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# Poland: Reform, Adjustment and Growth

Volume I: Main Report

August 17, 1987

Europe, Middle East and North Africa, Country Department IV  
Country Operations Division

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CURRENCY EQUIVALENTS

Currency Unit = Zloty (Zl)

Calendar 1985 (Average): US\$ 1 = Zl 147.18  
Zl 1 billion = US\$ 6.794 million  
Transferable ruble (TR) 1 = Zl 83.45

Calendar 1986 (Average): US\$ 1 = Zl 175.23  
Zl 1 billion = US\$ 4.76 million  
TR 1 = Zl 92.08

August 1, 1987: US\$ 1 = Zl 269.50  
Zl 1 billion = US\$ 3.7 million  
TR 1 = Zl 115.00

Polish Fiscal Year

January 1 to December 31

Weights and Measures = Metric System

**ABSTRACT**

This report discusses Poland's efforts to speed its economic recovery, reform its economic system, and regain external equilibrium. Chapter I reviews the economic structure inherited from the past, the internal and external adjustment made in response to the crisis, and the present debt situation. Chapter II assesses the state of Polish economic reform and priorities for further reform. More details of the economic system and the reform are in Annex I. Chapter III discusses how returns from the investment program can be raised. Chapter IV looks at the medium-term adjustment program, assessing its feasibility under present trade policies and prospects. Individual sectors are discussed in separate annexes (Annex II: Agriculture; Annex III: Manufacturing (as well as copper and sulphur); Annex IV: Transport, Telecommunications and Construction; and Annex VI: Housing, Health, and Education and Training).

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This is the report of a mission led by Timothy King (EM1) and including Michael Lav (Deputy Mission Leader, EM1), Clive Collins, David Craig, Randolph Harris, Alastair McKechnie, Enn Vasur (EMP), Dean Jamison (EDT), Steve Mayo (WUDOD), Mario Reyes (IDF), Manuel Hinds, Georg Suranyi (INDFD), Harbaksh Sethi, Peter Kotschwar, Tim Nult, (IND), Martin Schrenk (CPD), Karen Swiderski (IMF), Joy de Beyer, Richard Freeman, Mats Johannson, Mario Nuti, JB Penn, Ian Robertson, Witold Sikorski, and Antonio Tarnawiecki (Consultants). The mission visited Poland from October 20 to November 8, 1986. The report has also drawn on material prepared for Poland: A First Report, especially the contributions of Akbar Noman (WANVP), Mohit Ganguli, Robert Reekie (EMP), AR Khan (CPD), and Sir Monty Finniston (Consultant).

# POLAND: REFORM, ADJUSTMENT AND GROWTH

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## Executive Summary

(i) In 1978-82, Poland suffered a severe economic crisis. Output fell by nearly one-quarter. Investment was halved; consumption fell by about 15 percent. Recovery has been slow, and output, investment and per capita consumption are not yet at their previous peaks. The crisis was reflected in a severe debt problem in convertible currency. The last time Poland paid full interest on this debt was in 1980, when it paid debt service amounting to 96 percent of exports of goods and nonfactor services in convertible currency. In spite of paying over a third of these earnings as debt service in most years since 1982, the debt, which is now held predominantly by member countries of the Paris Club, has been steadily increasing. At the end of 1986, it was about US\$33 billion--i.e. 43 percent of Poland's GDP at average 1986 exchange rates and over 5 times its exports in convertible currencies. Since 1982, new external finance from Western countries has been confined to tiny amounts of trade credit.

(ii) Poland's attempt to overcome its crisis has had three interrelated elements. First there has been an attempt to reform the economic system to increase its efficiency and responsiveness. The second element has been an effort to bring about an internal adjustment, improving the allocation of resources to eliminate domestic market shortages and improve the quality of the investment program. Third, there has been substantial external adjustment. These elements are the focus of this Report. Priorities for further reform of the economic system are discussed in Chapter II, ways to increase the returns from the investment program in Chapter III and the policies and prospects for external adjustment in Chapter IV. These are preceded by a brief review of recent economic history, and the structure of production, trade and external debt, intended for readers unfamiliar with the Polish economy. Annexes on the Economic System (I), Agriculture (II), Manufacturing (III), Energy (IV), Transport, Telecommunications and Construction (V) and Housing, Health and Education and Training (VI) provide more detailed analysis and a discussion of sectoral policy issues.

