say at the time when payment is effected. It also includes investment made by individuals if the source of funds is bank credit. The shortcomings of this method is that the series on investment does

not represent real physical investment in a given period, because (a) it excludes investment paid for with foreign exchange accounts in the banks; (b) investment for which no cash transaction was made, i.e., machinery produced and used in the same enterprises; (c) joint venture capital investment; and (d) commercial credits which are repaid in kind i.e., if repayment of the loan is made with the products of the enterprises. Since 1966 the FIS has prepared a separate series on investment. These are based on periodical surveys by the FIS relating to physical investment.

The net balance of transactions on the rest of the world account is obtained by using balance of payments data converted to dinars at the official exchange rate prevailing in each year.

Adjustment of GMP to GDP based on the UN System of National Accounts Revaluation of Changes in Stocks in the National Accounts

The FIS estimate stock changes for any year as the difference between successive end-year values of existing stocks in end-year prices.[1] The estimates thus obtained are explained in the GMP and GDP accounts as numerical changes in the nominal value of stocks; thus they include both the real change, and value increases attributed to price rises. In periods of serious inflation, this system of valuation might show an increase in the value of stocks when a decline in volume had in fact taken place. These accounts do not identify changes in stock. The accounts include the changes in a residual item composed of net foreign balances, changes in stocks, and statistical discrepancies. Values of end-of-year stocks are available to the IBRD for the social sector for the period 1963–70, and for the individual sector only from 1963 up to 1968. Total nominal change in stocks is available in the GMP, and changes derived from the series of end-of-year stocks are small, particularly for the early 1960s.

The data on end-of-year stocks for the social sector are classified by type of goods: raw materials, unfinished goods, final goods, and, for the years 1967–69, by industrial sector as well. The values of end-of-year stocks for the individual sector are available only as a total, but there is some evidence that they relate entirely to agricultural stocks.

To adjust the change in stocks for price distortions for the years 1964–70, the end-of-year stocks were first converted into constant 1966 prices. Then the yearly changes in constant prices were converted into average prices for each year. The deflation of end-of-year stocks was carried out independently for each type of good for the years 1967–69. For final and unfinished goods, the calculation was made by using the industrial producers' price index; for raw materials by the wholesale price index; and for stocks of the individual sector by means of the agricultural producers' price index.

Values of end-of-year stocks at end-of-year prices for 1951–62 could be obtained from the 1963 aggregates, and the nominal change in stocks in the GMP series at current prices. As no breakdown by industrial sector was available before 1967, the deflation of the aggregates to convert them into 1966 prices had to be done globally, using a weighted average for price index, industrial producers (45.3 percent), wholesale value (29.7 percent), and agricultural producers (25 percent). These weights

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1. The estimates of gross fixed investment are prepared by the Federal Institute of Statistics on a "cash flow" basis, and consequently no adjustments for price changes are deemed necessary.

are consistent with the composition of the stocks in the 1960s. The yearly changes in constant prices were converted subsequently into average prices for each year.

For the years 1950 and 1951, the changes in stocks could not be obtained. The crudeness of the estimates of product in current prices for those years in particular did not justify the effort of estimating the changes in stocks. Once the adjusted series for changes in stocks were prepared, it was necessary to proceed to the adjustment of the value added by sector in the GDP series at current factor cost. This was necessary because in the estimates of product by sector at current prices, the FIS included nominal changes in stocks.

The difference between the changes in stock in the GMP and the adjusted estimates prepared as explained above, was distributed between the gross value added by agriculture and manufacturing in the following proportions— 1967, 21.1 percent and 78.3 percent; 1968, 23.1 percent and 76.9 percent; 1969, 22.9 percent and 77.1 percent; 1970, 25 percent and 75 percent; 1952-66, 25 percent and 75 percent respectively.

For 1971 no information of end-of-year stocks was made available to the mission by the SAS. The data on stocks available was as of 7/30/71. The growth rate of stocks as of 7/30/70 to 7/30/71 was applied to the total end-of-year stocks in 1970. Once that total was determined the same methodology as described above was used.

Estimates of GDP

The FIS prepares estimates of GDP by industrial origin and expenditure from 1957–69 at current prices for the OECD, using UN definitions based on adjustments from the supplementary tables to the GMP account included in *Privredni Bilansi Jugoslavije.*[2] The basic data include information on expenditures of the population on "nonproductive" goods and professional services, the general government budget and the revenues and expenditures of the social security system.

The estimates of GDP by industrial origin would contain for each industrial sector the same error as in the corresponding sector of the GMP, because of the similar method used to value change in stocks. In the GDP account, by end-use category, the estimates of fixed investment and change in stocks are the same as those in the GMP account.

GDP at Factor Cost by Industrial Sector at Constant Prices

The quality of the basic data available for making the estimates varied considerably from year to year. In order to obtain relatively comparable data for the whole period, different assumptions and adjustments had to be made for subperiods. As the data for estimating GDP in later years was more sound, these figures were calculated first, and formed the basis for extrapolating GDP for earlier years.

The estimates made by the FIS for the OECD do not include constant price series. Mission estimates of GDP in 1966 prices are based on the OECD figures, adjusted for undervaluation in the change in stocks and applying the appropriate sectoral growth rates.

For the period 1950–71, the FIS had prepared estimates of GMP at constant prices

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2. *Privredni Bilansi Jugoslavije, 1964–68* (Belgrade· Federal Institute of Statistics, 1970)

by industrial sector. For the estimates of gross value added in GDP for the agricultural, manufacturing, mining, construction, transportation and trade sectors, the respective rates of change of GMP were employed.

In the case of *public administration of defense,* the estimates for 1952–65 and 1967–71 were based on employment data. For 1950–51 the values are derived as a residual.

For *other services,* the estimates for 1952–54, 1964–65 and 1967–71 are also based on employment series. For the period 1955 through 1963, the estimates were derived from indices of value added published by the Joint Economic Committee of the US Congress Study of *Economic Development in Countries of Eastern Europe* (Washington: US Government Printing Office, 1970). The procedure employed for 1950–51 estimates is indicated in the preceding paragraph.

Value added in the *ownership of dwellings* sector for 1964–65 and 1967–71 was assumed to increase at the same rate as the country's population. For the periods 1950–63 the estimates were based on the index given in the document "Economic Development in Countries in Eastern Europe" mentioned above.

In order to estimate value added by *financial institutions* for 1956–65 and 1967–71, employment data were again utilized. For the period 1950–55 it was assumed that the value added of the sector changed at the same rate as the combined value added of manufacturing, construction, transportation, trade and electricity. The value added by *electricity, gas and water* for the whole period was obtained by applying the volume index of electricity production to the 1966 basic estimate.

GDP by Industrial Sector at Current Prices

For 1956–68, the GDP estimates are those prepared by the FIS for the OECD, with an adjustment for change in stocks in manufacturing and agriculture. These adjustments have already been described. The estimates for gross value added in agriculture, construction, manufacturing, mining, transportation and trade were obtained by extrapolating on the 1956 estimates for each, using the respective current price indices of these components in the NMP account. The value added by agriculture, manufacturing, and mining thus obtained were adjusted to correct for change-in-stocks valuation as explained above.

In making estimates for those sectors of activity not included in the NMP for 1952–55 and 1969–71, various methodologies were employed. For *electricity, gas and water,* the 1956 and 1968 estimates were projected backwards and forward, using the electricity production index and adjusting to current prices by means of the electricity component of the cost of living index. For *financial institutions,* an index of changes in bank deposits was employed. Changes in value added by *ownership of dwellings* was obtained through the use of the population growth rate and the rent component of the cost of living index. The public administration and defense component of the GDP was estimated at 62 percent of the general government consumption expenditure. This percentage appears to be a relatively stable historical relationship. The totals for GDP at factor cost for the period 1952–71 were obtained by aggregating the gross value added for all the sectors.

Prior to 1952, the material product of Yugoslavia was calculated at officially controlled prices, which did not represent the effective transaction prices operating in the economy. The change in 1952 from controlled prices to transaction prices for the valuation of GMP, resulted in a GMP in 1952 at current prices four times as great as

in 1951. The estimate of total GDP for 1950 and 1951 are extremely crude and were originally derived from the expenditure side. They were distributed by sector, according to trend shares in the current prices series for the years 1953 through 1956 (1952 was not included in estimating trends because it had apparently been an unusually bad agricultural year).

Resources and Uses at Current Prices

For the period 1952–71, the GDP at current market prices was obtained by adding net indirect taxes to the GDP at current factor cost obtained from the production approach. For all these years, private consumption was derived as a residual. For 1956–68, public consumption, gross fixed investment, exports and imports of goods and nonfactor services, capital consumption allowances and net factor income from abroad were taken from the tables prepared for the OECD.

Public consumption expenditures during 1952–55 were derived from the consolidated current account of the Federal Government and the Republic Governments. The series on gross domestic fixed investment was taken, without adjustment, from the GMP accounts. Change in stocks in the GMP were adjusted to correct for price distortions, as explained in the relevant section. As the GMP account gives only a net figure for the rest of the world account, the gross figures of imports and exports of goods and nonfactor services had to be derived from the balance of payments. During this period Yugoslavia had multiple exchange rates, so it was necessary to determine the specific exchange rates used in the GMP account for conversion of dollars into dinars. An implicit rate of exchange for the net balances in the GMP and balance of payments were derived. Exports and imports, excluding investment income and payment respectively were converted into dinars by the exchange rate obtainable for each year. Investment income was used as an approximation of factor income (in those years, the volume of workers' remittances was negligible). The imports obtained as a residual were very close to those which would have been obtained by direct conversion of aggregate imports in the balance of payments.

The estimates of expenditures on GDP for the years 1950 and 1951 are extremely rough. They are based on a study of investment prepared by the Institute for Economic Investment, on balance of payment data and on distribution of expenditure in the 1952 GDP. Private and public consumption were estimated at the same percentage ratio to total resources as in 1952.

GDS and GNS are derived from the expenditure on GDP and GNP respectively (GDP *minus* total consumption=GDS). Thus GDS and GNS reflect the adjustment made to the changes in stocks (see above).

Resources and Uses at Constant 1966 Prices

The first step in the preparation of the expenditure account was to derive the total GDP at constant market prices of 1966. Since no information was available for net indirect taxes at constant prices, it was assumed that the annual rates of growth of the GDP at constant market prices were the same as those of the GDP at constant factor cost. The index of GDP at constant factor cost was employed to project the 1966 GDP at current market prices for the whole period 1950–71. Private consumption was obtained as a residual after the other components of total expenditure had been separately estimated as explained below.

Government consumption was obtained by adding for each year the value added by government and collective consumption, both at constant 1966 prices, adjusting by a constant factor. The value added in the World Bank series of GDP represents wages and salaries, and the collective consumption of materials. The adjustment factor was derived as the ratio between the estimate obtained as above for 1966 and government consumption in the OECD series for that same year.

For the period 1952–70, gross fixed investment was taken from the series on expenditure on GMP at constant 1966 prices. For 1971 the rate of growth of gross fixed investment at current prices was deflated by the industrial price index, and then applied to the 1970 estimate. The 1952 estimate was projected backwards for 1950 and 1951 using the growth rates in the study on investment for 1947–69 which was prepared by the Institute for Economic Investment.

Rest of the World Account

For the whole period 1950–71, exports and imports of goods in US$ in the balance of payments were converted separately into constant 1966 US$ using respectively the dollar export and import price indexes. Exports and imports of nonfactor services from the balance of payments were converted into constant 1966 US$ using the dollar import price index for both. The deflated figures of goods plus nonfactor services were added and converted into dinars by using the official exchange rate for 1966. Net factor income from abroad for 1950–65 was derived by deflating the net investment income from the balance of payments by import price index. For the later years, 1966–71, net investment income was added to workers' remittances and then deflated by import price index.

GDS and GNS were derived implicitly from the components of expenditure on GDP and GNP respectively. GNS included net current transfers from abroad obtained from balance of payments.

Accounts of Enterprises

The income statement which is submitted by the enterprises to the SAS derives the net product in the following way:
- (a) *Revenues*
  - Sales
  - Others
- (b) *Expenditures (cost)*
  - Materials
  - Maintenance
  - Depreciation
  - Transportation
  - Changes in stocks
- (c) Revenues-Expenditures=*Net Income*

Obligations

Contractual obligations
- (a) Interest on credits and payments for other bank services
- (b) Insurance premiums
- (c) Contributions (membership fees) to economic chambers and associations

Statutory obligations
- (a) Interest on "business fund"
- (b) Contribution for exploration, renewal and maintenance of ore resources
- (c) Water contribution
- (d) Contribution for use of land
- (e) Housing construction contribution
- (f) Contribution for Skopje

Net Income

Gross Personal Incomes
- (a) Net personal incomes
- (b) Contribution on personal incomes with contribution for education
- (c) Social insurance contribution
- (d) Labor exchange contribution

Funds
- (a) Reserve fund
- (b) "Business fund"
- (c) Welfare fund

The net income is determined by subtracting expenditures from revenues. The new income policy, which has been implemented since 1971, determines the distribution of the net income among gross personal incomes and accumulation funds of the enterprises. As the net income is only determined at the end of the year, the "voluntary" monthly salaries are calculated in a conservative way. At the end of the year, if the net income exceeds the one on which the distribution was made, the employees get an additional sum of money; if not, the excess distributed will be charged against salaries of the next year. From the gross personal income several deductions or so-called contributions are made, towards, for example, personal income tax, social security, Education Fund, Health Fund, Housing Funds, Communal Consumption Fund. The total contributions deducted from the gross personal income amount approximately to 32 percent of gross personal income. There is a minimum personal income which has to be distributed, even if the enterprise is making losses.

APPENDIX B

PERSONAL MONEY INCOME FORMATION
IN THE MANUFACTURING INDUSTRY

Few attempts have been made to assemble empirical evidence on the process of personal income (i.e., wage) formation in Yugoslavia.[1] This is surprising, in view of the policy importance of wage movements, both from the point of view of economic stability and of resource mobilization. A very cursory attempt has been made here, using time series multiple regression analysis, to assemble such evidence and to indicate its implications.

Specification of Relationships. Theoretical discussions of the workers' management system, the operation of the labor market in Yugoslavia, and the economic impact of political decentralization over the last two decades, provides a basis for assuming that the rate of increase in the average personal money income earned by a worker in a social enterprise would respond in some part to the following variables.

(a) *Growth in Labor Productivity* (Q). Since, for given rates of allocation to accumulation and funds, the only means by which the enterprise can (from internal resources) raise the income earned per worker is by increasing the amount of value added produced per worker, it follows that the rate of productivity increase in the enterprise should be a close determinant of the rate of increase in money earnings enjoyed by its workers. This is essentially the same hypothesis as is posed in the literature on western economies, which states that, so long as profit margins remain constant, there will be a close correlation between productivity growth and earning increases.

(b) *Increase in the Cost of Living* (P). Even though, in recent years, money wage increases have significantly exceeded the rise in the cost of living index, it is also true that historically it has been the practice for enterprises (under the vigilance of the trade unions) to give consideration to recent price increases when deciding upon rates of personal remuneration.[2] This has been intended to ensure at least the maintenance of the worker's real living standard. Probably this applies more to the determination of the so-called "advanced" payment rate than to the final "reconciliation" adjustment made on the year's operations, but it implies nevertheless, that all else being equal, money wage increases will vary positively with cost of living increases.[3] This hypothesis has been well-tested and generally upheld in western

1. One attempt is that made by B. Sefer in his book *Social Development in a Workers' Self-Managed Society* (Belgrade: Institute of Political Studies, 1971). Sefer tries to explain the evolution of average earnings in the social sector in terms of a labor regression relationship between earnings, total employment, labor productivity, the cost of living and the level of average real income. Unfortunately, however, he does not record any indication of the statistical significance of the individual variables. Although the equation as a whole reveals a very close fit to the data (R^2, 99) this, too, is thrown into question: (a) by the fact that the data used are presumably annual levels, so the trend term in each will account for a fairly high R^2; (b) the equation is run over the period 1964–69, i.e., over six observations. With four explanatory variables, plus a constant in the equation, this leaves but one degree of freedom. The statistical validity of this equation, therefore, is not well-grounded.

2. Similar procedures are enshrined in the recent "social agreements" establishing incomes' policies in the different republics.

3. The system of personal remuneration in Yugoslavia faces a dilemma. The rate of income earned depends on the final outcome of operations. This is not known, however, until the end of the accounting year, whereas the workers need funds for subsistence throughout the year. The problem is solved by paying, on a regular monthly or fortnightly basis, an "advance" rate of remuneration based on the expected outcome of operations. This may be financed from the internal sources or by bank credit. After the end of the accounting period a "reconciliation" payment is made either at a higher or lower rate than the "advanced" payment according to whether the latter falls short of or exceeds the merited payment according to the actual surplus finally generated over the year's operations.

economies, though more generally with wage rates rather than average earning movements.

(c) *Institutional Factors* (I). In Yugoslavia the key institutional factor affecting the money wage payment has been the extent to which allocations made to capital accumulation, reserve funds, social security and the other public funds have preempted the final operating surplus, the residual which comprises the share going to personal incomes. Historically, these allocations were imposed by mandatory contributions which enterprises had to provide to centralized investment funds, which in turn generated the national economic growth. In the passage from centralism and, more recently, from federalism, the enterprise itself has gained increasing freedom to choose the division of its surplus between personal incomes and allocations to funds and accumulation, though there of course remain mandatory levies of the local or republic authorities. Notwithstanding these changes in the institutional framework, the central point here, is that this division of the surplus (however decided) has been an essentially exogenous determinant of the worker's wage, not necessarily related to either his performance or other factors affecting the wage. It thus represents the central institutional determinant of wage movements, changes in which over the last twenty years have generally been in the direction of increasing the share of total surplus going to personal incomes.[4]

On the basis of these considerations, a linear regression relationship, using time series data for the period 1952–70, was specified for earnings in the industrial sector as follows:

$$W_t = a + bQ_t + cP_t + dI_t$$

To eliminate the trend factor, all variables were specified as annual percentage changes, the subscript *(t)* referring to the same yearly periods for each variable. The conceptual definition of variables is as follows:

W — average personal incomes paid to workers in industry, i.e., total personal receipts ÷ total employment (Table 109.1 S.G. 1970).

Q — Total value added in industry ÷ total employment in industry (Table 109.15 S.G. 1970).

I — The ratio of total personal receipts in industry to total industrial value added (Table 105.7 S.G. 1970).

P — Cost of Living Index (Table 121.5 S.G. 1970).

Empirical Results. Estimating the above relationship gave the following coefficients (figures in brackets are *t* ratios):

$$W = -0.228 + 0.465P + 1.214Q + 1.015I$$
$$(-.007) \quad (2.606) \quad (2.457) \quad (4.615)$$
$$R^2 .78 \; R^{-2} .71$$

Durbin-Watson Statistic 2.249.

According to conventional technical criteria, this equation provides a reasonably satisfactory set of associations between the specified variables, all of which are

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4. There is a fairly common misconception that significant increases in the income share came only after the reforms of 1965. In fact, as the following figures show, the procedure has been quite steady over a long period.

% of Personal Income in Total Enterprise Value Added

1952	1955	1960	1962	1965	1970
15.9	16 1	23.6	26.9	32.6	43.4

statistically significant in terms of the t ratios. Although the equation explains less than 80 percent of the variance in earnings, the R^2 values are reasonable given that the variables represent annual adjustments and are not trended.

Interpretation. With the usual caveats regarding causation, and in particular the chance of simultaneous causation between wage and price movements (see the next paragraph), the above equation implies that, as expected, the dominant determinants of the wage increase are the institutional factor and the growth in productivity, both of which have coefficients close to unity. In principle, what these coefficients imply is that earning increases over the first two decades may have been about equally due to productivity gains as to gains in the share of labor in industrial value added. Price increases add a significant degree of explanation, but in this case the rate of adjustment seems much less. An increase of 1 percent in the cost of living index associates with one of less than 0.5 percent in earnings, after other factors are accounted for.

The question of the interaction between wage and price movements raises crucial interpretative problems in equations of this kind, because the direction of causality is always ambiguous. To show the total relationship between wage and price adjustments a second equation was estimated, explaining manufacturing producers' price increases (P′) by unit labor cost increases (C) and changes in import prices (M), the latter serving as a surrogate for unit material input costs. This gave the following results (figures in brackets are t ratios):

$$P' = -5.111 + 0.920C + 1.763M$$
$$(3.451) \quad (2.496)$$
$$R^2 \; .64 \; R^{-2} \; .60$$

Durbin-Watson Statistic 2.12.

This equation, which does not attempt to provide a full explanation for industrial price movements, appears to imply at least that wage cost movements (C) which reveal a coefficient approaching unity, associate more closely with industrial price movements, than do personal income movements with changes in the cost of living index. This is at least consistent with a hypothesis that causality is stronger from wages to prices rather than the reverse. It supports the view that "wage push" inflation has occurred over the period studied. The equation also implies that there is no divergent wage price spiral which would regenerate inflation. This is so because the product of the coefficients determining the spiral, i.e., of P in the wage equation and C in the price equation, is less than unity (.42). This implies that less than half of any first round price increase is transmitted by wage adjustments to a second round of increases.

APPENDIX C

A LONG-TERM PROJECTION MODEL FOR YUGOSLAVIA

The Econometric Model

In order to gain an insight into future development patterns and likely constraints on growth in Yugoslavia, an econometric model of the economy has been constructed. The objective is, first of all, to capture the basic structure of the economy in a system of simultaneous equations. With this model of the economy one can then study the reaction of the model, and hopefully the economy, for changes in policy variables as well as exogenous factors that could conceivably influence the pattern of long-term growth. The principal objective of the model is to indicate the balance of payments impact of different growth patterns, but the model also has insights into other areas, such as resource mobilization and employment.

In an economy such as Yugoslavia's, where there have been considerable short-run fluctuations from year to year, projection work is somewhat difficult. The model described here is, however, aimed at the long-run development and not the short-run. While it is expected that year to year changes may not be predicted correctly, it is the object of this exercise to attempt to project the long-run trends.

Structure of the Model

Before finalizing the structure of the model, a brief survey was undertaken of the quantitative and projection work currently underway in Yugoslavia. One of Yugoslavia's leading economists, Branko Horvat, believes that export growth is a dominant causal factor of overall growth and fluctuations in output. By examining past trends in the business cycle, he shows that investment tends to lag the cycle while export turning points tend to precede turning points in total production. He states:

> "It can therefore be concluded that expansion of exports represents one of the factors which transform the retardation phase of the industrial cycle into the accelerative phase. Both effects point to the exceptional importance of exports for the stability and expansion of the Yugoslav economy."[1]

While enlightening in its view of past fluctuations, it is not clear how appropriate the Horvat view is toward understanding long-run growth. This line of thought has been further developed by Oskar Kovac, who has shown a fairly high correlation between exports and industrial production, when both variables are disaggregated into sectors. He argues that the direct influence of exports on production is important only in the short run. In the long run, exports are important to the degree that they permit a greater importation of capital equipment, and thus more investment and a higher growth rate. This would assume, however, that investment is completely constrained by an inability to import capital equipment, which seems to be questionable for a country such as Yugoslavia producing much of its own.[2]

1. Branko Horvat, "Business Cycles in Yugoslavia," in *Eastern European Economics* (Spring–Summer 1971): 161

2. Oskar Kovać, "Spoljna trgovina kao faktor ubrzanja rasta" (Foreign Trade Aspects of Accelerated Growth), (Belgrade: Institute of Economic Science, 1969).

A more useful model has been developed by Kovac, as part of a study by a consortium of research institutes of long-term development prospects.[3] This model was originally formulated as a two-sector Harrod-Domar model, with exogenous exports and disaggregated imports according to end-use classifications. In the actual projection work, however, the model has been recast along the lines of a Chenery-Strout trade gap model, with domestic savings calculated residually. One interesting aspect of this model is that exports were related to industrial production in Europe, so that the exogenous assumption is not the export growth rate directly, but the rate of European industrial growth.

Some interesting short-term projection work has been done by Alexander Bajt. Using monthly data, he finds that the growth of industrial production in Yugoslavia can be forecast accurately using a single equation model with five independent variables: the marginal propensity to consume (lagged twelve months), the ratio of liquid assets to currency holdings (lagged nine months), the ratio of liquid assets to the money supply (lagged five months), the level of stocks, and a time trend.[4] While not directly relevant to long-term projections, this work is of interest because it relies on private consumption and monetary variables to forecast output, without any reference to the effects of external trade, and thus serves as an alternative to the approach of Horvat and Kovac.

With the foregoing as background, we adopted the approach of building a model in which demand factors were dominant in explaining levels of sectoral production, while assuming an overall supply constraint based on a target growth rate. In order to isolate which factors were most important, we examined the 1968 input-output table for Yugoslavia at the sixteen-sector level of disaggregation. The availability of this fairly recent input-output table made it possible to introduce these coefficients directly into the model. This approach was rejected because of the difficulties involved in updating the coefficients to 1971, or projecting changes in coefficients over time. Instead, after isolating the major elements of demand for each sector from the input-output table, regression equations were run, using the period 1955-70. In this way, the regression equations capture the essential elements of the static input-output approach, while using the time series data to develop long-term trends from the past.[5] The basic structure of the model would be a Chenery-Strout gap model, but with a larger degree of disaggregation than used by Kovac, in order to capture a better picture of the workings of the economy. Initially, the model was cast in the form of a trade constraint, so that the required level of savings is projected by the model. It is possible that the past ability of the economy to achieve high levels of resource mobilization may not continue (i.e., the average savings' rate may continue to fall as it has during 1965-71) and the savings' constraint may be more important. In order to test this possibility, an alternative version of the model was programed so that it could be converted to a savings' gap model upon the specification of a marginal savings' rate. We have not attempted to disaggregate the aggregate savings' rate into its components, but consider it a policy variable.

3. Oskar Kovać, *Ilustrativni Model Formiranja Platnobilansnog Salda za Jugoslaviu (An Illustrative Model of the Balance of Payments of Yugoslavia)*, (Belgrade: Institute of Economic Science, 1971).

4. Alexander Bajt, *Proabink, Producent, Denar in Gospodarska Devjavnost (Consumers, Producers and Money in Economic Activity)*, (Llubljana: Economic Institute, 1971).

5. For an interesting alternative method for introducing a dynamic element into an input-output type projection, see Wouter Tims, *Analytical Techniques for Development Planning: A Case Study of Pakistan's Five-Year Plan* (Karachi: Pakistan Institute of Development Economics, 1968).

Specification of the Model

The equations for the model were estimated, using annual data for 1955–70, and ordinary least squares estimation techniques.[6] Our initial specification of sectoral demand variables based on the inspection of the input-output table gave us the following a priori structure for our sectoral equations:

Sector Value Added	*Determined by*
Energy	Manufacturing output, private consumption
Metallurgy	Metal products, construction, exports[a]
Nonmetallic	Construction
Metal products	Investment, exports,[a] private consumption
Chemicals	Manufacturing exports[a]
Wood products	Construction, exports,[a] private consumption
Textiles	Private consumption, exports[a]
Food processing	Private consumption
Miscellaneous manufactures	Private consumption
Construction	Investment
Transport and communications	GDP

[a]Refers to exports of that sector.

Three sectors are not in the above list; agriculture, forestry and other services; the first two were felt to best estimated using exogenous growth rates, while the last is a residual between total GDP and the individual sectors. The estimation of the regression equations showed that in some cases the initially specified independent variables were not always significant at the 95 percent confidence level, and so were dropped from the equations and the equations were reestimated. For textiles and food processing, value added had to be related to GDP per capita and lagged GDP, respectively, in order to obtain meaningful results. In general, exports were found relevant as an explanatory variable in the textile, chemicals' and metal products' sectors, while private consumption expenditures proved important in the energy, metal products, chemical and wood industries. Industrial production is important in determining the output of the energy sector, while the construction sector is largely dependent upon total fixed investment, and the output of non-metallic mineral products is related to construction value added. The results of the regression analysis for sector outputs are shown below.[7]

$$\text{YENER} = 0.0828 \text{ YIND} + 0.033 \text{ PC} - 122.2$$
$$\qquad\qquad\;\; (7.99) \qquad\qquad (4.05)$$
$$\overline{R}^2 = 0.997 \qquad\qquad \text{D.W.} = 2.08$$

$$\text{YFNF} = 621.2 + 0.2691 \text{ YMETP}$$
$$\qquad\qquad\qquad (22.35)$$
$$\overline{R}^2 = 0.978 \qquad\qquad \text{D.W.} = 1.42$$

6. In a few cases, because of problems with serial correlation, or due to the nature of the specification of the equation, maximum likelihood or two-stage least squares' estimation procedures have been employed.

7. Data used are based largely on the *Statistički Godišnjak, Jugoslavije,* 1972 and prior years, gross social product in 1966 dinars. Figures beneath coefficients are t ratios, R^{-2} is the coefficient of determination adjusted for degrees of freedom, D.W. is the Durbin-Watson statistic

YNMET   = 0.2756 YCONST − 147.2
(26.05)

$$\bar{R}^2 = 0.979 \qquad \text{D.W.} = 1.36$$

YMEPT   = 0.0979 FI + 0.4608 XMETP + 0.1153 PC − 2512.2
(2.40)   (2.60)   (5.85)

$$\bar{R}^2 = 0.990 \qquad \text{D.W.} = 1.75$$

YCHEM   = −2403.1 + 0.874 XCHEM + 0.0894 PC_{t-1}
(2.17)   (5.85)

$$\bar{R}^2 = 0.983 \qquad \text{D.W.} - 1.63$$

YWOOD   = −1813.9 + 1.5871 YFORST + 0.0270 PC_{t-1}
(6.06)   (10.59)

$$\bar{R}^2 = 0.978 \qquad \text{D.W.} = 2.40$$

Log YTEXT = −1.5052 + 0.9573 log GDPPC + 0.2339 log XTEXT
(5.041)   (3.86)

$$\bar{R}^2 = 0.988 \qquad \text{D.W. } 1.78$$

YFOODP   = −993.4 + 0.0463 GDP_{t-1}
(24.76)

$$\bar{R}^2 = 0.978 \qquad \text{D.W.} = 1.39$$

YCONST   = 976.5 + 0.2948 IF − 1091.4 DUMMY

$$\bar{R}^2 = 0.978 \qquad \text{D.W.} = 1.20$$

YTRC   = −1787.2 + 0.0856 GDP
(29.31)

$$\bar{R}^2 = 0.983 \qquad \text{D.W.} = 1.44$$

Where: Y   – value added
        X   – exports
        PC   – private consumption expenditures
        IF   – fixed investment expenditures
        GDP   – gross domestic product
        GDPPC – per capita GDP
        ENER   – energy
        FNF   – ferrous and nonferrous metals
        METP   – metal products
        NMET   – nonmetallic mineral products
        CONST – construction
        CHEM – chemicals, including paper

WOOD   – wood products
FORST   – forestry
TEXT   – textiles, including leather
FOODP   – food processing
DUMMY   – equal to 1 for 1955–65, zero thereafter.

In order to test the implications of different "target" growth rates, the overall growth of output was left to be exogenous, and the difference between sector outputs and total GDP is assumed to be absorbed into the "other services" sector.

Investment

To estimate investment, we attempted to fit a modified accelerator function to the time series data on a sectoral basis. The basic assumption was that investment was a function of the change in output (the accelerator principle), the size of the capital stock (the depreciation factor), and the lagged capital output ratio (a measure of capacity utilization). It is assumed that if capacity utilization is low in the preceding year, current investment would be lower, other things being equal. The attempt to fit this equation to the sectoral data met with very mixed results, although the overall function for industrial investment showed a very good fit, as follows:

$$IIND = 11814.7 + 0.461 \ KIND_{I-1} \ 0.4817 \ DYIND - 2899.5 \ KOIND_{I-1}$$
$$(4.27) \qquad\qquad (3.0) \qquad\qquad\qquad (2.60)$$

$$\bar{R}^2 = 0.918 \qquad\qquad D.W. = 1.84$$

Consequently the function for total industrial investment was utilized and the sectoral investment equations were dropped from the model. The negative sign, and significant t ratio for the capital output ratio, appears to confirm the hypothesis that capacity utilization is important in determining industrial investment.

Where: I   = investment
        DY   = investment to value added
        KO   = capital output ratio
        IND   = industry

The coefficient of $KIND_{I-1}$ of 0.0461 indicates a rate of depreciation equivalent to useful life of capital of about twenty-two years, which appears reasonable.

The same hypothetical investment function was tested for the data on construction, forestry and transport-communications sectors. For transport-communications the lagged capital stock variable proved nonsignificant, and was dropped from the equation, while the lagged capital output ratio proved to be nonsignificant for the construction sector. Consequently, the equations for these two sectors were as follows:

$$\text{ITRC} \quad = 4821.0 + 1.55\,\text{DYTRC} - 437.5\,\text{KOTRC}_{r-1}$$
$$\quad\quad\quad\quad\quad (2.50) \quad\quad\quad\quad (3.59)$$

$$\bar{R}^2 = 0.68 \quad\quad\quad\quad \text{D.W.} = 1.68$$

$$\text{ICONST} \quad = 78.66 + 0.1051\,\text{DYCONST} + 0.0778\,\text{KCONST}_{r-1}$$
$$\quad\quad\quad\quad\quad (2.11) \quad\quad\quad\quad (4.40)$$

$$\bar{R}^2 = 0.700 \quad\quad\quad\quad \text{D.W.} = 0.868$$

Where: CONST = construction
       TRC   = transport and communications

The capital stock variable for construction implies a useful life of capital of about thirteen years, which seems sensible for that sector. The low Durbin-Watson statistic suggests the possibility of serial correlation, so an alternate formulation was attempted, using value added in place of the capital stock, and by using a maximum likelihood estimate of the equation in order to correct for autocorrelation.[8] The final form of the equation was:

$$\text{ICONST} \quad = -985.6 + 0.1970\,\text{DYCONST} + 0.1378\,\text{YCONST}_{r-1}$$
$$\quad\quad\quad\quad\quad (3.70) \quad\quad\quad\quad (2.04)$$

$$\bar{R}^2 = 0.810 \quad\quad\quad\quad \text{D.W.} = 1.69$$

For forestry, the original hypothetical investment function resulted in a poor fit ($\bar{R}^2 = 0.304$) even though the coefficients were significant. Instead, the ICOR in forestry was related to the reciprocal of the growth rate, with the following results:

$$\text{ICORFOR} \quad = 1.898 + 0.1478\,(1/g_j)$$
$$\quad\quad\quad\quad\quad\quad (20.0)$$

$$\bar{R}^2 = 0.966 \quad\quad\quad\quad \text{D.W.} = 2.65$$

Where: FOR = forestry
       g_j = growth rate, value added, forestry

The capital stock series cover only the social sector in Yugoslavia, and are not useful for sectors with a large private component, such as agriculture and other services. For these sectors, therefore, a slightly different approach had to be used. For other services, investment was simply related to output:

$$\text{ISER} \quad = -15603.1 + 0.9171\,\text{YSER}$$
$$\quad\quad\quad\quad\quad\quad (19.76)$$

$$\bar{R}^2 = 0.963 \quad\quad\quad\quad \text{D.W.} = 1.52$$

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8. The maximum likelihood estimate, using the form with the capital stock variable, produces a nonsignificant coefficient for that variable.

For agriculture, the best equation was one which linked investment to lagged output and the growth rate of total GDP:

$$IAG \quad = 1236.1 + 0.0481 \ YAG_{r-1} + 52.54 \ (g_y)$$
$$(2.88) \qquad\qquad (5.98)$$
$$\bar{R}^2 = 0.754 \qquad\qquad D.W. = 2.58$$

Period: 1959-70

Where: AG = agriculture
g_y = growth rate, GDP

The largest element in ISER is investments in housing, which alone constitutes about 55 percent of the total. Also included here are government investment, trade, and other miscellaneous investments, including those for which no sector allocation can be made. These sectors define total fixed investment. Increases in stocks are assumed to be 3 percent of total GDP, based on past experience, and total investment is the sum of fixed I plus stocks.

Employment

The model projects employment based on a production function approach. This assumes, of course, that past relationships will be valid in the future, an assumption which may not hold if government policies act to increase employment opportunities. These projections are useful, in that they represent, basically, an extrapolation of present trends.

The standard production function assumes that output (Y) is some function of employment (E), capital stock (K), and a time trend, t representing technological change:

$$Y = f (E, K, t).$$

Since our model has a demand, rather than supply, orientation, we have not used the production function approach to project output. The production function implies, however, that employment must be related to output and the capital stock, or by rearranging the above equation:

$$E = f(K, Y, t).$$

If we transform this equation into first differences (d), and if we define dK as equal to investment, I, and dt as being a constant, K, then we arrive at an equation that can be estimated from our knowledge of output and investment, or:[9]

$$dE = f(I, dY, k).$$

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9. The rationale behind doing this transformation was in fact twofold; first, it eliminates a variable (K) for which we have only partial data, and secondly, it reduces the amount of serial correlation

The above equation has been fitted to the data for 1956–71 for two sectors: industry, and other nonagricultural. Since agricultural employment is not available on a time series basis, we were forced to concentrate on nonagricultural employment only. This is not, however, a bad approach, since agricultural employment contains a large element of disguised and underemployment, making it more of a residual sector than a true employer. It was also felt, a priori, that there may be a lag in the effects of output increases on employment, so a lagged dY variable was also introduced into the equations. The estimated equations for our two sectors were:[10]

DEIND $= 92.12 + 0.0206$ DYIND $+ 0.0159$ DYIND$_{r-1}$ $- 0.0173$ IIND
                (5.9)   (4.50)   (7.63)

          $\overline{R}^2 = 0.857$ D.W. = 2.36

DEOTH $= 43.08 + 0.0273$ DYOTH $+ 0.0099$ DYOTH$_{r-1}$ $- 0.0042$ IOTH
                (4.69)   (1.88)   (2.54)

          $\overline{R}^2 = 0.677$ D.W. = 2.14

Where: E   = employment, annual average
        IND = industry
        OTH = other, nonagricultural, output
        D   = first difference operator
        I   = gross fixed investment

The coefficient of lagged output in the "other" sector is not significant at the 95 percent confidence level, but since it is significant at the 90 percent level, it was left in the equation. The negative sign for investment confirms our production function approach, since if output is positively related to both capital and employment, then employment must be positively related to output and negatively related to capital, or in this case, investment. Attempts to produce reasonable estimates of our functional equation at a more disaggregated level were not successful, so the model incorporates these aggregate equations. Another possible form of this equation, which fits equally as well, is one which uses relative price of labor concept instead of investment.[11] The price of labor relative to its productivity can be shown to be measured by the ratio of wages to total value added. This equation shows no improvement, however, over the first equation, and would present a problem in that the model would have to forecast the level of wages in industry. Since attempts to estimate equations that would forecast wages were not successful, this equation could not be utilized.

Imports

Our initial approach was to disaggregate imports into three classes: capital goods, intermediate and raw materials, and consumer goods; and relate each class of imports to three separate variables: (a) a vector of demand relevant to that class of imports;

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10. Since IIND is itself related to DYIND, the equation for DEIND was estimated using two stage least squares, so that the values for IIND are actually the estimated values from the investment equation above.
11. The equation is as follows, where WRIND is the industrial wage ratio:
          DEIND $= 103.3 + 0.0131$ DYIND $+ 0.0105$ DYIND$_{t-1}$ $- 393.1$ WRIND
                    (3.85)   (2.96)   (7.17)
          $R^{-2} = 0.842$ D.W. = 1.99

(b) a variable representing the relevant relative price index between imported and domestic prices; and (c) a vector that would capture the ability of the economy to undertake import substitution in that commodity (e.g., domestic production of capital equipment). Unfortunately this initial hypothesis did not work well when we attempted to estimate the equations using the time series data. In general, only the demand vectors had significant t ratios, and so the price and import substitution vectors had to be dropped. Furthermore, the initial estimate of the intermediate goods' equation showed a very poor Durbin-Watson statistic, indicating serial correlation which might be due to a misspecification of the equation.

To produce better results, we disaggregated the intermediate imports into four classes: textiles, ferrous and nonferrous metals, chemicals, and other. The first three were related to the textile, metal products', and chemical industries, respectively, while the last class was related to production in industry excluding these three. This resulted in the following four equations for intermediate goods:

$$\text{MTEXT} = -82.98 + 0.4194 \text{ YTEXT}$$
$$(16.18)$$
$$\bar{R}^2 = 0.942 \qquad\qquad \text{D.W.} = 1.242$$

$$\text{MFNF} = -1333.9 + 0.4988 \text{ YMETP}$$
$$(7.67)$$
$$\bar{R}^2 = 0.958 \qquad\qquad \text{D.W.} = 1.288$$

$$\text{MCHEM} = 327.2 + 0.6479 \text{ YCHEM}$$
$$(22.33)$$
$$\bar{R}^2 = 0.969 \qquad\qquad \text{D.W.} = 1.597$$

$$\text{DMIOTH} = -606.1 + 1.062 \text{ DYINDOTH}$$
$$(4.65)$$
$$\bar{R}^2 = 0.578 \qquad\qquad \text{D.W.} = 1.903$$

Where:
M	– imports, 1967 prices
Y	– value added
TEXT	– textiles
FNF	– ferrous and nonferrous
METP	– metal products
MIOTH	– intermediate imports, other
YINDOTH	– industrial value added, other
D	– first difference operator

As can be seen, the "other intermediate" class was transformed into a first difference formulation in order to correct a poor Durbin-Watson statistic. The relatively large negative constant term for ferrous and nonferrous metals would appear to indicate arising share of imports in total production, while the positive constant term in chemicals indicates a falling share of imports in that sector. This would seem to indicate a trend toward becoming more dependent on imported chemicals.

For capital and consumer goods, the following equations were estimated:

$$\log \text{MCAP} = -0.729 + 0.8944 \log \text{IF}$$
$$(7.848)$$

$$\bar{R}^2 = 0.802 \qquad\qquad \text{D.W.} = 1.69$$

$$\text{MCONS} = 1060.8 + 0.0478 \text{ PC}$$
$$(6.72)$$

$$\bar{R}^2 = 0.734 \qquad\qquad \text{D.W.} = 1.50$$

The capital goods' equation was estimated in the form of a logarithmic transformation, since this produced a better Durbin-Watson statistic. The coefficient of the capital goods' equation, being less than unity, indicates that import content of investment will fall over time. Likewise, the large constant term of the consumer goods' equation will cause the import content of consumer goods to fall, eventually stabilizing at the value of the coefficient. Both of these results would seem to indicate the effects of import substitution, both in the production of domestic consumer and capital goods. In the long run, therefore, our import equations will tend to produce a shift of imports toward intermediate goods and away from consumer and capital goods. Despite government plans to increase the production of domestic raw materials and intermediate goods, this does not appear to be an unreasonable result.

The above commodity classes, when summed, produce the estimate of imports of goods (MG). To estimate the imports of nonfactor services, we employed a simple regression of service imports on GDP. An apparent shift upwards in these imports since 1965 means, however, that a significant fit can be obtained only by the addition of our dummy variable, which takes a value of 1 until 1965, and zero thereafter.

$$\text{MNFS} = -566.2 + 0.0291 \text{ GDP} - 925.0 \text{ DUMMY}$$
$$(3.61) \qquad\qquad\qquad (2.49)$$

$$\bar{R}^2 = 0.881 \qquad\qquad \text{D.W.} = 1.46$$

Where: MNFS = imports, nonfactor services

This equation also implies that the share of nonfactor service imports in GDP will tend to rise over time, perhaps due to a greater tendency for Yugoslavs to travel abroad. Since the data on imports of goods are given cif, most of the expenditures for transportation represent foreign travel by Yugoslavs.

Exports

Exports are taken as being exogenous to the model, in the form of growth rates for commodities. These growth rates have been arrived at by a process of combining expert opinion and past trends to arrive at a feasible range for future growth. Table 1 shows both the past trend growth rates (in constant prices) and the assumptions for the future. For *nonferrous metals* it is assumed that growing domestic demand will somewhat reduce the growth rate, which in the past six years has been about 15 percent. For the low estimate we took a figure of 12 percent for the entire 1972–88 period, which represents the 1959–71 trend. For the high estimate, the assumption was 14 percent for 1972–76, and 12 percent thereafter. *Ferrous metals* were assumed

to continue their growth from the past of about 7 percent. Exports from the metal products' sector were disaggregated into ships, electrical equipment, and other metal products. The capacity of the shipbuilding industry is expected to increase from about 410,000 tons in 1970 to somewhere between 850,000 to 1,000,000 tons by 1975. This yields an indicative growth rate of about 16 percent for the low side, and 20 percent for the high side, which is the rate used in the model for 1972-76. In the 1977-88 period, these growth rates were reduced by 4 percentage points to 12 and 16 percent respectively. For *electrical equipment*, it was assumed that there would be a rise in the percentage of gross output exported from 28 to 36 percent during 1972-76, based on a continuation of the past trend for a rising export share. This yields a growth rate of about 18 percent during the first period, which is taken as the "high" estimate, while 15 percent is used for the lower estimate. Both rates are reduced by 4 percentage points during 1977-88.[12]

TABLE 1: Export Growth Rates: Past Trends and Future Assumptions

| | Trend Growth Rates[a] | | Projections | | | |
| | | | Low | | High | |
	1959-71	1965-71	1972-76	1977-88	1972-76	1977-88
Ferrous and nonferrous metals			11.4	11.6		
Ferrous	6.5	8.5	7.0	7.0	7.0	7.0
Nonferrous	12.2	15.2	12.0	12.0	14.0	12.0
Metal products			12.4	10.6		
Metal products	8 9	1.7	9.0	9 0	12.0	10.0
Ships	10.9	9.0	16.0	12.0	20.0	16.0
Electrical equipment	12.1	7.4	15.0	11.0	18 0	14.0
Chemicals	20 7	9.1	12.0	8.0	12.0	8.0
Wood products	3.4	1.9	6.0	6.0	8.0	8.0
Textiles			8.4	7.0		
Textiles	15.6	8 1	6.0	6.0	10.0	8.0
Leather and rubber	17.4	12.0	12 0	8.0	12.0	8.0
Food products	1.9	0.9	2.0	2.0	2.0	2.0
Other goods	2.3	−2.2	2.0	2.0	2.0	2 0

[a]In constant prices based on least squares, trend lines fitted to the data, using the expression $y = a(1 + r)^t$.

For other *metal products*, the low estimate is based on a continuation of the 1959-71 trend. About 25 percent of this class is accounted for by transport equipment however, which would double its exports in the next five years. If this were to happen, the overall growth rate would be of the order of 12 percent, which is the rate used in the "high" version, although reduced to 10 percent in the 1977-88 period.

Chemicals were difficult to project because their composition is so varied. For both the low and the high versions, a growth rate of 12 percent was used for the first period, dropping to 8 percent in the latter period. While the long-term trend for chemicals shows a growth rate of over 20 percent, there has been a slowing down of exports in this sector in recent years as foreign markets became saturated and domestic demand increased. Our projections for *wood products* are somewhat more optimistic than past trends, based on growing demand for lumber and furniture.

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12. Although we speak of a lower growth rate during 1977-78 of 4 percentage points, in fact the growth rate is reduced in gradual steps of 1 percentage point per year until the lower rate is achieved, thus preventing an extreme drop in export earnings in any one year.

Lumber is assumed to be able to grow at about 5 to 6 percent per annum, while furniture is more dynamic, and could have a growth rate of between 6 to 10 percent during the period. Taking a weighted average of these two sectors, we used 6 percent for the low estimate and 8 percent for the high estimate for the entire period. Exports of the *textile* sector were disaggregated into two basic groups: textiles and clothing, and leather and rubber products. The growth of textile and clothing exports based on planned increases in capacity would indicate a growth rate of about 6 percent. If, however, increases in foreign demand result in greater than planned for capacity additions, then a growth rate as high as 10 percent per annum might be possible. These two ranges were taken as the low and high estimates, respectively, although the high estimate was lowered to 8 percent for 1977–88. Leather products have shown strong growth in the past, averaging about 12 percent during the last six years. For both the high and low versions, the 12 percent growth rate is assumed to continue until 1976, followed by a decline to 8 percent. For *food products,* and *other commodities,* the trend growth rate of 2 percent from the past is continued into the projection period in both the high and low cases.

Exports of nonfactor services are disaggregated into two broad groups: tourism, and transport and other services. Tourism has shown a remarkable growth during the past decade, partly due to the low base. From 1965–71, the trend growth rate for tourism earnings in current prices has been about 27.8 percent, which translates into a growth rate of about 23.5 percent in constant prices. For the future, it seems likely that the growth rate will decline somewhat, due to the inability of the industry to increase its capacity at the past growth rate. Studies of tourism potential undertaken by the World Bank indicate a growth rate (in constant prices) of 10 to 14 percent per annum is likely for the next five years, and these values have been used for our high and low estimates. Both projections are reduced 2 percentage points for 1977–78, to 8 and 12 percent per annum. Export earnings from transport and other services are assumed to grow at 12 percent per annum in all cases for all years. This is roughly equal to the past trend in these earnings.

Balance of Payments

All items in the balance of payments have been projected in terms of current US$, as compared with national accounts' projections in constant 1966 dinars. Imports and exports of goods and nonfactor services are converted into current US$ values by use of the 1966 exchange rate of 12.5 dinars=US$1, and the import and export price indices.[13] These indices are assumed to grow at 3.5 percent per annum, which is the historical rate of the 1965–71 period. In the national accounts, exports are adjusted to include the terms of trade effect when calculating the resource gap (imports less exports), in order to take account of the import purchasing power of exports.

Factor payments are calculated on the basis of past trends and likely future trends. *Workers' remittances* have been extremely dynamic during the last several years, growing from US$32 million in 1965, to US$680 million in 1971, or a growth rate of 63 percent per annum. A saturation of the job market abroad and other factors would indicate that a slowing down of this growth rate is in order, and indeed preliminary balance of payments data for 1972 indicate a growth rate of only (sic) 20 percent. For our high estimate, based on an analysis of relevant factors, we took a growth rate of

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13. Exports of nonfactor services are deflated, using the import price index.

16 percent per annum until 1979, and then a gradually falling growth rate reaching 10 percent by 1985, and remaining at that level until 1988. For the lower estimate, we started with 13 percent, gradually falling to 7 percent by 1985. The difference between these two assumptions means a difference of US$1.3 billion by 1985 in the size of the *annual* inflow.

Net investment income is defined to exclude interest on the public debt, and is composed of *investment income received* and *investment income paid.* Investment income paid is assumed to be composed of two parts; the first is profits paid on foreign investments and is assumed to be equal to 10 percent of the foreign-owned capital stock. The foreign capital stock is in turn calculated by assuming that profits paid in 1971 represent a 10 percent return on capital. From this assumption the implicit capital stock can be calculated as at the end of 1971. For each year the new capital stock can be approximated by adding direct investment and depreciating the capital stock; in this case we assumed a 5 percent depreciation factor, the equivalent of a twenty-year useful life. The balance of investment income paid is made up of interest on short-term borrowings and other items, amounting to about US$40 million in 1971. This amount is assumed to be constant over the projection period. Investment income received is broken down into two parts; interest on export credits extended and interest earnings on foreign exchange reserves. Interest on export credits is taken to be equal to 5 percent of the amount of credits outstanding at the end of the year. Interest on reserves is taken to be 2 percent of reserves, since part of reserves is held in the form of gold or other noninterest-bearing forms. The use of the 2 percent figure was derived by calculating what rate of interest would be necessary to achieve the actual investment income received in 1971.

Interest paid on foreign debt is calculated by combining existing debt service obligations with our assumptions concerning new aid inflows. These assumptions are described more fully below in the discussion of the capital account. *Net current transfers* are projected, using a simple growth rate of 12 percent during the whole period. Transfers are difficult to forecast, in part because they have fluctuated markedly in the past. During 1967–71, the trend growth rate was about 20 percent, but in 1971 alone the growth rate was only 6.5 percent. Remittances made by workers living permanently abroad will be classified as transfers, rather than as workers' remittances, so it seems likely that they will continue to grow in the future in line with the growth of workers' remittances. The balance on current account can now be calculated as the resource gap in current prices plus net factor service income and net current transfers, where net factor service income equals workers' remittances, net investment income and interest on external debt.

The assumptions for the capital account are largely based on exogenous estimates. Direct foreign investment is assumed to increase from the 1971 level of US$30 million to US$150 million per year by 1977, and remain at that level until 1988. This assumes a continuation of the improvement in the attractiveness of Yugoslavia to foreign investment, and no adverse changes in the investment climate. The level of *reserves* is assumed to equal two months' imports (of goods), while an inflow from SDRs is assumed to be a fairly constant US$22 to US$25 million per year. New flows to the IMF assume a repayment of current drawings and no new standby arrangements in the future.

The balance of the capital account is covered by inflows from private and public capital sources. The model was run under the World Bank BSIML program, which calculates the interest and amortization on commitments, given their terms, and adds

the results to the existing outflows of debt service. The projected future interest and amortization payments on existing debt are derived from the World Bank's Debtor Reporting System, and are based on exchange rates prevailing in 1972. Disbursements are calculated from commitments using the assumption that disbursements are spread in equal amounts over the grace periods. Since in most cases there is only a one-year grace period (usually referred to as zero grace period), this assumption really means that commitments and disbursements are equal. For the World Bank commitments, a ten-year disbursement pattern has been used which is based on historical experience. The remaining balance between these disbursements from public sources is assumed to be filled from private or suppliers' credits. Table 2 below shows the percentage distribution of the balance between four classes of suppliers' credits: nonconvertible sources, convertible short-, convertible medium-, and convertible long-term.

TABLE 2: Assumptions and Terms for Suppliers' Credits

	% of Total	Terms		
		Maturity (Years)	Grace (Years)	Interest (%)
Nonconvertible	10.0	5	1	6.0
Convertible				
Short-term	13.5	2	1	6.0
Medium-term	66.6	5	1	6.0
Long-term	9.9	12	1	6.0

The mix of suppliers' credits in the future is based on an analysis of past trends, as well as likely future prospects based on discussions with officials of the Government of Yugoslavia. The distribution between convertible and nonconvertible currency source is necessary in order to separate debt service obligations between convertible and nonconvertible countries. Debt service obligations are compared to export earnings both in total and separately between convertible and nonconvertible sources. Export earnings for the purpose of the debt service ratio are defined to include both factor and nonfactor earnings. Nonconvertible export earnings presently amount to about 30 percent of all exports of goods and nonfactor services, and are assumed to rise to about 35 percent by 1976. This assumes a shift in the orientation of trade away from the less developed countries and more toward the eastern bloc countries. Factor receipts are assumed to be 100 percent denominated in convertible currencies.

Projections and their Implications: the Base Run

The model has been used to make projections to 1988, with a starting point of 1971. The choice of 1971 as a base year is necessary since data for 1972 are not presently available. The projections become slightly less reliable as they move further from the base year, since the model cannot fully encompass all of the many possible changes in structure, shifts in policy direction, exogenous movements, etc. Consequently, while we show numbers up to 1988, more emphasis is given to the 1972–80 period, and particularly 1972–76 which is covered by current plan. Projections after

1980 are probably best considered to be of more notational interest than hard projections. The basic run of the model assumes a 7.5 percent growth rate for GDP, based on the growth assumptions of the recent development plan. This growth rate, plus the higher range of exports of goods and services, results in the projections summarized in Table 3, below, and are given in detail in Appendix A.

TABLE 3: Results of Base Run

(Constant Prices)

	Average	Actual	Projected						
	1965-71	1971	1972	1973	1974	1975	1976	1980	1988
Growth rates[a]									
GDP	5.2	7.7	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Investment	5.3	4 7	7.0	10.2	8.9	8.5	8.3	8.0	7.5
Consumption	6.9	10.1	5.0	6 9	7.4	7.4	7 6	7.7	6.8
Imports	13.3	12.1	4.2	12.2	12.0	11.8	11.5	10.4	9.1
Exports	8.0	9.5	11.1	11.3	11.5	11.7	11.3	10.3	11.0
Values of:									
S/Y	28.1	0.252	0.265	0.269	0.270	0.270	0.270	0.264	0.280
MSR	0.097	0.030	0.437	0.323	0.280	0.276	0.264	0.247	0.346
ICOR	6.3	3.9	3.8	3.8	3.9	4.0	4.0	4.1	4.2
MELAS	2.8	1.6	0.6	1.6	1 5	1.5	1.5	1.4	1.2
NS/NP	0.277	0.289	0.301	0.305	0.307	0.309	0.312	0.313	0.330
RG/Y	0.030	0.067	0.052	0.056	0 060	0.063	0.065	0.078	0.066

[a]Past growth rates are least-squares trends.

TABLE 4: Sector Growth Rate

(Constant Prices)

	Trend 1965-71	Plan 1972-76	Model 1972-76
Energy	8.8	8.9	8.8
Ferrous and nonferrous	5.5	11.2	9.6
Metal products	8.4	8.0	10.8
Nonmetallic minerals·	7.8	9.0	8.5
Chemicals	13.3	10.0	10.0
Wood	5.1	6.5	6.5
Textiles	4.2	4.0	8.8
Food products	4.5	5.0	8.8
Industry, all	7.4	8.0	9.3
Construction	7.4	7.8	8.5
Transport, communications	4.3	9.1	8.7
Services	3.4	9.5	7.1

The growth rate of 7.5 percent for GDP implies a slightly faster growth rate for investment, and as a result the ICOR tends to rise slightly during the projection period, from 3.8 in 1972 to 4.1 by 1980, and 4.2 by 1988. While exports grow at between 10 to 11 percent per annum, imports grow even faster, causing a widening of the resource gap. The resource gap as a percent of GDP tends to rise from 5.2 percent in 1972 to

7.8 percent in 1980, but then declines gradually to 6.6 percent by 1988. The increased capital inflow necessary to cover the widening resource gap permits the level of domestic savings to remain at about 26 to 27 percent during the period, despite the higher levels of investment required.

On a sectoral basis, Table 4 compares projections from the model for 1972–76 with those assumed in the Plan.

On the industry side, the model projects a slightly faster increase in overall growth of industrial output of about 9.3 percent, versus 8 percent in the plan. Of the eight major industrial sectors (excluding "others") the model and the plan are close on four. The model projects a slightly lower growth rate for ferrous and nonferrous metals, but a slightly higher growth rate for metal products. The model shows substantially higher growth for food products and textiles, 8 percent to 9 percent as compared with 4 percent to 5 percent for the plan. For the nonindustrial sectors endogenous to the model we show higher growth rates for construction, but lower growth rates for transport-communication, and about the same growth rate for other services.

Employment projections show an average growth of total nonagricultural employment of 3.8 percent per annum, which is somewhat higher than the 3 percent projected in the plan for the social sector. Productivity growth, on the other hand, is marginally lower, averaging 4.6 percent per annum versus the 5 percent plan target.

TABLE 5: Nonagricultural Employment, Growth Rates

	Trend 1965–71	Actual 1971	Projections					
			1972	1973	1974	1975	1976	1980
Industry	1.8	5.3	2.7	2.4	2.8	3.1	3.2	3.9
Other	2.8	5.1	4.8	4.7	4.2	3.9	3.7	3.3
Total	2.3	4.8	4.0	3.9	3.7	3.6	3.6	3.6

The growth rate of industrial employment tends to rise over time, from 2.7 percent in 1972 to 3.9 percent in 1980. This seems to be somewhat the reverse of what might be initially expected, but is a logical result of the structure of the equations. The capital output ratio is projected to decline, with the growth rate of industrial investment being less than industrial output, and tending to decline over time. The employment level is a function of both output and investment, so as investment falls relative to output, there is an assumed shift to more labor-intensive activities, and an acceleration of the employment growth rate. The feasibility of this occurring depends on the assumption of investment growth. In variant E of the model, the level of industrial investment was increased such that the ICOR for industry decreases from 2.3 in 1972 to 2.2 in 1980, instead of 2, as in the base run. The result is that the industrial employment growth remains fairly stable at about 2.3 percent per annum during 1972–80, and the overall growth of employment for the plan period is 3.5 percent. It seems clear from this exercise that the level of capital intensity in industry has a direct bearing on employment. If investment plans and increases in capacity utilization allow for a decline in the ICOR, greater increases in employment can be attained than called for in the Five-Year Plan.

The composition of imports is projected to move away from capital and consumer goods, and towards a greater composition of intermediate goods. As shown in Table 6, below, intermediate goods will grow at about 12 percent to 13 percent per annum during the 1972–80 period, while capital goods will grow at about 7.5 percent and consumer goods at about 6.5 percent.

TABLE 6: Imports by End Use

Growth Rates	1971	1972	1973	1974	1975	1976	1980	1988
Capital goods	2.2	4.4	9.4	8.0	7 7	7.5	7.1	6.7
Intermediate goods	15.1	2.5	13.5	13.5	13.2	12.8	11.3	9.7
Consumer goods	6.2	1.3	5.6	6.2	6.3	6.5	6.9	6.3
All commodities	11.1	2.7	11.6	11.5	11.3	11.1	10.2	9.0
Nonfactor services		−4.1	15.6	14.9	14.2	13 6	11.6	9.6
Total imports	12.2	4.2	12.2	12.0	11.8	11.5	10.4	9.1
Ratios								
MK / FI	1.610	0.156	0.155	0.153	0.152	0.151	0.146	0.137
MI / IND	4.640	0.438	0.455	0.471	0.487	0.502	0.553	0.622
MC / PC	0.630	0.060	0.059	0 059	0.050	0.057	0.055	0.052
M / Y	0.284	0.275	0.287	0.299	0 311	0.322	0.364	0.425

Imports of nonfactor services tend to grow faster than imports of goods; while the average growth rate for the 1972–80 period for goods alone is 11 percent, for services it is 12.6 percent. The fact that imports rise faster than the GDP growth rate results in an even greater degree of "openness" in the economy; by 1980 imports will rise to 36.4 percent of GDP, versus 28.4 percent in 1971.

The ratios in the bottom of Table 6 yield some interesting insights into the relationships between imports by end-use and production. The ratio of intermediate goods to value added in industry (MI/IND) shows a rising tendency, going from 0.464 in 1971 to 0.553 in 1980, or a continuation of recent trends toward greater imports of intermediate goods. On the other hand, while the *growth rate* of consumer goods tends to rise during the 1970s, the *ratio* of consumer goods to private consumption (MC/PC) actually tends to fall. Likewise, the import composition of fixed investment, as measured by the ratio of capital goods' imports to fixed investment (MK/FI), is projected to decrease gradually. In general, the model projects a continuing trend toward import substitution in consumer goods and capital goods, but at a cost of greater imports of intermediate goods.

Although the gap between imports and exports grows wider over time, its impact on the balance of payments is offset by capital and factor income flows. As shown in Table 7, the level of workers' remittances is almost exactly the same as the resource gap in current dollars, and grows at almost the same growth rate (16 percent per annum). For instance, in 1980 workers' remittances will be US$2.54 billion and the resource gap will be US$2.66 billion. The balance on current account is largely affected by other factor payments and transfers, the chief items among these being interest on the external debt and transfers. As the growth of the resource gap slows down after 1980, the balance on current account eventually turns to a surplus by 1988.

Large inflows from foreign borrowings are still required, despite the small current account deficit. This is largely due to the heavy amortization payments due on existing debt, as well as the projected repayments on new obligations. By 1980, disbursements from foreign loans are projected to rise from US$1 billion in 1972 to US$1.8

billion, while amortization payments rise from US$0.7 billion to US$1.4 billion. While direct foreign investment levels off at US$150 million, net export credits continue to grow as a result of the assumed growth of 12 percent per year in gross disbursements. The rising earnings on export credits and interest on the reserves held have their impact on investment income, since it moves from a net outflow to a net inflow by 1988.

TABLE 7: Balance of Payments, Current Account

(In Current US$)

	1971	1972	1973	1974	1975	1976	1980	1988
Exports	2,835	3,271	3,769	4,351	5,029	5,791	9,882	29,292
Imports	3,743	4,037	4,687	5,433	6,285	7,251	12,538	34,461
Resource gap	−908	−766	−918	−1,082	−1,256	−1,461	−2,656	−5,169
Workers' remittances	650	780	905	1,050	1,217	1,412	2,535	5,944
Net current transfers	64	70	78	88	98	110	173	429
Net investment income	−26	−15	−14	−15	−15	−15	−24	46
Interest on debt	−104	−114	−158	−173	−196	−190	−299	−554
Balance on current account	−324	−45	−107	−132	−151	−143	−270	697

TABLE 8: Balance of Payments, Capital Account

(In Current US$)

	1971	1972	1973	1974	1975	1976	1980	1988
Direct foreign investment	20	30	50	75	100	130	150	150
Net export credit	−16	−20	−30	−69	−108	−111	−111	−276
Loan disbursement	857	1,042	934	1,249	1,226	1,283	1,849	2,754
Debt amortization	504	−724	−762	−925	−915	−1,023	−1,381	−2,667
IMF	61	92	0	−96	−32	0	0	0
SDRs	22	22	22	22	22	25	25	25
Reserve change	49	−397	−108	−124	−142	−161	−261	−658

In general, we can see that as workers' remittances largely offset the resource gap, future external borrowings will be needed mainly to cover the payments of interest and amortization on the external debt. This is more obvious if we look at the net transfer, or disbursements less amortization and interest payments.

TABLE 9: Net Transfer and Debt Service Ratios by Convertible and Nonconvertible Areas

	1972	1973	1974	1975	1976	1980	1988
Net transfer							
Convertible	129	−53	71	57	24	147	−437
Nonconvertible	51	59	78	58	46	22	−30
Total	180	6	149	115	70	169	−467
Debt service ratio							
Convertible	.252	.226	.236	.206	.197	.158	.111
Nonconvertible	.046	.092	.091	.085	.080	.065	.036
Total	.202	.192	.199	.174	.165	.133	.090

Because of the structure of the existing debt service payments, the net transfer fluctuates somewhat during the 1972-76 period, but remains small. During 1976-80, the slow-down in the growth rate of exports causes a rise in the net transfer, reaching a peak of US$230 million in 1983, and then a decline so that by 1988 the net transfer is

negative (i.e., a net outflow). At the same time, total disbursements grow to US$1,849 million by 1980 and US$2,754 million by 1988. The fact that loan disbursements provide very little, if any, net transfer to the economy may mean that these flows could take the form of loan reschedulings rather than new obligations. Even with these high amounts of external borrowings, debt service payments remain relatively small in relation to total foreign exchange earnings. The debt service ratio in fact declines from 20.2 percent of foreign earnings in 1972, to 13.3 percent in 1980, and 9 percent in 1988.

Sensitivity Tests

These results for the balance of payments projections are conditioned by our somewhat optimistic assumptions about the growth of exports and workers' remittances. Alternate hypotheses for these two items produce markedly different results. This section discusses the results of two variants of the base run: Variant A, in which workers' remittances grow at slower rates, and Variant B, in which both workers' remittances and exports of goods grow at slower rates. Workers' remittances are assumed to grow at 13 percent per annum for 1972-79, as opposed to 16 percent in the base run, and then decline to a growth rate of 7 percent by 1985, as opposed to 10 percent in the base run. Exports of goods are assumed to grow at the lower ranges given in Table 1, which means an average growth rate of 8 percent to 9 percent for total exports, as compared with 10 percent to 11 percent in the base run. All other assumptions are held the same.

TABLE 10: Balance of Payments, Sensitivity Results

	1976			1980		
	Base	A	B	Base	A	B
Resource gap	−1,461	−1,461	−2,110	−2,656	−2,656	−4,590
Balance on current account	−143	−293	−999	−270	−821	−3,080
Total disbursements	1,283	1,477	2,453	1,849	2,752	6,662
Debt service ratio	.165	.175	.238	.133	.172	.384

For Variant A, the lower growth rate for workers' remittances has a major, but not catastrophic effect on the balance of payments. By 1980, the deficit on current account rose to US$821 million, or about three times the size of the deficit in the base run. The burden of the gap falls on disbursements of foreign loans, which are now US$2.7 billion in 1980, and as a consequence, the debt service ratio rises to 17.2 percent, versus 13.3 percent in the base run. In Variant B, however, we see much more marked effects. With both low export commodity growth rates and lower remittances, the deficit on current account quickly jumps to US$1 billion by 1976, and US$3.1 billion by 1980 and the debt service ratio reaches 38.4 percent by 1980. This is an untenable position, not because of the high debt service ratio, but because of the inability of Yugoslavia to be able to either attract or absorb US$6.7 billion a year in foreign capital. This amounts to 90 percent of fixed investment and about 50 percent of total imports. Naturally, further extrapolation of these assumptions to 1988 shows an even more impossible picture. It seems clear, then, that the 7.5 percent growth rate assumption is incompatible with an assumed growth rate of exports of only 8 percent to 9 percent per annum. To illustrate what would be a more feasible

level of growth, we substituted different alternative rates until we arrived at a more meaningful solution. In Variant C, a 6 percent overall growth rate of GDP, when combined with the low workers' remittances-low export assumption, produced a result similar to the base run. The balance on current account in Variant C remains low, and in fact shows a small surplus by 1980. Total aid disbursements are a more reasonable US$1 billion, and the debt service ratio is 11 percent. It is interesting, furthermore, to notice that with the low growth case the model shows a higher overall ICOR during the 1980s, and a lower import elasticity. Employment growth is also significantly lower, averaging only 2.1 percent for the 1972–76 period, as compared with 3.7 percent in the base run. If the export assumptions of the base run proved optimistic overall, a reduction in the growth level will be made necessary by the inability either to borrow or absorb the large capital inflows required to sustain 7.5 percent growth. A 1 percent reduction in the average growth rate of goods and service exports appears to necessitate about a 1 percent reduction in the growth of GDP. The impact of lower exports is somewhat softened by the projection of a lower progressivity to import at lower growth rates.

The validity of these projections depends upon the ability of Yugoslavia to maintain a fairly high, by world standards, savings' rate. The model projects an average GDS rate of about 27 percent for 1972–80, and a rate of national savings to national product of 31 percent. These rates are somewhat higher than in the recent past, which has shown a tendency for the GDS rate to decline. After reaching a peak of about 32 percent (calculated in constant prices) in 1966, the domestic savings' rate has fallen to 25.2 percent in 1971. The average for the 1955–71 period is 27.4 percent, or close to the average for the projected period 1972–80. To demonstrate the implications of a lower savings' rate, we developed Variant D of our model. In this run, the savings' gap approach to the projection exercise is used, and a marginal savings' rate of 20 percent is taken as an exogenous estimate of a lower savings' performance, while all other assumptions of the base run are maintained. This has the effect of causing the average saving rate to fall from 24.8 percent in 1971 to 22.7 percent in 1980.

TABLE 11: Variant D
(Lower Savings' Performance)

	Actual 1971	Projected						
		1972	1973	1974	1975	1976	1980	1988
GDP—growth rate	7.7	7.5	7.5	7.5	7.5	7.5	7.5	7.5
S / Y	25.2	24.8	24.5	24.2	23.9	23.6	22.7	21.5
MSF	3.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Import elasticity	1.6	1.4	1.8	1.6	1.6	1.5	1.3	1.3
ICOR	3.9	3.8	3.8	3.9	3.9	4.0	4.1	4.1
Current account balance	−324	−294	−491	−629	−784	−916	−1,722	−5,594
Total disbursement	857	1,331	1,406	1,936	2,188	2,574	5,048	17,978

The lower savings' performance with the same overall growth rate is compensated for by a higher level of imports. The import elasticity average is 1.6 during 1972–76, compared with 1.3 in the base run. The balance on current account shows a US$1.7 billion deficit in 1980 as compared to US$0.3 billion in the base run, and total aid disbursements are US$5 billion, or US$3.2 billion higher than the base run. The situation is even more improbable in 1988. The conclusion appears to be that even with

high export growth, a continued deterioration of savings' performance will prevent the maintenance of a rapid growth rate.

In conclusion, the model demonstrates that while a rapid growth rate is attainable it depends upon a continuation of high export earnings and a reversal in the trend toward lower savings. Considering the uncertainty regarding export earnings in the future, in particular the rather uncertain nature of workers' remittances, and the institutional problems concerned with savings' mobilization, it seems quite possible that the plan's target growth rate will not be attained. On the other hand, if the 7.5 percent growth rate is attained, it may produce a greater than expected increase in nonagricultural employment if an investment pattern is followed that allows for a decrease in the capital intensity of production.

Yugoslavia: Model Equations

Note: g_1, g_2 indicate exogenous growth rates for the variable concerned; $*$ = multiplication; unsubscripted variables are for time period t.

1. *Sector Output*

GDP $= GDP_{t-1} *(1 + g_y)$

YENER $= .0828\ YIND + .033PC - 122.2$

YFNF $= 621.2 + .2691\ YMETP$

YNMET $= -147.2 + .2756\ YCONST$

YMETP $= .0979\ IF + .4608\ XMETP + .1153PC - 2512.2$

YCHEM $= -2403.1 + .874\ XCHEM + .0894\ PC_{t-1}$

YWOOD $= -1813.9 + 1.5871\ YFOR + .0270\ PC_{t-1}$

YTEXT $= antilog\ (-1.5052 + .9573\ \log GDPPC + .2339\ \log XTEXT)$

YFODDP $= -993.4 + .0463\ GDP_{t-1}$

YINDOT $= YINDOT_{t-1} *(1 + g_o)$

YIND $= YENER + YFNF + YNMET + YMETP + YCHEM + YWOOD$
$+ YTEXT + YFOODP + YINDOT$

YCONST $= 976.5 + .2948\ IF$

YAG $= YAG_{t-1} *(1 + g_a)$

YFOR $= YFOR_{t-1} *(1 + g_t)$

YTRC $= -1787.2 + .0856\ GDP$

YSER $= GDP - YIND - YTRC - YAG - YFOR - YCONST$

2. *Investment*

IIND $= 11814.7 + .0461\ KIND_{t-1} + .4817\ DYIND - 2899.5\ KOIND_{t-1}$

IAG $= 1236.1 + .0481\ YAG_{t-1} + 52.54\ (g_y)$

ICONST $= -985.6 + .1970\ DYCONST + .1378\ YCONST$

KIND $= (KIND_{t-1}\ IIND_t)* .954$

KOIND $=$ KIND/YIND

IFOR $=$ YFOR * g_I * ICORFOR

ICORFOR $=$ $1.898 + .1478 \, (1/g_I)$

ITRC $=$ $4821.0 + 1.55$ DYTRC $- 437.5$ KOTRC$_{I-1}$

ISER $=$ $-15603.1 + .9171$ YSER

IF $=$ IIND + IAG + IFOR + ICONST + ITRC + ISER

STK $=$ $.03$ GDP

I $=$ IF + STK

3. *Employment (Nonagricultural)*

DYIND $=$ YIND $-$ YIND$_{I-1}$

YOTH $=$ GDP $-$ YIND $-$ YAG $-$ YFOR

DYOTH $=$ YOTH $-$ YOTH$_{I-1}$

EIND $=$ $92.12 + .0206$ DYIND $+ .0159$ DYIND$_{I-1}$ $- .0173$ IIND + EIND$_{I-1}$

EOTH $=$ $43.08 + .0273$ DYOTH $+ .0099$ DYOTH$_{I-1}$ $.0042$ IOTH + EOTH$_{I-1}$

ENAG $=$ EIND + EOTH

4. *Imports*

MTEXT $=$ $-82.98 + .4194$ YTEXT

MFNF $=$ $-1333.9 + .4988$ YMETP

MCHEM $=$ $327.2 + .6479$ YCHEM

MIOTH $=$ $-606.1 + 1.062$ DYINDOTH + MIOTH$_{I-1}$

YINDOTH $=$ YIND $-$ YTEXT $-$ YMETP $-$ YCHEM

DYINDOTH $=$ YINOOTH $-$ YINDOTH$_{I-1}$

MINT $=$ MTEXT + MFNF + MCHEM + MIOTH

MCAP $=$ antilog $(-.7290 + .8944 \log IF)$

MCONS $= 1060.8 + .0478 \, PC$

MSER $= -1645.6 + .1819 \, M$

MG $= MINT + MCAP + MCONS$

M $= MG + MSER$

5. *Exports*

XFERR $= XFERR_{t-1} \, {}^*(1 + g_1)$

XNFER $= XNFER_{t-1} \, {}^*(1 + g_2)$

XFNF $= XFERR + XNFERR$

XMTP $= XMTP_{t-1} \, {}^*(1 + g_3)$

XSHIPS $= XSHIPS_{t-1} \, {}^*(1 + g_4)$

XELEC $= XELEC_{t-1} \, {}^*(1 + g_5)$

XMETP $= XMTP + XELEC + XSHIPS$

XCHEM $= XCHEM_{t-1} \, {}^*(1 + g_6)$

XWOOD $= XWOOD_{t-1} \, {}^*(1 + g_7)$

XTEX $= XTEX_{t-1} \, {}^*(1 + g_8)$

XLTHB $= XLTHB_{t-1} \, {}^*(1 + g_9)$

XTEXT $= XTEX + XLTHB$

XFOODP $= XFOODP_{t-1} \, {}^*(1 + g_{10})$

XOTH $= XOTH_{t-1} \, {}^*(1 + g_{11})$

OTHX $= XWOOD + XFOODP + XOTH$

XGDS $= XFNF + XMETP + XCHEM + XTEXT + OTHX$

XTRM $= XTRM_{t-1} \, {}^*(1 + g_{12})$

XOTSER $= XOTSER_{t-1} \, {}^*(1 + g_{13})$

XNFS $= XTRM + XOTSER$

X $= XGDS + XNFS$

6. Consumption and Savings

GC $\quad = GC_{t-1} * (1 + g_{gc})$

RG $\quad = M - X$

GDS $\quad = I - RG$

C $\quad = GDP - GDS$

PC $\quad = C - GC$

For Savings' Gap Version

MSR $\quad$ = exogenous

GDS $\quad = (GDP - GDP_{t-1}) * MSR + GDS_{t-1}$

RG $\quad = I - GDS$

M $\quad = X + RG$

MCONS $\quad = M - MINT - MCAP - MCONS$

7. Balance of Payments (Current US$)

XPI $\quad = XPI_{t-1} * (1 + g_x)$

MPI $\quad = MPI_{t-1} * (1 + g_m)$

M\$ $\quad = M * MPI$

X\$ $\quad = (XGDS * XPI) + (XNFS * MPI)$

RG\$ $\quad = X\$ - M\$$

WR $\quad = WR_{t-1} * (1 + g_w)$

NCT $\quad = NCT_{t-1} * (1 + g_{nt})$

IIP $\quad = 40 + .10 FKS_{t-1}$

IIR $\quad = .05 OUTEXC + .02 RES$

NII $\quad = IIR - IIP$

TOTINT $\quad$ = calculated by program

NFSY $\quad = NII + TOTINT + WR$

DFI = exogenous

FKS = $(FKS_{t-1} + DFI) * .95$

EXCR = exogenous

AMTEXC = calculated by program

NETEXC = EXCR – AMTEXC

BOCA = RG$ + NFSY + NCT

RES = M$ *(2/12)

CHRES = $RES – RES_{t-1}$

IMF = exogenous

SDR = exogenous

TOTAMT = calculated by program

TOTDIS = (BOCA + DFI + NETEXC + TOTAMT + IMF + SDR + CHRES) * −1.0

DISBILCV = DISXMB + DISCCC + DISBEL + DISFR + DISGER + DISIT +DISJAP

DISSC = TOTDIS − DISBILCV − DISRUS − DISWB

Note: Disbursements from the individual loans, including those from the World Bank, are calculated from exogenously given commitments, and these equations are not shown here.

Abbreviations Used

A. National Accounts

GDP	— gross domestic product, market prices
PC	— private consumption expenditures
GC	— government consumption expenditures
C	— total consumption expenditures
I	— total gross investment
IF	— fixed investment
STK	— change in stocks
RG	— resource gap
M	— imports, goods and nonfactor services
X	— exports, goods and nonfactor services
X-ADJ	— exports, including terms of trade adjustment
GDS	— gross domestic saving
Y	— value added
TTADJ	— terms of trade adjustment
S/Y	— gross domestic saving to GDP
M/Y	— imports to GDP
MSR	— marginal gross domestic saving rate
MELAS	— import elasticity
NS/NP	— gross national savings to GNP
IND	— industry (social product), total
ENER	— energy sector (electricity, oil and coal)
FNF	— ferrous and nonferrous metals
NMET	— nonmetallic mineral products
METP	— metal products (including ships, electrical machines)
CHEM	— chemicals (including paper)
WOOD	— wood products
TEXT	— textiles, rubber and leather
FOODP	— food processing
INDOT	— other industries
CONST	— construction
AG	— agriculture
FOR	— forestry
YTRC	— transport and communications
SER	— services (including housing, government, trade)

B. Investment and Capital

K	— fixed capital stock, year-end
I	— gross fixed investment (capital formation)
IENER, IFNF, etc.	— investment by sector
ICOR	— incremental capital output ratio $(= I_{r-1}/ \triangle Y)$
ICORIN	— ICOR for industry
ICORAG	— ICOR for agriculture
ICORCT	— ICOR for construction
ICORFR	— ICOR for forestry
ICORSE	— ICOR for services
ICORTR	— ICOR for transport-communications

C. Employment and Productivity

EIND	— employment, industry
EOTH	— employment, other nonagricultural
ENAG	— employment, total nonagricultural
PIND	— productivity, industry
POTH	— productivity, other
PNAG	— productivity, total nonagricultural

D. Imports and Exports

MCONS	— imports, consumer goods
MCAP	— imports, capital equipment
MINT	— imports, intermediate and raw materials, total
MCHEM	— imports, chemicals
MTEXT	— imports, textiles (intermediate goods only)
MFNF	— imports, ferrous and nonferrous metals
MIOTH	— imports, other intermediate goods
MG	— imports, goods
MSER	— imports, nonfactor services
M	— imports, total goods and nonfactor services

XFERR	— exports, ferrous metals
XNFER	— exports, nonferrous metals
XFNF	— exports, ferrous and nonferrous
XMTP	— exports, metal products
XSHIPS	— exports, ships
XELEC	— exports, electrical equipment
XMETP	— exports, metal products, ships and electrical equipment
XCHEM	— exports, chemicals
XWOOD	— exports, wood products
XTEX	— exports, textiles
XLTHB	— exports, leather and rubber products
XTEXT	— exports, textiles, leather and rubber products
XFOODP	— exports, food products
XOTH	— exports, other products
XGDS	— exports, total goods
XTRM	— exports, tourism services
XOTSER	— exports, other services
XNFS	— exports, total nonfactor services
X	— exports, goods and nonfactor services

E. Balances of Payments (Current Prices, US$)

XPI	— export price index
MPI	— import price index
M$	— imports, goods and nonfactor services, current prices
X$	— exports, goods on nfs, current prices
RG$	— resource gap, current prices

WR   — workers' remittances
NCT   — net current transfers
IIP   — investment income paid
IIR   — investment income received
NII   — net investment income
TOTINT   — total interest on external debt
NFSY   — net factor service income
DFI   — direct foreign investment
FKS   — foreign capital stock
EXCR   — export credits extended
AMTEXC   — amortization payments on export credits
NETEXC   — net export credits
BOCA   — balance on current account
RES   — reserves
CHRES   — change in reserves
IMF   — net drawings from IMF
SDR   — net SDRs utilized
TOTAMT   — total amortization on external debt
TOTDIS   — total disbursements on external borrowings
DBILCV   — disbursements on borrowings from bilateral, convertible currency
              sources
DISXMB   — disbursements, US EXIM-Bank
DISCCC   — disbursements, US Commodity Credit Corporation
DISBEL   — disbursements, Belgium
DISFR   — disbursements, France
DISGER   — disbursements, Germany
DISIT   — disbursements, Italy
DISJAP   — disbursements, Japan
DISSC   — disbursements, total suppliers' credits
DISRUS   — disbursements, Soviet Union
DISWB   — disbursements, World Bank

APPENDIX D

NEW AGREEMENTS ON INCOMES' POLICY

Beginning in 1971, a new machinery has evolved to govern the functional distribution of income earned by enterprises.[1] The background, objectives and institutions related to these incomes' agreements have already been discussed in the text. This brief and purely descriptive note is appended to provide some detail on a typical "Social Agreement on Incomes." The objective is to aid familiarity with this new and potentially powerful instrument of policy. While the Croatian agreement is described as an example, the salient differences with other republican agreements are also pointed out.

The Croatian Social Agreement on Incomes

Definitions. The gross value added in an enterprise may be decomposed as follows:

Gross value added (V)
$=$ compulsory depreciation (D_C)
$+$ accelerated depreciation (D_A)
$+$ legal and contractual obligations (T)
$+$ gross personal incomes (W)
$+$ allocation to funds (F)

The agreement defines the concepts "enterprise income" (Y) and "accumulation" (S) as:

$$S = F + D_A$$
$$\text{and}$$
$$Y = F = D_A + W = S + W$$

The savings', or accumulation, ratio of an enterprise in this context is $\frac{S}{Y}$.

The "Standardized" Work Force. The work force in each enterprise is classified according to the ten skill groups listed below. The "skilled worker" is used as a numeraire, with each other category being reduced to "skilled worker" equivalents according to the coefficients given here.

Skill Group	Coefficients
Doctors of science	2.533
Specialists and masters of science	2.200
Workers of "high" professional education	2.033
Workers of "higher" professional education	1.533
Workers of secondary level professional education	1.133
Workers of lower level professional education	0.800
Highly skilled workers	1.400
Skilled workers	1.000
Semiskilled workers	0.767
Nonskilled workers	0.667

Aggregating across skills gives the "standardized" work force of an enterprise in "skilled worker equivalents." Let this be denoted by L.

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1. Though the agreements have several goals, here the focus is on the conditions governing the functional distribution of income between wages and savings.

Norms of Functional Distribution. The agreement codifies the maximum level of gross personal income per standardized worker (W/L) which an enterprise may pay, given that enterprise's income per standardized worker (Y/L). This link is specified not between absolute values of these quantities, but rather between indices, which treat the republican averages as base 100 (see Table 1). Thus an enterprise's income performance in relation to all other enterprises in the republic sets limits on the extent to which its wage distribution policy can depart from the republican average. Of course, setting an upper bound to W/L for an enterprise is, for a given Y/L, equivalent to a minimum requirement for the enterprise's savings per standardized worker (S/L).

TABLE 1: Functional Distribution Norms in Croatia

Y/L as % of Republican Average	Maximum W/L Allowed as % of Republican Average
over 100–125	100 + 0.80 for each index point of the income over 100 to 125
over 125–130	120 + 0.40 for each index point of the income over 125 to 150
over 150–175	130 + 0.20 for each index point of the income over 150 to 175
over 175–200	135 + 0.16 for each index point of the income over 175 to 200
over 200–250	139 + 0 12 for each index point of the income over 200 to 250
over 250–300	145 + 0.08 for each index point of the income over 250 to 300
over 300–400	149 + 0.04 for each index point of the income over 300 to 400
over 400	153 + 0.02 for each index point of the income over 400

This schedule is based on observed data of recent years. For enterprises with Y/L lower than the republican average, the functional distribution policy is determined by the next level of industry-specific "Self-Management" agreements.

Other Social Agreements

Serbia and Montenegro. Whereas the Croatian agreement yields the minimum savings required of an enterprise as a residual, the Serbian and Montenegran agreements focus directly on the saving ratio (S/Y). The agreements detail a schedule, based on past observations, relating the minimum S/Y required of an enterprise, given its income per standardized worker (Y/L), relative to the average Y/L for the republic. Thus, if an enterprise's Y/L is 50 percent higher than the average Y/L in the republic, a certain minimum S/Y ratio has to be fulfilled. This type of schedule can be uniquely transformed into a Croatian type schedule which links republican-average-based indices of Y/L to a maximum permissible W/L. This is hardly surprising, since for a given Y, specification of W determines the S/Y ratio, and vice versa.

Slovenia. The Slovenian agreement is somewhat different. All labor is divided into eight categories. The agreement decrees for each an accounting wage. On this basis, the labor force of each enterprise is costed to yield the accounting wage bill (W*). W* is only one component of the permitted wage bill, W^p. The other component of W^p is the "incentive factor," I. For an enterprise, F is given by a rather complicated formula, which is, basically, an index of total productivity. The idea is that when other things such as factor endowments are equal, I, and hence W^p, should be higher in an enterprise with a higher Y. Unlike the agreements discussed earlier, W^p is not the legal maximum for an enterprise's wage bill. It is only the "permissible" wage bill.

Actual wages, W, can exceed W^p. But in such situations the enterprise is required to pay a steeply progressive tax on such excesses.

At first glance, the Slovenian system of functional distribution seems unrecognizably different from those discussed earlier. True, the mechanics are different. But the underlying effort to isolate and control the proper reward for labor, and hence that for capital as a residual, is the same. And the object of such identification, however crude the effort, is to protect the reinvestible surplus, S, from excessive wage distribution.

APPENDIX E

THE SOCIAL COST OF EMPLOYMENT

Economic analysis of employment questions has focussed increasingly on the fact that market wages paid to labor in the modern sector of a dualistic economy are often raised, by institutional factors, above the rates that would prevail according to the free operation of economic forces. The implication is that this introduces a distortion in the structure of earnings on one side and in the price of labor on the other. Both effects lead to an excess demand for modern sector employment.[1] This disequilibrium causes a number of deleterious side effects associated with such things as overmigration into urban areas, a loss of commitment to the rural sector, rising unemployment and possibly some political dissatisfaction, among others. To redress those imbalances economists have therefore suggested either or both that actual earning differentials be reduced to some degree and, in the preparation of new investment projects, that labor be priced not at the market wage actually paid but at some lower wage closer to that which would prevail in a free market. The assumption here is that the wage which is set by the free operation of market forces is one which will accurately reflect the social cost of labor, or the social cost of employing labor in one activity as against another. This is not true of wages set artificially at higher rates.

To what extent are these considerations of relevance to the current situation in Yugoslavia? First, labor is not "priced" in Yugoslavia, because under the workers' management system labor payments are not viewed as cost of production, as in a capitalist economy. These payments are in fact the final residual surplus, exactly analogous to profits in the capitalist system. The institutional structure, as this itself implies, is also quite different in Yugoslavia. Labor, in the broadest sense, is the owner of production, not a factor in it. Although labor in the social sector is protected by an institutional minimum wage, this tends to be set close to a subsistence level rather than at some high margin above it.[2] The distortion due to this institutional factor, therefore, may be less in Yugoslavia than in other countries.

Nevertheless, there is an excess demand for social sector jobs in Yugoslavia (see Chapter 3). In addition, there are institutional factors operating through the political and banking systems, and through the working of the self-managed enterprises which tend to bolster a high income structure in the social sector relative to the peasant sector. In themselves, these may be sufficient grounds to question whether current earnings within the social sector give an accurate reflection of the real social cost of employment there.

The issue is, then, to what extent the World Bank at least should take account of these factors in its preparation of investment projects in Yugoslavia. In short, to the extent that labor remuneration is entered as an item on the costs' side of a project,

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1. A high earnings' differential between traditional and modern sectors increases the desire of traditional workers to find employment in the modern sector. High labor costs, on the other hand, tend to induce producers to adopt increasingly capital-intensive techniques, thus reducing the pace of new job creation in the modern sector.