(iii) By mid-1986, it was clear that although there had been considerable improvement in all areas since 1982, the process of reform and adjustment had bogged down. The Party Congress of July 1986 called for "the second stage of the reform." When this Economic Mission visited Poland in October-November 1986, there were many ideas for change but nothing that resembled a coherent program. The Report reflects the Mission's finding that much remains to be done on all three fronts to put the economy back on a sustainable and vigorous growth path, to reduce and eventually eliminate the debt problem and to restore Poland's international creditworthiness. However, by the time members of the Mission returned to Poland in May to discuss the Report, some of the ideas had already been put into action, and the Report has correspondingly been updated. More important, a program for accelerating both the reform and the process of external adjustment was beginning to take shape, and was the subject of widespread public discussion. Although, only relatively brief references to the new reform ideas are made in the Report, because at this writing (July 1987) they are not yet formal policy, we are pleased to note that it is likely that many of the Mission's criticisms of aspects of the economic system will shortly become outdated, and that the new

program is likely to reflect similar priorities for further reform as are put forward in Chapter II. It is also proposed to review and modify the investment program, but details are not yet available. The discussion of ways to increase returns from the investment program in Chapter III is based on the program as it was in October 1986. The new macroeconomic scenario for adjustment in 1988-1992 is discussed in Chapter IV.

### Economic Reform

(iv) The systemic origins of the crisis were widely recognized and officially accepted in Poland. The sweeping program of economic reform, which was adopted by a Party Congress in 1981, legislated during the Martial Law period, and recently reaffirmed in the "Theses on the Second Stage of the Economic Reform", is fundamentally well conceived. If fully implemented, the intention to decentralize output, pricing and investment decisions to autonomous and self-managed enterprises, forced to compete and remain financially viable, and exposed to international prices, should have a major long-run impact on economic efficiency.

(v) Implementation of the reform has, however, been only partial. Although central plans have become indicative and no longer set production and delivery targets, there remains a substantial (though declining) residual core of central planning. The allocative influence of market forces is severely restricted by: the central allocation of roughly half of fuels and major materials, especially imports; government contracts which confer privileged access to supplies; and a system of controlled prices, licenses (including imports) and other formal and informal methods of direction. The size of the core is being progressively reduced, but faster progress would be desirable. While many prices are no longer administered, there are significant restrictions on enterprise freedom to charge what the market will bear. The powers of new self-management organs, though not negligible, are limited, especially in the 20 percent of enterprises classified as "enterprises of national interest". Branch ministries have preserved an important supervisory role as "founders" of existing enterprises. Industrial associations were partially dismantled in the first stages of the reform but recently many have been set up again, ostensibly voluntarily, and remain an obstacle to competition and resource redeployment.

(vi) A major shortcoming of the Polish economic system is the excessive differentiation of effective interest rates, export retention quotas, fiscal rebates and other subsidies, that are individualized by enterprise, instead of being set on a nationwide level. This weakens market signals, and the possibility of the expansion of profitable activities at the expense of unprofitable ones is largely defeated. The failure to impose financial discipline on enterprises and to utilize bankruptcy possibilities has a similar effect. The result is both allocatively inefficient and reduces the interest of the enterprise in maximizing before-tax profit. If it is judged that special exceptions need to be made during the process of adjustment and special subsidies given to a particular activity, it is important both that the process be as transparent as possible and that the temporary nature of the special treatment be made clear. General subsidies for such things as housing and food increase the fiscal burden; these should be greatly reduced and strictly targeted to those groups who need them most.