2. The idea of the social minimum wage is to provide the basic means of existence for workers in enterprises whose performance fails to generate sufficient surplus to pay a living wage. Social funds intervene temporarily to pay the difference between what the enterprise can provide and the stated social minimum. The minimum thus serves as a real safety net rather than as the institutional component of an artificially high urban wage.

should these payments be entered at the rate of expected actual receipts or at a rate thought more closely to reflect the real social cost of employment in the project concerned? The answer to this question can be finally given only by those whose task it is to decide upon the desirability of the economic as against the financial appraisal of projects. What is to be attempted here is simply to define, in terms of a very elementary method, what might be the margin of difference between actual earnings expected in a project and the real social cost of employment in the project, i.e., the so-called "shadow wage."

To take a concrete example, it is assumed there is a project in coastal Montenegro in which the costs of unskilled labor in construction will form a significant proportion of total project outlays. What follows is an outline of an attempt to define a very rough measure of a shadow wage for this type of labor in such a project in this region.

Components of the "Shadow Wage." The central notion is that creating new employment in the social sector is not a costless process. Moving labor from the peasant sector into the social sector might involve a loss of output in the peasant sector; there may be migration and relocation costs; there may be costs in terms of urban overheads, and there may be others. All of these would have to be weighed into the final wage chosen to represent the real cost of employing the average unskilled man in the project. There are possibly three major components of the "shadow wage" (SW), shown schematically as follows:

SW	=	Opportunity Costs	+	Relocation Costs	+	Distribution Costs
		Unemployed Labor		Migration		Consumption v Savings
		Underemployed Labor		Training		Domestic v Foreign
		(a) Urban		Urban Transformation		Exchange Demand
		(b) Rural				
		External Migration				

By applying data, where relevant and where possible, to the elements of this framework some idea can be obtained of the range within which the shadow price should fall.

Opportunity Costs. Possibly the central component of the shadow wage is the output foregone by shifting a worker from his current occupation into the project. This loss can be zero. This would be so, for example, if the worker was fully unemployed, or the work he is currently doing is taken up by other workers upon his departure. A typical case of the latter would be a peasant whose tasks are performed by other members of the family when he leaves. Losses in output would occur if the recruited workers came from forms of employment or underemployment which were not continued after the worker's departure. An upper limit estimate of what these losses might be can be had from the average income data of the groups thought most likely to be the source of the project's labor.[3] Assuming unskilled construction workers are drawn from the poorest 20 percent in urban areas and the poorest 30 percent in rural areas, this gives the following spectrum of possibilities.[4]

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3. The estimates would be upper limit estimates because the worker's income, possibly based on the average product of his work unit (family farm, family workshop, etc.) is likely to exceed his marginal product.

4. The data came from the 1968 Household Budget Survey which shows the income distribution of the total population. In each case, the figures represent the average income of the two lowest income groups. In urban areas this accounts for around 18 percent of the population, in rural areas around 28 percent. The data reflect individual ("consumption unit") incomes.

	Income Loss[a] (Dinars)	Probability (%)
Unemployed	—	15
Urban poor[b]	2,807	46
Rural poor[b]	1,563	39

[a]Annual incomes in 1968 dinars.
[b]As defined above.

The probabilities above, which are based on republican rather than local parameters are purely conjectural.[5] More precise knowledge about the recruiting of labor for the project would of course eliminate the necessity to rely on probabilities. At any rate, as they stand, these figures suggest that the most likely outcome would be for a shift of labor to cause an output loss of between 1,500 dinars and 2,800 dinars in 1968 prices, always remembering that these are upper limits. In principle, the chance of recruiting labor for no output loss appears small on these calculations, but this does not take account of ex post family work extension.

Relocating Costs. Three major costs associated with the relocation of labor are those arising from migration, training and urban transportation. For unskilled construction workers the training costs, if any, are presumably negligible. If labor has to be moved significant distances to the project site then the direct costs of this movement, even if not borne by the enterprise, should be added to the other components of the shadow wage. Whether or not the third element, i.e., urban transportation costs, is significant will depend on whether the labor for the project is actually recruited from urban or rural areas, and whether it was previously employed in the private or social sector. The costs may also be different in the final operating phase of the project to those in the construction phase. These are all aspects which, again, would have to be defined by those with a closer working knowledge of the project.

To the extent that urbanization costs are thought to be significant, it seems that a fair proxy for these might be found in the contributions which social sector enterprises have to make to various funds to provide for such things as housing, health, education, social security and other urban-based amenities. The rate of these contributions is fairly uniform across all sectors and in all enterprises, at about 44 percent of the wage bill. Thus, in the case where relocation costs were thought to be highest, their full amount should be added to the shadow wage.

Distribution Costs. Some economists have argued that where, at the margin, a choice exists between executing the project in a way which used more labor and less capital than other methods, there will be some additional cost incurred by the fact that labor's share of the total output will be greater. This would raise the total commitment of the projects' surplus to consumption as against reinvestment, thus incurring a cost if society values investment at a higher rate than private consumption. This point, however, may not apply to Yugoslavia as it does elsewhere because of the different functional distribution mechanism operating under workers' management.

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5. The probabilities are found as follows. Assuming that the labor recruited to the project does come from the groups mentioned, the size of the relevant labor pools in the republic as a whole in 1971 would be: urban poor 22,000; rural poor 19,000, i.e., respectively 20 percent of the urban labor force and 30 percent of the rural labor force. These proportions give the general probability of labor being recruited from each group. Those workers who are registered as looking for work (the so-called unemployed) form a separate category totalling 6,000 in 1971. Assuming this number gives an upper limit estimate of those who are openly unemployed or who, for other reasons, would incur no output loss if found new employment. This gives the probability of recruiting labor at zero opportunity cost.

The rate of enterprise savings seems not to be a function of the techniques used. In fact, for a given rate of enterprise savings, techniques using more capital imply a higher income per worker. Compared to techniques using more labor at lower incomes, this stimulates a pattern of consumption favoring relatively import-intensive goods, thus incurring a possible social cost in terms of an increased need for scarce foreign exchange, but the conventional "distribution" cost component does not seem to apply in this case.

External Migration. Because the shortage of foreign exchange is a key constraint on domestic growth in Yugoslavia, the point has been raised that to the extent that domestic employment serves as a substitute for foreign employment it deprives the economy of the foreign exchange derived from remittances. A factor in the opportunity cost of domestic employment, by this argument, would therefore be the net remittance incomes foregone. These are likely to be much higher than local incomes foregone. This argument, however, could only be sustained if in fact the marginal domestic job created left a foreign job unfilled by a Yugoslav (or a Montenegran, in this case). Given the size of the "labor reserve" in Yugoslavia, which is probably much larger than the number of foreign jobs being offered to Yugoslavs, this seems most unlikely, and is therefore ignored.

Estimates of the Shadow Wage. On the basis of these considerations, elementary as they are, it would seem that the opportunity cost and the costs of the urban transformation are the two principal components of the real social cost of new social sector employment. Given that an unskilled construction worker in Montenegro could expect to earn 568 dinars a month, or 6,816 dinars a year in employment in the social sector,[6] these components can be combined to give the shadow wage, expressed as a percentage of these actual earnings. The following table gives some upper- and lower-bound estimates.

TABLE 1: Alternative Estimates of the Shadow Wage of Unskilled Construction Workers, Expressed as a % of Expected Actual Earnings

	Case A	Case B	Case C
Actual earnings	100.0	100.0	100.0
Opportunity cost	41.2	—	22.9
Urbanization cost	—	44.0	44.0
Shadow wage	41.2	44.0	66.9
Probability	Most Likely	Least Likely	Very Likely

Case A — workers are recruited from the urban poor. Since these are already urbanized the transformation costs are zero.

Case B — workers are recruited from the poor or unemployed where no output is foregone. The full amount of urbanization costs assumes these are rural-based workers. For urban-based workers in this category the SW would be zero.

Case C — workers are recruited from the rural poor, therefore, they pay the full urbanization cost.

These estimates, of course, are not intended to be definitive. Their main purpose is to provide a framework of argument and a rough alignment of magnitudes. More concrete information on the variables and possibilities pertaining to an actual project would allow for a tighter set of estimates.

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6. In 1968 dinars. See Table 219.5 in the *Statistički Godišnjak, Jugoslavije*, 1974.

GLOSSARY OF ABBREVIATIONS

DOM	Foreign Exchange Market
FAD	Fund for the Accelerated Development of the Underdeveloped Regions
FEC	Federal Executive Council
FIS	Federal Institute of Statistics
GDS	Gross Domestic Savings
GMP	Gross Material Product
GNS	Gross National Savings
ICOR	Incremental Capital Output Ratio
JRB	Jugoslav River Shipping Enterprise
JUGEL	Union of Jugoslav Electric Power Industries
LCY	League of Yugoslav Communists
NFI	Net Factor Income
NMP	Net Material Product
REI	Residual Enterprise Income
RME	Road Maintenance Enterprises
SAS	Social Accounting Service
SAWPY	Socialist Alliance of Working People of Yugoslavia
YIB	Yugoslav Investment Bank

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1. The list does not aim to be comprehensive. In general, only publications available in English, or with English summaries, are given.

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STATISTICAL ANNEX

List of Tables

INDUSTRY

MISCELLANEOUS

Transport

TABLE 1.1: Past, Present and Projected Total Population, by Republic[a]

	Total Population [b]				Share of Total Population				Growth Rates in Total Pop.		
	1953	1961	1971	1980	1953	1961	1971	1980	1953–61	1961–71	1971–80
	(Thousands)									(%)	
Yugoslavia	16,937	18,549	20,505	22,182	100.0	100.0	100.0	100.0	1.1	1.0	0.8
Developed republics/provinces:	11,556	12,429	13,340	14,081	68.2	67.0	65.0	63.5	0.9	0.7	0.6
Croatia	3,919	4,160	4,423	4,626	23.2	22.4	21.5	20.9	0.8	0.6	0.5
Serbia proper	4,458	4,823	5,242	5,632	26.2	26.0	25.5	25.4	1.0	0.9	0.8
Slovenia	1,466	1,591	1,725	1,820	8.7	8.6	8.4	8.2	1.0	0.8	0.6
Vojvodina	1,713	1,855	1,950	2,003	10.1	10.0	9.5	9.0	1.0	0.5	0.3
Less developed republics/provinces:	5,381	6,120	7,165	8,101	31.8	33.0	35.0	36.5	1.6	1.7	1.4
Bosnia-Herzegovina	2,848	3,278	3,743	4,130	16.8	17.7	18.3	18.6	1.8	1.4	1.1
Kosovo	808	964	1,245	1,541	4.8	5.2	6.1	7.0	2.2	2.6	2.4
Macedonia	1,305	1,406	1,647	1,850	7.7	7.6	8.1	8.3	0.9	1.6	1.3
Montenegro	420	472	530	580	2.5	2.5	2.6	2.6	1.5	1.2	1.0

[a] Totals include migrants temporarily abroad.
[b] Census data, as at March 31 each year.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.2: Total Resident[a] Population by Republic in 1971, and the Impact of Migration on Population Growth, 1961–71

	Total Population 1971 (Thousands)	Total Resident Pop. 1971 (Thousands)	Population Temporarily Abroad (Thousands)	Migration Rate [b] (%)	Growth Rates 1961–71 Resident Population (ΔR)	Growth Rates 1961–71 Total Population (ΔT)	(ΔR/T)	Growth Rates in Resident Population 1965–71
Yugoslavia	20,505	19,890	672	3.23	0.7	1.0	0.70	0.4
Developed republics/provinces:	13,340	12,908	448	3.35	0.4	0.7	0.57	0.0
Croatia	4,423	4,202	225	5.08	0.1	0.6	0.17	−0.3
Serbia proper	5,242	5,135	114	2.17	0.6	0.9	0.67	0.4
Slovenia	1,725	1,680	48	2.78	0.6	0.8	0.75	0.3
Vojvodina	1,950	1,891	61	3.13	0.2	0.5	0.40	−0.1
Less developed republics/provinces:	7,165	6,982	224	3.00	1.3	1.7	0.76	1.0
Bosnia-Herzegovina	3,743	3,622	138	3.59	1.0	1.4	0.71	0.6
Kosovo	1,245	1,232	24	1.83	2.5	2.7	0.93	2.3
Macedonia	1,647	1,602	54	3.14	1.3	1.7	0.76	1.0
Montenegro	530	526	8	1.13	1.1	1.2	0.92	0.9

[a] Excluding population temporarily abroad.
[b] Population abroad ÷ total population.

SOURCE: *Statistički Godišnjak, Jugoslavije;* and Advanced Tabulation of 1971 Census, *Statistički Bilten,* 700 (November 1971), Federal Institute of Statistics.

TABLE 1.3: Crude Birth and Death Rates and Rates of Natural Increase, by Republic

(Per Thousand of Total Population)

	1950–54 (Average)			1960–64 (Average)			1971		
	Birth Rates	Death Rates	Natural Increase	Birth Rates	Death Rates	Natural Increase	Birth Rates	Death Rates	Natural Increase
Yugoslavia	28.8	12.4	16.4	22.1	9.4	12.7	18.0	8.6	9.4
Developed republics/provinces:	24.3	11.6	12.7	16.9	9.3	7.6	14.9	9.7	5.2
Croatia	23.2	11.7	11.5	17.2	9.7	7.5	14.4	10.1	4.3
Serbia proper	26.1	11.3	14.8	16.6	8.7	7.9	14.9	8.8	6.1
Slovenia	22.8	10.9	11.9	17.9	9.6	8.3	16.7	10.4	6.3
Vojvodina	23.3	12.4	10.9	16.3	9.7	6.6	12.9	9.8	3.1
Less developed republics/provinces:	38.5	14.3	24.2	32.7	9.9	22.8	24.1	6.8	17.3
Bosnia-Herzegovina	38.2	13.9	24.3	31.7	9.1	22.6	21.3	6.3	15.0
Kosovo	43.5	18.0	25.5	41.7	13.1	28.6	36.7	8.1	28.6
Macedonia	38.4	14.5	23.9	29.4	9.7	19.1	23.1	7.6	15.5
Montenegro	32.1	10.0	22.1	26.9	7.3	19.6	19.0	5.8	13.2

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.4: Distribution of Population between Urban and Rural Areas and Growth Rates of Urban Population, by Republic

	% Share of Total Population in Urban Areas			Average Annual Growth Rate in Urban Population		Social Sector Employment Growth	
	1953	1961	1971	1953–61	1961–71	1953–61	1961–71
Yugoslavia	21.7	28.3	35.3	4.5	3.3	7.3	2.2
Developed republics/provinces:	23.8	30.8	38.2	4.3	3.0	7.6	2.1
Croatia	24.2	30.8	38.6	3.8	2.9	6.9	1.6
Serbia proper	21.2	28.6	36.8	4.9	3.5	7.3	3.2
Slovenia	22.4	27.4	34.3	3.3	3.1	6.3	2.3
Vojvodina	29.8	38.7	44.1	4.5	3.0	11.0	0.7
Less developed republics/provinces:	16.5	22.9	30.4	5.3	4.3	6.9	2.6
Bosnia-Herzegovina	15.0	19.5	24.9	5.2	3.9	6.0	2.2
Kosovo	14.5	20.0	24.7	6.3	4.9	9.4	3.7
Macedonia	26.0	34.9	46.1	4.7	4.5	7.9	2.9
Montenegro	14.7	21.5	29.5	6.4	4.4	8.4	2.0

SOURCE: Center for Demographic Studies, Belgrade.

TABLE 1.5: Infant Mortality Rates and Evolution, by Republic

	Rates per Thousand Live Births:			Evolution	
	1950–54	1961	1971	1961/1950–54	1971/1961
Yugoslavia	115.7	82.0	48.9	70.9	59.6
Developed republics/provinces:					
Croatia	110.8	62.9	29.5	56.8	46.9
Serbia proper	96.0	66.3	38.2	69.1	42.5
Slovenia	70.6	29.4	21.4	41.6	72.8
Vojvodina	120.2	71.6	28.1	59.6	39.2
Less developed republics/provinces:					
Bosnia-Herzegovina	134.0	98.7	53.6	73.7	54.3
Kosovo	154.6	125.9	89.6	81.4	71.2
Macedonia	138.8	112.1	81.9	80.8	73.1
Montenegro	88.6	61.4	34.6	69.3	56.4

SOURCE: *Statistički Godišnjak, Jugoslavije*, 1965, 1970 and 1972.

TABLE 1.6: Age Structures of the Total Population by Republic in 1971, and Evolution, 1953–71

	% of Total Population in 1953		% of Total Population in 1961		% of Total Population in 1971		Dependency Ratios [a]		Adjusted [b]
	<15	>50	<15	>50	<15	>50	1961	1971	1971
Yugoslavia	30.47	17.57	31.10	19.83	26.73	19.85	81.0	80.2	84.3
Developed republics/provinces:	27.15	19.63	27.40	22.60	22.25	22.87	70.9	69.2	72.5
Croatia	27.05	20.18	27.21	23.41	22.50	24.0	71.6	70.5	75.7
Serbia proper	27.57	18.06	27.87	21.29	21.77	21.41	69.7	67.3	69.4
Slovenia	27.63	21.42	27.32	23.93	24.15	22.97	75.1	74.8	77.5
Vojvodina	25.93	21.03	26.63	23.02	21.34	24.24	68.9	67.2	70.0
Less developed republics/provinces:	37.58	13.18	38.66	14.18	35.09	14.25	105.9	104.8	110.9
Bosnia-Herzegovina	37.43	11.73	38.56	13.30	34.33	13.67	100.6	100.8	107.7
Kosovo	40.22	13.99	42.22	14.00	42.51	12.56	126.5	133.4	139.3
Macedonia	36.89	14.34	37.20	15.08	32.28	15.77	105.4	95.0	100.4
Montenegro	35.48	17.86	36.44	18.01	32.02	17.70	106.1	105.4	108.0

[a] $R = \dfrac{(x + y)}{t}$ Where x = population <20. y = population >65. t = population 20–64.

[b] Adjusted to account for migrants abroad in 1971.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.7: Internal Migration and Total Migration Rates, 1961–71

(In Thousands)

	Bosnia-Herzegovina	Kosovo	Macedonia	Montenegro	Developed Regions	Croatia	Serbia Proper	Slovenia	Vojvodina	Developed Regions	Yugoslavia
Births 1961–71 [a]	955	478	408	119	1,960	680	707	292	307	1,986	3,946
Deaths 1961–71 [a]	276	127	131	35	569	419	405	165	203	1,192	1,761
Natural increase	679	351	277	84	1,391	261	302	127	104	794	2,185
Population 1961 [b]	3,298	971	1,409	474	6,152	4,166	4,837	1,592	1,860	12,455	18,607
Population 1971 [b]	3,757	1,255	1,654	532	7,198	4,427	5,249	1,728	1,952	13,356	20,554
Population growth	459	284	245	58	1,046	261	412	136	92	901	1,947
Net migration [c]	−220	−67	−32	−26	−345	—	110	9	−12	107	238
Unrecorded external migration [d]	49	9	19	3	80	80	41	17	20	158	238
Net internal migration	−171	−58	−13	−23	−265	80	151	26	8	265	—
Migration rate [e]	−4.55	−4.62	−0.8	−4.32	−3.68	1.81	2.88	1.50	0.41	1.98	—
Local incremental migration rate [f]	−25.2	−16.5	−4.7	−27.4	−19.1	30.7	50.0	20.5	7.7	33.4	—
Total incremental migration rate [g]	−80.0 (−52.9)	−37.0 (25.9)	−57.8 (−31.1)	−47.6 (−40.5)	−63.3 (−40.9)	−203.1 (−88.1)	−53.0 (3.3)	−78.7 (−30.8)	−144.2 (−67.3)	−118.4 (−42.8)	—

[a] From *Statistički Godišnjak, Jugoslavije*.

[b] Mid-year population.

[c] Difference between natural increase and population growth.

[d] Difference between net migration and total zero sum. Total external migration is found by adding these figures to those in Table 2.3.

[e] Total net internal migration as % of 1971 population.

[f] Average annual internal migration as % of annual natural increase.

[g] Average annual internal plus external migration as % of annual natural increase. Note that the annual rate of external migration is based on figures for the period 1965–71 only, not the full decade (external migration was negligible before 1965). The data in parentheses represent the decade equivalent rates.

TABLE 1.8: Migrants Temporarily Abroad according to Republic of Origin, Age and Qualification, in 1971

	Number of Migrants			Age/Sex Characteristics		Education/Qualifications		
	Total	Workers	As % of Labor Force	% Males	% 20–34	Unskilled [a]	Skilled [b]	Other [c]
Yugoslavia	671.9	584.9	6.6	68.0	69.9	76.1	16.6	7.3
Developed republics/provinces:	447.9	381.5	6.0	62.4	68.0	70.5	20.4	9.1
Croatia	224.7	194.0	9.6	63.2	67.9	70.1	21.1	8.8
Serbia proper	114.6	100.9	3.7	64.3	65.8	75.7	14.8	9.5
Slovenia	48.1	41.0	5.0	59.9	73.6	64.7	26.6	8.7
Vojvodina	60.5	45.6	5.5	57.3	68.2	66.8	23.5	9.7
Less developed republics/provinces:	224.0	203.4	8.1	81.0	73.9	87.4	8.9	3.7
Bosnia-Herzegovina	137.4	126.1	9.2	78.2	73.5	86.8	10.3	2.9
Kosovo	24.4	21.0	6.5	95.1	76.6	93.0	4.1	2.9
Macedonia	54.4	49.6	7.9	82.0	72.8	87.9	6.8	5.3
Montenegro	7.8	6.7	3.9	80.1	80.8	78.2	14.1	7.7
	Total	1966	1967	1968	1969	1970	1971	1972
Annual outflows of migrants [d]	925.2	92.3	47.2	107.4	220.1	246.8	122.0	89.4 [e]
Workers	925.2	78.5	40.1	91.3	187.0	210.0	103.7	76.0

[a] Includes those with complete and incomplete primary education.
[b] Semiskilled, skilled and highly skilled.
[c] Secondary general education, university and higher education.
[d] Gross outflows. Data from Institute of Geography, University of Zagreb.
[e] Estimated.

SOURCE: *Statistički Bilten*, 679 (1971). Information gathered in the 1971 Census.

TABLE 1.9: The Structure and Growth in the Labor Force, by Sector of Activity

	Total Labor Force (Thousands)			Structure			Adjusted	Growth Rates	
	1953	1961	1971[a]	1953	1961	1971	1971[a]	1953–61	1961–71[b]
Total labor force	7,849	8,340	8,289	100.0	100.0	100.0	100.0	0.8	0.7
Social sector	1,817	3,172	3,945	23.2	38.1	48.1	47.6	7.2	2.2
Industry	592	1,128	1,531	7.5	13.5	18.7	18.5	8.4	3.1
Construction	256	336	356	3.3	4.0	4.3	4.3	3.5	0.6
Services[c]	333	555	846	4.2	6.7	10.3	10.3	6.6	4.3
Noneconomic activities	312	517	683	4.0	6.2	8.3	8.2	6.5	2.8
Handicrafts	111	213	219	1.4	2.6	2.7	2.6	8.5	0.3
Agriculture	213	423	310	2.7	5.1	3.8	3.7	8.9	7.1
Private sector	5,199	4,341	3,707	66.2	52.1	45.2	44.8	−1.9	−1.6
Nonagriculture	52	72	89	0.7	0.9	1.0	1.1	4.2	2.2
Agriculture	5,147	4,269	3,618	65.6*	51.2	44.2	43.7	−2.4	−1.7
Unemployed	82	232	291	1.0	2.8	3.6	3.5	—	—
Migrants abroad	—	8	578	—	—	8.2		—	—
Other economically active (sector unknown)	751	587	346	—	—	—	4.2	—	—

[a] Adjusted to reflect only labor force resident in Yugoslavia.
[b] Based on total, not resident labor force.
[c] Includes transport and communications, trade and catering, and housing and utilities.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.10: Labor Force Employment Trends and Structural Change, by Republic

	Total Labor Force		Resident Labor Force		Growth Rates 1961–71		Share of Resident Labor Force in Agriculture		
	1961	1971	1971	1980	Labor Force[a]	Employ-ment[b]	1961	1971	1980
Yugoslavia	8,340	8,867	8,289	8,818	0.7	2.2	56.3	47.4	39.4
Developed republics/provinces:	6,003	6,367	5,993	6,342	0.6	2.1	54.9	45.9	38.4
Croatia	1,954	2,016	1,822	1,872	0.3	1.5	50.2	40.8	34.1
Serbia proper	2,465	2,763	2,602	2,846	1.0	3.2	63.9	55.5	46.0
Slovenia	768	815	782	815	0.6	2.2	36.9	24.7	13.0
Vojvodina	816	833	787	809	0.3	0.7	56.1	46.8	44.9
Less developed republics/provinces:	2,337	2,500	2,296	2,507	1.0	2.6	59.7	49.7	42.7
Bosnia-Herzegovina	1,286	1,374	1,248	1,329	0.7	2.3	58.2	49.8	42.2
Kosovo	335	323	302	361	2.0	3.8	70.5	56.0	51.5
Macedonia	554	630	580	640	1.1	2.9	58.5	47.9	38.9
Montenegro	162	173	166	177	0.7	2.0	53.7	44.0	37.2

[a] Based on total, not resident, labor force.
[b] Employment in the social sector.

SOURCE: *Statistički Bilten*, 738 (July 1972); and *Statistički Godišnjak, Jugoslavije*.

TABLE 1.11: Total Population and Population of Working Age, by Republic

	Total Population[a]		Total Population of Working Age[b]		Ratio of (II):(I)	
	1961	1971	1961	1971	1961	1971
	(I)		(II)			
Yugoslavia	18,459	20,505	10,804	12,306	58.3	60.0
Developed republics/						
provinces:	12,430	13,340	7,504	8,297	60.4	62.2
Croatia	4,160	4,423	2,495	2,720	50.0	61.5
Serbia proper	4,823	5,242	2,938	3,372	60.9	64.3
Slovenia	1,592	1,725	944	971	59.3	56.3
Vojvodina	1,855	1,951	1,127	1,234	60.8	63.3
Less developed						
republics/provinces:	6,120	7,165	3,300	4,009	53.9	56.0
Bosnia-Herzegovina	3,278	3,743	1,799	2,139	54.9	57.1
Kosovo	964	1,245	487	616	50.5	49.5
Macedonia	1,406	1,647	767	959	54.5	58.2
Montenegro	472	530	247	295	52.8	55.7

[a] As at the Censuses of 1961 and 1971.
[b] Ages fifteen to sixty-four for males; fifteen to fifty-five for females.

SOURCE: Federal Institute of Statistics.

TABLE 1.12: Total and Active Population and Participation Rates, by Republic

	Total Population[a]		Active Population[a]		Participation Rates[b]	
	1961	1971	1961	1971	1961	1971
Yugoslavia	18,549	20,505	8,340	8,867	45.0	43.2
Developed republics/						
provinces:	12,430	13,340	6,003	6,367	48.3	47.7
Croatia	4,160	4,423	1,954	2,016	47.0	45.6
Serbia proper	4,823	5,242	2,465	2,703	51.1	51.6
Slovenia	1,592	1,725	768	815	48.2	47.3
Vojvodina	1,855	1,950	816	833	44.0	42.7
Less developed						
republics/provinces:	6,120	7,165	2,337	2,500	38.2	34.9
Bosnia-Herzegovina	3,278	3,743	1,286	1,374	39.2	36.7
Kosovo	964	1,245	335	323	34.8	25.9
Macedonia	1,406	1,647	554	630	39.4	38.3
Montenegro	472	530	162	173	34.3	32.6

[a] As at the Censuses of 1961 and 1971.
[b] Ratio of active to total population.

SOURCE: *Statistički Godišnjak, Jugoslavije;* and *Statisticki Bilten,* 738 (July 1972).

TABLE 1.13: Change in Male and Female Participation Rates, by Republic

	Males				Females			
	Active Population		Participation Rates %		Active Population		Participation Rates %	
	1961	1971	1961	1971	1961	1971	1961	1971
Yugoslavia	5,389	5,712	59.59	56.68	2,954	2,170	31.07	30.36
Developed republics/provinces:	3,758	3,939	61.89	61.66	2,247	2,443	35.01	35.71
Croatia	1,220	1,239	61.43	57.92	734	777	33.78	33.97
Serbia proper	1,511	1,635	63.97	63.23	954	1,068	38.75	40.09
Slovenia*	454	497	59.66	59.38	315	332	37.91	37.39
Vojvodina	573	568	63.46	59.73	244	266	25.62	26.55
Less developed republics/provinces:	1,631	1,773	53.79	49.72	707	727	23.54	20.19
Bosnia-Herzegovina	877	941	54.81	51.28	410	434	24.43	22.71
Kosovo	252	272	51.12	42.70	83	50	17.62	8.40
Macedonia	389	440	54.79	52.69	165	190	23.71	23.40
Montenegro	113	120	49.13	46.33	49	53	20.16	19.93

* Estimated.

SOURCE: *Statistički Godišnjak, Jugoslavije;* and *Statistički Bilten,* 738 (July 1972).

TABLE 1.14: The Number of Registered Workseekers,[a] by Republic

	Registered Workseekers (Thousands)			Structure		Registration Rates[b]		
	1961	1965	1971	1961	1971	1961	1967	1971
Yugoslavia	232.6	266.9	289.5	100.0	100.0	6.8	7.6	6.7
Developed republics/provinces:	145.8	164.0	171.5	62.7	59.2	5.6	6.2	5.4
Croatia	59.1	64.1	45.3	25.4	15.6	6.7	6.8	3.3
Serbia proper	55.6	65.0	85.6	23.9	29.6	6.8	7.2	7.7
Slovenia	9.2	13.3	14.8	4.0	5.1	2.0	3.6	2.5
Vojvodina	21.9	21.6	25.8	9.4	8.9	5.2	5.9	5.7
Less developed republics/provinces:	86.8	103.0	118.0	37.3	40.8	9.9	11.5	10.4
Bosnia-Herzegovina	24.5	27.0	30.4	10.5	10.5	5.3	6.3	5.3
Kosovo	19.4	24.0	22.4	8.3	7.7	19.9	19.8	17.3
Macedonia	38.3	47.1	59.5	16.5	20.6	17.0	18.1	17.8
Montenegro	4.6	4.9	5.7	2.0	1.9	6.6	7.8	6.3

[a] Annual averages.
[b] Number of registered workseekers ÷ (employment in the social sector + number registered workseekers).

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.15: Qualitative Characteristics of Registered Workseekers, by Republic

(As % of Total Registrations)

	Male Workseekers		Qualified Workseekers		First Time Workseekers	
	1961	1971	1961	1971	1961	1971
Yugoslavia	53.2	50.0	12.9	29.6	28.6	50.3
Developed republics/ provinces:	44.3	41.7	14.2	34.3	33.8	49.6
Croatia	42.3	42.8	14.7	31.8	31.3	33.8
Serbia proper	49.3	41.5	13.9	38.8	42.5	61.7
Slovenia	26.4	36.5	16.5	16.9	30.4	39.9
Vojvodina	44.3	43.4	13.3	33.7	21.0	42.9
Less developed republics/provinces:	68.1	62.0	10.8	22.8	16.8	51.3
Bosnia-Herzegovina	55.9	58.2	13.1	20.7	7.8	53.0
Kosovo	87.6	88.8	5.7	13.6	15.7	39.9
Macedonia	65.8	55.0	11.5	25.7	22.5	54.2
Montenegro	69.6	50.9	14.1	38.6	20.3	49.1

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.16: Growth in Value Added, Employment and Productivity, by Major Economic Sector

	Average Growth Rates 1953–61			Average Growth Rates 1961–71		
	Value Added	Employ-ment	Labor Pro-ductivity	Value Added	Employ-ment	Labor Pro-ductivity
Total economy	7.7	0.8[a]	6.9	6.9	−0.1[a]	7.0
Social sector	10.3	7.5	2.8	8.0	2.2	5.8
Private sector	2.7	−2.8	5.5	3.2	−1.6	4.8
Social sector:						
Industry	12.3	8.5	3.8	9.3	3.1	6.2
Construction	6.7	3.5	3.2	6.7	0.8	5.9
Services	11.1	7.3	3.9	7.3	3.2	4.1
Agriculture	5.6	10.6	−5.0	8.5	−3.4	11.9
Private sector:						
Nonagriculture	0.8	−6.5	7.3	11.0	−2.3	13.3
Agriculture	2.9	−2.4	5.3	2.0	−1.6	3.6
Total agriculture and forestry	3.2	−1.7	4.9	3.1	−1.7	4.8

[a] Total Labor Force.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.17: The Structure and Growth of Labor Productivity[a] in the Major Sectors

	Structure			Growth Rates	
	1953	1961	1971	1953–61	1961–71
1. Total economy					
(1953=100)	100.0	170.4	334.5	6.9	7.0
2. Total economy	100.0	100.0	100.0		
3. Social sector	258.2	187.9	166.4	2.9	5.7
4. Private sector	55.1	49.5	40.8	5.5	4.9
5. Social sector:					
Industry	279.2	219.3	199.9	3.8	6.2
Construction	302.7	226.5	204.4	3.1	5.9
Services	221.6	174.0	131.9	3.9	4.1
Agriculture	287.0	105.6	166.4	− 5.0	11.9
6. Private sector:					
Nonagriculture	74.2	82.1	149.5	7.3	13.3
Agriculture	53.3	47.4	34.3	5.3	3.6
7. Total agriculture:					
Forestry	62.3	53.8	44.0	4.9	4.8
8. Ratio of social/private					
sector	4.69	3.80	4.08		

[a] Labor productivity equals value added ÷ total employment in each sector. Employment in the social sector includes employment in "noneconomic activities." Employment in the private sector includes economically active population in agriculture (minus employment in social agriculture), plus nonagricultural private sector employment (including those listed as unassigned to other sectors).

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.18: The Structure of Labor Productivity[a] in Major Economic Sectors, by Republic

	1961				1971			
	Industry	Construction	Services[b]	Agriculture[c]	Industry	Construction	Services[b]	Agriculture[c]
Yugoslavia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Developed republics/provinces:	103.0	113.4	104.0	108.1	105.2	105.1	103.3	109.4
Croatia	100.7	102.2	101.5	115.3	105.4	118.5	101.9	124.3
Serbia proper	103.2	124.3	110.7	75.5	100.3	84.7	99.3	69.9
Slovenia	117.2	134.5	111.9	146.1	115.6	116.1	115.7	150.1
Vojvodina	83.2	85.8	88.5	181.5	99.7	117.8	100.0	213.2
Less developed republics/provinces:	89.3	70.7	83.9	80.8	84.2	86.9	88.5	77.8
Bosnia-Herzegovina	95.7	81.9	84.1	82.6	87.3	84.2	90.1	71.8
Kosovo	83.6	57.1	80.5	54.9	78.0	127.5	79.1	62.1
Macedonia	75.3	61.8	79.4	89.0	80.4	81.2	81.0	101.7
Montenegro	87.9	60.4	97.7	105.3	80.2	82.6	107.9	73.9

[a] Value added ÷ total employment in each sector.
[b] Includes transport and communications, trade and catering, utilities, handicrafts.
[c] Includes private sector and social sector. Labor coefficient in agriculture is total economically active population in agriculture according to Population Census of 1961 and 1971.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 1.19: The Structure of Personal Incomes and Employment Growth in the Tertiary Sector

	Average Personal Incomes 1970 (Total=100)	Employment in 1970		Employment Growth 1951–70	
		Absolute	% Share	% Share	Absolute
Major sectors:				42.0	214
Public administration	115.26	177	12.8	0.2	10
Cultural and social activity	103.60	467	33.9	40.0	204
Total: (all sectors)	100.00	1,379	100.0		510
				58.0	296
Transport and communications	99.92	276	20.0	14.50	74
Trade and catering	97.81	459	33.3	43.50	222
Individual sectors:		824	59.8	63.9	326
Economic chambers	153.52	14	1.0	−0.6	−3
Business associations	143.90	6	0.4	1.2	6
Air transport	138.92	5	0.4	0.8	4
Scientific activity	131.53	24	1.7	2.4	12
External trade	131.38	32	2.3	3.1	16
Finance and insurance	130.52	46	3.3	3.1	16
Social organizations	128.78	14	1.0	1.8	9
Art and entertainment	121.83	19	1.4	0.3	2
Trade services	121.36	15	1.1	0.3	2
Social security	118.00	13	0.9	0.3	2
Sea transport	117.45	13	0.9	0.8	4
Urban transport	106.42	18	1.4	1.4	7
Government	106.18	100	7.3	−3.1	−16
Communications	104.23	40	2.9	1.4	7
Health services	102.11	162	11.8	17.3	80
Education	101.50	224	16.2	21.8	111
Road transport	100.63	79	5.7	11.6	59
Total: (all sectors)	100.00	1,379	100.0		510
Median branch	101.50	690	50.0		
		555	40.2	36.1	164
Retail trade	97.18	290	21.0	30.6	156
Inland water transport	96.09	6	0.4	−0.2	−1
Other cultural activities	95.77	47	3.4	6.1	31
Rail transport	91.47	96	7.0	−13.5	−69
Catering and tourism	82.47	116	8.4	13.1	67
Ratio of highest to lowest average income	186.15				
Ratio of highest to overall average	153.52				
Ratio of overall average to lowest	120.13				

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 2.1: GDP by Industrial Origin

(In Millions of Dinars)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
					Current Prices					
GDP at factor cost	2,262	4,596	9,996	11,745	12,445	15,221	15,713	20,069	21,059	25,585
Agriculture and forestry	681	1,383	2,350	3,418	3,304	4,478	4,570	6,423	5,511	7,005
Industry and mining	701	1,471	3,910	4,070	4,413	5,343	5,613	6,736	7,656	9,217
Construction	226	414	780 .	892	1,003	1,003	777	1,054	1,272	1,612
Electricity, gas and water	11	18	95	88	119	171	209	288	398	448
Transportation and communications	115	253	720	720	810	1,080	1,166	1,461	1,252	1,572
Trade	90	207	464	618	772	926	1,076	1,451	1,540	1,870
Financial institutions	18	41	89	130	195	198	259	338	417	468
Ownership of dwellings	57	110	176	247	264	280	289	298	308	318
Public administration	256	483	994	1,018	950	1,090	996	1,093	1,540	1,691
Other services	107	216	418	544	615	652	758	927	1,165	1,384
					1966 Prices					
GDP at factor cost	41,369	44,764	38,356	45,310	45,660	50,747	47,941	58,137	59,080	68,482
Agriculture and forestry	13,415	18,710	12,621	17,322	15,353	17,422	14,274	19,961	17,811	23,053
Industry and mining	7,076	6,759	6,704	7,444	8,578	9,796	10,729	12,576	14,074	15,727
Construction	5,781	4,301	3,997	4,664	4,965	4,806	3,625	4,186	4,433	5,158
Electricity, gas and water	361	382	405	447	516	651	757	938	1,104	1,217
Transportation and communications	2,407	2,302	2,019	2,223	2,392	2,830	2,934	3,353	3,694	4,138
Trade	2,544	2,559	2,715	2,794	2,973	3,329	3,380	4,027	4,313	4,848
Financial institutions	764	684	663	737	816	899	899	1,068	1,201	1,352
Ownership of dwellings	497	503	509	515	521	527	532	542	552	562
Public administration	3,407	3,423	3,486	3,691	3,867	4,190	4,337	4,777	5,012	5,247
Other services	5,117	5,141	5,237	5,473	5,679	6,297	6,474	6,709	6,886	7,180

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.2: GDP by Industrial Origin

(In Millions of Dinars)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
						Current Prices						
GDP at factor cost	29,570	34,639	39,680	46,949	59,807	77,858	100,526	108,716	118,515	135,409	160,515	201,555
Agriculture and forestry	7,099	8,158	9,664	11,110	13,784	18,151	24,715	24,677	22,952	26,175	28,633	32,896
Industry and mining	10,770	11,699	12,468	14,789	18,018	22,944	30,598	32,696	36,432	39,852	46,420	60,229
Construction	2,030	3,171	3,426	4,371	6,226	7,580	9,752	11,463	13,269	15,485	20,048	25,762
Electricity, gas and water	517	823	970	1,161	1,634	2,075	2,681	3,113	3,381	3,956	5,047	6,801
Transportation and communications	2,089	2,479	2,921	3,664	4,442	5,904	6,949	7,531	8,060	9,390	11,698	15,309
Trade	2,398	2,960	3,133	3,866	5,607	7,003	8,978	10,364	12,318	14,732	19,091	25,185
Financial institutions	627	692	889	908	1,133	1,466	1,589	1,779	1,969	2,191	2,438	2,649
Ownership of dwellings	348	381	414	434	511	648	730	823	1,030	1,254	1,368	1,490
Public administration	1,890	2,147	2,294	2,645	3,168	4,239	4,958	5,488	6,180	6,866	7,628	9,154
Other services	1,802	2,129	3,501	4,001	5,284	7,848	9,576	10,782	12,924	15,508	18,144	22,080
						1966 Prices						
GDP at factor cost	71,571	75,338	78,017	85,950	94,434	95,716	100,526	101,431	104,940	114,722	121,256	130,748
Agriculture and forestry	20,633	20,248	20,457	21,842	23,070	21,431	24,715	24,338	23,437	25,617	24,305	26,112
Industry and mining	17,898	19,120	20,510	23,724	27,567	29,495	30,598	30,688	32,467	35,715	39,275	43,151
Construction	6,279	7,603	7,708	9,032	10,424	9,820	9,752	10,269	10,813	11,780	12,869	13,127
Electricity, gas and water	1,340	1,489	1,692	2,031	2,129	2,547	2,681	3,005	3,308	3,678	4,094	4,642
Transportation and communications	4,901	5,119	5,387	5,801	6,254	6,636	6,949	7,178	7,781	8,637	9,413	10,223
Trade	5,542	6,031	6,241	7,120	8,116	8,413	8,978	9,175	9,863	11,037	12,153	13,463
Financial institutions	1,445	1,474	1,629	1,661	1,703	1,668	1,589	1,478	1,529	1,563	1,656	1,767
Ownership of dwellings	577	592	612	692	712	721	730	738	756	775	781	788
Public administration	5,423	5,658	5,600	5,454	5,513	5,370	4,958	4,720	4,780	4,981	5,166	5,363
Other services	7,533	8,004	8,181	8,593	8,946	9,615	9,576	9,842	10,206	10,933	11,544	12,112

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.3: Resources and Uses, Constant Prices

(In Millions of 1966 Dinars)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Total consumption[a]	37,155	41,497	34,889	38,976	37,687	43,180	40,063	47,518	48,357	53,357
Private[a]	26,475	30,768	23,963	28,292	26,287	31,751	28,452	35,111	35,409	39,246
General government	10,680	10,729	10,926	10,684	11,400	11,429	11,611	12,407	12,948	14,111
Gross domestic investment	8,881	9,045	8,010	11,828	12,136	13,324	12,665	17,042	17,055	21,899
Gross fixed investment	na	na	8,400	10,200	10,900	10,600	10,400	12,500	14,300	16,400
Change in stocks	na	na	−390	1,628	1,236	2,724	2,265	4,542	2,755	5,499
Net exports of goods and nonfactor services	−1,762	−2,632	−1,845	−2,305	−948	−2,180	−1,406	−2,321	−2,161	−1,938
Exports of goods and nonfactor services	3,678	3,785	4,234	4,502	5,230	5,395	6,651	7,827	8,851	9,458
Imports of goods and nonfactor services	5,440	6,417	6,079	6,807	6,178	7,575	8,057	10,148	11,012	11,396
GDP at market prices	44,274	47,910	41,054	48,499	48,875	54,324	51,322	62,239	63,251	73,318
Net factor income	−19	−31	−34	−60	−56	−47	−47	−34	−47	−60
GNP at market prices	44,255	47,879	41,020	48,439	48,819	54,277	51,275	62,205	63,204	73,258
GDS	7,119	6,413	6,165	9,523	11,188	11,144	11,259	14,721	14,894	19,961

[a] Calculated as residual.

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.4: Resources and Uses, Constant Prices

(In Millions of 1966 Dinars)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total consumption[a]	55,750	59,846	58,877	63,733	69,643	70,078	73,289	77,272	81,988	89,876	94,919	104,575
Private[a]	40,301	42,861	41,467	46,255	51,097	52,083	55,652	59,214	63,110	70,205	74,068	80,631
General government	15,449	16,985	17,410	17,478	18,546	17,995	17,607	18,058	18,878	19,671	20,851	23,944
Gross domestic investment	23,340	24,275	25,591	29,207	34,005	31,792	35,503	33,214	32,594	35,863	42,616	44,606
Gross fixed investment	19,600	21,800	23,200	25,200	28,979	26,339	27,416	28,332	29,912	33,116	38,752	40,302
Change in stocks	3,740	2,475	2,391	4,007	5,026	5,453	8,087	4,882	2,682	2,747	3,864	4,304
Net exports of goods and nonfactor services	—2,462	—3,451	—924	—901	—2,517	635	—1,100	—1,855	—2,203	—2,886	—7,686	—9,359
Exports of goods and nonfactor services	10,961	11,505	13,459	15,474	16,778	18,635	20,988	22,070	23,160	25,745	27,654	30,291
Imports of goods and nonfactor services	13,423	14,956	14,383	16,375	19,295	18,000	22,088	23,925	25,363	28,631	35,340	39,650
GDP at market prices	76,628	80,670	83,544	92,039	101,131	102,505	107,662	108,631	112,379	122,853	129,849	139,822
Net factor income	—159	—250	—300	—473	—639	—263	—75	—275	563	1,381	3,520	6,420
GNP at market prices	76,469	80,420	83,244	91,566	100,492	102,242	107,587	108,906	112,942	124,234	133,369	146,242
Net indirect taxes	5,057	5,082	5,227	5,616	6,058	6,526	7,136	7,475	8,002	9,512	12,113	9,074
GNP at factor cost	71,412	75,338	78,017	85,950	94,434	95,716	100,451	101,431	104,940	114,722	121,256	137,168
Terms of trade adjustments	—529	—535	—485	—654	—528	—423	—	155	—160	—340	—329	—164
Gross national income	70,883	74,803	77,532	85,296	93,906	95,293	100,451	101,586	104,780	114,382	120,927	137,004
GDS	20,878	20,824	24,667	28,304	31,488	32,427	34,403	31,359	30,391	32,977	34,930	35,247
GNS[b]	21,515	21,054	24,873	28,066	31,279	32,704	35,066	32,189	31,269	34,554	38,790	42,243

[a] Calculated as residual.
[b] Includes net current.