(vii) Enterprises have been released from formal limits on employment and wages. Although the Central Bank remains a virtual monopolist of enterprise credit, it bases its lending activities primarily on considerations of creditworthiness. Nevertheless markets for productive factors do not work well. It is important to move in the direction of further financial reform, with the development of commercial banking, positive real interest rates, and use of a wider range of financial instruments. There is a very large ratio of job vacancies to job seekers so enterprises are reluctant to release workers if they expect to require more labor again in the future. A housing shortage, and limitations on an enterprise's ability to use wage differentiation to attract workers, also reduce labor mobility into occupations where its productivity would be highest. There is a danger that the commitment to income parity for urban and rural households could impede a needed and ultimately inevitable shift of labor out of agriculture; the commitment should be interpreted as a commitment to increase agricultural productivity and not to subsidize uneconomic activities.

(viii) The mission's visits to enterprises confirmed that while enterprise managers are aware of the need to make profits they are very far from seeking to maximize the returns on their assets. Market mechanisms will force enterprises to seek efficiency only if prices reflect scarcities more effectively and if greater market balance is obtained. Disequilibrium in domestic markets has been a problem in Poland for a very long time, and is closely linked to questions of external balance. Although the system of foreign exchange allocation prevents excess domestic demand from spilling over into imports, at least directly, domestic demand competes for exportables. In some cases the authorities have limited exports of both producer and consumer goods through central allocation, but for some commodities, such as coal, sulphur, fertilizer and plastics, exports get priority in spite of domestic shortages. The most conspicuous indicators of internal imbalance have improved; consumer goods rationing has been eliminated for most products, and the scope of central allocation is being markedly reduced, but improved market balance remains of very high priority.

(ix) It is also of great importance that domestic prices reflect international opportunities open to Poland, that enterprises realize the direct benefits from participation in foreign trade, and that the incentive structure encourages them to do this. Foreign trade enterprises still handle most of Poland's international trade and this tends to reduce the direct interest of a producing enterprise in exporting, but recently there have been important and promising changes. For example, enterprises may now be directly licensed to carry out trade. The authorities have begun to operate an active exchange rate policy, designed to bring about a real effective devaluation. It is intended to pay enterprises the zloty equivalent of the foreign price of a product, irrespective of its domestic price. It has also become possible for an enterprise to retain a proportion of its foreign currency earnings. The proportion of imports financed through these retention quotas has been increased; the quotas have become marketable assets of an enterprise, sold in fortnightly tenders at market-determined rates. While this improves export incentives and import allocation, it effectively confronts enterprises with an exchange rate different from the official rate, which has its own distorting aspects, and should be followed by a rapid movement towards the unification of rates.

### Improving Investment Efficiency

(x) During the period of stabilization, cuts in the investment program were haphazard, especially during 1978-81. Investment funds were spread too thinly, leading to low rates of project completion, while making demands beyond the capacity of the construction industry, whose efficiency has deteriorated. Investment reductions were disproportionately concentrated in the so-called "productive sectors", except for energy and agriculture. Since 1983, investment has recovered to about 20 percent of GDP, but the low return to this investment is a major reason for the failure of the Polish economy to recover more satisfactorily.

(xi) Although the reform has in principle led to greater decentralization of investment decisions, the effect of this on the structure of investment has been severely limited by the relatively few new project starts. Forty percent of fixed investment in 1985 was on projects started before 1982. Reluctance to abandon earlier projects and pressures from enterprises to invest have continued to lead to greater than planned investment outlays but to fewer completed projects and to lengthening gestation periods. Insufficient attention is paid to economic and financial investment criteria.

(xii) The Five Year Plan shows total investment rising by nearly 24 percent, compared with the previous five years, with a 30 percent rise in investment in the "productive sectors", which will represent 70 percent of total investment. It is intended to reduce the proportion of centrally financed investments in the total program from about 17 percent to 11 percent, and to increase the proportion of enterprise-financed investments. However, central influence over the level and direction of enterprise investments continues to be exercised through a variety of indirect instruments.