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.5: Resources and Uses, Current Prices

(In Millions of Current Dinars)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Total consumption[a]	1,614	3,272	7,948	8,214	8,707	10,619	11,160	13,919	15,621	17,206
Private[a]	805	1,632	3,964	4,400	4,720	6,657	7,156	10,199	11,181	12,146
General government	809	1,640	3,964	3,814	3,987	3,962	4,004	3,720	4,440	5,060
Gross domestic investment	582	1,186	2,670	4,461	4,858	6,006	5,873	8,050	7,478	10,649
Gross fixed investment			2,900	3,600	4,200	4,500	4,600	5,461	5,908	7,504
Change in stocks	na	na	—230	861	658	1,506	1,273	2,589	1,579	3,145
Net export of goods and nonfactor services	—59	—115	—429	—749	—345	—539	—308	—860	—720	—740
Exports of goods and nonfactor services	95	115	1,027	789	997	1,065	2,611	3,120	3,520	3,680
Imports of goods and nonfactor services	154	230	1,456	1,538	1,342	1,604	2,919	· 3,980	4,240	5,530
GDP at market prices	2,137	4,343	10,189	11,926	13,220	16,086	16,725	21,109	22,379	27,115
Net factor income from abroad	—13	—28	—29	—49	—45	—39	—39	—30	—40	—50
GNP at market prices	2,124	4,315	10,160	11,877	13,175	16,047	16,686	21,079	22,339	27,065
Net indirect taxes	43	88	193	181	775	865	1,012	1,040	1,320	1,530
GNP at factor cost	2,081	4,227	9,967	11,696	12,400	15,182	15,674	20,039	21,019	25,535
GDS	523	1,071	2,241	3,712	4,513	5,467	5,565	7,190	6,758	9,909
GNS	510	1,043	2,212	3,663	4,468	5,428	5,526	7,160	6,718	9,859

[a] Calculated as residual.

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.6: Resources and Uses, Current Prices

(In Millions of Current Dinars)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total consumption[a]	21,198	26,340	28,959	34,028	43,674	58,518	73,259	83,796	93,988	108,254	129,876	162,252
Private[a]	15,338	19,170	20,429	24,048	32,124	43,678	55,652	63,689	70,988	81,754	95,862	121,435
General government	5,860	7,170	8,530	9,980	11,550	14,840	17,607	20,107	23,000	26,500	34,014	40,817
Gross domestic investment	11,502	13,199	14,861	18,527	22,874	25,217	35,503	35,660	37,403	43,655	55,680	66,781
Gross fixed investment	9,322	11,660	13,331	15,898	19,311	20,527	27,416	30,940	34,481	40,518	51,053	61,061
Change in stocks	2,180	1,539	1,530	2,629	3,563	4,690	8,087	4,720	2,922	3,137	4,627	5,720
Net export of goods and nonfactor services	−1,160	−2,050	−510	−776	−1,671	213	−1,100	−1,700	−2,363	−3,388	−9,138	−13,485
Exports of goods and nonfactor services	4,370	5,180	6,930	8,056	9,249	18,213	20,988	22,225	23,000	26,675	31,150	42,660
Imports of goods and nonfactor services	5,530	7,230	7,440	8,832	10,920	18,000	22,088	23,925	25,363	30,063	40,288	56,145
GDP at market prices	31,540	37,489	43,310	51,779	64,877	83,948	107,662	117,756	129,028	148,521	176,418	215,548
Net factor income from abroad	−50	−100	−130	−110	−128	−263	−75	275	563	1,450	4,013	7,575
GNP at market prices	31,490	37,389	43,180	51,669	64,749	83,685	107,587	118,031	129,591	149,971	180,431	223,123
Net indirect taxes	1,970	2,850	3,630	4,830	5,070	6,090	7,136	9,040	10,513	13,112	15,903	13,993
GNP at factor cost	29,520	34,539	39,550	46,839	59,679	77,595	100,411	108,991	119,078	136,859	164,528	203,130
GDS	10,342	11,149	14,351	17,751	21,203	25,430	34,403	33,960	35,040	40,267	46,542	53,296
GNS[b]	10,562	11,257	14,428	18,118	21,615	25,937	35,066	34,635	36,078	42,280	51,318	61,321

[a] Calculated as residual.
[b] Includes net current transfers.

SOURCE: Federal Institute of Statistics; and mission estimates.

TABLE 2.7: GMP by Industrial Origin and by Republic

(In Millions of 1966 Dinars)

		Yugoslavia	Bosnia and Herzegovina	Kosovo	Macedonia	Montenegro	Croatia	Slovenia	Serbia Proper	Vojvodina
Total GMP	1960	65,130.8	8,474.0	1,228.4	3,237.0	1,029.0	17,463.4	9,565.0	16,321.9	7,812.1
	1965	91,238.6	11,249.7	1,871.7	4,866.1	1,728.5	24,082.3	13,554.2	23,076.0	10,810.1
	1970	123,726.0	14,534.7	2,575.9	6,879.1	2,357.7	32,920.1	19,421.5	31,471.5	13,565.5
	1971	134,234.2	15,748.7	2,754.0	7,403.1	2,453.0	35,680.5	20,814.4	33,941.8	15,428.6
By sector										
Social sector	1960	46,185.1	5,918.3	661.1	2,030.5	704.3	12,918.7	7,745.0	11,303.0	4,904.2
	1965	71,890.3	8,779.5	1,290.8	3,614.0	1,375.6	19,532.7	11,830.8	17,493.2	7,973.7
	1970	99,292.2	11,130.1	1,828.2	5,400.0	1,939.2	27,176.9	16,975.5	24,540.4	10,301.9
	1971	108,679.5	12,243.0	1,989.0	5,906.8	2,045.4	29,740.3	18,342.9	26,570.0	11,842.1
Private sector	1960	18,945.7	2,555.7	567.3	1,206.5	324.7	4,544.7	1,820.0	5,018.9	2,907.9
	1965	19,348.3	2,470.2	580.9	1,252.1	352.9	4,549.6	1,723.4	5,582.8	2,836.4
	1970	24,433.8	3,404.6	747.7	1,479.1	418.5	5,743.2	2,446.0	6,931.1	3,263.6
	1971	25,554.7	3,505.7	765.1	1,496.3	417.6	5,940.2	2,471.5	7,371.8	3,586.5
By industrial origin										
Industry	1960	19,208.7	2,668.6	301.0	762.0	208.5	5,141.7	3,842.5	4,755.3	1,529.1
	1965	32,510.5	4,432.0	626.0	1,441.8	540.0	8,454.5	5,959.6	8,050.6	3,006.0
	1970	45,105.6	5,468.6	903.7	2,237.6	695.1	11,581.3	8,949.3	11,332.2	3,937.8
	1971	49,557.6	6,132.1	988.7	2,446.5	701.2	12,516.0	9,653.7	12,634.7	4,484.7
Agriculture	1960	21,269.9	2,905.5	568.7	1,367.7	354.5	5,148.0	1,978.6	5,046.3	3,900.6
and forestry	1965	22,168.7	2,751.3	638.3	1,490.4	391.1	5,113.2	1,909.0	5,582.8	4,292.6
	1970	26,295.1	3,463.2	742.3	1,904.7	420.4	6,401.4	2,222.3	6,538.5	4,602.3
	1971	28,250.2	3,511.6	746.6	2,003.4	412.9	6,823.6	2,230.6	7,066.0	5,455.5
Other industries	1960	24,652.2	2,899.9	358.7	1,107.3	466.0	7,173.7	3,743.9	6,520.3	2,382.4
	1965	36,559.4	4,066.4	607.4	1,933.9	797.4	10,514.6	5,685.6	9,442.6	3,511.5
	1970	52,325.3	5,602.9	929.9	2,736.8	1,242.2	14,937.4	8,249.9	13,600.8	5,025.4
	1971	56,426.4	6,105.0	1,018.7	2,953.2	1,348.9	16,340.9	8,930.1	14,241.1	5,488.4

SOURCE: *Statistički Godišnjak, Jugoslavije*, 1972.

TABLE 2.8: Gross Fixed Investment by Sectors, Constant Prices

(In Millions of 1966 Dinars)

		Social Sector		Private Sector	
	Total	Total	%	Total	%
1947	6,965.4	6,124.1	87.9	841.3	12.1
1948	9,248.3	8,150.0	88.1	1,098.3	11.9
1949	10,291.9	9,025.9	87.7	1,266.0	12.3
1950	8,836.2	7,852.0	88.9	984.2	11.1
1951	9,000.1	7,752.8	86.1	1,247.3	13.9
1952	8,358.5	7,106.2	85.0	1,252.3	15.0
1953	10,224.0	8,671.2	84.8	1,552.8	15.2
1954	10,334.6	9,236.0	84.5	1,698.6	15.5
1955	10,624.4	9,243.0	87.0	1,381.4	13.0
1956	10,415.9	8,888.2	85.3	1,527.7	14.7
1957	12,522.8	10,679.0	85.3	1,843.8	14.7
1958	14,303.8	11,887.8	83.1	2,416.0	16.9
1959	16,448.6	14,267.6	86.7	2,181.0	13.3
1960	19,623.6	16,762.0	85.4	2,861.6	14.6
1961	21,822.3	18,229.2	83.5	3,593.1	16.5
1962	23,232.5	19,874.9	85.5	3,357.6	14.5
1963	25,232.8	21,565.3	85.5	3,667.5	14.5
1964	28,886.8	24,896.6	86.2	3,990.2	13.8
1965	25,562.8	20,846.4	81.5	4,716.4	18.5
1966	26,272.5	21,162.6	80.6	5,109.9	19.4
1967	24,899.5	19,124.2	76.8	5,775.3	23.2
1968	29,899.0	23,854.6	79.8	6,044.4	20.2
1969	31,754.8	26,184.0	82.5	5,570.8	17.5

SOURCE: *Investicije, 1947–69* (Belgrade: Institute for Economic Investment, 1971) Vol. II.

TABLE 2.9: Gross Fixed Investment by Republic, Constant Prices

(In Millions of 1966 Dinars)

	1950–70	1950	1955	1960	1965	1970
Yugoslavia	403,428[a]	8,836	10,624	19,624	25,563	34,571
Bosnia-Herzegovina	56,027	1,545	1,791	2,464	3,372	4,629
Kosovo	10,711	208	126	556	735	976
Macedonia	32,433	595	776	1,225	2,523	2,439
Montenegro	13,323	205	529	778	740	1,120
Croatia	95,603	2,225	2,345	4,471	6,402	8,681
Slovenia	54,304	1,134	1,706	2,584	3,219	5,101
Serbia proper	83,760	1,923	2,456	4,385	4,905	7,133
Vojvodina	30,046	434	459	1,887	1,796	2,321

[a] The investment in the republics does not add up to the total for Yugoslavia, due to investment unallocated by republics.

SOURCE: *Neki Pokazatelji, Razvoja Jugoslavije, 1950–70* (Belgrade: Federal Institute of Statistics, 1971).

TABLE 2.10: Gross Fixed Investment by Industries

(In Millions of 1966 Dinars)

	Agriculture[a] and Fishery	Industry and Mining	Construction	Transportation	Trade and Catering	Housing and Communal Activities	Others	Total
1952	954.4	5,045.1	165.6	833.8	67.6	1,022.0	270.0	8,358.5
1953	1,064.2	5,314.5	258.0	1,138.2	324.0	1,542.4	582.7	10,224.0
1954	1,237.8	5,027.3	228.6	1,088.3	364.3	2,034.6	953.7	10,934.6
1955	1,150.5	4,941.8	187.1	1,297.7	420.7	1,802.1	824.5	10,624.4
1956	1,493.3	4,093.2	153.0	1,517.0	372.3	2,042.4	744.7	10,415.9
1957	1,913.2	4,105.8	304.1	1,746.2	437.0	2,938.6	1,077.9	12,522.8
1958	2,343.5	4,114.2	283.7	2,080.3	494.1	3,769.6	1,218.4	14,303.8
1959	3,051.7	4,639.7	251.7	2,419.3	679.1	2,795.5	1,611.6	16,448.6
1960	3,012.3	5,971.1	313.5	2,661.7	761.7	5,013.8	1,889.5	19,623.6
1961	2,577.0	6,920.9	391.7	2,647.6	776.0	6,190.7	2,318.4	21,822.3
1962	2,647.1	7,352.8	385.3	2,466.0	859.7	6,969.7	2,551.9	23,232.5
1963	2,858.0	8,012.7	430.6	2,346.3	1,146.0	7,709.5	2,729.7	25,232.8
1964	3,123.8	9,100.6	576.4	3,156.5	1,494.3	8,506.2	2,929.0	28,886.8
1965	2,625.4	7,737.3	334.9	2,726.2	1,088.2	8,588.3	2,462.5	25,562.8
1966	2,761.4	8,460.0	342.7	2,864.1	1,327.2	8,352.4	2,164.7	26,272.5
1967	2,463.2	7,860.5	345.2	2,818.6	2,089.1	7,653.1	1,669.8	24,899.5
1968	2,660.4	9,825.6	531.4	3,259.8	2,513.0	9,005.4	2,103.4	29,899.0
1969	3,055.4	9,505.5	785.6	3,784.6	3,386.6	8,792.8	2,444.3	31,754.8

[a] Includes forestry.

SOURCE: *Investicije, 1947–69.*

TABLE 2.11: Implicit GDP Deflators, (1966 = 100)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GDP at factor cost	41.3	46.0	50.9	54.6	63.3	81.3	100.0	107.2	112.9	118.0	132.4	154.2
Agriculture and forestry	34.4	40.3	47.2	50.9	59.7	84.7	100.0	101.4	97.9	102.3	117.8	126.0
Industry and mining	60.2	61.2	60.8	62.3	65.4	77.8	100.0	106.5	112.2	111.6	118.2	139.6
Construction	32.3	41.7	44.4	48.4	59.7	77.2	100.0	111.6	122.7	131.4	155.8	196.3
Electricity, gas and water	38.6	55.3	57.3	57.2	76.7	84.5	100.0	103.6	102.2	107.6	123.3	146.5
Transportation and communications	42.6	48.4	54.2	63.2	71.0	89.0	100.0	104.9	103.6	108.7	124.3	149.8
Trade	43.3	49.1	50.2	54.3	69.1	83.2	100.0	113.0	124.9	133.5	157.1	187.1
Financial institutions	43.4	46.9	54.6	54.7	66.5	87.9	100.0	120.4	128.8	140.2	147.2	149.9
Ownership of dwellings	60.3	64.4	67.6	62.7	71.8	89.9	100.0	111.5	136.2	161.8	175.2	189.1
Public administration	34.9	37.9	41.0	48.5	57.5	78.9	100.0	116.3	129.3	137.8	147.7	170.7
Other services	23.9	26.6	42.8	46.6	59.1	81.6	100.0	109.6	126.6	141.8	157.2	182.3

SOURCE: Statistical Annex, Table 2.2.

TABLE 2.12: Implicit GNP Deflators, (1966=100)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total consumption	38.0	44.0	49.2	53.4	62.7	23.5	100.0	108.4	114.6	120.4	136.8	155.2
Private	38.1	44.7	49.3	52.0	62.9	83.9	100.0	107.6	112.5	116.5	129.4	150.6
Public	37.9	42.2	49.0	57.1	62.3	82.5	100.0	111.3	121.8	134.7	163.1	170.5
Gross domestic investment	49.3	54.5	58.1	63.4	67.3	79.3	100.0	107.4	114.8	121.7	130.7	149.7
Gross fixed investment	47.6	53.5	57.5	63.1	66.6	77.9	100.0	109.2	115.3	122.4	131.7	151.5
Change in stocks	58.3	62.2	64.0	65.6	70.9	86.0	100.0	96.7	108.9	114.2	119.7	132.9
Export of goods and nonfactor services	39.9	45.0	51.5	52.1	55.1	97.7	100.0	100.7	99.3	103.6	112.6	140.8
Import of goods and nonfactor services	41.2	48.3	51.7	53.9	56.6	100.0	100.0	100.0	100.0	105.0	114.0	141.6
GDP at market prices	41.2	46.5	51.8	56.3	64.2	81.9	100.0	108.4	114.8	120.9	135.9	154.2
GNP at market prices	41.2	46.5	51.9	56.4	64.4	81.8	100.0	108.4	114.3	120.7	135.3	152.6

SOURCE: Statistical Annex, Tables 2.3 and 2.4.

TABLE 3.1: Balance of Payments: Current Account

(In Millions of US$)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
A. Exports, goods	322.8	193.1	162.4	186.1	249.2	189.2	246.5	265.5	328.6	400.6	462.8	487.3
B. Imports, goods	378.0	332.9	286.7	434.9	393.0	418.4	367.0	470.2	494.6	673.5	698.9	704.2
C. Trade balance (A—B)	—55.2	—139.8	—124.3	—248.3	—143.8	—229.2	—120.5	—204.7	—166.0	—272.9	—236.1	—216.9
Nonfactor services, receipts												
Tourism and travel	2.1	0.2	0.3	0.8	2.9	4.4	5.4	7.5	7.2	9.0	9.9	12.8
Transportation	15.2	22.7	19.6	28.3	31.0	27.4	31.0	41.2	55.1	76.1	72.1	68.3
Insurance	0.4	4.6	2.4	1.9	2.1	1.5	3.2	5.2	4.9	5.8	5.5	5.6
Government n.i.e.	3.5	2.3	1.8	2.1	1.1	0.8	3.6	5.5	12.8	7.0	6.3	8.0
Other	3.7	1.7	1.9	5.0	3.7	4.4	6.4	10.6	14.2	15.1	18.4	19.4
D. Total nonfactor services, receipts	24.9	31.5	26.0	38.1	40.8	38.5	49.6	70.0	94.2	113.0	112.2	114.1
Factor services, receipts												
Workers' remittances	—	—	—	—	—	—	—	—	—	—	—	—
Investment income	—	0.3	—	0.4	0.2	0.1	0.1	0.2	0.3	0.4	0.6	0.9
E. Total factor services, receipts	—	0.3	—	0.4	0.2	0.1	0.1	0.2	0.3	0.4	0.6	0.9
F. Total services, receipts (D+E)	24.9	31.8	26.0	38.5	41.0	38.6	49.7	70.2	94.5	113.4	112.8	115.0
Nonfactor services, payments												
Tourism and travel	2.6	1.9	1.5	1.5	1.5	2.0	3.0	3.5	3.6	5.1	6.3	6.7
Transportation	6.0	5.9	7.1	8.9	0.8	11.1	12.5	14.8	22.2	24.7	25.0	24.6
Insurance	1.3	1.7	1.3	1.5	1.7	1.4	2.2	3.5	2.2	2.9	3.3	3.5
Government	7.5	7.9	5.8	7.0	6.6	6.7	7.6	7.6	8.1	9.1	9.9	12.6
Other	3.6	2.9	3.3	3.5	4.4	6.7	6.3	5.7	6.7	5.8	7.1	7.7
G. Total nonfactor services, payments	21.0	20.3	19.0	22.4	15.0	27.9	31.6	35.1	42.8	47.6	51.6	56.1
H. Total factor services, payments (investment income)	—	2.7	2.6	5.4	5.7	9.5	8.7	7.8	7.9	6.3	8.8	11.2
I. Total services, payments (G+H)	21.0	23.0	21.6	27.8	20.7	37.4	40.3	42.9	50.7	53.9	60.4	67.3
K. Services balance (F—I)	3.9	8.8	4.4	10.7	20.3	1.2	9.4	27.3	43.8	59.5	52.4	47.7
L. Transfers, net	14.5	35.6	37.4	216.6	122.8	164.3	115.0	141.6	126.3	105.7	95.3	89.8
M. Current balance (C+K—L)	—36.8	—95.4	—82.5	—21.5	—0.7	—63.7	3.9	—35.8	4.1	—107.7	—88.4	—79.4
Memorandum items												
N. Exports of goods and nonfactor services (A+D)	347.7	224.6	188.4	224.2	290.0	227.7	296.7	335.5	422.8	513.6	575.0	601.4
O. Exports of goods and all services (A+F)	347.7	224.9	188.4	224.6	290.2	227.8	296.2	225.7	423.1	514.0	575.6	602.3
P. Exports of goods and all services including transfers (A+F+L)	362.2	260.5	225.8	440.8	412.8	392.0	411.1	477.3	549.4	619.3	670.9	691.1
Q. Imports of goods and nonfactor services (B+G)	399.0	353.2	305.7	457.3	449.9	446.3	398.6	505.3	537.4	721.1	750.5	760.3
R. Imports of goods and all services (B+I)	399.0	355.9	308.3	462.7	455.6	455.8	407.3	513.1	545.3	727.4	759.3	771.5

SOURCE: National Bank of Yugoslavia; and *Balance of Payments Yearbook* (IMF: Washington, D.C.).

TABLE 3.1 (Cont'd.): Balance of Payments: Current Account

(In Millions of US$)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972*
A. Exports, goods	576.2	583.0	701.0	802.0	907.0	1,092.0	1,222.0	1,253.0	1,265.0	1,475.0	1,680.0	1,814.0	2,190.0
B. Imports, goods	845.1	929.0	900.0	1,080.0	1,342.0	1,288.0	1,575.0	1,708.0	1,797.0	2,135.0	2,874.0	3,253.0	3,325.0
C. Trade balance (A—B)	—268.9	—346.0	—199.0	—278.0	—435.0	—196.0	—353.0	—455.0	—532.0	—660.0	—1,194.0	—1,439.0	—1,135.0
Nonfactor services, receipts													
Tourism and travel	14.2	20.0	31.0	53.0	68.0	81.0	117.0	150.0	189.0	241.0	275.0	360.0	450.0
Transportation	78.1	99.0	116.0	134.0	163.0	194.0	226.0	232.0	247.0	280.0	349.0	385.0	470.0
Insurance	7.8	12.0	8.0	10.0	11.0	12.0	11.0	14.0	12.0	18.0	15.0 ⎫	⎫	
Government n.i.e.	5.7	7.0	16.0	18.0	17.0	24.0	28.0	15.0	16.0	29.0	15.0 ⎬	251.0 ⎬	290.0
Other	29.0	27.0	33.0	52.0	75.0	54.0	77.0	114.0	111.0	91.0	155.0 ⎭	⎭	
D. Total nonfactor services, receipts	134.8	165.0	204.0	267.0	334.0	365.0	459.0	525.0	575.0	659.0	809.0	996.0	1,210.0
Factor services, receipts													
Workers' remittances	—	—	—	—	—	32.0	64.0	89.0	122.0	206.0	440.0	652.0	780.0
Investment income	1.4	2.0	4.0	4.0	9.0	8.0	6.0	8.0	6.0	12.0	18.0	17.0	18.0
E. Total factor services, receipts	1.4	2.0	4.0	4.0	9.0	40.0	70.0	97.0	130.0	218.0	458.0	669.0	798.0
F. Total services, receipts (D+E)	136.2	167.0	208.0	271.0	343.0	405.0	529.0	622.0	705.0	877.0	1,267.0	1,665.0	2,008.0
Nonfactor services, payments													
Tourism and travel	7.8	12.0	9.0	9.0	13.0	18.0	35.0	52.0	53.0	73.0	129.0	220.0	240.0
Transportation	30.0	43.0	48.0	53.0	66.0	76.0	86.0	92.0	103.0	117.0	148.0	164.0	220.0
Insurance	3.9	5.0	5.0	6.0	6.0	7.0	7.0	8.0	11.0	12.0	7.0 ⎫	⎫	
Government	16.1	19.0	25.0	16.0	20.0	30.0	38.0	12.0	13.0	9.0	12.0 ⎬	83.0 ⎬	129.0
Other	9.8	9.0	14.0	15.0	18.0	21.0	26.0	42.0	52.0	59.0	50.0 ⎭	⎭	
G. Total nonfactor services, payments	67.6	88.0	101.0	99.0	123.0	152.0	192.0	206.0	232.0	270.0	346.0	467.0	589.0
H. Total factor services, payments (investment income)	12.2	19.0	25.0	38.0	57.0	61.0	76.0	75.0	85.0	102.0	128.0	147.0	168.0
I. Total services, payments (G+H)	79.8	107.0	126.0	137.0	180.0	213.0	268.0	281.0	317.0	372.0	474.0	614.0	757.0
K. Services balance (F—I)	56.4	60.0	82.0	134.0	163.0	192.0	261.0	341.0	388.0	505.0	793.0	1,051.0	1,251.0
L. Transfers, net	90.1	69.4	69.0	63.6	72.0	77.0	59.0	32.0	38.0	45.0	61.0	64.0	70.0
M. Current balance (C+K—L)	—122.4	—216.6	—48.0	—80.4	—200.0	73.0	—33.0	—82.0	—106.0	—110.0	—340.0	—324.0	186.0
Memorandum items													
N. Exports of goods and nonfactor services (A+D)	711.0	748.0	905.0	1,069.0	1,241.0	1,457.0	1,681.0	1,778.0	1,840.0	2,134.0	2,489.0	2,810.0	3,400.0
O. Exports of goods and all services (A+F)	712.4	750.0	909.0	1,073.0	1,250.0	1,497.0	1,751.0	1,875.0	1,970.0	2,352.0	2,947.0	3,479.0	4,198.0
P. Exports of goods and all services including transfers (A+F+L)	802.5	819.4	978.0	1,136.6	1,322.0	1,574.0	1,810.0	1,907.0	2,008.0	2,397.0	3,008.0	3,543.0	4,268.0
Q. Imports of goods and nonfactor services (B+G)	912.7	1,017.0	1,001.0	1,179.0	1,465.0	1,440.0	1,767.0	1,914.0	2,020.0	2,405.0	3,220.0	3,720.0	3,914.0
R. Imports of goods and all services (B+I)	924.9	1,036.0	1,026.0	1,217.0	1,522.0	1,501.0	1,843.0	1,989.0	2,114.0	2,507.0	3,348.0	3,867.0	4,082.0

* Preliminary.

SOURCE: National Bank of Yugoslavia; and IMF, *Balance of Payments Yearbook.*

TABLE 3.2: Balance of Payments: Capital Account

(In Millions of US$)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972 [a]
A. Current balance (Table 3.1, line M)	−122	−217	−48	−80	−200	73	−33	−82	−106	−110	−340	−324	186
Capital movements													
Medium and long-term loans [b]													
Loans received [b]	155	279	197	240	193	228	279	334	390	517	636	857	926
Amortizations	−82	−65	−83	−106	−145	−165	−178	−173	−219	−239	−335	−504	−628
B. Medium and long-term loans, net	73	214	114	134	48	63	101	161	171	278	301	353	298
C. Agriculture import loans, net	20	60	74	118	57	100	103	17	−6	−25	−32	21	43
D. Export credits extended, net	−15	−24	−36	−27	−33	−44	−39	−39	−46	−92	−50	−16	−20
(Credits extended, gross)	−24	na	na	na	na	(−72)	(−75)	(−85)	(−104)	(−137)	(−97)	(−71)	(−140)
(Amortization received)	9	na	na	na	na	(28)	(36)	(46)	(58)	(45)	(47)	(55)	(120)
E. Total medium and long-term capital net (B+C+D)	78	250	152	225	72	119	165	139	119	161	219	358	321
F. Short-term capital, net (including errors and omissions)	23	23	−82	−135	95	−91	−99	8	−56	27	6	−165	124
G. Capital account (E+F)	101	273	70	90	167	28	66	147	63	188	225	193	445
H. Allocations of SDRs	—	—	—	—	—	—	—	—	—	—	25	22	22
I. Balance (A+G+H)	−21	56	22	10	−33	101	33	65	−43	78	−90	−109	653
K. Reserve movements (increase = −)	21	−56	−22	−10	33	−101	−33	−65	43	−78	90	109	−653
SDRs [c]	—	—	—	—	—	—	—	—	—	—	6	4	−5
Net gold and foreign exchange position	15	−20	−39	−25	23	−27	−10	—	−52	−158	109	−80	−515
Bilateral balances	6	−36	17	15	10	−74	−23	−94	48	58	71	—	−100
Net IMF account, National Bank and commercial banks' credits [d]	—	—	—	—	—	—	—	29	47	22	−84	185	−33
Memorandum item:													
Official reserves [e]	13	33	72	97	74	104	115	80	132	253	140	212	733

[a] Preliminary.
[b] Including joint venture capital since 1967.
[c] Allocation of SDRs was 25.2 million in 1970, 22.1 million in 1971 and 22 million in 1972.
[d] Included in short-term capital from 1960 to 1966.
[e] Including Fund Gold Tranche Position and SDRs.

SOURCE: National Bank of Yugoslavia; and IMF, *Balance of Payments Yearbook*.

TABLE 3.3: Balance of Payments with Convertible Area

(In Millions of US$)

	1965	1967	1968	1969	1970	1971	1972[a]
A. Current account balance	—114	—132	—124	—88	—374	—34	82
I. Trade balance	—271	—432	—470	—578	—1,100	—1,230	—1,130
1. Exports	541	715	738	922	1,033	1,080	1,324
2. Imports	—812	—1,147	—1,208	—1,500	—2,133	—2,310	—2,455
II. Services, net	157	200	346	490	726	996	1,212
3. Tourism and foreign travel, net	60	88	121	145	132	128	200
4. Transportation, net	63	83	92	96	112	141	177
5. Workers' remittances	32	89	122	206	440	652	780
6. Investment income, net	—53	—66	—76	—88	—110	—127	—145
7. Other services, net, and transfer payments	55	105	87	131	152	202	200
B. Capital account	56	103	129	224	330	103	449
III. Medium and long-term capital	220	146	121	133	180	308	287
8. Medium and long-term loans,[b] net	237	159	151	192	205	308	293
8.1 Inflow,[c] gross	255	305	337	449	568	749	870
8.2 Repayments	—118	—163	—180	—232	—331	—462	—620
8.3 Agriculture imports loans, net	100	17	—6	—25	—32	21	43
9. Export credits extended, net	—17	—13	—30	—59	—25	—	—6
IV. Short-term capital, net (including errors and omissions)	—164	—43	8	91	150	—205	162
C. Allocation of SDRs	—	—	—	—	25	22	—
D. Balance (A+B+C)	—58	—29	5	136	—19	—109	553
E. Reserve movements (increase = —)	58	29	—5	—136	19	109	—553
10. Gold and convertible currencies	—27	—	—52	—158	109	—80	—515
11. Net IMF acc., National Bank and commercial banks' credits	85	29	47	22	—84	185	—33
Memorandum item:							
F. Official reserves[c]	104	80	132	253	140	212	733
G. Exports of goods and nonfactor services	789	1,107	1,179	1,422	1,636	1,928	2,365
H. Exports of goods and all services including transfers	905	1,235	1,345	1,683	2,153	2,660	3,230

[a] Preliminary.
[b] Including joint venture capital.
[c] Including Fund Gold Tranche Position and SDRs.

SOURCE: National Bank of Yugoslavia.

TABLE 3.4: Balance of Payments with Bilateral Area

(In Millions of US$)

	1967	1968	1969	1970	1971	1972ª
A. Current account balance	50	18	−22	34	−90	104
I. Trade balance	−23	−62	−82	−94	−209	−5
1. Exports	538	527	553	647	734	865
2. Imports	−561	−589	−635	−741	−943	−870
II. Services, net	73	80	60	128	119	109
3. Tourism and foreign travel, net	10	15	23	14	12	10
4. Transportation, net	56	52	67	89	80	73
5. Investment income, net	−1	−1	−2	—	−3	−5
6. Other services, net, and transfer payments	8	14	−28	25	30	31
B. Capital account	44	−66	−36	−105	90	−4
III. Medium and long-term capital	−7	−2	28	39	50	33
7. Medium and long-term loans,ᵇ net	19	14	61	64	66	48
7.1 Inflow,ᵇ gross	29	53	68	68	108	56
7.2 Repayments	−10	−39	−7	−4	−42	−8
8. Export credits extended	−26	−16	−33	−25	−16	−15
IV. Short-term capital, net (including errors and omissions)	51	−64	−64	−144	40	−37
C. Balance (A+B)	94	−48	−58	−71	—	100
D. Reserve movements=change in bilateral balances (increases = −)	−94	48	58	71	—	−100

ª Preliminary.
ᵇ Including joint venture capital.

SOURCE: National Bank of Yugoslavia.

TABLE 3.5: Exports by Use of Product

(In Millions of Dinars[a] and % of Total Exports)

	1954 Value	1954 Share %	1960 Value	1960 Share %	1965 Value	1965 Share %	1966 Value	1966 Share %	1967 Value	1967 Share %	1968 Value	1968 Share %	1969 Value	1969 Share %	1970 Value	1970 Share %	1971 Value	1971 Share %
Total	3,004.7	100.0	7,077.0	100.0	13,643.8	100.0	15,251.0	100.0	15,645.8	100.0	15,796.3	100.0	18,431.0	100.0	20,989.0	100.0	22,680.7	100.0
Reproduction goods	1,715.2	57.1	3,226.2	45.6	5,737.6	42.0	6,551.5	43.0	7,516.6	48.1	7,870.1	49.8	9,693.0	52.6	10,996.4	52.4	11,286.5	49.8
Crude materials and semiproducts	1,565.0	52.1	2,612.0	37.0	3,966.4	29.1	4,414.3	29.0	5,297.4	33.9	5,642.6	35.7	6,874.4	37.3	7,575.6	36.2	7,556.5	33.3
Mineral fuels	78.4	2.6	95.0	1.3	202.1	1.4	320.3	2.1	328.1	2.1	136.7	1.2	233.9	1.3	302.7	1.4	280.6	1.3
Other manufactured goods for reproduction	71.9	2.4	511.5	7.3	1,569.0	11.5	1,816.8	11.9	1,891.0	12.1	2,040.8	12.9	2,584.7	14.0	3,118.2	14.8	3,449.4	15.2
Investment goods	82.0	2.7	689.3	9.7	2,340.7	17.2	2,789.1	18.3	2,210.8	14.1	2,449.2	15.5	2,554.3	13.9	3,025.9	14.4	3,372.0	14.9
Transport equipment	70.8	2.3	418.8	5.9	1,553.4	11.4	1,726.3	11.3	1,102.8	7.0	1,379.4	8.8	1,450.4	7.9	1,889.9	9.0	1,920.5	8.5
Electric motors and other equipment	4.5	0.2	62.9	0.9	167.7	1.2	304.4	2.0	356.9	2.3	417.5	2.6	415.8	2.3	464.7	2.2	410.2	1.8
Agricultural machinery	1.0	—	21.5	0.3	186.4	1.4	240.7	1.6	213.8	1.4	197.5	1.2	150.1	0.8	143.5	0.7	128.5	0.6
Other	5.7	0.2	186.1	2.6	433.2	3.2	517.7	3.4	537.3	3.4	454.8	2.9	538.0	2.9	527.8	2.5	912.7	4.0
Consumer goods	1,207.4	40.2	3,161.6	44.7	5,565.6	40.8	5,910.4	38.7	5,918.5	37.8	5,477.0	34.7	6,183.7	33.5	6,966.7	33.2	8,022.2	35.3
Food	894.4	29.7	2,043.5	28.9	2,691.0	19.7	2,802.8	18.3	2,455.7	15.7	1,905.6	12.0	2,219.9	12.0	2,403.8	11.5	2,602.5	11.5
Clothing and footwear	5.0	0.2	185.8	2.6	958.9	7.0	1,156.1	7.6	1,535.4	9.8	1,567.9	9.9	1,678.5	9.1	1,754.8	8.4	2,103.6	9.3
Beverages and tobacco	128.2	4.3	331.0	4.7	602.5	4.4	579.3	3.8	620.2	4.0	516.8	3.3	518.4	2.8	713.8	3.4	771.7	3.4
Other textiles	65.0	2.2	205.6	2.9	405.7	3.0	446.0	2.9	451.4	2.9	486.5	3.1	555.9	3.0	520.5	2.5	595.7	2.6
Other consumers' goods	114.8	3.8	395.7	5.6	907.5	6.7	926.2	6.1	855.8	5.4	1,000.2	6.3	1,211.0	6.6	1,573.8	7.5	1,948.7	8.5

[a] Data converted at US$1=12.50 dinars.

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia* (Belgrade: Federal Institute of Statistics, 1956, 1960, 1967, 1969, 1970, 1971).

TABLE 3.6: Imports by Use of Product

(In Millions of Dinars ª and % of Total Imports)

	1954 Value	Share %	1960 Value	Share %	1965 Value	Share %	1966 Value	Share %	1967 Value	Share %	1968 Value	Share %	1969 Value	Share %	1970 Value	Share %	1971 Value	Share %
Total	4,242.5	100.0	10,329.8	100.0	16,099.4	100.0	19,692.9	100.0	21,341.6	100.0	22,460.2	100.0	26,672.2	100.0	35,925.1	100.0	40,651.2	100.0
Reproduction goods	2,203.7	51.9	5,862.5	56.8	9,997.8	62.1	11,333.9	57.5	12,214.6	57.2	12,770.2	56.9	16,057.3	60.2	22,715.8	63 2	25,891.4	63.7
Crude materials and semiproducts	1,403.0	33.0	3,664.8	35.5	6,755.6	42.0	7,488.2	38.0	7,838.8	36.7	7,994.7	35.6	10,311.5	38.7	14,542.3	40 5	16,422 0	40.4
Mineral fuels	385.0	9.1	565.5	5.5	899.5	5.6	1,030.2	5.2	1,057.0	5.0	1,224.4	5.5	1,294.0	4.8	1,729.4	4.8	2,410.5	5.9
Other manufactured goods for reproduction	417.7	9.8	1,632.2	15.8	2,342.7	14.5	2,815.4	14.3	3,318.8	15.5	3,551.0	15.8	4,451.8	16.7	6,444.2	17.9	7,058.9	17.6
Investment goods	941.5	22.2	2,944 9	28.5	3,174.8	19.7	4,281.8	21.8	4,633.5	21.7	5,593.3	24.9	5,941.4	22.3	7,673.3	21.4	8,524.2	21.0
Transport equipment	71.5	1.7	538.7	5 2	565.5	3.5	939.1	4.8	931.3	4.4	1,018.2	4.5	968.5	3.6	1,716.7	4.8	980 6	2.4
Electric motors and other equipment	118.1	2.8	283.6	2.7	319.0	2.0	428.8	2.2	453.2	2.1	555.9	2.5	720.5	2.7	823.2	2.3	877.1	2.2
Agricultural machinery	7.7	0.2	297.5	2.9	92.0	0.6	195.3	1.0	269.4	1.3	239.9	1.1	232.4	0.9	396.9	1.1	477.9	1.2
Other investment goods	744.2	17.5	1,825.1	17.7	2,198.3	13.6	2,718.6	13.8	2,979.6	13.9	3,779.3	16.8	4,020.0	15.1	4,736.5	13.2	6,188.7	15.2
Consumer goods	1,097.3	25.9	1,522.4	14.7	2,926.7	18.2	4,077.2	20.7	4,493.6	21.1	4,096.8	18 2	4,673.6	17.5	5,536 0	15.4	6,235.5	15.3
Food	1,011.2	23.8	840.5	8 1	1,939.6	12.1	2,511.6	12.8	1,887.7	8.9	1,057.6	4.7	1,187.2	4.5	1,486.5	4.1	2,169.7	5.3
Textile articles, incl. clothing and footwear	2.0	0.1	228.8	2.2	403.3	2.5	644.3	3.2	782.5	3.7	1,036.9	4.6	1,107.9	4.1	1,164.8	3.3	911.7	2.2
Other consumer goods	84.1	2.0	453.1	4.4	583.8	3.6	921.3	4.7	1,823.4	8.5	2,002.3	8.9	2,378.5	8.9	2,884.7	8.0	3,154.1	7.8

ª Data converted at US$1=12.50 dinars.

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia* (1956, 1960, 1967, 1969, 1970, 1971).

TABLE 3.7: Exports by Areas and Countries of Destination

(In Millions of Dinars* and % of Total Exports)

	1948 Value	Share %	1960 Value	Share %	1965 Value	Share %	1966 Value	Share %	1967 Value	Share %	1968 Value	Share %	1969 Value	Share %	1970 Value	Share %	1971 Value	Share %
Total	3,709.7	100.0	7,077.0	100.0	13,643.8	100.0	15,251 0	100.0	15,645.8	100.0	15,796.3	100.0	18,431.0	100.0	20,989.0	100.0	22,680.7	100.0
EEC	721.0	19.4	1,811.1	25.6	3,431.2	25.1	4,235 8	27.7	4,636.4	29.7	4,411.8	28.0	5,899.0	32.0	6,903.5	33.0	6,598.4	29.1
Of which:																		
Italy	328.3	8 8	934.6	13.2	1,803.1	13.2	2,163.1	14.2	2,813.5	18.0	2,206.6	14.0	2,837.1	15.4	3,182.1	15.2	2,826.0	12.5
Germany, Federal Republic of	—	—	634.6	9.0	1,195.4	8.8	1,422.7	9.3	1,202.7	7.7	1,515.4	9.6	2,023.3	11.0	2,469.2	11.8	2,596.6	11.6
France	64.0	1.7	109.9	1 6	219.2	1.6	357.6	2.3	341.9	2.2	363.5	2.3	609.1	3.3	795.9	3.8	719.7	3.2
Netherlands	242.0	6.5	74.3	1.0	128.5	0.9	183 3	1.2	173.2	1.1	191.8	1.2	283 3	1.5	336.7	1.6	310.2	1.4
Belgium-Luxemburg	86.7	2.3	57 7	0 8	85.0	0 6	109.1	0.7	105 1	0.7	134.5	0.9	146.2	0.8	119 6	0.6	112.6	0.5
EFTA	740.3	20.0	1,111.6	15.7	1,208.6	8.8	1,677.8	11.1	1,852.1	11.9	2,004.1	12.7	2,577.9	14.0	3,024.7	14.4	3,196.4	14.1
Of which:																		
United Kingdom	257.4	6.9	541.2	7.6	452.6	3.3	548.8	3.6	573.7	3.7	759.0	4.8	1,062.2	5.9	1,203.5	5.3	1,413.0	6.2
Austria	233.1	6.3	374.6	5.3	354.7	2.6	559.5	3.7	602.1	3.9	556.6	3.5	580.6	3.2	632.4	3.0	582.2	2.6
Switzerland	129.0	3.5	102.3	1.4	226.5	1.7	314.4	2.1	320.5	2.0	348.5	2.2	488.8	2.6	653.7	3.1	714.7	3.2
Sweden	117.3	3.2	61.9	0.9	108.9	0.8	180.0	1.2	150.7	1.0	219.1	1 4	208 0	1.1	238.5	1.1	159.6	0.7
Denmark	3.5	—	19.0	0.3	48.5	0.3	48 3	0.3	48.9	0.3	55.8	0.4	73.5	0.4	79.3	0.4	62.0	0.3
Finland	—	—	5.6	0.1	9.8	0.1	10 7	0.1	98.5	0.6	8.0	0.0	71.1	0.4	76.9	0.4	17.0	0.1
Norway	—	—	7.0	0.1	7.3	0.0	15.9	0.1	57.1	0.4	56.3	0.4	93.6	0.5	135.3	0.6	232.9	1.0
Other	—	—	—	—	0.3	0.0	0 2	0.0	0.6	0.0	0.8	0.0	0.1	0.0	0.1	0.0	0.0	0.0
CMEA countries	1,914.7	51.6	2,273.1	32.1	5,725 3	42.0	5,574.2	36.5	5,637.9	36.0	5,256.2	33.3	5,369.1	29.1	6,470.0	30.8	8,277.6	36.5
Of which:																		
USSR	568.3	15.3	658.5	9.3	2,344.8	17.2	2,421.8	15.8	2,740.4	17.5	2,593.9	16.5	2,580 1	14.0	3,019.1	14.4	3,350.7	14.8
Czechoslovakia	581.7	15.7	321.8	4.5	886.9	6.6	844.9	5.5	626.8	4.0	685.1	4.3	785.0	4.2	1,115.0	5.3	1,443.8	6.4
Poland	295.8	8 0	276.0	3.9	802.9	5.9	703.9	4.6	573.6	3.7	462.1	2.9	585.8	3.2	710.5	3.4	1,067.9	4.7
Hungary	342.0	9.2	255.4	3.6	324 4	2.4	367 6	2.4	376.0	2.4	191.8	1.2	283.3	1.5	336.7	1.6	742.5	3.3
Germany, Democratic Republic of	65.7	1.8	579.8	8.2	950.8	7.0	805.0	5.3	788 0	5.0	691.4	4.4	550.3	3.0	638.9	3.0	859.2	3.8
Bulgaria	36.8	1.0	106.9	1.5	254.5	1.9	221.9	1.5	249.0	1.6	354.0	2.2	288.4	1.6	276.5	1.3	352.7	1.6
Rumania	24.4	0.7	74.7	1.1	161.0	1.2	209.1	1.4	284.1	1.8	277.9	1.8	296.2	1.6	373.3	1.8	435.7	1.9
Other Europe	29.2	0.8	271.0	3.8	343.7	2.5	453.0	3.0	464.1	3.0	735.1	4.7	786.2	4.3	855.6	4.1	600.1	2.6
North America	101.5	2.7	493 4	7.0	805.4	5.9	967.9	6.4	1,028.7	6.6	1,158.1	7.4	1,223.4	6.6	1,199.3	5.7	1,431.6	6.3
Of which:																		
USA	98.7	2.7	484.0	6.9	776.1	5.7	935.7	6.2	990.8	6.3	1,116.4	7.1	1,166 0	6.3	1,118.9	5.3	1,363.4	6.0
Canada	2.8	—	9.4	0.1	29.3	0.2	32.2	0.2	37.9	0 3	41.7	0.3	57 4	0.3	80.4	0.4	68.2	0.3
Latin America	17.7b	0.5	117.3	1.6	209.8	1.5	200.4	1.3	219.7	1.4	244.4	1.5	482.7	2.6	279.8	1.3	523.7	2.3
Of which:																		
Brazil	—	—	71.4	1.0	30.5	0.3	85.0	0.6	46.7	0.3	36.8	0.2	40.9	0.2	62.4	0.3	111.2	0.5
Cuba	—	—	5.4	0.1	61.9	0.5	85.0	0.6	68.0	0.4	77.1	0.5	28.7	0.2	27.7	0.2	4.0	0.0
Panama	—	—	—	—	86.1	0.6	5.6	0.0	22.3	0.2	35.1	0.2	296.4	1 6	8.1	0.0	125.0	0.6
Colombia	—	—	—	—	16.6	0.1	14.7	0.1	64.5	0.4	68.5	0.5	76.4	0.5	94.3	0.5	45.8	0.2
Asia	43.4	1.2	563.0	8.0	1,265.7	9.3	1,421.9	9.3	1,232.8	7.9	1,322 9	8.3	1,345.5	7.3	1,470.6	7.0	1,185.7	5.2
Of which:																		
India	2.4	—	94.3	1.3	370.8	2.7	534.9	3.5	339 1	2.2	327.8	2.1	494.5	2.7	569.0	2.7	236.2	1.0
Iran	—	—	34.0	0.5	80.5	0.6	109 6	0.7	117.8	0.8	98.1	0.6	136.8	0.7	172 9	0.8	99.0	0.4
Indonesia	—	—	148.2	2.1	321.5	2.4	201.7	1.3	115.0	0.7	99.6	0.6	42.0	0.2	20.1	0.1	12.5	0.1
Pakistan	—	—	25.3	0.4	90.4	0.7	101.4	0.7	101.1	0.6	297.1	1.9	169.1	0.9	134.2	0.6	193.0	0.9
Africa	142.0	3.8	425.0	6.0	650 0	4.8	713.7	4.7	569.3	3.6	656.5	4.2	715.6	3 9	751.8	3.6	853.7	3.8
Of which:																		
Egypt	124.0	3.3	266.5	3.8	255.2	1.9	301.1	2.0	253.0	1.6	348.3	2.2	270.2	1.5	327.5	1.6	206.9	0.9
Ghana	—	—	3.4	0.1	155.5	1.2	62.0	0.4	21.3	0.1	40.2	0.3	42.3	0.2	37.0	0.2	24.4	0.1
Tunisia	1.5	—	27.3	0 4	39.8	0.3	50.9	0.3	61.9	0.4	39.6	0.3	54.0	0.3	33 1	0.2	44.7	0.2
Guinea	—	—	—	—	17.5	0.1	38.3	0.3	14.4	0.1	21.4	0.2	49.3	0.3	32.0	0.2	9.0	0.0
Sudan	—	—	13.2	0.2	38.9	0.3	53.2	0.4	13.2	0.1	26.4	0.2	69 5	0.4	74.7	0.4	92.2	0.4
Other	—	—	11.5	0.2	4.0	0.0	6.3	0.0	4.8	0.0	7.2	0 0	31.7	0.1	33.8	0.2	13.6	0.1

* Data converted at US$1=12.50 dinars.
b Of which 17 million dinars went to Argentina.

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia* (1948, 1960 and 1965 through 1971).

TABLE 3.8: Imports by Area and Countries of Origin

(In Millions of Dinars[a] and % of Total Imports)

	1948		1960		1965		1966		1967		1968		1969		1970		1971	
	Value	Share %	Value	Share %	Value	Share %	Value	Share %	Value	Share %	Value	Share %	Value	Share %	Value	Share %	Value	Share %
Total	3,831.0	100 0	10,329.8	100.0	16,099.4	100.0	19,692.9	100 0	21,341 6	100.0	22,460.2	100.0	26,672.2	100.0	35,925.1	100.0	40,651.2	100.0
EEC	939.0	25.0	3,362 2	32.5	4,179.1	26.0	5,119 8	26 0	8,213 3	38.5	8,771.0	39.0	10,478 7	39.3	14,309.4	39.8	15,315.0	37.7
Of which:																		
Italy	384 5	10 0	1,189.4	11.5	1,719.2	10 7	2,106.1	10.7	2,850.4	13.4	3,357.8	14.9	3,996.3	15.0	4,725 3	13.2	4,954.5	12.2
Germany, Federal Republic of	—	—	1,540 5	14.9	1,462 8	9 1	1,933.5	9.8	3,574.3	16.8	4,007.9	17.8	4,856 9	18.2	7,089.5	19.7	7,710.2	19.0
France	75.9	2.0	343.1	3.3	582 2	3.6	582.1	3.0	1,008 4	4 7	815 7	3.6	900.8	3.4	1,373.6	3.8	1,593 9	3 9
Netherlands	285 7	7.5	179.5	1.7	274 2	1.7	290 3	1.5	387 5	1.8	349.0	1.5	446 9	1.7	621.7	1 7	581 0	1 4
Belgium-Luxemburg	212 9	5 6	109 7	1 1	140.7	0.9	207 8	1.1	392 7	1 8	240.6	1.1	277.8	1 0	499.3	1.4	475.1	1.2
EFTA	588 5	15 4	1,453.0	14.0	1,779.3	11.1	2,201.2	11.2	2,665 1	12.5	3,167.6	14.1	4,303.2	16 1	6,495.5	18.0	7,011.0	17.2
Of which:																		
United Kingdom	181.7	4.7	567 7	5.5	779.5	4.8	1,098.2	5.6	1,139.5	5 3	1,089.3	4.8	1,492 4	5.6	2,232 6	6.2	2,457 5	6.0
Austria	184 2	4.8	468 2	4.5	430.0	2.7	471.2	2.4	734 2	3 4	1,044.0	4.6	1,274 1	4 8	1,896.9	5 3	1,907 1	5.0
Switzerland	127 2	3 3	224.0	2.2	265.4	1.7	352 6	1.8	416.6	2 0	616.5	2 7	967 9	3 6	1,614 6	4.5	1,777.5	4.4
Sweden	64 4	1.7	107.7	1.0	178 8	1.1	155 7	0 8	229.9	1.1	263.4	1.2	383 0	1.4	501.0	1.4	582 8	1 4
Denmark	5.2	0.1	55.6	0.5	76.1	0.5	46.0	0 2	69 1	0.3	86 4	0.4	104.6	0.4	117.9	0.3	159 8	0.4
Finland	24 1	0 6	18.4	0.2	16 5	0 1	14 9	0.1	18 7	0 1	10.1	0.1	25.5	0.1	45.8	0 1	30.3	0.0
Norway	1 5	0.1	11 3	0 1	32.8	0.2	60.5	0.3	55.5	0.3	57.9	0 4	55.0	0.2	34.7	0.2	95.8	0.0
Other	0.2	—			0.2	0 0	2.1	0 0	1 6	0.0	0.0	0.0	0 7	0 0	2.0	0.0	0.0	0.0
CMEA countries	1,853 2	48 4	2,639.3	25.5	4,595.4	28.5	6,172.0	31.3	5,528 2	25.9	6,073 5	27.0	6,305.6	23.7	7,351 1	20.4	9,626 9	23.7
Of which:																		
USSR	426 0	11.1	711.7	6.9	1,349.2	8.4	1,821 7	9.3	2,047.9	9.6	2,353.4	10 5	2,102.4	7.9	2,414.6	6 7	3,516.6	8.7
Czechoslovakia	671.0	17.5	328.0	3.2	881.9	5.5	1,165.0	5.9	1,183.4	5.5	1,288 4	5.7	1,498.3	5.6	1,893.4	5.3	1,913.7	4.7
Poland	288 2	7.5	472 7	4 6	713.3	4.4	901.4	4 6	519 9	2.4	557 9	2 5	587.1	2.2	646.6	1.8	955.8	2.4
Hungary	171 0	4.5	457.3	4 4	384.7	2.4	442.6	2 2	397.1	1.9	426 1	1.9	547.4	2 1	613 6	1 7	933.7	2 3
Germany, Democratic Republic of	164 0	4.3	467 0	4 5	789.1	4.9	1,099.2	5 6	361.1	4.0	885 6	3.9	970 6	3 6	928.0	2.6	1,146.2	2 8
Bulgaria	66 0	1.7	90.6	0.9	276 6	1.7	461 3	2.3	247.1	1.2	284.5	1.3	287.6	1.1	410 6	1 1	532.7	1.3
Rumania	67.0	1.7	112 0	1.1	200.6	1.2	280.8	1.4	271.7	1.3	277.6	1.2	312.2	1 2	444.3	1 2	628.2	1.5
Other Europe	—	—	132.0	1.3	288 3	1.8	421.3	2.1	466.6	2 2	440 8	2.0	674.9	2 5	790.3	2.2	652.0	1.6
North America	136.0	3.5	1,144.7	11.1	2,432.8	15.2	2,550.1	13 0	1,586 2	7.5	1,149.7	5 1	1,198.4	4.5	2,220.5	6.2	2,728 2	6.7
Of which:																		
USA	134 0	3.5	1,106.2	10 7	2,375.4	14.8	2,498.0	12.7	1,549 9	7.3	1,129.4	5.0	1,155.8	4.3	2,001 8	5.6	2,457.4	6.0
Canada	2.0	—	38.5	0.4	57.0	0.4	52.1	0.3	36.3	0.2	20.3	0.1	42.6	0.2	218 7	0.6	270.8	0.7
Latin America	102.0	2.7	217.0	2.1	544.8	3.4	732.6	3.7	679.3	3 2	555.9	2.5	632.2	2.4	1,013.0	2 8	973 7	2 4
Of which:																		
Brazil	5.0	0.1	83.7	0 8	191.3	1.2	228.7	1.2	257 1	1.2	182.1	0.8	255.6	1.0	247.4	0.7	289.5	0.7
Cuba	—	—	—	—	64.6	0.4	114.5	0.6	51.1	0 2	64.7	0.3	37.9	0.1	11.7	0.0	104.8	0.3
Panama	—	—	8 0	0.1	1.6	0.0	2.7	0.0	3.7	0.0	1.9	0.0	3.3	0.4	123.3	0.4	16 7	0.0
Colombia	—	—	—	—	13.7	0.1	20 2	0.1	23.3	0.1	62.2	0 3	50.9	0.2	110.5	0.3	53.6	0.1
Peru	—	—	13.0	0.1	49.5	0.3	90 4	0.4	73.0	0.3	77.5	0.3	88.3	0.3	275.2	0 8	167 7	0.4
Asia	78.0	2.0	547.0	5.3	1,224 0	7.6	1,594.8	8.1	1,312.2	6.2	1,375.3	6.1	1,822.3	6.8	2,356.1	6 5	2,829.0	7.0
Of which:																		
India	38.6	1.0	106.0	1.0	327.1	2.0	321.5	1.6	278.5	1.3	252.2	1.1	434.8	1.6	539.2	1.5	654 5	1.6
Iran	—	—	—	—	22 2	0 1	114 9	0.6	85.7	0.4	35.1	0.2	223 8	0.8	225.3	0.6	344.6	0.8
Indonesia	0.3	—	8.3	0 1	49.2	0.3	71.4	0.4	2 4	0.0	11.4	0.1	9.1	0.0	10.9	0 0	2.5	0.0
Pakistan	—	—	19.7	0.2	58.0	0.4	69.2	0.4	82 4	0.4	73.1	0.3	141.1	0.5	118.3	0 3	162.0	0.4
Japan	—	—	88.7	0 8	265.5	1.7	495.3	2.5	229.4	1.1	497.8	2.2	223.1	0.8	471.6	1.3	550.0	1.4
Africa	73.4	1.9	655.4	6.3	798.7	5.0	657.3	3.3	607.4	2 8	597.8	2.7	902.5	3.4	972.7	2.7	1,069.3	2.6
Of which:																		
Egypt	72.6	1 9	449 0	4.3	301.7	1.9	305.6	1.6	223.3	1.0	196.6	0.9	371.4	1.4	297.8	0.8	154 2	0.4
Ghana	—	—	13.3	0.2	61.7	0.4	74 0	0.4	60.5	0.3	48.7	0.2	57.1	0.2	143.5	0.4	60.8	0.1
Tunisia	—	—	26 9	0.3	78 3	0.5	75.8	0.4	75.3	0.4	66.8	0.3	77.3	0.3	64.9	0.2	17.5	0.0
Guinea	—	—	—	—	29.9	0.2	49.0	0.3	34.7	0.2	32.9	0.2	24.0	0.1	16.1	0.0	15.8	0.0
Sudan	—	—	3.0	—	50.6	0.3	8.8	0.0	3.7	0.0	26.9	0.1	51.1	0.2	37.6	0.1	11.5	0.0
Other	41.0	1.1	179.2	1.7	257.1	1.6	243.8	1.2	283.4	1.3	328.7	1.5	354.3	1.3	416.6	1.2	445.5	1.1

[a] Data converted at US$1=12.50 dinars.   SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia* (1948, 1960 and 1965 through 1971).

TABLE 3.9: Exports of Commodity Groups by Region

(In % of Respective Totals)

SITC			EEC		EFTA		US		Sino-Soviet		LDCs		Other		Total	
			1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
0–9		Total	25.6	33.0	15.6	14.4	6.8	5.3	33.0	32.5	15.1	11.4	3.9	3.4	100	100
0		Food and live animals	40.0	56.3	27.4	17.2	1.3	5.5	17.6	13.7	5.4	2.0	8.3	5.3	100	100
	01	Meat and meat preparation	30.5	45.9	40.4	22.8	—	8.7	22.4	12.6	3.2	1.4	3.5	8.6	100	100
	044	Maize	45.6	74.6	42.1	18.4		—	8.7	6.5	0.8	0.5	2.9	—	100	100
	05	Fruit and vegetables	33.8	54.2	16.7	19.3	7.2	6.8	38.3	17.2	1.8	1.0	2.3	1.5	100	100
1		Beverages and tobacco	27.9	13.8	4.5	6.9	19.2	8.7	40.0	67.0	7.2	1.7	1.2	1.9	100	100
	112	Wine	40.4	26.0	11.2	16.7	2.2	1.0	44.9	55.2	—	—	1.2	1.1	100	100
	12	Tobacco	23.4	11.1	2.0	5.7	25.4	14.6	32.6	61.8	9.0	3.1	1.5	3.7	100	100
2		Crude materials (excl. fuels)	43.8	55.0	12.3	9.5	4.4	1.9	25.5	19.6	11.4	7.0	2.6	7.0	100	100
		Wood, lumber		51.8		7.7		—		8.8		11.6		10.1	100	100
		Bauxite and al. concentrate		44.8		8.3		—		46.9		—			100	100
3		Mineral fuels	19.6	35.0	37.3	50.0	—	—	19.6	15.0	12.0	—	11.5	—	100	100
5		Chemicals	11.4	18.6	13.5	10.3	2.2	3.0	47.6	53.6	16.2	11.3	9.1	3.2	100	100
6		Manufacture by materials	15.5	33.7	9.9	17.0	13.3	5.3	37.8	30.0	21.4	11.4	2.1	2.6	100	100
	61	Leather and manufac. thereof	28.2	57.9	10.3	19.7	12.8	3.3	38.5	4.0	5.1	10.0	5.2	5.1	100	100
	63	Wood and cork (excl. furnit.)	14.9	22.0	14.2	12.7	14.2	8.1	40.3	36.0	12.7	20.0	3.7	1.2	100	100
	64	Paper and manuf. thereof	4.5	24.8	—	13.9	—	—	29.2	25.6	54.2	29.0	12.1	6.7	100	100
	65	Textile yarn and fabrics	30.9	53.8	18.2	11.4	—	2.1	13.3	18.7	33.7	12.5	3.9	1.5	100	100
	66	Nonmetallic mineral (manu.)	25.3	38.2	6.0	6.0	4.8	2.6	26.5	49.0	30.0	2.6	7.3	1.6	100	100
	67	Iron and steel	10.0	31.0	11.7	10.0	3.9	3.0	50.6	44.0	21.1	7.8	2.7	4.2	100	100
	68	Nonferrous metals	13.2	32.4	6.3	29.6	25.9	9.4	39.5	20.4	12.9	5.4	2.3	2.8	100	100
7		Machinery and transp. equip.	1.0	14.7	6.7	12.0	—	1.3	52.1	41.7	34.2	26.8	6.0	3.5	100	100
	71	Nonelectrical machinery	0.7	20.0	—	7.1	—	2.0	26.6	46.3	69.0	23.5	3.7	1.1	100	100
	72	Electrical machinery	0.4	20.0	1.3	4.3	—	3.0	70.9	47.3	22.2	23.9	5.2	1.5	100	100
	73	Transport equipment	0.6	9.5	15.6	18.9	0.3	—	59.4	36.4	14.4	29.8	9.7	5.4	100	100
	732	Road motor vehicles	4.0	37.0	14.7	3.0	—	—	49.1	31.0	21.3	27.3	10.9	1.7	100	100
	735	Ships and boats	1.1	1.3	27.6	22.0	0.9	—	32.3	38.0	23.7	33.2	14.5	5.5	100	100
8		Miscellaneous manufac.	20.2	30.0	18.6	13.0	20.2	15.4	36.5	37.9	2.1	2.3	2.4	1.4	100	100
	82	Furniture	17.3	23.0	26.3	9.5	37.6	52.6	16.5	8.6	—	5.3	2.3	1.0	100	100
	84	Clothing	29.0	37.0	21.0	15.4	1.6	6.1	43.5	39.2	—	1.0	4.8	0.4	100	100
	85	Footwear	9.3	25.6	7.0	9.2	—	2.9	79.1	60.7	—	—	4.7	1.6	100	100

SOURCE: *OECD, Statistics of Foreign Trade*, Series B, No. 3 (1961 and 1970).

TABLE 3.10: Imports of Commodity Groups by Region

(In % of Respective Totals)

SITC		EEC 1960	EEC 1970	EFTA 1960	EFTA 1970	US 1960	US 1970	Sino-Soviet 1960	Sino-Soviet 1970	LDCs 1960	LDCs 1970	Other 1960	Other 1970	Total 1960	Total 1970
0–9	Total	32.5	39.8	13.9	18.1	10.7	5.6	25.6	20.6	12.7	10.4	4.6	5.5	100	100
0	Food and live animals	7.0	14.9	3.4	3.5	26.2	11.9	25.4	12.9	30.3	51.7	7.6	5.0	100	100
04	Cereals	1.0	11.5	—	4.4	66.8	25.8	9.6	44.5	21.6	13.2	1.0	0.6	100	100
2	Crude materials (exl. fuels)	8.6	15.6	6.8	14.7	11.2	5.4	6.1	17.5	51.3	27.4	16.0	19.4	100	100
3	Fuels	6.4	9.4	2.0	5.8	17.8	4.3	66.7	49.3	6.2	31.2	0.9	0.1	100	100
5	Chemicals	44.2	49.4	19.1	27.0	5.3	3.4	27.8	16.5	2.5	1.9	1.2	1.9	100	100
6	Manufacturers semimanuf.	37.1	37.8	14.3	23.9	6.9	2.1	31.7	25.0	7.0	4.7	3.1	6.5	100	100
65	Textile yarn and fabrics	44.1	51.2	9.8	21.6	—	—	29.4	15.3	12.4	8.1	4.1	3.8	100	100
67	Iron and steel	44.7	33.0	18.0	10.0	—	—	34.4	40.6	1.7	—	1.2	16.3	100	100
68	Nonferrous metals	7.0	17.7	12.5	51.2	53.0	6.3	8.0	18.5	7.5	5.0	12.0	1.5	100	100
7	Machinery and trans. equip.	47.0	55.2	20.2	16.4	7.1	8.3	23.1	16.1	0.6	1.8	2.0	2.2	100	100
71	Nonelectrical machinery	47.6	57.4	24.0	21.5	6.6	6.0	20.2	14.0	0.6	0.4	1.1	0.8	100	100
72	Electrical machinery	47.4	60.5	20.2	18.6	3.7	2.8	28.0	15.1	—	0.8	0.7	2.3	100	100
73	Transport equipment	44.9	49.4	8.4	8.1	10.6	14.1	28.5	18.7	1.2	4.4	6.3	4.4	100	100
8	Other manufactures	39.5	50.7	10.3	19.2	10.0	1.4	38.0	24.0	—	1.4	2.3	3.5	100	100

SOURCE: *OECD, Statistics of Foreign Trade*, Series B, No. 3 (1961 and 1970).

TABLE 3.11: Trade Balance with Comecon Countries

(In Thousands of Current Dinars)[a]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1960–71
Albania	−3,465	−948	−990	−6,476	−9,729	989	−1,746	9,990	−19,061	2,793	—	—	−28,643
Bulgaria	−15,427	−48,922	−72,353	−19,181	−104,981	−899,560	−282,560	120	258	−90,472	−134,000	−180,000	−1,037,483
Czechoslovakia	−6,971	−33,578	−55,440	−247,417	−456,451	−2,135	−340,715	−558,845	−604,422	−736,580	−778,000	−470,000	−4,290,354
East Germany	93,513	−131,959	−28,586	−137,197	−117,763	156,033	−303,628	−74,264	−233,068	−466,209	−289,000	−287,000	−1,819,128
Hungary	−207,900	−187,110	−123,503	−167,887	−147,588	−49,583	−48,166	−41,896	−75,405	793	−277,000	−191,000	−1,516,205
Poland	−198,948	146,437	126,266	61,999	−248,953	89,445	−196,734	54,422	−95,781	−7,055	64,000	112,000	−92,902
Romania	−48,840	34,732	44,220	−19,181	−3,887	−39,584	−51,668	23,949	8,745	−35,067	−71,000	−192,000	−349,581
USSR	−26,647	252,243	−186,656	−185,666	205,779	1,000,383	617,446	682,719	114,438	315,741	604,000	−166,000	2,599,112
Total Comecon	−414,662	30,896	−297,041	−349,717	−883,573	1,065,623	−607,771	96,389	−904,296	−1,016,056	−881,000	−1,374,000	−5,535,208

[a] Converted at the exchange rate of US$1=12.50 dinars.

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia* (1960–71).

TABLE 3.12: Direction of Trade with Western Markets

(%)

	1950	1955	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
							Exports							
US	16.0	16.0	12.1	14.3	17.1	11.9	13.1	15.1	14.3	13.2	14.8	11.6	12.7	13.0
EFTA	43.0	30.7	34.7	32.8	30.5	27.1	28.9	23.4	25.2	24.5	26.4	26.5	25.3	26.8
Austria	12.7	9.0	11.4	9.7	8.1	6.7	7.3	5.8	7.1	7.2	7.0	5.8	5.7	5.2
Denmark	0.7	0.5	0.6	0.7	0.6	0.8	1.2	0.9	0.7	0.6	0.7	0.7	0.7	0.7
Sweden	2.9	0.8	1.8	2.1	1.8	2.7	1.9	2.0	2.6	2.0	2.7	2.1	2.1	1.5
Switzerland	4.7	7.9	3.2	2.8	5.7	3.6	4.4	4.8	6.2	6.4	6.0	6.5	5.9	6.5
UK	22.8	12.5	17.8	17.5	14.2	13.2	14.1	9.9	8.6	8.3	10.0	11.3	10.8	12.9
EEC	40.9	53.3	53.1	52.9	52.3	61.0	58.0	61.4	60.5	62.3	58.7	61.9	62.0	60.2
Belgium-Luxembourg	3.6	1.5	1.7	1.7	1.3	1.0	1.4	1.6	1.6	1.4	1.7	1.5	1.0	1.0
France	4.1	5.4	3.2	3.5	2.8	4.1	4.5	4.0	5.2	4.7	4.6	5.5	7.2	6.6
Netherlands	4.6	3.9	2.2	2.1	1.6	1.6	2.3	2.4	2.8	2.5	2.7	2.8	3.0	2.8
Italy	13.9	23.2	27.8	25.5	27.2	36.6	31.5	32.7	31.2	38.1	30.2	31.4	28.6	25.8
Germany	14.7	19.3	18.1	20.1	19.3	17.8	18.3	20.8	19.7	15.7	19.4	20.7	22.2	23.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
							Imports							
US	24.8	41.3	26.0	27.5	32.5	29.9	24.2	28.0	24.2	11.8	8.4	6.6	8.8	10.0
EFTA	34.2	21.7	24.5	21.1	22.1	23.5	23.0	24.0	25.7	24.4	26.3	30.0	27.9	27.9
Austria	8.8	5.4	6.7	4.9	5.7	5.4	4.9	4.9	5.0	6.0	7.7	8.0	8.3	7.7
Denmark	0.4	0.4	0.9	0.9	0.4	0.8	0.6	0.9	0.4	0.5	0.6	0.6	0.5	0.6
Sweden	1.6	1.1	1.6	1.5	1.8	2.1	2.3	2.1	1.5	1.7	1.9	2.3	2.2	2.4
Switzerland	4.0	3.9	3.5	3.7	3.0	3.8	3.6	3.5	4.3	4.7	6.0	7.5	7.1	7.2
UK	19.4	11.0	11.9	10.1	11.2	11.3	11.7	12.7	14.4	11.4	10.7	11.7	9.8	10.0
EEC	41.0	37.0	49.4	51.4	45.7	46.6	52.8	48.0	50.1	63.8	64.7	63.3	63.3	62.1
Belgium-Luxembourg	2.0	1.7	1.8	2.2	1.5	1.6	1.8	1.7	2.1	3.0	1.8	1.6	2.2	1.9
France	3.4	3.4	5.4	3.7	4.9	7.8	7.2	7.0	5.7	8.0	6.1	5.5	6.0	6.5
Netherlands	4.7	3.6	3.4	3.1	2.7	3.3	3.8	3.2	2.9	3.2	2.8	2.9	2.7	2.4
Italy	12.0	12.4	17.0	20.5	18.4	18.2	24.4	19.7	20.5	21.8	24.6	24.0	20.8	20.1
Germany	19.0	15.9	21.8	22.0	18.0	15.7	15.6	16.4	19.0	27.9	29.5	29.3	31.5	31.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: *Statistics of Foreign Trade of the SFR Yugoslavia.*

TABLE 3.13: Receipts and Payments for Services

(In Millions of US$)

	1965			1966			1967			1968			1969			1970			1971			1972 [a]		
	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net
Workers' remittances	32	—	32	64	—	64	89	—	89	122	—	122	206	—	206	440	—	440	652	—	652	780	—	780
Tourism	81	18	63	117	35	82	150	52	98	189	53	136	241	73	168	275	129	146	360	220	140	450	240	210
Transportation	194	76	118	226	86	140	232	92	140	247	103	144	280	117	163	349	148	201	385	164	221	470	220	250
Investment income [b]	8	61	—53	6	76	—70	8	75	—67	6	85	—77	12	102	—90	18	128	—110	17	147	—130	18	168	—150
Government, n.i.e. [c]	24	30	—6	28	38	—10	15	12	3	16	13	3	29	9	20	15	12	3 }	251	83	168 }	290	129	161
Insurance	12	7	5	11	7	4	14	8	6	12	11	1	18	12	6	15	7	8 }						
Other services	54	21	33	77	26	51	114	42	72	111	52	59	91	59	32	155	50	105 }						
Total	405	213	192	529	268	261	622	281	341	703	317	386	877	372	505	1,277	484	793	1,665	614	1,051	2,008	757	1,251

[a] Preliminary.
[b] Include investment income paid in local currency: US$9 million in 1965, and US$10 million in each of 1966, 1967, 1968, 1969 and 1970.
[c] Beginning with 1967, some regrouping of items was made.

SOURCE: National Bank of Yugoslavia.

TABLE 3.14: Workers' Remittances

(In Millions of US$)

	1965	1966	1967	1968	1969	1970	1971	1972*
DM	20.8	38.4	47.4	59.3	115.5	296.5	445.3	546.0
Aust. Schil.	3.4	10.6	15.7	20.5	21.9	35.5	57.2	69.0
$	1.8	2.6	5.0	10.4	19.4	31.2	44.9	44.0
FF	1.8	3.7	6.6	10.9	17.5	23.5	29.4	30.0
Lira	0.3	0.8	2.9	4.8	10.2	23.0	24.9	20.0
Other currencies	4.1	7.9	12.3	16.4	21.5	30.9	49.9	72.0
Total	32.2	64.0	89.9	122.3	206.0	440.6	651.6	780.0

* Estimated on the basis of the first eight months.

SOURCE: National Bank of Yugoslavia.

TABLE 3.15: Gross and Net Receipts from Invisibles in Convertible Currency

(In Millions of US$)

	1965		1966		1967		1968		1969		1970		1971		1972 [a]	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Workers' remittances	32	32	64	64	89	89	122	122	206	206	440	440	652	652	780	780
Tourism	68	60	100	na	134	88	168	121	217	145	254	132	340	128	430	200
Transportation	105	63	136	na	139	84	158	92	168	96	195	112	300	141	370	177
Investment income	7	—53	5	na	7	—66	6	—76	10	—88	16	—110	16	—127	15	—145
Other services	75	—22	96	na	119	73	115	49	115	86	154	91	208	138	240	130
Subtotal	287	80	401	na	488	268	569	308	716	445	1,059	665	1,516	932	1,835	1,142
Transfers (net)	(77)	77	(59)	59	(32)	32	(38)	38	(45)	45	(61)	61	(64)	64	(70)	70
Total [b]	364	157	460	na	520	300	607	346	761	490	1,120	726	1,580	996	1,905	1,212

[a] Preliminary.

[b] Data for net transfers have been used to calculate the gross figures for the total.

SOURCE: National Bank of Yugsolavia. Data on gross receipts from transportation, investment income and other services for 1965 to 1970 have been estimated on the basis of data on net figures and data for 1971 and 1972.

TABLE 3.16: Medium- and Long-Term Capital Flows

(In Millions of US$)

	1955	1960	1965	1966	1967	1968	1969	1970	1971[a]	1972[b]
Foreign capital										
Gross inflow[c]	39	175	328	382	351	390	517	636	878	970
Repayments[c]	32	82	165	178	173	225	264	367	504	630
Net inflow	7	93	163	204	178	165	253	269	374	340
Of which: official capital	1	3	90	133	18	11	52	75	150	—
Eastern Europe	—	—3	—19	7	14	10	53	64	38	—
Other bilateral	—4	8	71	107	—6	—15	—22	—19	79	—
US	—3	13	60	115	10	4	—19	—43	26	—
Other	—1	—5	11	—8	—16	—19	—3	24	53	—
International	5	—2	38	19	10	16	21	30	33	38
Of which: IBRD	5	—2	35	19	11	16	22	30	33	38
Private capital	6	90	73	71	160	154	201	194	224	—
Yugoslav export credits										
Gross outflow	na	24	72	75	85	104	137	97	71	140
Repayments	na	9	28	36	46	58	45	47	55	120
Net	na	—15	—44	—39	—39	—46	—92	—50	—16	—20
Total capital inflow, net[d]	7	78	119	165	139	119	161	232	358	320

[a] Preliminary.
[b] Estimates.
[c] Includes agriculture import loans net.
[d] Excludes IMF.

SOURCE: Data submitted by the Yugoslav authorities.

TABLE 3.17: Foreign Exchange Reserves

(In Millions of US$)

	1960	1965	1966	1967	1968	1969	1970	1971	1972 [a]
Gold and convertible foreign exchange	22	115	126	137	184	342	244	314	887
National Bank [b]	13	104	115	80	132	253	140	212	733
Commercial banks	9	11	11	57	52	89	104	102	154
Bilateral balances	6	46	69	170	123	65	—34	—34	60
Memorandum item Convertible foreign exchange reserves as % of imports from the convertible currency area	4.5	14.2	13.2	11.9	15.2	22.8	11.4	13.6	37.0
In months of imports	0.5	1.8	1.6	1.4	1.8 ·	2.7	1.4	1.6	4.4

[a] Preliminary.
[b] Including IMF Gold Tranche Position and SDR holdings.
SOURCE: National Bank of Yugoslavia.

TABLE 4.1: Total External Debt (Public and Nonpublic) Outstanding as of December 31, 1971,[a] Debt Repayable in Foreign Currency

(In Millions of US$)

Source	1963 Public and Nonpublic Disbursed only	Including Undisbursed	1965 Public and Nonpublic Disbursed only	Including Undisbursed	1967 Public and Nonpublic Disbursed only	Including Undisbursed	1969 Public and Nonpublic Disbursed only	Including Undisbursed	1970 Public and Nonpublic Disbursed only	Including Undisbursed	1971 Public and Nonpublic Disbursed only	Including Undisbursed
Total	687.5	1,114 2	941.0	1,745 8	1,356 6	2,136 9	1,792 3	2,676.6	2,061 0	2,977.4	2,705.8	3,691.7
Convertible currency					1,225.3	1,530.7	1,645.2	2,209.8	1,848.0	2,468.1	2,417.9	3,157.8
Nonconvertible currency					131.3	606.2	147 1	466 8	213.0	509.3	287.9	533.9
Suppliers' credits	209.3	377 7	258.5	534.2	500.9	729.9	814.6	1,208.2	1,034.5 b	1,478.3 b	1,535.1	2,015.2
Convertible currency area			258.7	523 3	318.2	395.4	802.9	1,153.0	1,022.6	1,381.1	1,477.4	1,862.4
Austria			9.1	13.3	7.4	7.6	17.2	34.3	25.3	35.7	35.1	40.4
Belgium			8.4	30 0	28.1	29.6	30.1	42.0	35.4	57.2	77.3	61.1
Canada			8.3	8.3	6.2	6.2	—	—	0.1	8.9	9.9	10.8
Denmark			1.6	2 3	0.8	0.9	1 5	2 3	1.4	3 6	1.6	1.6
France			30.8	60.8	34 3	40.8	65.9	108.2	82.0	120.4	118.9	143.4
Germany (Fed. Rep. of)			20 5	33.0	15.3	18.9	187 4	258 0	215.6	284.2	286.1	368.8
India			—	—	—	—	—	—	—	—	10.7	39.0
Iraq			—	—	—	—	—	—	—	1 5	—	2.2
Italy			78.3	133.5	74.5	90 4	98.7	135.0	115.9	152.6	145.3	186.4
Japan			25.8	96.8	55.1	83.3	51.4	59.0	47.7	48.4	41.3	41.3
Netherlands			3.7	5.2	3 5	4.0	11.9	12.3	13.3	14.1	15.2	16.5
Norway			3.0	6 3	2.3	3.8	2.2	2.7	3.1	4.7	6.6	10.2
Pakistan			—	—	—	—	—	—	—	0.1	—	—
Sweden			3 8	7.2	4.6	4.7	14.0	24.3	17 2	33.8	30.6	38.2
Switzerland			3.5	11 3	5.3	9.9	79.4	99.5	131.1	137.9	204.4	217.3
Tunisia			—	—	—	—	—	—	—	0.1	—	—
United Kingdom			56.9	105.2	59.2	70.1	60.2	123.9	75.5	158 8	140.4	192.2
USA			5 0	10.1	21.6	25.2	183.0	251.3	258.6	326 5	372.4	491.2
Nonallocated			—	—	123.6 e	178.2 e	—	—	—	—	1.7	1.8
Nonconvertible currency area			—	10.9	59.1	156.3	11.7	55 2	11.9	97.2	57.7	152.8
Bulgaria			—	—	—	—	—	—	—	—	4.0	7.8
Czechoslovakia			—	—	—	—	5.9	21.3	5.9	24.6	12.1	28.8
East Germany			—	—	—	—	2.3	26.7	1 9	58.3	15.8	81.8
Hungary			—	10.9	—	—	1.5	1.6	0.9	1.1	0.3	0.9
Poland			—	—	—	—	2.0	4.7	3.1	13.1	9.5	16.6
Rumania			—	—	—	—	—	—	—	—	16.0	16.0
USSR			—	—	—	—	—	0.9	0.1	0.1	—	0.9
Credits from private banks	8.8	10.5	22.2	58.5	48.4	55.0	108 2	140.7	106.4	136 6	132.2	152.4
Austria			0.2	1.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
France			0.2	0.3	—	—	—	—	—	—	—	—
Germany (Fed. Rep. of)			17.8	39 5	39.5	39.5	102.5	129.8	101.7	124.4	127.3	140.6
Switzerland			—	—	—	—	—	—	—	2.7	—	3.0
United Kingdom			4.0	17.5	8.7	15.3	5.5	10.7	4.5	9.3	4.8	8.7
Publicly issued bonds	29.4	29.4	29.8	29.8	26.8	26.8	22.9	22.9	20.8	20.8	20.1	20.1
France			5.6	5.6	3.5	3.5	1.3	1.3	—	—	—	—
Switzerland			2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0
Belgium			0.027	0.027	—	—	—	—	—	—	—	—
United Kingdom			0 4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
USA			20.1	20 1	20.1	20.1	19.0	19.0	18.4	18.4	17.8	17.8
Netherlands			0.018	0.018	—	—	—	—	—	—	—	—
Multiple lenders			1.7	1.7	0.8	0.8	0.3	0.3	—	—	—	—
Nationalization	14.8	14.8	17 4	17.4	12.2	12.2	5.9	5.9	4 8	4.8	3.6	3.6
Argentina			0 45	0.45	0.34	0.34	—	—	—	—	—	—
Belgium			2.7	2.7	2.0	2.0	1.3	1.3	1.0	1.0	0.7	0.7
USA			3 5	3.5	2.1	2.1	—	—	—	—	—	—
France			6.0	6.0	4.6	4.6	3.2	3.2	2.5	2.5	1.8	1.8
Netherlands			—	—	—	—	—	—	—	—	—	—
Italy			2.6	2.6	2.1	2.1	1.3	1.3	1.3	1.3	1.0	1.0
Turkey			2.1	2.1	1.0	1.0	—	—	—	—	—	—

Other private financial institutions								27.3	27.7	2.0	2.8
Germany (Fed. Rep. of)								27.3	27.7	0.4	0.4
Italy										—	0.1
Netherlands										—	1.6
Switzerland										—	0.7
Loans from international organizations	88.1	180 1	158.7	247.4	188.1	258.0	224.8	338.6	251.5	426.4	284.6	524.9
IBRD	81.6	172.8	148.7	237.4	178.1	248.1	216.3	330.1	243.7	418.6	276.9	517.2
EUROFIMA	6.5	7.4	10.0	10.0	9.9	9.9	8.5	8.5	7.7	7.7	7.7	7.7
Loans from governments	337.1	501.5	454.4	858.8	580.3	1,055.0	615.8	960.3	615.5	882.8	728.2	972.7
Convertible currency area	265.4	379.3	401.3	581.6	507.9	605.2	480.5	548.8	414.6	470.7	498.0	591.6
Austria	6.2	6.2	6.6	6.6	4.5	4.5	1.9	1.9	1.5	1.5	—	—
Belgium	1.2	1.2	—	—	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2
France	19.7	47.5	29.8	45.0	30.0	49.0	14.9	17.7	9.0	11.1	5.9	7.0
Germany (Fed. Rep. of)	44.8	52.5	41.0	43.3	31.1	31.3	28.8	28.8	28.7	28.7	77.6	148.9
Italy	52.8	108.5	88.2	161.6	95.3	134.1	102.3	163.4	89.6	143.1	98.0	118.7
Japan	—	—	—	—	0.3	5.0	4.5	4 5	3.5	3.5	2.9	2.9
Netherlands	4.4	4.5	2.3	2.4	3.9	3.9	2.9	2.9	2.2	2.2	—	—
Switzerland	5.1	5.1	4.2	4 2	3.2	3.2	2.1	2.1	1.4	1.4	0.5	0.5
United Kingdom	32.7	32.9	17.7	20.5	3.0	5.4	1.7	2.4	2.2	2.2	1.9	1.9
USA	98.5	120.9	211.4	298.0	336.1	368.3	321.0	324.7	276.2	276.2	310.9	311.5
Nonconvertible currency area	71.7	122.1	53.1	277.3	72.2	449.8	135.3	411.6	200.9	412.2	230.2	381.1
Czechoslovakia	11.4	18.1	9.6	86.9	14.4	112.7	46.7	111.7	79.8	111.4	103.9	112.9
East Germany	—	3.9	1.1	14.9	9.9	15.4	8.9	8.9	8.9	8.9	6.9	6.9
Hungary	0.2	26.1	4.9	12.1	3.6	3.8	0.4	0.4	0.5	0.5	—	—
Poland	3.2	15.0	4.9	57.3	29.1	65.2	27.3	48.2	32.9	49.1	27.8	27.8
Rumania	—	0.6	0.4	0.4	0.003	16.0	4.5	16.0	8.4	16.0	12.7	16.0
USSR	55.4	55.4	30 5	103.5	14.0	235.5	47.5	226.4	70.3	226.3	78.8	217.5
Bulgaria	1.3	3.0	1.7	2.2	1.2	1.2	—	—	—	—	—	—
Nonallocated	—	—	—	—	0.2	0.0	—	—	—	—	—	—

a Debt with maturity over one year. Includes public debt contracted through October 31, 1972.
b Includes principal in arrears of US$723,000 in suppliers' credits from Belgium.
c Mostly suppliers' and bank credits guaranteed by Yugoslav Commercial Banks. Source: IBRD Report No. EMA-19, Feb. 12, 1970.

SOURCE: IBRD, Economic and Social Data Division; Economic Program Department.

TABLE 4.2: External Debt Outstanding[a] by Credit Source[b] (End of Year)

	1963		1964		1965		1966		1967		1968		1969		1970		1971	
	US$m	%	US$m	%	US$m	%	US$m	%	US$m	%	US$m	%	US$m	%	US$m	%	US$m	%
Governments	501.5	45.0	598.6	41.6	858.8	49.2	864.4	51.3	1,055.0	49.4	953.1	38.2	960.3	35.9	882.8	29.7	972.7	26.3
Convertible currency area	379.3	34.0	456.3	31.7	581.6	33.3	635.4	37.7	605.2	28.3	539.9	21.6	548.8	20.5	470.7	15.8	591.6	16.0
Italy	108.5	9.7	123.2	8.6	161.6	9.3	149.8	8.9	134.1	6.3	115.6	4.6	163.4	6.1	143.1	6.9	118.7	3.0
USA	120.9	10.9	197.1	13.7	20.5	17.1	368.9	21.9	368.3	17.2	345.3	18.8	324.7	12.1	276.2	13.4	311.5	8.0
Other	149.9	13.4	136.0	9.5	399.5	22.9	116.7	6.9	280.8	13.1	79.0	3.1	60.7	2.3	51.4	2.5	191.4	5.0
Nonconvertible currency area	122.1	11.0	142.2	9.9	277.3	15.9	229.0	13.6	449.8	21.0	413.1	16.6	411.6	15.4	412.2	13.8	381.1	10.3
Czechoslovakia	18.1	1.6	19.7	1.4	86.9	5.0	75.5	4.5	112.7	5.3	111.7	4.5	111.7	4.2	111.4	5.4	112.9	3.0
Poland	15.0	1.4	28.4	2.0	57.3	3.3	54.7	3.2	65.2	3.1	48.8	2.0	48.2	1.8	49.1	2.4	27.8	0.8
USSR	55.4	5.0	52.3	3.6	103.5	5.9	76.5	4.5	235.5	11.0	227.0	9.1	226.4	8.5	226.3	11.0	217.5	5.9
Other	33.6	3.0	41.8	2.9	296.6	17.0	22.3	1.3	36.4	1.6	25.6	1.0	25.3	0.9	25.4	1.2	22.9	0.6
International organizations	180.1	16.2	247.2	17.2	247.4	14.2	243.8	14.5	258.0	12.1	316.3	12.7	338.6	12.7	426.4	14.3	525.0	14.2
Privately held debt:																		
Suppliers	377.7	33.9	505.0	35.1	543.2	30.6	477.3	28.3	729.9	34.2	1,065.6	42.7	1,208.2	45.1	1,478.3	49.7	2,015.2	54.6
Convertible currency area					523.3	30.0	477.3	28.3	573.4	26.8	931.9	37.3	1,153.0	43.1	1,381.1	46.2	1,862.4	50.5
France					60.8	3.5	51.0	3.0	40.8	1.9	30.6	1.2	108.2	4.0	120.4	5.8	143.4	3.9
Germany (Fed. Rep. of)					33.0	1.9	26.0	1.5	18.9	0.9	13.6	0.5	258.0	9.6	284.2	13.8	368.8	10.0
Italy					133.5	7.6	113.1	6.7	90.4	4.2	66.2	2.7	135.0	5.0	152.6	7.4	186.4	5.0
Japan	na		na		96.8	5.5	90.5	5.4	83.3	3.9	71.8	2.9	59.2	2.2	48.4	2.3	41.3	1.1
Switzerland					11.3	0.6	11.2	0.7	9.9	0.5	8.0	0.3	99.5	3.7	137.9	6.7	217.3	5.9
United Kingdom					105.2	6.0	94.0	5.6	70.1	3.3	61.7	2.5	123.9	4.6	158.8	7.7	192.2	5.2
USA					10.1	0.6	23.3	1.4	25.2	1.2	21.1	0.8	251.3	9.4	326.5	15 8	491.2	13.3
Other					72.6	4.2	68.2	4.0	234.8	11.0	658.9	26.4	117.9	4.4	152.3	7.4	221.8	6.0
Nonconvertible					19.9	1.1	—	—	156.3	. 7.3	133.7	5.4	55.2	2.1	97.2	3.5	152.8	4.1
Of which:																		
Czechoslovakia	na		na		na		na		na		na		21.3	0.8	24.6	1.2	28.8	8.8
East Germany													26.7	1.0	58.3	2.8	81.8	2.2
Credits from private banks	10.5	0.9	42.2	2.9	58.5	3.4	57.3	3.4	55.0	2.6	126.6	5.1	140.7	5.3	136.6	4.6	152.4	4.1
Germany (Fed. Rep. of)					39.5	2.3	39.5	2.3	39.5	1.8	114.4	4.6	129.9	4.9	124.4	6.0	140.6	3.8
United Kingdom	na		na		17.5	1.0	17.5	1.0	15.3	0.7	12.0	0.5	10.7	0.4	9.3	0.5	8.7	0.2
Other					1.5	0.1	3.0	0.2	2.0	0.1	2.0	0.0	1.0	0.0	2.9	0.1	3.1	0.1
Bonds	29.4	2.6	28.4	2.0	29.8	1.7	28.1	1.7	26.8	1.3	24.9	1.0	22.9	0.9	20.8	0.7	20.1	0.5
Of which:																		
USA	na		na		20.1	1.1	20.1	1.2	20.1	0.9	19.5	0.8	19.0	0.7	18.4	0.9	17.8	0.4
Other	15.0	1.4	16.3	1.2	8.1	0.5	14.8	0.8	12.2	0.4	9.4	0.3	5.9	0.1	32 5	1.0	3.6	—
Total including undisbursed	1,114.2	100 0	1,437.7	100.0	1,746.8	100.0	1,685.7	100.0	2,136.9	100.0	2,495.9	100.0	2,676.6	100.0	2,977.4	100.0	3,691.7	100.0
Total, disbursed	687.5	61.7	811.9	56.5	941.0	53.0	1,115.7	66.2	1,356.3	63.5	1,550.5	62.1	1,792.3	67.0	2,061.0	69.0	2,705.8	73.3

a Including undisbursed.
b Includes public debt contracted through October 31, 1972.

SOURCE: Statistical Annex, Table 4.1.

TABLE 4.3: Service Payments on External Debt

(In Millions of US$)

	1960	1961	1962	1963	1964	1965	1966[a]	1967	1968	1969	1970	1971
Total amortization payments	56.3	62.2	78.3	104.0	117.4	171.5	180.3	171.3	196.2	268.6	374.0	521.7
Public debt	56.3	62.0	78.3	104.0	116.2	171.5	180.3	171.3	196.2	160.0	169.4	130.9
Suppliers' credits	12.1	25.6	40.4	54.9	63.4	76.9	78.6	75.5	78.6	70.9	59.7	44.6
Loans from private banks[b]	—	1.9	3.8	6.1	4.2	4.8	0.2	1.8	5.1	9.2	17.1	2.8
Loans from international organizations	5.4	2.0	2.2	2.4	2.7	3.8	4.8	6.2	7.6	7.8	10.8	12.3
Of which: IBRD	1.8	1.9	2.0	2.1	2.2	3.1	4.3	5.5	6.7	7.1	10.0	11.4
Loans from governments	35.3	28.7	28.4	36.7	43.7	83.0	92.8	80.1	94.4	62.8	79.0	68.8
Convertible	28.5	23.4	20.8	24.8	35.6	52.0	52.7	70.8	62.2	61.3	77.8	51.9
Nonconvertible	6.8	5.3	7.6	11.9	8.1	30.7	40.1	9.3	32.2	1.5	1.2	16.7
Nationalization	2.5	2.7	2.3	2.5	2.3	1.5	2.5	2.0	2.0	2.5	1.0	1.5
Publicly issued bonds	1.0	1.3	1.2	1.4	1.1	0.5	1.4	1.1	1.3	1.2	1.5	0.6
Nonpublic debt								na	na	108.6	204.6	390.8
Convertible currency area								na	na	107.1	202.1	377.6
Nonconvertible currency area								na	na	1.5	2.5	13.2
Total interest payments	9.8	5.3	17.5	25.1	30.6	39.5	49.0	54.5	58.9	72.0	103.7	104.7
Public debt	9.8	5.3	17.5	25.1	30.6	39.5	49.0	54.5	58.9	53.3	72.1	52.4
Suppliers' credits	1.7	1.2	5.0	8.8	9.5	12.3	15.5	16.5	18.7	16.5	24.9	12.2
Loans from private banks[b]	0.4	0.5	—	0.8	0.7	0.6	1.7	2.4	3.7	4.0	10.1	12.5
Loans from international organizations	2.3	2.0	2.8	3.6	6.6	7.3	8.9	9.8	10.7	11.7	13.5	15.7
Of which: IBRD	2.1	2.0	2.6	3.3	5.0	6.8	8.4	9.1	10.2	11.1	13.0	15.2
Loans from governments	5.4	1.6	9.7	11.9	13.8	19.3	22.6	24.5	25.2	20.6	23.1	11.7
Convertible currency area	3.8	1.6	8.1	10.5	11.3	17.5	19.2	22.4	22.1	19.6	21.7	10.9
Nonconvertible currency area	1.6	0.3	1.6	1.4	1.5	1.6	3.4	2.1	3.1	1.0	1.4	0.8
Nationalization	—	—	—	—	—	—	—	—	—	—	—	—
Publicly issued bonds	—	—	—	—	—	—	0.3	0.6	0.5	0.5	0.4	0.3
Nonpublic debt								na	na	18.7	31.6	52.3
Convertible currency area								na	na	18.5	31.3	51.7
Nonconvertible currency area								na	na	0.2	0.3	0.6
Total debt service payments	66.1	67.5	95.8	129.1	148.0	211.0	229.3	225.8	255.1	340.6	477.7	626.4
Convertible currency area	57.7	61.9	86.6	115.8	138.4	177.5	185.8	210.3	251.1	336.4	472.3	595.1
Nonconvertible currency area	8.4	5.6	9.2	13.3	9.6	33.5	43.5	15.5	4.0	4.2	5.4	31.3

[a] Nonpublic debt was not incurred before 1966.
[b] Includes "Other Private Financial Institutions."

SOURCE: IBRD External Debt System, Economic and Social Data Division, Economic Program Department.

TABLE 4.4: Estimated Future Service Payments on External Debt Outstanding, as of December 31, 1971[a]

(In Millions of US$)

	1972	1973	1974	1975	1976	1977	1978
Total amortization payments	723.7	572.7	593.2	409.8	349.7	310.2	259.1
Public debt	200.4	228.5	288.1	206.9	223.7	218.4	191.0
Suppliers' credits	44.4	40.6	31.9	28.4	17.7	14.5	5.5
Loans from private banks [b]	49.5	3.0	62.5	1.9	15.5	21.4	0.4
Loans from international org.	13.9	15.2	17.7	20.2	23.4	27.0	28.8
Of which: IBRD	13.0	14.2	16.8	19.3	22.6	26.2	28.0
Loans from governments:	89.8	166.9	174.1	155.1	165.8	154.2	155.0
Convertible currency area	66.5	95.8	103.3	84.4	94.8	81.5	80.4
Nonconvertible currency area	23.3	71.1	70.8	70.7	71.0	72.7	74.6
Nationalization	1.5	1.5	0.6	—	—	—	—
Publicly issued bonds	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Nonpublic debt	523.3	344.2	305.1	202.9	126.0	91.8	68.1
Convertible currency area	504.8	330.0	281.1	186.1	113.7	81.8	59.2
Nonconvertible currency area	18.5	14.2	24.0	16.8	12.3	10.0	8.9
Total interest payments	114.3	112.1	102.7	87.4	80.2	72.4	72.2
Public debt	58.2	67.1	70.8	68.3	66.2	61.7	64.8
Suppliers' credits	9.6	7.2	5.1	3.3	2.1	1.3	0.5
Loans from private banks [b]	8.7	6.7	6.8	2.5	2.4	0.8	0.1
Loans from international org.	17.7	20.4	24.1	27.9	30.2	31.8	31.0
Of which: IBRD	17.3	20.0	23.8	27.7	30.0	31.6	30.9
Loans from governments:	22.2	32.8	34.8	34.6	31.5	27.8	33.2
Convertible currency area	17.7	26.0	27.1	25.9	21.8	17.1	12.7
Nonconvertible currency area	4.5	6.8	7.7	8.7	9.7	10.7	10.5
Nonpublic debt	56.1	45.0	31.9	19.1	14.0	10.7	7.4
Convertible currency area	55.3	44.3	31.4	18.8	13.7	10.5	7.3
Nonconvertible currency area	0.8	0.7	0.5	0.3	0.3	0.2	0.1
Total debt service payments	838.0	684.8	695.9	497.2	429.9	382.6	331.3
Convertible currency area	790.9	592.0	592.9	400.7	336.6	289.0	237.2
Nonconvertible currency area	47.1	92.8	103.0	96.5	93.3	93.6	94.1

[a] Includes public debt contracted through October 31, 1972.
[b] Includes "Other Private Institutions."

SOURCES IBRD, External Debt Section, Economic and Social Data Division, Economic Analysis and Projections Department.

TABLE 5.1: Revenues and Expenditures of the Federal Budget

(In Millions of Dinars)

		1967	1968	1969	1970	1971 [a]	1972 [b]
I.	Revenue						
	Turnover tax	4,778	5,355	6,599	8,243	5,228	—
	Tax on personal incomes	2,542	2,293	1,554	1,483	25	—
	Customs duties	2,331	2,822	3,108	4,315	7,084	11,668
	Other revenue	297	358	293	326	907	922
	Resources for investments in the economy	—	—	—	—	956	—
	Contributions of republics	—	—	—	—	4,256	12,903
	Total	9,948	10,828	11,554	14,367 [d]	18,456	25,493
II.	Expenditure [c]						
	Defense	5,382	6,406	6,933	7,788	8,853	11,330
	Administration	1,304	1,105	1,205	1,545	1,766	2,507
	Additional funds to republics	1,017	1,140	1,242	1,367	1,530	1,772
	Grants and subsidies to social sector	677	640	527	704	1,075	1,271
	Regional development	97	221	263	304	54	—
	Contribution to social insurance funds	700	828	819	977	870	1,826
	Investments	—	—	—	—	2,036	1,260
	Other expenditure	193	53	210	311	1,765	5,041
	Total	9,370	10,393	11,199	12,996	17,949	25,007
III.	Surplus or deficit	578	435	355	1,371	507	486
IV.	Financing						
	External (net)	—53	—46	—48	—39	—30	—35
	Domestic (net)	—525	—389	—307	—1,332	—477	—451
	Bank borrowing	(...)	(...)	(...)	(—185)	(—237)[f]	(—319)[h]
	Other borrowing	(—96)	(—82)	(—77)	(—80)	(—82)	(—12)
	Reserve funds and others	(...)	(...)	(...)	(—1,067)[e]	(—158)[g]	(—120)

[a] Preliminary estimates. Because of tax changes the data are not comparable with previous period.
[b] According to the preliminary estimates for July 1972.
[c] Excludes reserve funds of federation.
[d] Includes resources for scientific investigation.
[e] Includes 132 million dinars allotted to the Reserve Funds and 935 million dinars deposited in special accounts (revenue surpluses).
[f] Includes repayments on agriculture and amortization of special bonds for pensions (87+150 million).
[g] Includes Reserve Fund allocation of 151 million and 7 million to special accounts.
[h] Includes repayments on special bonds for pensions issued in 1970 and 1971.
SOURCE: Data submitted by Yugoslav authorities.

TABLE 5.2: Consolidated Budgets of Republics and Communes

					(In Millions of Dinars)	
	1967	1968	1969	1970	1971 [a]	1972
Revenue						
Income tax	5,874	7,120	8,533	11,043	12,758	14,514
Sales and excise taxes	3,182	3,812	4,810	5,936	7,812	10,671
Fees and charges for services	556	563	708	860	968	998
Other revenue	580	618	479	206	716	1,026
Transfer from federal budget	1,017	1,140	1,242	1,367	1,429	1,772
Total	11,209	13,253	15,772	19,412	23,683	28,981
Expenditures [b]						
Defense	19	28	47	77	97	122
Education	4,154	4,729	5,939	7,442	9,302	10,783
Social security and health protection	647	1,142	1,385	1,607	2,894	3,018
Administration	2,949	3,229	3,730	4,443	5,403	6,758
Current transfers to the economy	352	351	441	554	424	926
Communal activities	397	451	577	666	880	917
Grants to nonbudget institutions	1,011	1,145	1,462	1,674	2,001	2,052
Other	259	364	408	416	721	1,742
Noneconomic investment	1,088	1,240	1,365	1,623	1,552	2,040
Total	10,876	12,679	15,354	18,502	23,274	28,358
Overall surplus or deficit	333	574	418	910	409	623
Allocation to reserve funds	(...)	(122)	(105)	(113)	(235)	(279)

[a] These figures relate to the original budget presentation before the revision of September 1971 according to the new budgetary system. Contributions of the republics to federal budgets under the new system are not included in expenditures and turnover tax revenues now accruing to the republics' budgets are not included in revenues. Thus, data for 1971 are not strictly comparable to 1970 or to 1972.

[b] Excluding allotments to reserve fund.

SOURCE: Data submitted by the Yugoslav authorities.

TABLE 5.3: Receipts and Expenditures of Federal Extrabudgetary Funds[a]

(In Millions of Dinars)

		1967	1968	1969	1970	1971[b] Planned
I.	Revenue					
	Business capital tax	2,805	3,125	3,455	3,130	820
	Participation in interest income of the National Bank	627	558	600	709	750
	Participation in excise and sales tax (turnover tax)	530	533	682	960	—
	Repayment of principal and interest on government investment funds	1,320	1,319	1,621	1,370	2,838
	Other revenue[c]	203	874	1,216	356[g]	545
	Compulsory loan	—	—	—	—	2,537
	Contribution from republics	—	—	—	—	287
	Federal budget	—	—	—	—	945
	Total	5,485	6,409	7,574	6,525	8,722
II.	Expenditure					
	Investments for underdeveloped areas	1,125	1,620	1,976	2,031	2,824
	Investment credits[d]	2,136	2,463	3,203	3,748	6,710
	Credit for financing export of capital goods and investment works abroad	836	735	1,054	1,359	1,700
	Other special purpose credit	448	435	987	834	—
	Miscellaneous obligations	888	—	—	—	—
	Total	5,433	5,253	7,220	7,972	11,234
III.	Surplus or deficit	52	1,156	354	—1,447	2,512
IV.	Financing					
	External	—543	—758	—681	—835	—1,474
	Borrowing	(800)	(489)	(493)	(395)	(225)
	Amortization[e]	(—1,343)	(—1,247)	(—1,174)	(—1,230)	(—1,699)
	Domestic	491	—398	327	2,282	3,986
	Bank borrowing (net)	(...)	(...)	(...)	(1,812)	—
	Balance (residual)[f]	(...)	(...)	(...)	(470)	—

[a] The Educational Fund is included in the various government budgets. The social security funds are accounted separately.

[b] Actuals for 1971 and 1972 were requested, but have not yet been supplied.

[c] Includes earnings on foreign exchange transactions and earnings on dinar deposits of the federation in the National Bank.

[d] Excludes settlement of obligations from previous years amounting to 90 million dinars in 1969 and 798 million dinars (planned) in 1970.

[e] Including payments for nationalized property.

[f] Includes forced deposits and financing of miscellaneous obligations of 888 million dinars in 1967 and their formal settlement in 1969 (90 million dinars) and 1970 (798 million dinars planned).

[g] Excluding bond issue of 1,222 million dinars (planned) and 597 million dinars (actual) which is treated as a financing item.

SOURCE: Data submitted by the Yugoslav authorities and adjusted by IBRD staff.

TABLE 5.4: Receipts and Expenditures of Nonfederal Extrabudgetary Funds[a]

		(In Millions of Dinars)		
	1967	1968	1969	1970
Revenue	2,578	2,103	2,254	2,268
Resources for investment in the economy	84	1	—	—
Funds of joint reserves of economic				
organizations	667	418	473	646
Funds for sociopolitical communities	623	601	655	1,020
Funds for the reconstruction and				
construction of Skopje	974	933	970	348
Other resources	220	150	156	254
Expenditure	2,578	2,103	2,254	2,808
Investments	1,689	1,795	1,887	2,704
Others[b]	889	308	367	104

[a] An updated version of this table was requested but has not yet been supplied.
[b] Residual item.

SOURCE: Data submitted by the Yugoslav authorities.

TABLE 5.5: Receipts of Social Insurance Funds

(In Millions of Dinars)

	1966	1967	1968	1969	1970	1971	1972[a]
Health Insurance							
1. Basic contribution	3,514	2,830	3,083	3,766	4,744	6,526	8,908
2. Additional supplementary contribution	730	711	787	950	1,140	554	743
3. Contribution for the Health Insurance of pensioners and pension beneficiaries[b]	467	477	569	700	899	1,110	1,490
4. Others	260	229	249	344	505	1,138	1,527
5. Total 1. through 4.	4,971	4,247	4,688	5,761	7,318	9,328	12,668
6. Transfers		578	704	877	1,109	480	644
7. Total 5.–6.		3,669	3,984	4,884	6,209	8,848	12,024
Disability and Pension Insurance Fund							
8. Basic contribution	4,850	5,214	6,401	8,130	10,056	12,585	15,857
9. Additional supplementary contribution	62	68	141	186	249	235	313
10. Transfers from federation budget	69	770	981	1,609	1,789	1,456	1,621
11. Transfers from republic budgets	—	111	278	376	497	632	805
12. Others	313	35	77	122	195	507	676
13. Total 8. through 12.	5,294	6,199	7,877	10,423	12,787	15,415	19,272
14. Grand total (7 + 13 − 3)[c]	9,798	9,391	11,293	14,608	18,996	23,153	31,296
15. Total original revenues (14 less 10 and 11)	9,729	8,509	10,035	12,622	16,710	21,065	28,870

[a] Estimate.
[b] Transfers from the Disability and Pension Insurance Funds (below).
[c] Since line 3 is a transfer from one fund to the other, it is omitted from the consolidation to prevent a double count of revenues.

SOURCE: Federal Secretariat for Finance.

TABLE 5.6: Public Revenues: Consolidation

(In Millions of Dinars, unless Otherwise Specified)

	1967						1968						1969						1970					
	Federal	Rep. + Com-mune	Federal Extra-budget Funds	Non-federal Extra-budget Funds	Total	% of Grand Total	Federal	Rep. + Com-mune	Federal Extra-budget Funds	Non-federal Extra-budget Funds	Total	% of Grand Total	Federal	Rep + Com-mune	Federal Extra-budget Funds	Non-federal Extra-budget Funds	Total	% of Grand Total	Federal	Rep. + Com-mune	Federal Extra-budget Funds	Non-federal Extra-budget Funds	Total	% of Grand Total
Tax revenues																								
Direct taxes	2,542	5,874	2,805	8,509	19,730	53 7	2,293	7,120	3,125	10,035	22,573	54 4	1,554	8,533	3,455	12,622	26,164	53.9	1,483	11,043	3,130	15,811	31,467	55 2
Tax on business capital	—	—	2,805	—	2,805	7.6	—	—	3,125	—	3,125	7.5	—	—	3,455	—	3,455	71 1	—	—	3,130	—	3,130	5.5
Taxes on personal income[a]	2,542	5,874	—	—	8,416	22 9	2,293	7,120	—	—	9,413	22.7	1,554	8,533	—	—	10,087	20 8	1,483	11,043	—	—	12,526	22 0
Social ins. contributions[b]	—	—	—	8,509	8,509	23.2	—	—	—	10,035	10,035	24.2	—	—	—	12,622	12,622	26.0	—	—	—	15,811	15,811	27.7
Indirect taxes	7,109	3,182	530	—	10,821	29 5	8,177	3,812	533	—	12,522	30.2	9,707	4,810	682	—	15,199	31.3	12,558	5,936	960	—	19,454	34.1
Turnover taxes	4,778	3,182	530	—	8,490	23 1	5,355	3,812	533	—	9,700	23 4	6,599	4,810	682	—	12,091	24.9	8,243	5,936	960	—	15,139	26.6
Customs duties	2,331	—	—	—	2,331	6 3	2,822	—	—	—	2,822	6.8	3,108	—	—	—	3,108	6.4	4,315	—	—	—	4,315	7.6
Total	9,651	9,056	3,335	8,509	30,551	83 2	10,470	10,932	3,658	10,035	35,095	84 6	11,261	13,343	4,137	12,622	41,363	85 2	14,041	16,979	4,090	15,811	50,921	89.3
Nontax revenues																								
Fees and charges for services	—	556	—	—	556	1 5	—	563	—	—	563	1 4	—	708	—	—	708	1.5	—	860	—	—	860	1.5
Repayment of principal and interest on investment credits	—	—	1,320	—	1,320	3.6	—	—	1,319	—	1,319	3 2	—	—	1,621	—	1,621	3.3	—	—	1,370	—	1,370	2.4
Interest income from National Bank	—	—	627	—	627	1.7	—	—	558	—	558	1.3	—	—	600	—	600	1.2	—	—	709	—	709	1.2
Other revenue	297	580	203	—	1,080	2.9	358	618	874	—	1,850	4 5	293	479	1,216	—	1,988	4.1	326	206	356	—	888	1.6
Resources of nonfederal extra-budgetary funds	—	—	—	2,578	2,578	7.0	—	—	—	2,103	2,103	5 1	—	—	—	2,254	2,254	4.6	—	—	—	2,268	2,268	4.0
Total	297	1,136	2,150	2,578	6,161	16.8	358	1,181	2,751	2,103	6,393	15.4	293	1,187	3,437	2,254	7,171	14 8	326	1,066	2,435	2,268	6,095	10 7
Grand total					36,712	100 0					41,488	100 0					48,534	100.0					57,016	100.0

[a] Includes earmarked education contributions to republican and communal extrabudgetary authorities.
[b] Though described as "contributions," these are really direct taxes on personal incomes.

SOURCES: Statistical Annex, Tables 5.1, 5 2, 5.3, 5.4 and 5 5. Some important republican extrabudgetary funds, such as the Road Funds, have been excluded owing to lack of data. These exclusions may add up to a 5 percent underestimation of public revenues

TABLE 5.7: Public Expenditure: Consolidation

	1967				1968				1969				1970			
	Federal	Rep. + Commune	Total	% of Grand Total	Federal	Rep. + Commune	Total	% of Grand Total	Federal	Rep. + Commune	Total	% of Grand Total	Federal	Rep. + Commune	Total	% of Grand Total
A. Budgetary																
National defense	5,382	19	5,401	14.2	6,406	28	6,434	15.8	6,933	47	6,980	14.7	7,788	77	7,865	13.8
Administration	1,304	2,949	4,253	11.2	1,105	3,229	4,334	10.6	1,205	3,730	4,935	10.4	1,545	4,443	5,988	10.5
Grants and subsidies to social sector	677	352	1,029	2.7	640	351	991	2.4	527	441	968	2.0	704	554	1,258	2.2
Social security and health protection	—	647	647	1.7	—	1,142	1,142	2.8	—	1,385	1,385	2.9	—	1,607	1,607	2.8
Communal activities	—	397	397	1.0	—	451	451	1.1	—	577	577	1.2	—	666	666	1.2
Regional development	97	—	97	0.3	221	—	221	0.5	263	—	263	0.6	304	—	304	0.5
Grants to nonbudget institutions	—	1,011	1,011	2.7	—	1,145	1,145	2.8	—	1,462	1,462	3.1	—	1,674	1,674	2.9
Noneconomic investment	—	1,088	1,088	2.9	—	1,240	1,240	3.0	—	1,365	1,365	2.9	—	1,623	1,623	2.8
Other	193	259	452	1.2	53	364	417	1.0	210	408	618	1.3	311	416	727	1.3
Total	7,653	6,722	14,375	37.9	8,425	7,950	16,375	40.2	9,138	9,415	18,553	39.1	10,652	11,060	21,712	38.0
B. Extrabudgetary																
Social insurance	—	11,413	11,413	30.1	—	12,276	12,276	30.1	—	13,451	13,451	28.4	—	17,172	17,172	30.1
Education [a]	—	4,154	4,154	10.9	—	4,729	4,729	11.6	—	5,939	5,939	12.5	—	7,442	7,442	13.0
Export credit finance	836	—	836	2.2	735	—	735	1.8	1,054	—	1,054	2.2	1,359	—	1,359	2.4
Investments [b]	3,261	1,689	4,950	13.0	4,083	1,795	5,878	14.4	5,179	1,887	7,066	14.9	5,779	2,704	8,483	14.9
Other	1,336	889	2,225	5.9	435	308	743	1.8	987	367	1,354	2.9	834	104	938	1.6
Total	5,433	18,145	23,578	62.1	5,253	19,108	24,361	59.8	7,220	21,644	28,864	60.9	7,972	27,422	35,394	62.0
Grand total			37,953	100.0			40,736	100.0			47,417	100.0			57,106	100.0

[a] This is taken from the budget tables but correctly shown here as extrabudgetary expenditure.
[b] Includes credits by the Special Fund for Underdeveloped Republics.

SOURCES: Statistical Annex, Tables 5.1, 5.2, 5.3, 5.4 and 5.5. The exclusion of some republican extrabudgetary funds, like Road Funds, means that total expenditures may be underestimated up to 5 percent.

TABLE 6.1: Consolidated Balance Sheet of all Banks[a] (End of Period)

(In Billions of Dinars)

	1968	1969	1970	1971	1972 June
Assets, total	151.9	160.2	194.7	240.5	263.1
Monetary gold and foreign exchange	5.3	6.7	5.3	8.6	14.3
Other foreign exchange assets	3.5	4.3	4.9	8.4	8.2
Short-term credits	38.4	46.8	57.8	55.2	61.8
of which: consumer credits	4.3	4.9	6.9	7.0	6.6
Long-term credits[b]	83.6	77.5	95.4	122.3	129.4
Housing investments	14.4	17.1	21.6	25.9	28.3
Other assets	6.7	7.8	9.7	20.1	21.1
Liabilities, total	151.9	160.2	194.7	240.5	263.1
Foreign exchange liabilities	4.7	7.4	10.1	18.6	20.9
Other foreign exchange liabilities	5.0	5.2	7.5	16.0	17.4
Money supply	27.6	30.8	37.0	42.6	48.3
Currency in circulation	9.6	11.9	14.9	18.4	22.0
Demand deposits	15.7	16.6	19.8	22.4	28.3
Float	2.3	2.3	2.3	1.8	1.5
Other sight deposits	8.9	11.2	13.5	16.3	17.8
Restricted deposits	14.8	17.4	20.2	24.9	26.5
Housing finance resources	13.5	15.5	18.3	21.4	22.6
Credits granted by sociopolitical communities[b]	42.3	30.5	37.1	44.9	48.8
Time deposits	15.5	20.1	25.9	28.5	28.2
Bank funds and founders' share in bank funds	17.0	19.7	21.4	22.6	23.4
Other liabilities	2.6	2.4	3.7	4.7	9.2

[a] The short/long distinction of bank operations was abolished in 1971.
[b] Changes in these items in 1969 were not only the result of current transactions but also the consequence of the withdrawal of federal resources out of the investment balance sheet of banks.

SOURCE: National Bank of Yugoslavia.

TABLE 6.2: Structure of Savings

(In Millions of Current Dinars)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
A. State	3,524	4,314	3,665	4,691	5,075	8,621	9,883	—137	7,266	8,715	9,377	9,138	8,692	2,159
1. Federal	1,849	2,291	2,061	2,044	972	3,506	2,273	—3,028	1,406	4,006	4,136	3,080	2,721	—2,357
(a) Government	—19	557	278	—1,764	—3,188	33	—217	—5,658	—2,266	555	929	133	—1,435	—2,524
(b) Investment loan funds	1,868	1,734	1,783	3,808	4,160	3,473	2,490	2,630	3,672	3,451	3,207	2,947	4,156	167
2. Other state units	1,675	2,023	1,604	2,647	4,103	5,115	7,610	2,891	5,860	4,709	5,241	6,058	5,971	4,516
(a) Government	397	659	131	1,103	1,692	2,042	2,280	2,118	3,370	1,540	1,752	2,195	2,161	1,576
(b) Investment loan funds	1,278	1,364	1,473	1,544	2,411	3,073	5,330	773	2,490	3,169	3,489	3,863	3,810	2,940
B. Economic organization	3,060	3,290	6,487	6,384	6,557	6,770	10,854	19,000	18,865	18,155	20,416	20,637	26,237	39,318
C. Other social sector organization a	178	810	64	537	2,269	873	3,875	4,327	2,604	3,132	3,570	4,751	5,444	5,596
D. Households and private producers	659	1,388	978	1,488	1,248	1,820	2,541	3,299	8,715	9,726	10,358	14,070	15,991	23,757
E. Unclassified	—95	210	528	369	—79	1,269	—789	3,658	—3,063	—2,363	—4,183	—2,712	1,651	—2,605
F. Total	7,326	10,012	11,722	13,469	15,070	19,353	26,364	30,147	34,387	37,365	39,538	45,884	58,015	68,225
G. Inventory correction	21	155	820	961	670	1,371	4,702	7,306	4,372	713	943	5,294	9,883	14,281
H. Economic organization (adjusted) (= B—G)	3,039	3,135	5,667	5,423	5,887	5,399	6,152	11,694	14,493	17,442	19,473	15,343	16,354	25,037
I. Total (adjusted) (= F—G)	7,305	9,857	10,902	12,508	14,400	17,982	21,662	22,841	30,015	36,652	38,595	40,590	48,132	53,944

a Includes social insurance organizations and banks in their capacity as work organizations, not intermediaries.

Sources: Line A to F are from the money flow accounts prepared by the Yugoslav National Bank. Strict comparability to Yugoslav national accounts' data (prepared independently) is not assured, but broad trends are probably accurate. Line G is a mission estimate (see Statistical Note).

TABLE 6.3: Financial Savings and Investment

(In Millions of Current Dinars)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Financial investment														
1. Financial investment by nonfinancial sectors														
Economic organizations	2,227	3,040	6,367	10,576	2,661	6,342	9,151	15,186	20,424	21,330	33,220	38,489	49,347	72,019
Federal government	1,741	1,699	4,124	8,596	671	3,478	5,073	13,484	12,399	15,495	26,162	26,393	33,553	54,118
Other state units	167	223	1,324	−150	−143	840	875	−532	−194	472	−122	564	2,233	585
Other social sector organizations	−1	79	176	274	25	408	−119	−39	565	215	391	1,126	803	774
Households and private producers	20	521	203	872	1,497	−64	1,606	1,205	2,231	1,417	1,551	3,002	3,045	2,198
2. Financial investment by nonfinancial sectors in "direct credits"	300	518	540	984	611	1,680	1,716	1,068	5,423	3,731	5,238	7,404	9,713	14,344
3. Financial investment by nonfinancial sectors in other assets (= 1—2)	1,395	1,009	3,183	4,546	−3,301	2,403	3,303	8,290	9,227	12,543	14,864	18,360	25,493	49,000
Financial Savings	832	2,031	3,184	6,030	5,962	3,939	5,848	6,896	11,197	8,787	18,356	20,129	23,854	23,019
Economic organizations														
Federal government	−2,460	−6,027	−2,873	−4,350	−4,932	−7,820	−10,743	−3,609	−8,529	−11,087	−8,063	−12,450	−19,054	−14,756
Other state units	−209	470	−51	−2,054	−3,390	−798	−463	−5,833	−2,492	305	782	−2	−1,575	−2,701
Other social sector organizations	−133	217	−689	−33	174	336	−271	−387	766	16	191	548	−340	−973
Federal investment loan funds	−250	579	−627	−468	762	−23	2,395	2,409	943	1,681	1,362	1,999	1,743	939
Investment loan funds of other state units	1,868	1,734	1,783	3,808	4,160	3,473	2,490	2,630	3,672	3,451	3,207	2,947	4,156	167
Households and private producers	1,278	1,364	1,473	1,544	2,411	3,073	5,330	773	2,490	3,169	3,489	3,863	3,810	2,940
Unclassified	209	158	238	478	148	160	451	999	5,610	3,426	1,773	4,270	4,623	10,457
Total positive financial savings	−567	1,267	333	369	294	−1,269	−789	3,658	−3,063	−2,363	−4,183	−2,712	1,651	−2,605
	3,355	5,789	3,827	6,199	7,949	7,042	10,666	10,469	13,481	12,048	10,804	13,627	15,983	14,503

Source: Money flow accounts, Yugoslav National Bank.

TABLE 6.4: Financing of Investment by Enterprises

	1960	1961	1962	1963	1967	1968	1969	1970	1971
	In Millions of Current Dinars								
1. Investment	9,555	10,734	11,489	14,590	29,242	28,479	33,087	45,291	54,074
2. Inventory correction	820	961	670	1,371	713	943	5,294	9,883	14,281
3. Adjusted investment ($=1-2$)	8,735	9,773	10,819	13,219	28,529	27,536	27,793	35,408	39,793
4. Gross borrowing	6,997	12,946	5,603	11,298	26,582	34,225	38,843	52,607	68,874
Of which: "direct credits"	(1,803)	(3,912)	(−2,908)	(1,767)	(11,888)	(10,496)	(14,162)	(23,764)	(44,017)
5. Net borrowing	3,068	4,350	4,932	7,820	11,087	8,063	12,450	19,054	14,756
	%								
6. Gross borrowing/investment (adjusted) ($=4\div3$)	80.1	132.5	51.8	85.5	93.2	124.3	139.8	148.6	173.1
7. Share of "direct credits" in gross borrowing	25.8	30.2	−51.9	15.6	44.7	30.7	36.5	45.2	63.9
8. Net borrowing/investment (adjusted) ($=5\div3$)	35.1	44.5	45.6	59.2	38.9	29.3	44.8	53.8	37.1

SOURCE: Money flow accounts, Yugoslav National Bank.

TABLE 6.5: Distribution of Social Product of Economic Organizations in the Social Sector

(In Millions of Current Dinars)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
1. Social product (gross value added)	14,337	17,551	21,789	25,734	28,935	35,546	48,050	62,541	76,205	80,120	89,722	105,418	128,321	168,507
2. Depreciation	1,362	1,544	1,771	2,289	2,746	3,494	4,723	5,412	6,598	8,543	9,694	11,406	13,446	17,083
3. Net product (net value added) (=1—2)	12,975	16,007	20,018	23,445	26,189	32,052	43,327	57,129	69,607	71,577	80,028	94,012	114,875	151,424
4. Contributions to the community	8,005	9,262	11,258	12,863	14,812	18,177	21,966	24,981	27,578	30,408	34,228	44,796	52,831	63,762
(a) Turnover taxes	1,686	1,948	2,179	2,569	3,381	3,975	4,712	5,635	7,209	8,482	9,430	11,501	13,370	17,019
(b) Personal income contributions	1,989	2,507	2,755	4,654	5,160	6,436	9,445	12,005	12,833	12,826	14,511	17,219	20,284	24,416
(c) Other legal and contractual obligations[a]	4,330	4,807	6,324	5,640	6,271	7,766	7,809	7,341	7,536	9,100	10,287	16,076	19,177	22,327
5. Net personal incomes	3,704	4,823	6,127	7,406	8,303	10,028	14,311	19,945	26,556	28,612	32,264	38,501	47,554	61,499
6. Allocation to funds	1,267	1,922	2,633	3,176	3,076	3,848	7,047	12,114	15,479	12,637	13,535	10,777	14,490	26,165
(a) Allocation to enterprise funds	742	1,097	1,316	3,035	2,924	3,521	6,742	11,578	14,816	12,161	13,052	10,210	14,490	26,165
(b) Undistributed funds	525	825	1,317	—	—	—	—	—	—	—	—	—	—	—
(c) Allocation to joint reserve funds	—	—	—	141	152	327	305	536	663	476	483	567	na	—
7. Residual enterprise income (=2+5+6)	6,333	8,289	10,531	12,871	14,125	17,370	26,081	37,471	48,633	49,792	55,493	60,684	75,490	104,747
8. Enterprise saving (=2+6)	2,629	3,466	4,404	5,465	5,822	7,342	11,770	17,526	22,077	21,180	23,229	22,183	27,936	43,248
9. Inventory evaluation, correction	21	155	820	961	670	1,371	4,702	7,306	4,372	713	943	5,294	9,883	14,281
10. Residual enterprise income—adjusted (=7—9)	6,312	8,134	9,711	11,910	13,455	15,999	21,379	30,165	44,261	49,079	54,550	55,390	65,607	90,466
11. Enterprise saving—adjusted (=8—9)	2,608	3,311	3,584	4,504	5,152	5,971	7,068	10,220	17,705	20,467	22,286	16,889	18,053	28,967

[a] Includes interest on bank credits, the "tax on business funds" and other taxes on enterprise income (which existed before 1965).

SOURCES: Lines 1–6 are from the *Statistički Godišnjak, Jugoslavije*, various issues. Line 9 is a mission estimate (see Statistical Note).

TABLE 7.1: Land Tenure

	Number of Holdings					Area in Thousands of Hectares				
	1950	1960	1969	1970	1971	1950	1960	1969	1970	1971
Total	2,634,145	2,623,223	2,602,155			12,734	12,802	12,586		
Social holdings	26,130	5,120	2,155	1,925	1,813	2,710	1,694	2,490	2,593	2,700
Kombinats and social farms	858	475	286	269	270	373	798	1,351	1,474	1,634
Agricultural institutions	9,667	412	498	554	550	332	112	301	436	512
Cooperatives	9,060	4,086	1,371	1,102	993	95	653	838	683	554
Peasant work-coops	6,545	147	—	—	—	1,910	—	—	—	—
Private holdings[a]	2,608,015	2,618,103	2,600,000			10,021	11,108	10,096		
Up to 2 hectares	960,300	915,811	1,014,000			1,070	894	983		
From 2 to 3 hectares	930,250[b]	392,820	400,000			2,778[b]	985	1,022		
From 3 to 5 hectares		558,294	526,000				2,206	2,099		
From 5 to 8 hectares	383,200	421,947	384,000			2,103	2,659	2,439		
Over 8 hectares	334,265	329,231	276,000			4,072	4,365	3,552		

[a] Data on the number and area of smallholdings for 1970 are not available.
[b] From two to five hectares.
SOURCE: Federal Institute of Statistics.

TABLE 7.2: Area, Production and Average Yield of the Principal Cereal Crops

	Wheat			Maize			Oats			Barley			Rye		
	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]
1930–39	2,140	2,140	11.4	2,600	4,300	16.4	336	310	8.5	423	410	9.7	250	212	8.5
1950	1,790	1,830	10.3	2,210	2,090	9.4	389	195	5.0	325	266	8.2	256	219	8.5
1955	1,900	2,430	12.8	2,470	3,900	15.8	321	278	8.7	338	390	11.6	278	263	9.5
1960	2,060	3,570	17.3	2,570	6,190	23.9	334	373	11.2	363	529	14.6	213	233	10.9
1961	1,960	3,170	16.1	2,510	4,550	18.1	355	432	12.2	373	571	15.4	180	191	10.6
1962	2,130	3,510	16.5	2,460	5,270	21.5	310	305	9.8	351	475	13.5	177	169	9.5
1963	2,140	4,140	19.3	2,410	5,380	22.3	315	345	10.9	350	524	14.9	157	156	9.9
1964	2,100	3,700	17.6	2,430	6,960	28.6	306	293	9.6	369	534	14.4	157	175	11.2
1965	1,680	3,460	20.5	2,550	5,920	23.1	321	338	10.5	405	682	16.8	146	156	10.7
1966	1,830	4,600	25.2	2,500	7,980	31.9	320	386	12.1	394	713	18.1	141	176	12.4
1967	1,880	4,820	25.6	2,510	7,200	28.7	301	363	12.0	343	606	17.6	138	171	12.4
1968	2,010	4,360	21.8	2,460	6,810	27.6	285	295	10.4	312	450	14.4	132	138	10.4
1969	2,019	4,880	24.2	2,397	7,821	32.6	273	308	11.3	299	459	15.3	124	135	10.9
1970	1,831	3,790	20.7	2,352	6,933	29.5	283	309	10.9	280	402	14.4	112	127	11.3
1971	1,929	5,604	29.1	2,422	7,443	30.8	265	312	11.8	280	464	16.5	110	134	12.2

[a] Area in thousands of hectares.
[b] Production in thousands of metric tons.
[c] Average yield in quintals per hectare.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.3: Area, Production and Average Yield of the Principal Industrial Crops

	Sugarbeet			Tobacco			Cotton			Hemp			Sunflower		
	Area Har-vested[a]	Pro-duc-tion[b]	Average Yield per Ha[c]	Area Har-vested[a]	Pro-duc-tion[b]	Average Yield per Ha[c]	Area Har-vested[a]	Pro-duc-tion[b]	Average Yield per Ha[c]	Area Har-vested[a]	Pro-duc-tion[b]	Average Yield per Ha[c]	Area Har-vested[a]	Pro-duc-tion[b]	Average Yield per Ha[c]
1930–39	35.0	616	176	14.9	14.7	9.9	2.1	1.4	6.4	42.0	250	59	6.0	9.1	15.2
1950	98.4	841	86	33.6	15.8	4.7	26.0	4.8	1.8	71.2	175	25	110.0	69.3	6.3
1955	69.5	1,380	198	41.7	43.3	10.4	14.0	8.9	6.4	62.0	342	55	104.0	102.0	9.9
1960	78.0	2,290	294	33.0	28.1	8.5	11.8	7.3	6.2	36.8	201	55	73.7	98.3	13.3
1961	80.5	1,730	215	26.6	15.0	5.7	10.2	6.1	6.0	44.0	255	58	85.8	117.0	13.7
1962	74.9	1,870	251	37.4	29.8	8.0	9.5	6.2	6.5	48.7	278	57	97.4	161.0	16.5
1963	96.3	2,670	277	52.8	54.0	10.2	10.5	9.0	8.6	44.4	256	57	140.0	231.0	16.4
1964	88.5	2,830	320	64.9	65.8	10.1	9.9	7.5	7.6	45.3	292	65	146.0	260.0	17.8
1965	79.7	2,620	329	61.0	53.6	8.8	8.3	5.5	6.7	47.4	316	67	159.0	265.0	16.7
1966	106.0	4,030	380	53.2	54.1	8.6	7.9	6.0	7.5	45.5	309	68	154.0	282.0	18.2
1967	102.0	3,680	363	58.7	54.3	9.2	10.0	10.3	10.3	38.9	261	67	147.0	250.0	17.0
1968	79.0	2,910	369	56.9	43.8	7.7	12.1	8.7	7.1	17.2	73	43	161.0	309.0	19.2
1969	95.3	3,636	381	53.9	46.8	8.7	11.3	9.3	8.2	16.4	84	51	218.0	390.1	17.8
1970	85.1	2,948	346	53.3	49.0	9.1	13.5	12.0	8.8	17.9	106	59	194.4	264.0	13.6
1971	84.7	2,961	350	49.2	44.0	8.9	11.6	10.1	8.7	16.0	91	57	183.1	347.0	19.0

[a] Area in thousands of hectares.
[b] Production in thousands of metric tons.
[c] Average yield in quintals per hectare.
SOURCE: Statistički Godišnjak, Jugoslavije.

TABLE 7.4: Area and Production of the Principal Vegetable Crops

	Potatoes		Beans		Peas		Onions and Garlic		Cabbage		Paprika		Tomatoes		Melons and Watermelons	
	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]	Area[a]	Production[b]
1930–39	275	1,650	37	134	4.8	6.0	20	77	35	243	9	22	7	44	21	167
1950	241	1,050	33	63	8.7	4.7	23	58	24	201	14	55	14	103	16	104
1955	261	2,270	30	227	8.5	10.9	35	181	29	460	21	110	14	101	29	265
1960	288	3,277	31	216	8.6	11.0	37	210	36	628	22	158	21	271	29	355
1961	292	2,690	31	184	10.2	9.0	36	172	36	468	23	145	23	272	29	245
1962	301	2,630	32	178	10.7	12.0	39	178	35	457	24	170	25	305	31	319
1963	321	3,020	36	205	13.5	14.0	45	243	37	523	27	194	25	293	34	407
1964	320	2,820	35	233	12.7	12.0	44	251	37	569	29	195	25	302	38	474
1965	320	2,380	37	171	12.6	11.0	46	231	38	482	28	176	26	283	37	391
1966	333	3,230	38	216	13.6	13.0	46	252	40	610	31	237	29	333	40	481
1967	330	2,810	38	199	14.4	14.0	47	266	39	539	33	246	30	322	40	520
1968	332	2,890	39	175	14.7	13.0	49	247	41	633	35	243	31	323	41	445
1969	330	3,144	38	192	15.2	16.0	49	261	41	611	35	255	31	328	40	432
1970	329	2,964	39	188	16.0	17.0	57	322	42	619	35	269	33	313	41	400
1971	326	2,952	40	173	16.0	18.0	55	306	43	585	38	294	34	355	40	418

[a] Area in thousands of hectares.
[b] Production in thousands of metric tons.

SOURCE: Statistički Godišnjak, Jugoslavije.

TABLE 7.5: Area, Production and Average Yield of the Principal Fodder Crops

	Lucerne			Clover			Vetch			Forage Beet			Meadows			Pasture		
	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]	Area Har-vested [a]	Pro-duc-tion [b]	Average Yield per Ha [c]
1930–39	100	372	39	112	396	35	34.8	111	32	31.0	468	143	1,930	3,370	18	4,300	—	—
1950	150	383	25	87	216	23	65.0	98	15	29.7	799	102	1,860	2,350	12	4,130	1,160	2.9
1955	198	960	47	122	583	41	54.0	169	31	31.4	800	188	1,860	3,500	19	4,510	2,100	4.7
1960	253	1,460	56	232	1,140	43	42.7	142	33	33.9	1,370	224	1,890	4,010	21	4,710	2,480	5.3
1961	261	1,320	49	236	999	37	42.7	135	32	34.0	1,050	176	1,890	3,750	20	4,530	2,010	4.4
1962	271	1,390	50	230	926	34	38.7	114	30	33.6	950	161	1,920	3,110	16	4,390	1,510	3.4
1963	301	1,680	54	221	964	38	37.2	113	30	34.0	949	169	1,920	3,570	19	4,200	1,730	4.1
1964	334	1,860	54	213	1,040	42	34.4	108	31	33.5	1,110	184	1,910	3,820	20	4,390	1,870	4.3
1965	347	1,830	52	216	999	40	35.4	117	33	35.2	945	163	1,930	3,740	19	4,370	1,660	3.8
1966	357	2,180	60	222	1,170	46	35.4	113	32	35.8	1,030	185	1,930	4,070	21	4,510	1,990	4.4
1967	359	2,080	57	224	1,080	42	32.2	103	32	36.0	796	169	1,930	3,810	20	4,480	1,930	4.3
1968	348	1,900	53	231	984	38	31.2	94	30	36.9	850	169	1,930	3,270	17	4,460	1,740	3.9
1969	349	2,061	58	225	1,113	43	25.9	78	30	36.5	960	176	1,914	3,855	20	4,446	1,876	4.2
1970	362	2,106	57	233	1,156	44	23.8	71	30	35.5	753	165	1,933	4,052	21	4,414	1,863	4.2
1971	362	1,892	51	231	992	39	21.8	61	28	35.2	670	152	1,933	3,321	17	4,351	1,533	3.5

[a] Area in thousands of hectares.
[b] Production in thousands of metric tons.
[c] Average yield in quintals per hectare.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.6: Production of the Principal Fruits

(In Thousands of Metric Tons)

	Plums	Apples	Pears	Cherries	Walnuts	Figs	Sour Cherries	Olives	Quince	Citrus	Peaches	Apricots
1930–39	209	141	64	30	35	11	9	33	7	0.50	15	9
1950	222	103	42	28	31	10	16	6	10	0.10	14	10
1955	904	249	56	55	36	21	25	5	13	0.60	15	2
1960	209	158	68	44	17	22	25	21	7	0.54	24	13
1961	1,130	343	93	68	37	28	36	28	15	0.90	37	49
1962	874	177	101	61	41	23	31	18	13	0.53	35	25
1963	776	280	80	59	36	24	32	63	11	0.18	31	19
1964	760	159	96	54	35	24	32	17	14	0.46	40	35
1965	399	135	40	41	29	19	23	20	8	0.71	31	17
1966	723	214	84	51	32	26	28	29	10	0.83	47	22
1967	705	301	87	47	29	23	27	40	10	0.92	54	26
1968	721	304	99	49	20	20	31	11	12	0.68	48	16
1969	1,292	483	111	50	39	20	36	7	15	0.87	58	35
1970	896	277	112	54	34	22	39	8	11	1.14	57	22
1971	817	327	112	59	33	18	47	15	13	1.60	61	17

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.7: Allocation of Arable Land

(In Thousands of Hectares)

	Total Area	Sown Area					Nurseries	Fallow
		Total	Cereals	Industrial Crops	Vegetables	Fodder		
1939	7,900	7,320	6,300	205	447	370	—	386
1950	7,230	6,630	5,190	444	460	545	3.2	597
1955	7,530	6,860	5,470	371	482	535	4.7	670
1960	7,670	7,210	5,650	324	514	719	2.6	465
1961	7,690	7,230	5,600	326	526	778	2.8	456
1962	7,670	7,160	5,540	325	534	766	2.3	506
1963	7,660	7,180	5,440	399	575	766	2.0	474
1964	7,650	7,190	5,430	402	577	780	2.1	464
1965	7,610	7,050	5,230	414	588	814	2.2	561
1966	7,570	7,100	5,250	423	613	813	1.6	466
1967	7,570	7,070	5,240	410	613	813	1.7	489
1968	7,550	7,060	5,260	381	622	797	1.9	488
1969	7,539	7,011	5,157	438	622	794	2.0	521
1970	7,497	6,797	4,935	410	636	816	1.4	693
1971	7,465	6,891	5,049	388	636	818	2.4	567

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.8: Livestock Population

(In Thousands)

	Cattle	Buffaloes	Horses	Sheep	Pigs	Poultry
1939	4,332	—	1,274	11,449	6,210	30,343
1950	5,248	66	1,097	10,046	4,295	20,207
1955	5,290	71	1,242	11,979	4,780	24,837
1960	5,297	49	1,272	11,449	6,210	30,343
1961	5,702	59	1,220	10,823	5,818	28,878
1962	5,884	57	1,226	11,143	5,161	28,304
1963	5,355	59	1,175	10,056	5,013	29,939
1964	5,094	61	1,140	9,707	6,100	32,473
1965	5,219	55	1,109	9,433	6,985	31,429
1966	5,584	59	1,131	9,868	5,118	31,685
1967	5,710	63	1,134	10,329	5,525	35,153
1968	5,693	44	1,126	10,346	5,865	35,974
1969	5,261	44	1,109	9,730	5,093	37,142
1970	5,029	46	1,076	8,974	5,544	40,854
1971	5,138	64	1,048	8,703	6,562	44,954
1972 [a]	5,148	66	1,015	8,326	6,216	44,584

[a] Preliminary.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.9: Production of Meat and Animal Fats

(In Thousands of Metric Tons)

	Meat						Fats		
	Beef	Pork	Mutton	Poultry	Other	Total	Pork	Beef	Total
1939	107	195	65	53	20	440	105	1	106
1950	133	145	30	29	22	359	78	1	79
1955	114	198	52	48	21	433	117	1	118
1960	156	293	66	68	54	635	185	4	189
1961	182	276	54	67	65	644	170	5	175
1962	226	240	58	64	63	651	160	10	170
1963	231	247	48	67	64	657	155	7	162
1964	189	315	42	73	60	679	179	8	187
1965	189	396	45	84	64	778	190	6	196
1966	227	287	48	88	59	709	166	8	174
1967	256	309	50	95	70	780	176	10	186
1968	292	323	59	107	77	858	193	12	205
1969	275	287	55	110	69	806	170	14	184
1970	245	339	48	142	71	847	201	10	212
1971 [a]	263	384	52	149	75	922	227	12	238

[a] Preliminary.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.10: Number of, and Area Occupied by, Social and Private Holdings, by Republic

	Kombinats and Social Farms						Agricultural Cooperatives						Private Holdings					
	Number			Area in Thousands of Ha			Number			Area in Thousands of Ha			Number (Thousands)			Area in Thousands of Ha		
	1956	1966	1970	1956	1966	1970	1956	1966	1970	1956	1966	1970	1956	1960	1969	1956	1960	1969
SFRY	1,511	275	270	704	1,145	1,321	3,004	1,714	1,102	386	890	618	2,320	2,618	2,600	10,921	11,109	10,096
Bosnia-Herzegovina	128	2	25	86	100	108	341	218	123	17	79	51	394	456	498	1,718	1,758	1,651
Montenegro	23	2	5	4	3	21	73	50	20	4	26	5	64	65	64	213	346	275
Croatia	242	55	41	118	201	315	672	334	209	69	39	30	593	653	615	2,299	2,354	2,066
Macedonia	156	48	44	401	207	255	187	270	131	10	249	137	139	157	158	626	566	406
Slovenia	212	20	27	81	49	50	130	77	62	7	42	33	145	195	180	1,151	1,318	1,150
Serbia	750	122	128	374	485	571	1,601	765	557	279	455	362	983	1,093	1,085	4,914	4,777	4,547
— proper	355	38	41	105	380	101	877	478	341	48	149	109	632	682	694	3,466	3,259	3,214
— Vojvodina	359	79	81	264	346	415	613	233	178	222	272	222	258	308	283	1,058	1,082	957
— Kosovo	36	5	6	5	59	55	111	54	38	9	34	31	93	103	108	390	436	376

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.11: Cooperation between the Social Sector and Private Holdings

(Number of Cooperators)

	Total	In-Crop Farming	Long-term Planting[a]	Livestock Breeding
1958	282,770	207,849	4,711	70,210
1959	702,797	549,328	14,342	267,384
1960	801,213	619,773	19,066	208,516
1961	725,507	589,848	10,682	199,053
1962	876,753	729,578	20,722	244,083
1963	1,120,320	899,871	18,501	304,018
1964	1,260,863	924,584	29,214	444,482
1965	1,231,348	914,349	31,429	392,489
1966	1,240,784	952,292	35,096	349,627
1967	1,088,267	872,439	26,403	278,593
1968	1,082,000	801,621	51,155	312,069
1969	955,816	778,778	31,997	293,757
1970	925,077	702,279	32,966	316,531
1971	863,527	644,109	27,381	330,989

[a] Mainly fruit growing and viticulture.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 7.12: Indicators of Development of Private and Social Holdings

	Index of Production 1955 = 100			Procentual Share of Authorized Purchase of Products[a]		Tractors			Number of Livestock in Thousands of Head			Cultivable Area in Thousands of Ha		
	Total	Social	Individual	Social	Individual	Total	Social	Individual	Total	Social	Individual	Total	Social	Individual
1956	83	84	83	—	—	14,658	11,396	3,262	4,231	229	4,002	10,200	777	9,420
1957	120	145	119	24	76	20,500	15,691	4,809	4,219	226	3,993	10,200	827	9,380
1958	105	159	102	—	—	26,500	21,537	4,963	4,418	290	4,128	10,200	851	9,390
1959	139	249	132	32	68	31,700	28,657	3,043	4,796	403	4,393	10,200	912	9,340
1960	125	250	117	34	66	35,779	30,699	5,080	5,506	486	5,020	10,300	1,030	9,230
1961	121	252	113	36	64	38,045	32,965	5,080	5,435	589	4,946	10,300	1,160	9,170
1962	125	308	114	40	60	40,367	35,287	5,080	5,440	480	4,960	10,300	1,180	9,130
1963	138	356	124	40	60	43,264	38,184	5,080	5,057	469	4,588	10,300	1,280	9,010
1964	145	411	129	41	59	45,364	40,284	5,080	5,500	508	4,922	10,264	1,346	8,918
1965	132	411	115	44	56	45,420	40,340	5,080	5,363	497	4,866	10,300	1,413	8,840
1966	153	493	132	44	56	50,965	38,785	12,180	5,739	481	5,258	10,200	1,442	8,770
1967	151	504	130	48	52	46,962	34,782	12,180	5,790	464	5,326	10,200	1,453	8,750
1968	146	507	123	49	51	43,506	31,326	12,180	5,790	388	5,402	10,200	1,468	8,720
1969	160	544	135	48	52	68,199	29,153	39,046	4,997	388	4,609	10,200	1,467	8,720
1970	154	525	130	44	56	66,861	27,815	39,046	5,213	444	4,769	10,153	1,489	8,664
1971	164	641	133	47	53	64,793	25,747	39,046	5,138	455	4,653	10,125	1,484	8,641

[a] Market production except on individual markets.

SOURCE: *Statistical Yearbook of the SFRY Yugoslavia* (November 1972), Table 107.2.

TABLE 7.13: Total Investments in Fixed Assets in Agriculture

(In Millions of 1966 Dinars)

	Total Investment	Social Sector	Private Sector
1947	724	231	493
1948	1,350	648	701
1949	1,514	879	635
1950	1,146	707	438
1951	817	346	471
1947–1951	5,553	2,813	2,739
1952	868	293	575
1953	970	444	526
1954	1,160	467	693
1955	947	539	407
1956	1,286	778	507
1952–1956	5,233	2,521	2,711
1957	1,721	1,119	602
1958	2,220	1,460	759
1959	2,864	2,109	754
1960	2,808	1,997	810
1957–1960	9,614	6,687	2,927
1961	2,400	1,689	710
1962	2,372	1,809	562
1963	2,616	1,985	630
1964	2,853	2,185	667
1965	2,396	1,690	705
1961–1965	12,638	9,631	3,276
1966	2,555	1,811	744
1967	2,367	1,597	769
1968	2,516	1,729	787
1969	2,902	2,117	784
1970	2,625	1,915	710
1966–1970	12,967	9,171	3,795
1947–1970	46,008	30,557	15,450
	100%	66.4%	33.6%

SOURCE: *Investicije, 1947–69.* Godine, za 1970. Godinu obracun na cene 1966. g. izvrsen u Grupi za investicije u ovom Zavodu (Belgrade: Institute for Economic Investment, 1971). Data for 1970 from the Federal Secretariat of Agriculture.

**TABLE 7.14: Objectives for the Development of Production of Major
Agricultural Goods until 1975**

	Production in Thousands of Tons		Planned Annual Growth Rate
	1969/70	Plan 1975	
Wheat and rye	4,466	5,100	2.8
Maize	7,377	8,500	3.0
Sugarbeet	3,293	4,500	6.5
Sunflower	327	480	8.5
Tobacco	48	55	2.8
Meat	827	1,000	4.0
Milk (mill. lit.)	2,688	3,100	3.0
Eggs (mill. pieces)	2,671	3,800	7.2

SOURCE: *Social Development Plan of Yugoslavia, 1971* (Belgrade: Federal Planning Institute, 1972).

TABLE 7.15: Planned Production, Consumption and Trade Surplus in 1975

(In Thousands of Tons)

	Production	Consumption	Trade Balance [c]
Wheat and flour	5,100	5,100 [a]	± 0
Coarse grain	9,500	7,530 [a]	± 1,970
Sugar	600	600	± 0
Beef and veal [b]	300	180	± 120
Pork [b]	400	355	± 45
Mutton and lamb	60	56	± 4
Poultry [b]	160	160	± 0
Eggs	190	180	± 10

[a] Including seed and animal feed.
[b] Dressed carcass weight.
[c] + Exports, − imports.

**TABLE 7.16: Planned Annual Growth Rates of Aggregate Production
in Agriculture, from 1970–75**

	Social Sector	Private Sector	Total	Average Annual Growth Rate 63/65–68/70
SFRY	5.0	2.8	3.2	2.2
Bosnia	10.0	3.0	3.5–4.0	3.5
Montenegro	9.1	3.0	3.6	2.5
Croatia	10.0	2.6	4.4	4.0
Macedonia	9–9.7	2–2.4	4–4.5	3.5
Slovenia	4.0	2.6	2.8	2.9
Serbia proper	4.6	3.5	4.0	3.0
Vojvodina	6.3	4.2	5.0	2.2
Kosovo	8.0	4.6	5.2	3.8

SOURCE: Institute of Planning, Belgrade and *Social Development Plan of Yugoslavia, 1971.*

TABLE 8.1: Basic Data of Yugoslav Manufacturing Industries, 1970, and Growth Trends, 1960-70

	Food Proc- essing	Tobacco Manufac- turing	Constr. Mats.	Non- metallic Minerals	Rubber Products	Metal Products	Elec. Equip.	Printing and Graphical
Basic data								
Total assets, ND million	8,328	7,701	2,745	2,489	1,253	17,023	6,746	2,902
Fixed assets at purchase value	(5,602)	(823)	(3,082)	(2,365)	(872)	(10,992)	(3,795)	(1,864)
Fixed assets—at book value	3,704	530	1,663	1,485	482	5,559	2,208	1,235
Current assets	4,534	1,171	1,082	1,004	771	11,464	4,538	1,667
Social product, ND million	3,685	1,031	2,000	1,342	921	9,410	3,893	2,558
Wages and related payments (gross) [a]	1,979	282	1,080	827	486	5,811	2,382	1,599
Income to capital (excl. depreciation) [a]	1,326	698	709	348	370	2,665	1,176	833
Depreciation	380	51	211	167	65	934	335	126
Employment, thousands	90.8	16.6	57.3	44.4	25.2	271.8	111.6	52.2
Investment, ND million	771	84	538	228	84	1,012	377	246
Turnover	14,114	2,201	3,531	2,612	1,949	24,352	10,176	4,648
Exports	1,406	473	37	604	117	3,032	1,777	78
Imports	1,480	44	93	1,264	807	13,404	2,516	136
Balance of trade	—74	429	—56	—660	—690	—10,372	—739	—58
Selective indicators								
Assets/social product	2.75	1.93	2.08	2.51	1.78	2.39	2.14	1.38
Income to capital, excl, depr./total assets at book value (%)	23.5	45.9	38.1	24.3	41.7	26.0	28.2	44.2
Depr./fixed assets at purch. value (%)	6.8	6.2	6.8	7.1	7.5	8.5	8.8	6.8
Income to capital/fixed assets [b] (%)	16.1	41.0	25.8	14.0	29.5	15.7	17.4	28.0
Av. income per worker, ND thousands	15.1	12.0	12.9	12.8	13.2	14.9	14.8	22.0
Exports/turnover (%)	10.0	21.5	1.0	23.1	6.0	12.5	17.5	1.7
Ten-year growth rates, 1960-70								
Index of production (1970 weights)	213	133	189	270	263	204	333	222
Index of employment	144.4	69.0	103.0	121.4	181.4	150.6	194.8	159.9
Output per man-hour (1970 weights)	159	195	169	205	166	149	191	162
Exports at 1966 prices	131	108	200	223		266	301	
Imports at 1966 prices [c]	227			382	217	170	194	
Fixed assets at 1966 prices	202	185	179	226	268	213	320	330
Industrial prices	234	75	234	162	117	130	117	
Real wages and salaries	173	226	221	145	387	165	202	192

[a] The allocation of income between personal income to capital is slightly different from that normally found in Yugoslav statistical sources and more specifically from that used in Table 106-5 of the 1972 *Statistički Godišnjak, Jugoslavije*. In the above table "contribu- tions from personal income" have been reallocated to personal incomes which is, therefore, stated on a gross rather than a net basis

[b] Income to capital is before taxes and before preprofit allocations to housing funds, research and educational funds. The so-called "legal obligations" vary from 2 3 to 5 percent of total assets whereas "contributions for social services" vary from 0 9 to 2 percent The greatest variation, however, is in turnover taxes from which some industries are exempt (e g , steel and paper), while the incidence for other industries is high, particularly in the tobacco industry Even the graphical industry, however, paid turnover taxes averaging about 7.1 percent on value added, or 6 3 percent on total assets.

[c] Where no indices are given, imports are generally fairly small in relation to total output.

SOURCE *Statistički Godišnjak, Jugoslavije.*

TABLE 8.1: Basic Data of Yugoslav Manufacturing Industries, 1970, and Growth Trends, 1960–70

	Textiles and Clothing	Wood Products	Leather and Footwear	Total Labor-int. Industries	Iron and Steel	Non-ferrous Metals	Pulp and Paper	Chemicals	Ship-building	Total Capital-int. Industries	Grand Total all Industries
Basic data											
Total assets, ND million	11,454	4,985	2,095		6,353	5,971	4,319	9,166	2,755		
Fixed assets at purchase value	(7,730)	(3,664)	(1,048)	(49,954)	(6,644)	(5,714)	(3,923)	(7,485)	(1,399)	(25,165)	
Fixed assets—at book value	4,371	2,150	620	24,007	3,494	2,859	2,531	4,445	754	14,083	
Current assets	7,083	2,835	1,475		2,859	3,112	1,788	4,721	2,001		
Social product, ND million	5,939	3,975	1,278	36,032	2,028	2,360	1,048	3,828	1,016	10,280	46,312
Wages and related payments (gross) a	3,637	2,409	782		1,059	1,209	630	1,899	698		
Income to capital (excl. depreciation) a	1,742	1,202	420		515	568	202	1,374	227		
Depreciation	566	364	76		454	583	216	555	91		
Employment, thousands	232.2	130.7	44.2	1,077.0	48.1	52.4	29.6	79.3	25.6	233.0	1,311.0
Investment, ND million	721	528	123		1,506	1,316	179	700	129		
Turnover	14,522	8,765	3,585	90,455	5,699	7,466	3,337	10,466	3,165	30,133	120,588
Exports	2,464	1,915	1,172	13,079	721	3,459	491	1,401	2,123	8,195	21,274
Imports	3,319	663	576	24,302	3,630	3,303	1,085	4,545	642	13,205	37,507
Balance of trade	—855	1,252	596	—11,223	—2,909	156	—594	—3,144	1,481	5,010	—16,223
Selective indicators											
Assets/social product	2.49	1.63	1.97		4.69	3.74	5.45	3.19	3.35		
Income to capital, excl. depr./total assets at book value (%)	25.2	39.1	31.6		12.7	15.7	9.1	21.5	19.9		
Depr./fixed assets at purch. value (%)	7.2	9.9	7.2		6.8	10.2	5.5	7.4	6.5		
Income to capital/fixed assets b (%)	15.2	24.1	20.1		8.1	9.5	4.7	15.0	8.2		
Av. income per worker, ND thousands	10.7	12.7	12.2		15.9	16.1	14.9	16.5	20.2		
Exports/turnover (%)	17.0	21.8	32.6		12.7	46.3	14.7	13.4	67.1		
Ten-year growth rates, 1960–70											
Index of production (1970 weights)	189	213	179		185	200	370	435	303		
Index of employment	155.4	117.3	149.8	141.5	111.4	122.6	195.9	187.2	113.5	135.9	
Output per man-hour (1970 weights)	128	190	116		152	161	186	235	267		
Exports at 1966 prices	382	139	531		203	295	364	451	655		
Imports at 1966 prices c	281		237		306	486	413	337			
Fixed assets at 1966 prices	241	216			168	241	308	286	160		
Industrial prices	138	207	160		167	203	152	131			
Real wages and salaries	167	162	128		142	205	248	211	219		

a The allocation of income between personal income to capital is slightly different from that normally found in Yugoslav statistical sources and more specificially from that used in Table 106-5 of the 1972 Statistički Godišnjak, Jugoslavije. In the above table "contributions from personal income" have been reallocated to personal incomes which is, therefore, stated on a gross rather than a net basis.

b Income to capital is before taxes and before preprofit allocations to housing funds, research and educational funds. The so-called "legal obligations" vary from 2.3 to 5 percent of total assets whereas "contributions for social services" vary from 0.9 to 2 percent. The greatest variation, however, is in turnover taxes from which some industries are exempt (e.g., steel and paper), while the incidence for other industries is high, particularly in the tobacco industry. Even the graphical industry, however, paid turnover taxes averaging about 7.1 percent on value added, or 6.3 percent on total assets.

c Where no indices are given, imports are generally fairly small in relation to total output.

SOURCE: Statistički Godišnjak, Jugoslavije.

TABLE 8.2: Indices of Industrial Production and Employment, by Republic and Autonomous Region, 1957–71 (Employment 1957 = 100; Production 1952 = 100)

		Yugoslavia		Croatia		Slovenia		Serbia Proper		Vojvodina		Bosnia-Herzegovina		Montenegro		Macedonia		Kosovo	
		E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
	1957	100	189	100	186	100	178	100	214	100	176	100	221	100	185	100	207	100	128
	1961	132	294	127	275	123	257	142	363	143	273	126	343	145	497	142	360	138	174
	1965	161	455	148	418	176	367	174	555	181	452	152	525	236	1,126	197	636	194	351
	1969	163	560	145	529	153	477	186	673	173	509	148	581	218	1,393	213	1,001	219	463
	1970	170	611	149	577	158	521	194	734	178	558	155	620	236	1,430	226	1,166	231	548
	1971	179	675	155	621	165	571	205	825	183	629	164	702	245	1,467	247	1,294	244	618
Share in Yugoslavia's																			
Industrial product	1957		100.0		27 5		22.0		22.5		6 9		15.0		0.9		3 6		1.6
Industrial product	1970		100.0		29.1		19.6		23.4		7.7		12.6		1.6		4.1		1.9
Structural data for 1971																			
a) Share of industry in republic's social prod. (%)			34.9		34.3		44.1		33.2		28.2		36.9		26.4		32.1		32.6
b) Social product per person employed (thousands of dinars)																			
— all economic activities			50,590		54,980		56,836		49,053		53,856		45,381		46,600		38,847		37,533
— industry			38,072		43,511		44,350		34,080		35,795		34,020		36,620		29,305		31,591
c) Ratio of employment to population (%)			19.8		23.1		33.8		19.4		42.6		14.7		16.0		17.0		17.8
d) Ratio of active to total population (%)			43.2		45.6		47 3		51.6		42.7		36.7		32.6		38.3		25.9
e) Proportion of population active in peasant farming[a] (%)			23.4		22.5		23.5		32.2		0.1		22.0		16.6		21.3		8.1

[a] Difference between line (d) and line (c).

SOURCE: *Statistički Godišnjak, Jugoslavije,* 1972, Tables 207-1, 203-5, 202-1, and 201-2. Also *Statistički Bilten,* 738.

TABLE 8.3: Production, Foreign Trade and Apparent Consumption of Steel

(In Thousands of Tons)

	Production of Rolled Steel [a]	Imports	Exports	Import Surplus	Apparent Consumption [b]	Industrial Output (1956 = 100)	Steel Consumption Kg. per Cap.	Coke Production	Iron Ore Production
1952	293					62		0	676
1962	1,162	381	247	134	1,296	108	69	1,107	2,184
1963	1,221				(1,410)	109	74	1,090	2,190
1964	1,285	649	154	495	1,780	110	93	1,160	2,307
1965	1,354	647	139	508	1,862	126	96	1,253	2,504
1966	1,401	876	172	704	2,105 (2,800)	140	107	1,226	2,493
1967	1,445	895	222	773	2,118 (2,720)	148	107	1,219	2,579
1968	1,722	720	252	468	2,190 (2,620)	149	109	1,234	2,720
1969	1,943	894	266	628	2,571 (3,010)	154	127	1,226	2,721
1970	2,027	1,202	295	907	2,943 (3,420)	168	144	1,309	3,694
1971	2,086	1,575	233	1,342	3,428 (4,130)	193	167	1,300	3,779
Nine-year annual growth	6.7%	17.1%	−1.1%	29%	10.2%	6.7%	10.3%	1.8%	6.3%

[a] Including ingots and semis for sale.
[b] Figures in parenthesis are in crude steel equivalent, according to the Economic Commission for Europe, *The Steel Market in 1971*. The two series are not entirely consistent.

SOURCE: United Nations, *Quarterly Bulletin of Steel Statistics for Europe* (Geneva, UNECE).

TABLE 8.4: Yugoslav and European Common Market Prices for Steel Products, September 1972 (Excluding Turnover or Value Added Taxes)

	ND per Ton	US$ Equivalent per Ton		
		Yugoslavia	Common Market [a]	
			Dom. Base Price	Export Price
Steel rails 90 kg/sq. mm.	3,096	187.60		
Steel profiles,	2,428	147.14		
I's and U's, 200–300 mm.	2,477	150.10	158.00	131–133
Merchant bars			141.00	199
Concrete reinforcing rods	2,376	143.99	135.80	109
Wire rods	2,452	148.59	154.00	130–136
Narrow strip			162.80	128
Hot-rolled wide strip	2,328	141.08	152.00	
Heavy and medium plate 33–2				
— 12.5 mm.	2,677	162.23	152.00	130
— 25–30 mm.	2,909	176.30	172.00	130
Sheets, hot-rolled, St. 1203,				
ord. quality, 3 mm.	3,000	181.81	152.00	153
Sheets, cold-rolled				
SPD 0.8–0.9 mm.	3,693	223.81	194.60	159

[a] Prices at lowest basing points. Exchange rate used per US$=DM3.19; B.Frs. 43.69; F.Frs. 5.

Base prices are not necessarily representative for prices actually paid due to the incidence of published and secret discounts. Secondly, they are not representative of the average price differences between countries since "extras" for dimension, gauge, quality, etc. are not identical.

Prices actually paid by domestic buyers will be higher by the amount of turnover of value added taxes, representing 7 percent of the sales' price in Belgium, 11 percent of the sales' price in Germany and 23 percent of the value added by the steel industry in France. For the largest French producer, Usinor, value added taxes in 1970/71 were about 11 percent of the average sales' price, including exports; hence they must have been well above 11 percent on the domestic price.

Strikingly, for many products, export prices are lower than the domestic price, excluding tax. It is not known to what extent this difference represents a real price differentiation and to what extent it is compensated by open or secret discounts available to major domestic buyers, or (most important probably) "freight absorption" on domestic orders by major export mills located on or near to the ocean.

TABLE 8.5: Growth in the Production of Major Nonferrous Metals and Minerals

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Minerals										
Copper ore (million tons)			5.9	6.0	5.6	5.9	7.0	8.7	9.4	10.3
Bauxite (million tons)		1.3	1.3	1.6	1.9	2.1	2.2	2.2	2.1	2.0
Lead-zinc ores (million tons)			2.4	2.4	2.4	2.6	2.7	2.9	3.1	3.2
Chrome ore (thousand tons)			88.0	80.0	54.0	47.0	45.0	39.0	41.0	34.0
Mercury ore (thousand tons)					—	—	—	284.0	290.0	na
Metals										
Copper[a] (thousand tons)			52.0	56.0	63.0	66.0	70.0	82.0	89.0	93.0
Lead (thousand tons)			101.0	102.0	98.0	94.0	95.0	107.0	97.0	99.0
Zinc (thousand tons)			45.0	46.0	51.0	53.0	79.0	81.0	65.0	53.0
Aluminum oxide (thousand tons)		(82.0)		(95.0)		(101.0)	(118.0)	(122.0)	(125.0)	(123.0)
Aluminum (thousand tons)		36.0	34.0	39.0	42.0	45.0	48.0	48.0	48.0	47.0
Mercury (thousand tons)			0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5

[a] Including secondary recovery.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 8.6: Metal Processing and Mechanical Engineering Industries — Production Data

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	No. of Producers 1971
Castings, steel (thousand tons)	27.1	29.5	34.3	39.3	42.0	36.0	30.1	32.1	39.3	43.8	50.1	17
Castings, malleable (thousand tons)	205.6	203.3	228.0	10.5	10.2	11.3	10.6	12.0	13.3	16.0	17.1	9
Castings, grey iron (thousand tons)				268.2	299.9	277.7	242.5	247.5	292.8	328.9	343.6	100
Castings, nonferrous (thousand tons)	16.1	15.8	17.7	20.0	21.2	20.7	10.8	21.3	23.2	25.1	28.6	103
Forgings (thousand tons)	24.2	24.9	30.7	44.7	51.5	43.0	35.9	43.6	52.0	56.6	60.7	35
Drop forgings (thousand tons)	—	—	—	8.2	10.0	9.8	12.5	12.9	16.7	14.8	16.6	22
Boilers, steam-generating, except for central heating (thousand tons)	8.7	9.6	9.2	12.0	9.3	8.2	11.8	12.7	9.5	9.7	7.8	5
Water turbines (thousand tons)[a]	1.0	0.9	1.5	1.2	1.4	1.8	2.4	2.4	1.2	1.0	1.3	1
(no.)	10.0	8.0	3.0	7.0	10.0	6.0	10.0	—	11.0	4.0	2.0	
(thousand KW)	143.0	28.0	20.0	158.0	285.0	367.0	54.0	—	559.0	26.0	57.0	
Steam turbines (thousand tons)	0.23	0.47	0.09	0.27	1.17	0.71	0.22	0.25	0.61	0.34	0.29	1
(no.)	308.0	139.0	55.0	72.0	72.0	15.0	110.0	6.0	33.0	7.0	10.0	
(thousand KW)	22.0	63.0	17.0	35.0	150.0	89.0	16.0	128.0	78.0	37.0	68.0	
Building machinery and equipment (thousand tons)	8.3	7.2	7.3	13.3	13.0	16.9	13.1	15.4	23.4	26.8	28.4	25
Metalworking machinery (thousand tons)	4.6	4.4	4.9	7.7	9.2	8.9	8.1	6.6	8.4	9.2	10.7	22
Agricultural machinery and implements (thousand tons)	18.1	16.8	22.2	26.6	31.9	30.3	25.6	23.6	25.4	27.4	38.3	32
Other machinery for mining, manufacturing, etc. (thousand tons)	27.7	30.8	29.7	36.4	31.8	32.8	28.7	28.0	33.2	40.8	35.6	
Pumps (thousand tons)	4.1	4.4	3.5	4.5	5.3	5.1	6.2	6.6	6.9	7.0	7.2	26
(thousands)	57.0	77.0	80.0	135.0	198.0	238.0	136.0	144.0	213.0	188.0	204.0	
Compressors (thousand tons)	—	—	—	1.8	1.9	1.6	1.5	1.8	2.0	2.4	2.6	7
(thousands)	—	—	—	10.8	8.8	8.5	9.0	10.9	13.2	16.4	19.3	
Sewing machines (thousand tons)	2.6	3.0	3.8	5.8	5.0	5.4	4.9	5.7	5.4	5.8	5.8	2
(thousands)	38.7	34.6	56.0	33.0	97.7	107.7	93.7	113.2	107.9	116.8	115.5	
Typewriters (thousand tons)	0.24	0.24	0.31	0.26	0.18	0.25	0.14	0.11	0.10	0.10	0.08	2
(thousands)	24.6	22.7	31.4	19.0	29.8	32.4	18.6	19.9	15.8	18.2	19.2	
Locomotives, diesel and electric (thousand tons)	1.3	1.6	1.9	2.2	2.1	6.4	1.2	1.1	2.1	4.2	4.5	5
(no.)	55.0	45.0	77.0	85.0	127.0	84.0	45.0	55.0	60.0	118.0	121.0	
Freight and special vehicles (no.)	2,348.0	2,850.0	2,762.0	3,486.0	4,848.0	4,242.0	2,372.0	2,684.0	4,228.0	2,609.0	3,790.0	7
Passenger coaches and mail vans (no.)	136.0	188.0	100.0	194.0	238.0	226.0	116.0	131.0[b]	94.0	134.0	83.0	2
Marine internal combustion engines (thousand tons)	Separate data for marine engines and other engines were not available prior to 1964			8.1	6.0	7.6	9.9	8.3	8.9	10.2	8.6	7
(no.)				697.0	449.0	761.0	511.0	466.0	383.0			
(thousand HP)				227.0	186.0	206.0	159.0	220.0	244.0	358.0	313.0	
Other internal combustion engines (tons)				15.5	16.5	16.3	15.3	16.7	10.4	22.2	33.1	8
(thousands)				102.0	126.0	137.0	141.0	148.0	174.0	172.0	166.0	
(thousand HP)				1,958.0	3,333.0	3,433.0	3,415.0	2,909.0	4,480.0	5,110.0	5,373.0	

[a] Tonnage for water turbines refers to finished parts only.

[b] Change in series—earlier date no longer comparable.

SOURCE: *Industrija,1971* (Belgrade: Federal Institute of Statistics, 1972), Table 1.6. The number of producers shown above differs from those shown in the table above Table 5.16 in Chapter 5. The above listing includes all producers, the table in Chapter 5 only those whose main activity lies in the lines of production listed.

TABLE 8.7: Imports of Mechanical Equipment[a]

	Yugoslav Economic Survey, 1970 (Capital Goods Only)					Statistics of Foreign Trade			Annual % Growth Rate	
	1965	1966	1967	1968	1969	1969	1970	1971	1965–68	1968–71
Power-generating machinery, nonelectric	81	237	73	245	188	168.9	101 8	216.9	45	—0.5
711.1–2 Steam boilers, generators	60	141	29	156	52	74.8	90.7	142.9		
711.3 Steam turbines	—	58	29	45	59	69.8	6 3	65.5		
711.6–8 Water turbines, etc.	4	—	6	14	20	24.3	4.8	8.5		
Internal combustion engines						275.9	344.2	485.9		
711.4 Aircraft engines and parts						69.4	66.7	76.8		
711.5 Other internal combustion engines and parts						206.5	277.5	409.1		
Agricultural machinery, tractors, and implements	92	195	269	240	239	296.3	397.7	628 5	38	28
712.1 Ploughs, barrows, spreaders, etc.						33.3	48.3	49.8		
712.2 Mowers, harvesters, combines, threshers, etc.	63	102	145	143	159	69.3	113.8	224.2		
712.3 Dairy equipment						81.3	17.4	19.6		
712.9 Poultry, brooders, wine presses and other agric. mach.						39.4	72.8	44.2		
712 5 Tractors (excl. road tractors)	29	93	124	97	73	73 0	145 4	290.7		
Metal-working machinery	496	541	419	304	384	397.2	369.8	947.4	—15	44
715.1 Machine tools	318	281	203	242	294	293.5	263.7	594.3		
715.2 Mach. for foundries and rolling mills, etc.	178	260	316	62	90	103 7	106.1	353 1		
Industrial processing machinery	861	886	1,176	1,382	1,417	1,518.2	1,918.3	2,847.4	17	24
717.1 Textile machinery	220	185	323	394	419	361.4	426.2	716.8		
717.2–3 Leather, shoe and clothing machinery						91.2	148 1	169.6		
718.1 Pulp and paper-making machinery	153	24	53	125	60	58.9	92.7	144.4		
718.2 Printing and book-binding machinery	47	53	78	91	130	133.3	133.5	174.6		
718.3 Food-processing machinery	25	35	58	85	100	101.4	121.8	208.1		
719.5 Machinery for working wood and nonmetallic minerals	47	58	69	67	92	185.5	309.3	482.0		
719.8 Sundry ind. processing machines	169	270	366	373	272	272.0 107 3	422.8	583.1		
719.8 Other machinery and equipment										
719.6 Laundry, washing, canning, packaging and weigh. mach.	200	261	229	247	343					
719.4 Nonelectric household equipment										
Construction and mining machinery	198	236	293	427	510	492.5	664.0	561.3	29	16
718.4 Excavating and digging machinery						288.0	372.4	322.7		
718.5 Mineral crushing and sorting machinery						204 5	291.6	328.6		
General industrial machinery	537	713	737	888	1,158	1,232 9	1,711.2	2,540 1	18	39
719.1 Heating and refrig. machinery (also glass-ind. mach.)	82	106	119	172	204	319 8	393.0	648.3		
719.2 Pumps, compressors, centrifuges	112	158	254	277	316	216.8	415.8	666.1		
719.3 Hauling and conveying machinery	143	188	135	222	295	303.6	403.0	552.1		
719.7 Ball and roller bearings and parts						106 0	132.4	161.7		
719.9 Moulds, fittings, gaskets	200	261	229	247	343	268 3	345.5	480.2		
(719.99) Ships' propellers, nonelec. machinery parts						18.4	21.5	31.7		
Office machinery	55	122	144	154	200	380.1	367.8	551.5	41	24
714.1 Typewriters						33.3	29 7	52.3		
714.2 Calculating machines, cash registers, etc						96.0	117.7	160.1		
714 3 Punch card machines						200.1	156.9	220.7		
714 9 Other office machines and parts						50.7	63 5	118.4		
Other capital goods	162	137	351	496	474					
Various metal structures	47	100	117	260	175					
Other	115	135	250	256	340					
Total capital goods	2,357	3,110	3,377	4,218	4,435					
Total major group 71						4,762.0	5,875.0	8,869.0		
Total metal products	4,936	6,224	7,810	8,858	9,957	9,957.0	13,404.0	15,036 0		
Most comparable totals	2,195	2,973	3,026	3,720	3,961	4,486.0	5,531.0	8,383 0		
Index (1965=100; spliced at 1969)	100	135 4	137.9	169.5	180.5	180.5	222.6	337 3	19	26

[a] The vast bulk of mechanical equipment imports are capital goods. Hence, though different statistical series were used (foreign trade data for earlier years classified according to the Brussels nomenclature are not yet available), the spliced series should give a good idea of general trends.

SOURCES: *Yugoslav Survey*, 3 (1970) ("Imports of Capital Goods"). Updated by mission. Figure for total metal products from 1972 *Statistički Godišnjak, Jugoslavije; Statistics of Foreign Trade of the SFR Yugoslavia* (1969–1971).

TABLE 8.8: Motor Vehicle and Shipbuilding Industries — Production Data

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	No. of Producers 1971
Motor vehicles												
Tractors (thousand tons)	12.2	12.4	20.1	23.8	16.5	15.2	14.6	16.3	18.3	20.4	24.2	7
(thousand units)	4.9	5.4	8.1	9.4	7.4	8.7	8.8	10.9	10.8	12.0	15.0	
Trucks, all sizes (thousand tons)	18.3	21.8	28.0	30.4	29.6	29.0	33.0	36.5	39.9	44.3	46.5	6
(thousand units)	5.4	6.5	8.0	9.1	9.6	8.9	9.6	10.5	11.1	12.9	13.3	
Buses, all sizes (thousand tons)	5.8	6.0	7.4	11.0	11.7	11.9	11.5	11.6	13.1	19.2	19.7	5
(thousand units)	0.8	0.8	1.0	2.6	2.6	2.9	2.4	2.9	3.1	3.8	3.9	
Automobiles (thousand tons)	11.0	10.1	17.0	17.4	22.6	23.8	30.9	40.0	55.6	79.2	81.5	7
(thousand units)	15.0	13.1	20.9	26.4	34.4	36.1	46.2	58.3	78.9	108.8	109.9	
Shipbuilding												
Employment[a]	20.7	21.0	20.7	21.7	20.8	21.3	21.8	22.5	23.9	25.1		
Building of new ships, total effective hours	17.1	16.9	17.7	15.8	16.2	15.0	14.0	15.1	15.9	17.0	16.3	16
Repair work (million)	4.7	4.5	3.6	4.3	4.4	3.9	3.8	3.7	3.6	3.7	3.9	21
Passenger vessels (launched), (thousand grt.)	6.5	14.5	1.5	6.6	4.8	—	—	—	—	10.0	4.5	2
Dry cargo vessels (launched), (thousand grt.)	153.8	177.8	228.6	118.5	133.8	168.9	209.7	287.1	275.3	285.4	461.4	(5)
Tankers (launched), (thousand grt.)	24.3	9.8	13.1	47.8	101.2	98.6	48.2	54.5	145.6	123.2	34.4	1
Total (thousand grt.)	184.6	202.1	243.2	272.9	239.8	267.5	258.9	341.6	420.9	408.6	495.8	
Passenger vessels delivered (no.)	—	4.0	1.0	2.0	5.0	—	—	—	—	—	—	
(thousand grt.)	—	21.7	0.5	2.2	17.0	—	—	—	—	—	—	
Dry cargo vessels delivered (no.)	17.0	30.0	23.0	15.0	10.0	18.0	20.0	24.0	19.0	16.0	30.0	6
(thousand grt.)	120.3	201.8	236.4	161.8	108.7	176.3	239.3	284.2	210.8	232.0	549.4	
Tankers, delivered (no.)	2.0	2.0	4.0	3.0	8.0	9.0	3.0	2.0	2.0	7.0	2.0	1
(thousand grt.)	15.1	2.2	25.3	25.5	106.4	124.6	8.9	18.1	81.2	152.0	19.4	
Ship exports (thousand tons) (ND million)				611.0	1,186.0	1,324.0	882.0	1,229.0	1,510.0	2,123.0	2,036.0	
Ship imports (ND million)				83.0	179.0	380.0	301.0	511.0	466.0	642.0	203.0	

[a] The employment series is included here to suggest an apparent inconsistency between the rise in employment by 16 percent between 1965 and 1971,and the vital constancy of the "total effective hours."

SOURCE: Data provided by the Federal Institute of Statistics.

TABLE 8.9: Output of Major Chemical Products

(In Thousands of Tons)

	1961	1965	1966	1967	1968	1969	1970	1971	Index 1971 1961 = 100	Index 1971 1966 = 100
Sulphuric acid 66°	234	435	542	592	589	696	747	807	345	149
Nitric acid 100°	8	247	567	268	340	488	579	644	8,050	113
Caustic soda	48	88	91	87	87	84	93	92	191	101
Chlorine	10	38	41	36	38	41	44	42	424	102
Sodium carbonate	90	93	94	98	100	109	113	105	116	112
Calcium carbide		105	112	121	133	132	113	66	—	59
Ammonia	15	138	149	150	211	293	346	451	3,000	303
Phosphatic fertilizers (16.5% P_2O_5)	413	822	1,086	1,235	1,072	837	422	491	119	45
Nitrogenous fertilizers (20% N)	23	451	499	505	661	917	1,332	845	367	169
Staple fibers	16	18	19	20	25	22	20	21	131	111
Rayon	3	4	4	4	6	7	7	7	233	175
Cellophane	—	1	0.1	—	—	3	5	6	—	—
Polyacrylonitrile fibers	—	1	4	4	4	6	6	8	—	200
Plastics — total	15	56	62	62	71	75	85	86	573	139
PVC		9	15	16	17	19	23	18	—	120
Polyethylene		15	18	15	19	21	20	20	—	111
Polystyrene		6	7	7	6	7	8	9	—	129
Phenol	—	6	9	8	7	7	8	7	—	78
Formaldehyde	—	12	14	19	22	21	33	52	—	371
Methanol	—	8	7	7	5	—	5	1	—	14
Lindane (tons)	—	—	221	209	128	192	230	242	—	110
Pepein, 100% (tons)	265	517	799	1,193	556	200	11	—	—	—
Penicillin (billion U)	6,000	31,000	31,000	25,000	37,000	28	33	53	883	171
Vitamin C (tons)	16	76	122	131	147	229	312	366	2,290	300
Oil paints	12	19	18	20	16	16	17	12	100	67
Lacquers and enamels	17	31	34	40	39	45	54	69	406	203
Detergents (15% A.S.)	21	47	53	59	64	89	98	118	562	223

SOURCE: Data provided by the Federal Institute of Statistics.

TABLE 8.10: Forest Products Industries

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Volume of cut logs (million cu.m.)	9.1	9.5	9.8	10.1	10.3	9.7	9.5	9.5	9.7	9.9
Saw logs	4.1	4.0	3.6	3.6	3.9	4.4	4.4	4.5	4.9	4.8
Veneer and rotary logs	1.5	1.6	1.6	1.7	1.8	0.33	0.28	0.33	0.39	0.36
Sundry industrial and other logs	—	—	—	—	—	1.2	1.0	1.1	0.9	1.0
Pulpwood	1.2	1.2	1.7	1.9	1.8	1.5	1.6	1.5	1.4	1.6
Fuel wood	2.3	2.7	2.9	2.9	2.8	2.3	2.1	2.1	2.1	2.1
Industrial output										
Sawn timber (million cu.m.)	2.7	2.7	2.7	2.7	2.8	2.9	2.9	3.0	3.0	3.3
Conifers	1.8	1.7	1.6	1.5	1.5	1.6	1.7	1.8	1.8	2.0
Beech and other hardwoods	0.9	1.0	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.3
Veneers and plywood (thousand cu.m.)	—	—	280.0	318.0	306.0	272.0	257.0	289.0	303.0	315.0
Fiberboard (million sq. m.)	—	—	20.4	20.7	20.6	17.0	19.0	16.0	19.3	25.3
Wood pulp (thousand tons)[a]	279.0	300.0	355.0	408.0	438.0	483.0	494.0	505.0	484.0	517.0
Mechanical	60.0	66.0	85.0	84.0	90.0	96.0	110.0	105.0	94.0	95.0
Semichemical	(25)	(25)	28.0	31.0	31.0	27.0	26.0	30.0	34.0	28.0
Chemical	194.0	209.0	242.0	293.0	317.0	360.0	358.0	370.0	356.0	394.0
Paper and paperboard (thousand tons)[b]	—	—	384.0	446.0	479.0	530.0	565.0	596.0	589.0	615.0
Newsprint	25.0	32.0	46.0	46.0	53.0	62.0	73.0	69.0	75.0	80.0
Printing and writing paper	77.0	82.0	111.0	128.0	138.0	140.0	157.0	158.0	140.0	137.0
Kraft paper	39.0	44.0	47.0	75.0	78.0	117.0	101.0	107.0	106.0	108.0
Other wrapping papers	—	—	88.0	97.0	103.0	107.0	109.0	133.0	130.0	142.0
Other paper	—	—	19.0	20.0	23.0	25.0	27.0	26.0	32.0	42.0
Cardboard and pasteboard	—	—	73.0	82.0	84.0	88.0	98.0	102.0	106.0	106.0
Foreign trade in forest products (in million dinars of constant exchange value, i.e., ND15 per US$1)[c]										
Exports										
Products of forest economy	—	—	172.0	149.0	103.0	92.0	112.0	154.0	183.0	212.0
Wood products	—	—	1,428.0	1,440.0	1,529.0	1,471.0	1,635.0	1,883.0	1,915.0	2,034.0
Paper and paper products	—	—	226.0	282.0	349.0	380.0	508.0	534.0	491.0	379.0
Total	—	—	1,826.0	1,871.0	1,981.0	1,943.0	2,255.0	2,571.0	2,589.0	2,625.0
Imports										
Products of forest economy	—	—	25.0	21.0	67.0	81.0	87.0	104.0	325.0	337.0
Wood products	—	—	167.0	114.0	124.0	156.0	208.0	340.0	663.0	708.0
Paper and paper products	—	—	246.0	261.0	223.0	375.0	410.0	574.0	1,085.0	942.0
Total	—	—	438.0	396.0	414.0	612.0	705.0	1,018.0	2,073.0	1,987.0
Net trade surplus in forest products	—	—	1,388.0	1,475.0	1,567.0	1,331.0	1,550.0	1,553.0	516.0	638.0

[a] Apparently does not include semichemical pulp which was produced in 1962–71 in annual quantities ranging from 26,000 to 33,000 tons.
[b] Totals as from original source do not always add.
[c] This is the basis on which these figures are given in the *Statistički Godišnjak, Jugoslavije*.

SOURCE: *Statistički Godišnjak, Jugoslavije*, 1970–71; *Indeks* (November 1972).

TABLE 8.11: Forest Areas, and Annual Growth and Removals

	Serbia	Bos.-H.	Croatia	Slov.	Maced.	Monten.	Total
Forest area							
(1970, thousand ha)							
Total	2,345	2,123	2,012	946	890	496	8,812
Publicly owned	1,207	1,711	1,520	335	890	496	6,159
Privately owned	1,138	412	491	611	—	—	2,652
Annual increment							
(1965, million cu.m.)							
Total	6.69	9.57	6.09	4.64	1.96	2.05	31.00
Coniferous	0.46	3.29	1.10	2.65	0.15	0.69	8.34
Broad-leaved	6.23	6.28	4.99	1.99	1.81	1.36	22.66
Annual removals							
(1970, million cu.m.)							
Total	3.14	5.97	4.05	2.78	0.73	0.83	19.50
Coniferous	0.23	2.22	0.57	1.66	0.08	0.34	5.10
Broad-leaved	2.91	3.73	3.48	1.22	0.66	0.49	12.40

SOURCE: Data provided by the Federal Chamber of Economy.

TABLE 8.12: Structure of Pulp and Paper Industry, 1970
(Production Data for Individual Producers)

	Pulp						Paper and Board					
	Mech.	Semi Chem.	Sul-phite	Sul-phate	Visc.	All Grades	News-print	Print. and Writ.	Kraft	Other	Board	All Grades
Banja Luka					57.2	57.2				3.8		3.8
Drvar			11.5			11.5		2.5	3.1	3.4		9.0
Maglaj			82.8			82.8			83.6	2.6		86.2
Prijedor			41.6			41.6		11.0		12.7		23.7
											0.1	0.1
Bosnia-Herzegovina			41 6	54.3	57.2	193.1		13.5	86.7	22.5	0.1	122.8
Kocani			5.6			5.6		7.1				7.1
Skopje										10.2		10.2
Macedonia			5.6			5.6		7.1		10.2		17.3
Montenegro (Ivangrad)				31.6		31.6		20.1	0.5	5.1		25.7
Rijeka										9.6		9.6
Belisce		14.9				14.9				27.9	0.5	28.4
Plaski				8.6		8.6			18.6			18.6
Zagreb	0.2	5.1	6.8			12.1		8.4		25.6		34.0
Croatia	0.2	20.0	6.8	8.0		35.6		8.4	18.6	63.1	0.5	190.6
Kolicevo	15.9					15.9					26.7	26.7
Medvode			15.5			15.5						—
Podvelka	3.6					3.6					3.4	3.4
Prevalje	4.6					4.6					4.7	4.7
Radece						—		7.3		3.4		10.7
Sladki Vrh						—				14.6	8.3	22.9
Trzic	3.2					3.2					3.1	3.1
Ksrko	43.5		52.8			96.3	47.6	16.3			5.6	69.5
Llubljana	4.1					4.1		29.5				29.5
Slovenia	74.9	68.3	58.3			143.2	47.6	53.1		18.0	51.8	170.5
Velike Beograd	3.4					3.4		10.1		6.5	1.6	18.2
Umka						—					24.4	24.4
Cacak	3.0					3.0		6.7		1.2	0.9	8.8
Lipljan						—					6.2	6.2
Mitrovica	24.1			36.3		60.4	27.4	16.7		2.8		46.9
Knezevac						—					3.0	3.0
Vladicin Han		13.9				13.9				24.6		24.6
Serbia	30.5	13.9		36.3		80.7	27.4	33.5		35.1	36.1	132.1
	105.6	33.9	122.3	170.8	57.2	489.9	75.0	135.7	105.8	154.0	88.5	559.0
For comparison official statistics	93.9	38.8	122.2	170.8	62.9	483.6	75.0	139.9	106.0	162.0	106.4	589.3
Share of large and medium-sized plants (%)	64.0	85.0	77.0	88.0	100.0		100.0	61.0	79.0	69.0	58.0	

Sources: Chamber of Commerce for the Pulp and Paper Industry; Draft Report of the FAO Forestry and Forest Industries; Identification/Preparation Mission (1970); Report on Forest Industries Sector, IBRD Mission to Yugoslavia (May, 1971).

TABLE 8.13: Prices of Pulp and Paper

(Current Dinars per Ton)

	Dec. 1969	Dec. 1970	Comparison, Dec. 1970 US$ per Ton		Recent International Quotations 1972	
			Yugoslav Price [a]	Avge. Swedish Export Price	US$ per Metric Ton	
Unbleached coniferous sulphite pulp	1,568.0	2,893.0	192.87		165.0	
Bleached coniferous sulphite pulp	1,821.0	2,802.0	186.80	166.95		
Bleached deciduous sulphite pulp	1,538.0	2,070.0	204.67		160.0	cif North America
Bleached deciduous sulphate pulp	1,604.0	2,300.0	153.33		165.0	cif North America
Mechanical pulp	999.0	1,697.0	113.13			
Newsprint	1,620.0	2,000.0	133.33		161.75	List price Ontario and Quebec
Woodfree writing paper, 1/2 glued mach. smoothed (on one side), large format 70-120 gr/m², bleached white	3,220.0	4,070.0	271.33		320.0	Delivered price in North America
Woodfree writing paper 1/1 glued satined paper, large format 6-69 gr/m², bleached white	3,450.0	4,320.0	288.00			
Woodfree offset paper, 1/1 glued large format, mach. smooth, 70-120 gr/m²	3,710.0	4,860.0	324.00			
Medium-fine printing paper	2,790.0	3,651.0	243.33		250.0	Delivered price in N. America
Kraft paper for bags	2,510.0	3,160.0	210.67		200.0	Delivered price in N. America
Wrapping superior paper 0/0 glued, 70 gr/m²	1,900.0	2,350.0	156.67		143.0	Delivered price in N. America
Cigarette paper	16,150.0	16,150.0	1,076.67			
Parchment paper	6,150.0	7,270.0	484.67			
Medium-fine cardboard	2,740.0	3,580.0	238.67			
Plied cardboard	2,320.0	2,800.0	186.67			
Cardboard for folders and bindings	5,350.0	6,600.0	440.00			
White paperboard	2,200.0	2,250.0	150.00			

[a] The exchange rate as of December 30, 1970 was ND12.50 per US$1, but since a new rate of ND15 was adopted in the first quarter of 1970, the latter rate has been used for comparative purposes.

Average wholesale prices for paper and paper products in July 1972, were about 10 percent above the December 1970 level, i.e., they had changed roughly in proportion to the external devaluation of the Yugoslav currency.

SOURCE: Data provided by Federal Chamber of Economy.

TABLE 8.14: Structure of "Accumulation" in Manufacturing Industries, 1970

	Total Assets (Mn. Dinars)	Breakdown of Gross Value Added			Various Capital Allocations in % of Total Assets						
		Pers. Incomes Incl. Contributions out of Income (%)[a]	Depreciation (%)	Alloca. to Capital (%)	Contract Oblig.	Legal Oblig.	Turnover Taxes	Contributs. to Social Services	Surplus to Enterp. Funds	Total (Incl. Turn. Tax)	Total (Excl. Turn. Tax)
Steel	6,353	52.2	22.4	25.4	1.8	2.3	—	1.2	2.8	8.1	8.1
Nonferrous metals	5,971	51.2	24.7	14.1	3.0	3.1	—	1.0	2.3	9.5	9.5
Nonmetallic metals	2,489	61.6	12.4	26.0	1.1	4.3	—	1.2	7.3	14.0	14.0
Metal products	17,023	61.7	10.0	28.3	2.7	3.8	1.0	1.4	6.7	15.7	14.7
Shipbuilding	2,955	68.8	8.9	22.3	—2.2	2.5	—	0.9	6.9	8.2	8.2
Electrical equipment	6,746	61.2	8.6	30.2	5.2	3.6	0.6	2.0	6.1	17.4	16.8
Chemicals	9,166	49.6	14.5	35.9	3.4	3.1	0.3	1.8	6.3	15.0	14.7
Construction materials	2,745	54.0	10.5	35.5	2.3	5.0	4.0	1.3	13.4	25.8	21.8
Wood products	4,985	60.6	9.2	30.2	4.1	4.8	3.5	1.5	10.2	24.1	20.6
Pulp and paper	4,319	60.1	20.6	19.3	3.0	1.6	—	0.4	—0.4	4.7	4.7
Textiles	11,454	61.2	9.4	29.3	3.8	3.0	2.4	1.0	5.0	15.2	12.8
Leather	2,095	61.2	5.9	32.9	3.8	3.8	7.6	1.2	3.6	20.1	12.5
Rubber	1,253	52.8	7.0	40.2	2.9	4.9	9.8	1.9	9.9	29.5	19.6
Food	8,238	53.7	10.3	36.0	3.4	2.6	2.2	2.0	5.9	16.1	13.9
Graphical industry	2,902	62.5	4.9	32.6	2.7	4.4	6.5	2.8	12.3	28.7	22.2
Tobacco industry	1,701	27.4	5.0	67.6	3.7	1.9	33.5	1.8	0.1	41.0	7.5
Total[b]	90,195				3.1	3.3	2.2	1.4	5.9	15.9	13.7

[a] Contributions out of personal incomes which are regarded as part of the "accumulation" (see 1972 *Statistički Godišnjak, Jugoslavije*, Table 106) represented 42–46.7 percent on top of net personal incomes except in the steel and graphical industries where they averaged respectively 38.3 and 39.1 percent of net personal incomes for 1970.

[b] Excluding film industry, mining exploration and miscellaneous manufacturing industries.

SOURCES: *Statistički Godišnjak, Jugoslavije*, 1972, Table 105–6. Basic Data on Economic Organizations of the Social Sector in 1970. The figure for total (active assets) is the sum of net fixed assets (after depreciation) according to *Statistički Godišnjak, Jugoslavije*, 1972, and total current assets, as recorded in Table 14 of "Industrial Production 1970," *Statistički Bilten*, 734.

TABLE 8.15: Nominal and Effective Tariffs by Industry

	Nominal Tariff (%)	Effective Tariff (%)
Energy		
Electricity	0.0	—0.45
Coal	0.0	—2.29
Coke and gas	8.0	30.29
Crude petroleum and natural gas	7.0	7.73
Crude petroleum products	10.0	18.78
Metallurgy		
Iron ore	3.0	2.53
Ferrous metallurgy	11.2	23.90
Nonferrous metallic ores	1.2	—1.33
Alumina and aluminum	3.0	4.23
Other nonferrous metals	1.8	4.09
Rolling mills of nonferrous metals	9.1	33.34
Nonmetals		
Nonmetallic minerals	2.7	1.64
Glass	13.3	21.24
Refractory material	5.8	8.46
Porcelain and ceramics	15.0	21.72
Other processing of nonmetals	7.1	9.19
Stone, sand and lime	3.0	2.64
Bricks and tiles	4.0	4.56
Cement	10.0	16.66
Other building materials	11.0	18.02
Metal products and electric equipment		
Metal semiproducts	22.9	45.63
Agricultural machines	20.6	35.18
Other machines and equipment	28.3	45.90
Fine apparatus and instruments	26.2	37.87
Rail vehicles	23.4	33.68
Road vehicles	26.7	41.77
Metal products, not elsewhere specified	17.5	26.17
Shipbuilding	13.3	6.97
Electrical machinery and apparatus	29.8	49.83
Electrical apparatus for household use	30.5	61.57
Cables and conductors	23.0	79.91
Radio and telecommunication equipment	26.4	39.56
Other electrical products	20.0	34.22
Chemicals		
Nonorganic and organic chemicals	5.7	7.74
Plastic materials and fibers	8.6	12.09
Pharmaceutical products	10.6	13.58
Soap and cosmetics	17.5	35.54
Plastic articles	18.3	36.90
Other chemicals	10.7	16.75
Paper and cellulose	7.3	19.34
Paper products	15.0	32.44

	Nominal Tariff (%)	Effective Tariff (%)
Wood products		
Timber and boards	1.2	0.83
Final wood products	10.6	19.50
Chemical wood products	10.0	18.24
Textiles and clothing		
Hemp and flax fiber	5.0	9.69
Cotton yarn and fabrics	16.7	35.54
Woollen yarn and fabrics	14.5	36.83
Other yarn and fabrics	12.8	20.43
Knitted goods	12.9	14.09
Made-up clothing	22.8	42.18
Other textile products	17.3	30.30
Leather and rubber		
Leather and fur	10.5	33.66
Leather footwear	21.1	41.51
Leather fancy goods and made-up articles	18.7	33.44
Rubber	12.7	18.20
Food Products		
Milling of cereals	3.0	2.80
Bread and pastes	11.6	16.39
Livestock slaughter and meat preparations	10.4	26.38
Fruit and vegetable preparations	6.1	4.38
Sugar	6.1	26.45
Sweets and cocoa products	9.6	18.58
Vegetable oils and fats	5.5	16.22
Alcohol and beverages	21.0	39.74
Other foodstuffs	6.0	18.97
Permented tobacco	5.0	12.41
Tobacco manufactures	20.0	66.21
Others		
Printing, publishing and allied industries	0.0	—3.03
Motion picture production	0.0	—1.16
Miscellaneous industries	21.6	40.42
Agriculture		
Crop farming	1.5	1.07
Fruit growing and viticulture	6.0	6.29
Livestock breeding	3.9	9.81
Fishing	2.0	0.06
Forestry		
Forestry	1.0	0.66

SOURCE: *Efektivna Carinska Zascita v Jugoslavije* (Llubljana: Ekonomski Institut, Pravne Fakultete, 1972).

TABLE 9.1: Freight Traffic by Mode of Transport

					Road Transport	
	Total	Railway	Inland Waterways	Coastal Shipping	Trucking Enterprises	Own Account
1958	133.0	57.2	4.2	0.9	7.6	63.0
1959	144.6	60.7	4.8	1.0	10.1	68.0
1960	224.2	65.2	5.6	1.0	12.4	140.0
1961	242.8	64.2	5.9	1.0	14.6	157.0
1962	277.6	63.6	5.7	1.0	17.3	190.0
1963	322.6	71.8	6.9	1.2	23.8	219.0
1964	426.6	76.5	8.2	1.4	30.4	310.0
1965	442.5	74.8	9.2	1.4	36.0	321.0
1966	502.6	71.6	10.6	1.7	39.7	379.0
1967	500.1	68.7	11.0	1.6	40.6	378.0
1968	541.7	68.4	12.5	1.8	43.9	415.0
1969	638.1	70.2	13.3	2.0	56.6	496.0
1970	133.4	75.4	15.7	1.8	58.5	na
Plan 1975	na	92.0	22.0	na	96.0	na

(In Millions of Metric Tons)

SOURCE: *Statistički Bilten,* 1958–71; and Federal Planning Institute.

TABLE 9.2: Passenger Traffic by Mode of Transport

					(In Millions of Passengers)	
	Total	Railway	Bus[a]	Air[b]	Coastal Shipping	Inland Waterways
1958	254.8	184.0	63.3	0.1	6.3	1.1
1959	279.6	190.7	81.3	0.2	6.8	0.6
1960	321.2	212.2	101.1	0.2	7.2	0.5
1961	311.1	195.0	108.5	0.3	6.7	0.6
1962	322.6	192.9	122.4	0.3	6.2	0.7
1963	354.6	201.3	146.6	0.4	5.6	0.5
1964	414.7	225.9	182.1	0.5	5.8	0.4
1965	459.4	236.0	217.7	0.6	4.9	0.1
1966	512.6	213.2	294.8	0.6	3.9	0.1
1967	572.8	195.9	372.9	0.6	3.3	0.1
1968	605.5	182.9	418.3	0.7	3.4	0.1
1969	645.6	163.2	477.5	1.1	3.8	0.1
1970	705.9	157.0	543.3	1.5	4.0	0.1
Plan 1975	1,036.5	176.0	850.0	4.8	5.6	0.1

[a] Interurban services only.
[b] Domestic services only.
SOURCE: *Statistički Bilten,* 1958–71; and Federal Planning Institute.

TABLE 9.3: Commodity Composition of Rail and Road Freight in 1969

	Rail Transport					Road Transport[a]				
	Thousand m. Tons	%	Million m. Ton/Km	%	Average Haul in Km	Thousand m. Tons	%	Million m. Ton/Km	%	Average Haul in Km
Total	70,198	100.0	17,691	100.0	252	56,568	100.0	5,563	100.0	98
Solid fuel	17,359	24.7	3,734	21.1	215	2,488	4.4	95	1.7	38
Nonmetal minerals	9,730	13.9	1,684	9.5	173	23,865	42.2	540	9.7	23
Special transactions	5,320	7.6	1,539	8.7	289	187	—	41	0.7	219
Iron ores	4,642	6.6	1,105	6.2	238	1,115	2.0	135	2.4	121
Wood and cork	4,525	6.4	1,248	7.1	276	3,891	6.9	448	8.1	115
Lime, cement and other	3,854	5.5	869	4.9	225	5,046	8.9	575	10.3	114
Crude petroleum	3,745	5.3	1,118	6.3	299	2,961	5.2	461	8.3	156
Other food products	3,592	5.1	918	5.2	256	2,921	5.2	623	11.2	213
Metals	3,074	4.4	1,126	6.4	366	1,748	3.1	434	7.8	248
Ores	2,633	3.8	608	3.4	231	1,876	3.3	124	2.2	66
Fertilizer	2,562	3.6	702	4.0	274	5	0.9	56	1.0	110
Machinery	1,864	2.7	449	2.5	241	481	0.9	122	2.2	254
Cereals	1,707	2.4	552	3.1	323	653	1.0	198	3.6	303
Chemicals	1,369	2.0	386	2.2	282	845	1.5	223	4.0	264
Other	4,222	6.0	1,653	9.3	392	7,981	14.0	1,488	26.7	186

[a] Includes public transport by transport and other enterprises.

SOURCE: Federal Institute of Statistics, December 1971; *Statistički Bilten*, 1971.

TABLE 9.4: Registered Motor Vehicle Fleet

(In Thousands)

	Motor Cycles	Passenger Cars	Buses	Trucks	Trailers and Others	Total
1958	37.6	28.3	3.9	43.6	12.8	126.2
1959	54.5	39.0	4.6	49.8	16.3	164.2
1960	69.7	54.2	5.1	54.6	19.4	203.1
1961	72.1	75.5	5.2	50.5	16.6	219.9
1962	91.0	97.9	6.1	58.0	19.2	272.2
1963	98.0	112.5	6.6	64.5	20.3	301.9
1964	102.2	141.8	7.4	72.6	21.8	345.8
1965	106.4	177.8	8.2	84.4	24.7	411.5
1966	112.3	253.3	9.8	98.8	27.6	501.8
1967	111.9	355.9	11.2	117.2	31.7	627.9
1968	107.0	439.9	12.3	122.9	33.1	715.2
1969	111.9	562.5	13.3	131.2	36.0	854.9
1970	107.0	720.8	14.8	148.0	40.7	1,032.0
Plan 1975	125.0	1,800.0	23.0	172.0	65.0	2,185.0

SOURCE: *Statistički Bilten*, 1958–71; and Federal Planning Institute.

TABLE 9.5: International Traffic through Main Ports[a]

(In Thousands of Tons)

	1968	1969	1970	1971	1975
Liquid bulk					
Oil and oil products	3,450	2,800	3,930	5,250	6,960
Dry bulk					
Coal	840	570	660	780	1,780
Ore and concentrates	970	1,160	1,220	940	1,290
Nonmetallic minerals	120	60	30	260	460
Cement	200	370	530	180	580
Grain	140	240	310	680	860
Fertilizer	180	330	100	340	470
Total	2,450	2,730	2,850	3,180	5,440
General cargo					
Metallurgical products	480	460	610	730	1,000
Wood and cellulose	170	200	470	330	390
Construction materials	30	0	0	0	50
Foodstuffs	550	390	670	500	520
Other	590	760	590	470	1,140
Total	1,820	1,810	2,340	2,030	3,100
Grand total	7,720	7,340	9,120	10,460	15,500

[a] Ports of Koper, Rijeka, Split, Ploce and Bar.
SOURCE: *Statistički Bilten*, 1958–71; and Federal Planning Institute.

TABLE 9.6: Total Installed Capacity of Power Plants

(In MW)

	1939	1950	1955	1960	1965	1970	1971
Total SFRJ	505	673	1,220	2,468	3,711	6,873	7,623
Bosnia-Herzegovina	56	71	202	449	742	1,254	1,454
Montenegro	2	5	13	89	212	218	218
Croatia	158	188	327	470	890	1,393	1,393
Macedonia	10	20	40	143	181	341	341
Slovenia	133	214	352	614	663	996	996
Serbia	148	175	286	702	1,024	2,671	3,221

SOURCE: Union of Yugoslav Electric Power Industry, Belgrade, 1971.

TABLE 9.7: Production of Electricity

(In Millions of KWh)

	1939	1950	1955	1960	1965	1970	1971
Total SFRJ	1,173	2,408	4,340	8,928	15,523	26,023	29,509
Bosnia-Herzegovina	121	241	661	1,827	2,056	5,619	6,374
Montenegro	1	6	25	142	865	998	890
Croatia	419	577	1,021	1,671	3,391	4,621	4,957
Macedonia	8	45	127	413	586	1,221	1,197
Slovenia	350	937	1,555	2,655	3,590	4,869	4,439
Serbia	275	602	950	2,210	4,035	8,695	11,652

SOURCE: Union of Yugoslav Electric Power Industry, Belgrade, 1971.

TABLE 9.8: Per Capita Consumption of Electricity

(In KWh)

	1951	1955	1960	1965	1970	1971
Total SFRJ	126	193	396	675	1,087	1,202
Bosnia-Herzegovina	83	164	350	538	736	905
Montenegro	18	46	245	632	980	1,026
Croatia	183	265	467	735	1,144	1,245
Macedonia	38	75	264	497	1,163	1,345
Slovenia	402	589	1,229	2,636	2,738	2,738
Serbia	72	112	243	492	882	980

SOURCE: Union of Yugoslav Electric Power Industry, Belgrade, 1971.

TABLE 9.9: Capital Investment in Electricity

				(In Millions of Dinars)
	Power Plants and Transmission Network	Distribution Network	Total	Share of Electricity Sector in Industrial Investment (%)
1955				
1960	562	180	742	23.9
1965	1,345	265	1,610	23.1
1966	1,548	325	1,873	22.6
1967	1,872	391	2,263	28.5
1968	2,506	511	3,017	29.8
1969	2,035	521	2,556	25.2
1970	2,810	640	3,450	27.9
1971	1,900	620	2,520	

SOURCE: Union of Yugoslav Electric Power Industry, Belgrade, 1971.

TABLE 9.10: Actual and Expected Production, and Consumption of Electric Power

						(In Millions of KWh)
	1970			1975		
	Production	Consumption	Balance	Production	Consumption	Balance
Total SFRJ	26,023	26,023		44,061	44,061	
Bosnia-Herzegovina	3,269	5,619	+2,350	6,000	8,635	+2,635
Montenegro	618	998	+380	2,500	2,023	−477
Croatia	5,991	4,621	−1,370	10,800	7,717	−3,083
Macedonia	2,121	1,221	+900	4,700	2,930	−1,770
Slovenia	5,009	4,869	−140	6,400	6,261	−39
Serbia	9,015	8,695	−320	13,661	16,395	+2,734
Kosovo	1,099	1,769	+670	2,000	4,200	+2,200
Vojvodina	2,260	230	−2,030	3,700	300	−3,400
			+440			−1,200

SOURCE: *Social Development Plan of Yugoslavia*, 1971.

TABLE 9.11: Number of Apartments Constructed

	Yugoslavia	Bosnia and Herzegovina	Montenegro	Croatia	Macedonia	Slovenia	Serbia Total	Proper	Vojvodina	Kosovo
Total										
1953	38,199	10,193	960	9,123	1,992	4,213	11,718	7,988	2,107	1,623
1954	34,208	9,753	883	7,836	1,921	3,888	9,927	7,293	1,449	1,185
1955	29,849	8,397	668	6,462	2,300	3,310	8,712	6,852	1,095	765
1956	37,005	8,884	1,265	9,235	1,778	4,130	11,713	8,650	1,618	1,445
1957	44,725	11,216	1,027	10,806	2,872	3,937	14,867	10,383	2,895	1,589
1958	61,681	14,680	819	14,284	3,210	5,035	23,653	16,069	5,596	1,988
1959	60,614	13,484	1,465	13,798	4,074	6,621	21,172	15,695	3,808	1,669
1960	75,733	18,573	1,570	15,431	5,373	8,080	26,706	17,979	6,149	2,578
1961	100,175	22,691	1,914	23,192	6,677	8,669	37,032	25,167	7,538	4,327
1962	104,523	21,816	2,095	22,560	7,868	9,024	41,160	28,876	7,557	4,727
1963	110,183	23,431	2,642	23,602	10,529	8,305	41,674	29,300	7,553	4,821
1964	121,549	23,839	1,720	25,589	17,717	8,757	43,927	31,668	7,922	4,337
1965	121,972	25,611	2,680	29,878	9,469	8,022	46,312	31,066	9,708	5,538
1966	129,109	26,058	2,485	30,063	8,939	9,636	51,928	34,772	11,358	5,798
1967	127,600	24,115	3,216	32,076	7,654	9,153	51,386	36,256	9,050	6,080
1968	128,883	24,660	2,463	29,936	8,082	9,375	54,367	38,828	9,854	5,685
1969	120,116	23,956	2,421	25,796	6,492	9,088	52,363	37,557	8,829	5,977
1970	128,792	29,349	2,684	28,037	7,241	9,261	52,220	36,417	9,730	6,073
Total										
1953-70	1,574,916	340,706	32,977	357,704	114,188	128,504	600,837	420,816	113,816	66,205
Social Sector										
1953	9,099	1,893	631	1,768	536	1,723	2,548	2,236	157	155
1954	12,339	2,942	593	2,402	659	2,032	3,711	3,037	392	282
1955	12,907	2,721	444	2,318	1,091	2,052	4,281	3,740	316	225
1956	14,375	2,850	772	2,960	632	2,432	4,729	3,741	444	544
1957	18,095	3,721	612	3,877	1,393	2,435	6,057	4,752	769	536
1958	26,829	5,324	412	5,440	1,675	3,412	10,566	7,834	2,100	632
1959	31,150	5,489	1,075	6,603	1,937	4,902	11,144	8,775	1,741	628
1960	35,628	6,962	1,040	7,279	2,293	5,926	12,128	8,458	2,968	702
1961	43,215	7,428	1,188	11,141	2,590	6,270	14,598	10,233	3,423	942
1962	43,597	6,471	1,074	10,056	3,264	6,738	15,994	11,884	3,518	592
1963	43,623	5,954	1,586	9,290	5,662	6,142	14,989	11,247	2,940	802
1964	51,519	6,535	810	8,991	11,887	6,633	16,663	13,142	2,806	715
1965	44,578	6,530	1,074	11,643	3,056	5,256	17,019	11,628	4,497	894
1966	50,330	6,024	945	11,508	4,258	6,062	21,533	14,627	5,619	1,287
1967	45,147	4,664	1,061	12,077	2,544	5,352	19,449	14,600	3,895	954
1968	43,775	4,667	958	10,553	2,241	5,089	20,267	15,497	4,276	494
1969	39,929	4,276	931	9,637	1,678	4,364	19,043	15,690	3,022	331
1970	44,394	6,280	913	9,946	2,965	3,959	20,331	16,614	3,260	457
Total										
1953-70	610,529	90,731	16,119	137,489	50,361	80,779	235,050	177,735	46,143	11,172

SOURCE: *Gradevinarstvo, 1970.*

TABLE 9.12: Some Indicators of the Development of the Construction Industry

(In Millions of Current Dinars)

	No. of Construction Enterprises	Employment (Annual Average Thousand)	Construction Prices	Personal Incomes	Investment
1952	na	193	100	253	na
1953	na	233	108	274	na
1954	na	266	119	333	179
1955	na	281	125	379	165
1956	na	202	129	300	104
1957	605	228	139	403	154
1958	616	242	146	481	156
1959	601	260	154	656	154
1960	653	291	174	785	204
1961	710	301	218	915	274
1962	669	288	226	942	314
1963	618	317	239	1,178	311
1964	639	348	279	1,723	457
1965	672	315	337	2,044	310
1966	706	291	420	2,323	343
1967	733	291	450	3,167	358
1968	749	310	476	3,646	559
1969	730	332	514	4,366	859
1970	791	356	586	5,537	1,020

SOURCE: *Gradevinarstvo, 1970.*

TABLE 9.13: Housing Stock

	1951			1961			1971		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Number of apartments	3,490.0	2,601.0	889.0	4,138.0	2,971.0	1,167.0	5,043.0	2,939.0	2,104.0
Surface area (thousands of m^2)	144,241.0	101,329.0	42,912.0	183,964.0	129,798.0	54,166.0	249,932.0	144,222.0	105,710.0
Average area per apartment (m^2)	41.3	39.0	48.3	45.5	43.7	46.4	49.6	49.1	50.2
Average surface area per person (m^2)	8.7	8.3	11.5	9.9	9.8	10.3	12.2	11.3	13.6
Average number of persons per apartment	4.7	4.8	4.1	4.5	4.5	4.5	4.1	4.3	3.7

SOURCE: *Statistički Godišnjak, Jugoslavije,* 1972.

TABLE 9.14: Indicators on the Development of Education

| | | Bosnia-Herze-govina | Monte-negro | Croatia | Macedonia | Slovenia | Serbia | | |
	Yugoslavia						Proper	Vojvodina	Kosovo
Primary Education									
Schools 1952/53	14,253	2,150	624	3,520	1,532	1,368	3,468	672	919
1968/69	14,043	2,704	648	3,272	1,416	1,038	3,497	666	802
Students 1952/53	1,809,482	301,990	53,941	395,740	169,280	188,744	405,887	180,168	113,732
1968/69	2,875,075	617,516	90,242	585,473	257,949	225,158	630,010	247,166	221,561
Teachers 1952/53	45,968	5,215	1,636	10,398	4,166	5,183	11,131	5,534	2,705
1968/69	113,908	19,904	3,662	23,997	9,909	10,997	26,040	10,781	8,618
Teacher pupil ratio 1952/53	39	57	32	38	40	36	36	32	42
1968/69	25	31	24	20	26	20	24	22	25
Secondary Education									
Schools 1952/53	1,424	178	29	380	72	197	330	193	45
1968/69	1,766	263	44	460	153	203	395	176	72
Students 1952/53	242,236	24,717	5,745	69,973	12,981	27,126	68,309	27,605	5,780
1968/69	661,162	93,666	19,802	151,094	54,789	60,940	179,099	69,997	31,775
Teachers 1952/53	20,881	2,180	461	5,407	1,132	390	5,375	2,347	589
1968/69	25,662	3,708	609	5,560	2,143	2,849	6,875	2,565	1,353
Teacher pupil ratio 1952/53	50	45	60	56	55	35	58	51	48
1968/69	25	25	32	27	25	21	26	27	23
Higher Education									
Schools 1952/53	80	10	1	17	6	17	28	1	—
1968/69	258	33	4	77	19	28	66	19	12
Students 1952/53	54,428	3,597	132	13,059	4,101	5,981	26,670	828	—
1968/69	231,444	28,772	2,544	49,544	22,340	17,339	81,412	17,401	11,092
Teachers 1952/53	4,563	435	19	1,307	295	673	1,789	45	—
1968/69	15,950	1,810	152	4,561	1,005	2,019	4,931	1,011	461
Teacher pupil ratio 1952/53	12	8	7	10	14	9	15	18	—
1968/69	15	16	17	11	22	9	17	17	24

SOURCE: *Samoupravljanje i Drustveno-Ekonomski Razvitak Jugoslavije, 1950–70* (Belgrade: Federal Institute of Statistics, 1972).

TABLE 9.15: Selected Price Indices

		Producer Prices				Retail Prices				
		Industrial Products			Agri.					Cost
	Total	Capital Goods	Raw Materials	Consumer Goods	Products (1970=100)	Total	Ind. Goods	Agri. Goods	Services	of Living
1966	87	92	84	88	85	76	77	81	67	74
1967	88	94	86	90	82	82	82	82	76	80
1968	89	94	87	89	79	85	86	94	84	84
1969	91	95	89	93	87	91	91	89	94	90
1970	100	100	100	100	100	100	100	100	100	100
1971	115	112	118	112	126	115	114	119	115	115

SOURCE: Federal Institute of Statistics.

TABLE 9.16: Evolution of Average Personal Incomes

	(Average Annual Growth Rates)			
	1952–56	1956–60	1960–65	1965–71
Whole economy[a]				
Nominal earnings	6.5	14.3	20.5	19.0
COL increase	5.6	4.7	13.8	11.3
Real earnings	0.9	9.6	6.7	7.7
Economic activities				
Nominal earnings	3.0	17.2	21.0	19.0
Real earnings	—2.6	12.5	7.2	7.7
Noneconomic activities				
Nominal earnings	9.6	11.4	17.1	18.4
Real earnings	4.0	6.7	3.3	7.1
Industry				
Nominal earnings	8.1[e]	14.6	23.0	18.9
Real earnings	2.5	9.9	9.2	7.6
Social product (real)[b]	5.9	14.1	9.2	7.2
Productivity increase[c]	1.7	6.2	5.8	5.4
Ratio of growth in earnings to growth in social product[d]	0.15	0.68	0.73	1.07
Ratio of real earnings' increase to growth in productivity	0.53	1.55	1.16	1.43

[a] Persons employed in the social sector only.
[b] Social sector only.
[c] Social product in economic activities—employment in economic activities.
[d] For the whole social sector.
[e] 1954–56.

SOURCE: *Statistički Godišnjak, Jugoslavije.*

TABLE 9.17: Average Income Comparisons between Agricultural, Nonagricultural and Mixed Households, by Republic

	1963 Household Income		Consumption Units		1968 Household Income		Consumption Units		Type of Household as % of Total			
									Mixed		Agricultural	
	Agric.	Mixed	Agric.	Mixed	Agric.	Mixed	Agric.	Mixed	1963	1968	1963	1968
Yugoslavia	65.0	101.1	43.9	64.9	56.5	89.0	40.5	57.2	27.4	24.5	26.3	27.0
Developed republics/provinces												
Croatia	67.1	104.5	49.4	70.6	60.7	97.7	47.4	62.7	28.8	26.4	22.1	22.9
Serbia proper[a]	66.0	101.0	43.5	64.8	54.5	81.4	36.6	50.9	23.3	20.9	30.5	34.8
Slovenia	74.8	104.5	56.6	72.7	60.4	96.1	47.7	71.4	26.4	19.2	16.7	11.5
Vojvodina	—	—	—	—	68.8	107.8	57.7	82.4	—	16.4	—	29.5
Less developed republics/provinces												
Bosnia-Herzegovina	58.0	88.6	38.4	55.0	63.4	91.6	46.0	61.0	33.1	36.5	27.0	29.1
Kosovo	—	—	—	—	61.2	89.2	40.0	48.0	—	20.5	—	34.9
Macedonia	80.1	113.9	51.9	69.4	49.6	79.4	33.5	57.0	33.6	26.9	26.0	25.9
Montenegro	58.7	115.7	48.2	85.9	61.9	112.2	42.7	79.3	27.9	26.7	29.2	29.6

[a] The 1963 data for Serbia is for the whole republic.

SOURCE: Household Budget Surveys, 1963 and 1968 (Belgrade: Federal Institute of Statistics, 1971).

TABLE 9.18: The Structure and Growth in Peasant Household Incomes

	Structure of Peasant Incomes			Growth Rate in Real Terms (Annual Average %)			Standardized [a]
	1961	1965	1970	1961–65	1965–70	1961–70	1961–70
Members per household	5.4	4.8	4.4				
Total household income	100.0	100.0	100.0	0.6	2.8	1.8	2.2
Source of income:							
From agricultural holding	36.0	33.2	32.5	−1.0	2.4	0.6	0.7
From work off holding	28.3	33.8	42.3	5.2	7.5	6.4	7.9
— In enterprises	(15.4)	(20.5)	(25.4)	(8.0)	(7.4)	(7.6)	—
— On cooperatives	(2.5)	(1.9)	(1.5)	(−3.0)	(−5.1)	(−4.1)	—
Other	35.7	33.0	25.2	−0.9	−5.0	−3.0	—
Relation between peasant incomes and average incomes in nonagricultural activities: [b]							
— Household incomes	0.95	0.87	0.78				
— Standardized per capita incomes	0.53	0.49	0.48				

[a] Standardized for change in household size.
[b] Estimated by extrapolation from the Household Budget Surveys, 1963 and 1968.

SOURCE: *Statistički Godišnjak, Jugoslavije*, 1972, Table 124.7.

TABLE 9.19: Coefficients of Concentration[a] of Household Income by Type of Household

	Household Income		%	Standardized[b] Household Income		%
	1963	1968	Change	1963	1968	Change
All households	0.32	0.34	6.25	0.22	0.24	9.09
Nonagricultural households	0.32	0.34	6.25	0.22	0.24	13.64
Mixed households	0.26	0.28	7.69	0.17	0.21	23.53
Agricultural households	0.31	0.32	3.23	0.17	0.18	5.88
Workers' households	0.27	0.28	3.70	0.22	0.24	9.09

[a] Gini coefficients.
[b] Standardized for number of "consumption units" per household.
SOURCE: Estimated from the Household Budget Surveys, 1963 and 1968.

TABLE 9.20: Selected Percentile Shares of Standardized Household Incomes by Type of Household

		All Households		Nonagric. Households		Mixed Households		Agricultural Households		Workers' Households	
		1963	1968	1963	1968	1963	1968	1963	1968	1963	1968
Selected percentiles of population:											
Upper	5%	9.2	13.1	8.8	11.0	7.0	11.2	9.0	10.6	9.0	11.4
	10%	18.8	20.8	17.3	21.1	15.0	18.1	14.9	17.7	17.3	21.0
	25%	40.0	41.8	40.6	41.0	36.8	39.8	37.0	36.9	41.1	41.2
Lower	50%	35.0	39.9	34.8	33.0	37.5	36.0	37.7	37.5	33.8	33.5
	25%	14.5	13.4	14.8	11.4	16.1	15.4	15.9	16.2	14.8	14.6
As a ratio to the lowest 25%:											
Upper	5%	0.64	0.98	0.60	0.96	0.44	0.73	0.57	0.65	0.61	0.78
	10%	1.30	1.55	1.17	1.85	0.93	1.18	0.94	1.09	1.17	1.44
	25%	2.76	3.12	2.74	3.60	2.29	2.58	2.33	2.28	2.78	2.82
Gini ratio		0.22	0.24	0.22	0.25	0.17	0.21	0.17	0.18	0.22	0.24
Weight of household type in 1968 relative to 1963:		—	—	104.7		0.89		102.7		0.95	

SOURCE: Household Budget Surveys, 1963 and 1968.

TABLE 9.21: The Size Distribution of Household Incomes in 1968, by Republic

	Yugoslavia	Bosnia-Herzeg.	Croatia	Macedonia	Montenegro	Slovenia	Serbia Proper	Vojvodina	Kosovo
Selected percentiles of population:									
Upper 5%	16.5	17.0	14.0	17.0	12.8	12.0	16.0	13.2	15.0
10%	24.0	26.8	31.0	29.0	35.0	24.5	25.5	24.0	25.0
25%	47.0	47.0	46.8	47.0	46.0	46.8	48.6	39.0	48.0
Lowest 50%	26.5	27.2	27.5	26.0	27.5	26.5	27.0	28.0	27.5
25%	8.8	10.3	9.8	8.8	10.0	10.0	9.5	9.3	10.0
As a ratio to the lowest 25%:									
Upper 5%	1.88	1.65	1.43	1.93	1.28	1.20	1.68	1.41	1.50
10%	2.73	2.60	3.16	3.30	3.50	2.45	2.68	2.58	2.50
25%	5.34	4.56	4.78	5.34	4.60	4.68	5.12	4.19	4.80
Gini ratio	0.34	0.32	0.33	0.34	0.32	0.32	0.34	0.32	0.34
Average income as % of national average	100.0	82.4	109.3	94.6	85.5	138.7	94.9	87.1	84.7
Ratio of income in agriculture to income in nonagriculture	56.5	63.4	60.7	49.6	61.9	60.4	54.5	68.8	61.2
Share of total GMP	100.0	12.9	27.3	5.1	2.1	16.5	24.2	9.9	2.0

SOURCE: *Anketa:* O Licnoj Potrosnji Stanovnistvo, 1968.

TABLE 9.22: Growth Rates in Real Average Incomes in Selected Percentiles 1963–68, by Type of Household

	(Standardized Household Incomes)[a]			
	Average	Top 10%	Bottom 40%	Middle 50%
All households	4.8	6.9	3.2	4.8
Nonagricultural households	6.1	9.7	3.2	5.1
Mixed households	3.5	7.4	2.3	2.2
Agricultural households	3.2	4.6	3.3	3.2
Workers' households	5.9	9.8	5.3	4.2

[a] Standardized for changes in size of household.

SOURCE· Estimated from Household Budget Surveys, 1963 and 1968.

TABLE 9.23: Ratio of Earnings of Highly Qualified to Unskilled Labor, by Sector of Activity

	1957	1963	1964	1967	1968	1969
Industry	2.23	2.72	2.65	2.62	2.39	2.70
Construction	2.25	2.93	3.09	2.58	3.35	3.07
Transport	—	2.60	2.64	2.72	2.40	2.70
Trade and catering	2.02	2.32	2.35	2.64	2.37	2.60
Arts and crafts	—	2.38	3.11	2.68	2.60	2.48
Housing and utilities	—	2.45	2.22	2.67	2.54	2.62
Noneconomic activities	—	2.95	3.17	3.06	3.00	3.06
Agriculture	1.80	2.63	2.27	2.58	2.39	2.53
Total social sector	—	2.74	2.68	2.73	2.58	2.75

SOURCE: *Statistički Godišnjak, Jugoslavije.*

YUGOSLAVIA
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Vinod Dubey, an Indian national, is the report's coordinating author. He is a World Bank Senior Economist and served as chief of the mission to Yugoslavia. Before joining the Bank, Mr. Dubey taught at the University of Allahabad and served with the National Council of Economic Research in India. He was also a consultant to the U.N. Economic Commission for Asia and the Far East in Bangkok. Articles by Mr. Dubey have appeared in various economic journals.

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