(xiii) The plan projects an increase in investment in all sectors except housing. The subsectoral distribution will reinforce the current structure of industry, continuing the emphasis on fuel and energy and engineering industries and relative neglect of consumption goods. There is a substantial industrial restructuring program, but too many of the projects in it would produce commodities already in worldwide excess supply, and often produced at a higher level of sophistication. Too little attention is being paid to projects that could have high returns in the short run, including those that would improve the use of existing capacity. Investment in metallurgy shows the fastest rate of increase; although this would still represent only about half its share of total investment of the 1970s, the worldwide problems with this sector, and its capital-intensive nature, suggest that all proposals in this area need careful scrutiny. Energy's share of investment also increases. Energy use has been lavish in Poland and energy conservation is of the highest priority. This is recognized by the Government and an ambitious energy conservation program has been put in place, and was reviewed by the Mission. More attention needs to be given to its implementation, auditing and dissemination at plant level. Above all, it requires a substantial increase in the currently low energy prices.

(xiv) The review of the expected program of investment reveals a number of areas where projects might be abandoned or at least carefully reconsidered. These include the Stefanow coal mine, whose costs per ton of eventual annual capacity appear to make it quite uneconomic. There are economic grounds for reevaluating the third and fourth reactors at the Zarnowiec station which are at an early stage of construction. The relative importance of investment in electrical generation and transmission needs to be reconsidered in view of high losses and increasing outages. The costs of the drainage and irrigation program seem high in relation to the promised benefits, though some individual projects may be economically justified. Electrification of the railways is proceeding extremely rapidly--each further project needs more careful analysis of its effect on operating costs than it now seems to receive. There is little case for further extensions to the Warsaw metro. A reallocation of some of the funds earmarked for new hospital construction could probably make a better contribution to the quality of health care and the improvement of health.

(xv) There are also areas where investment should be increased or accelerated. These include the Szczercow lignite project, which can substitute for exportable hard coal and insure against delays in the nuclear program. There is an urgent need for expanding investment in telecommunications, lest the present congested and overburdened service deteriorate still further, and damage Poland's efforts to save energy and increase exports. Telecommunication tariffs should be increased from their present low level to finance additional investment and make a net contribution to government revenue.

(xvi) The decline in the share of housing investment seems unjustified. The housing shortage remains acute. Individuals are currently prepared to pay very high amounts for the small quantity of housing that becomes available on the free market. Private housing expenditure is very low by international standards, and, by reducing the present enormous subsidies, could be increased to finance an inflow of resources into the sector. Housing investment could therefore be expanded without diverting savings and investible resources from sectors that produce tradeables.

(xvii) Capital is not the only scarce resource in Poland. Management skills need to be developed and entrepreneurship encouraged. Slow labor force growth has also become a constraint on output growth, although this could be eased in the short-term by greater mobility. The plan implies little change in the structure of employment in the material sphere, but rapid growth in employment in the non-material sphere, especially in education and health. In neither case does this seem justified. In education, pupil/teacher ratios could be allowed to rise slightly to accommodate a transitory increase in the number of children; in health, staffing, especially of physicians, is already fairly high by international standards.

(xviii) Investment decision-making does not appear to give enough attention to increasing returns at the margin. This requires effective project evaluation of central investments, using international techniques of project analysis that have been accepted in principle in Poland for many years, but are too infrequently applied. For decentralized investments, it means the

use of (i) real positive interest rates; (ii) a capital market which will give profit-making enterprises alternatives to reinvestment in their own activities; (iii) a healthy fear of bankruptcy to alleviate the tendency of socialized enterprises to invest whatever the cost, and (iv) a system that rewards individuals for making successful but risky investment decisions. The pursuit of economic reform and the reshaping of the investment program are fully complementary.

#### External Adjustment

(xix) The third element in the program for economic recovery is external adjustment. Poland has already reduced its convertible current account deficit from over 9 percent in 1975 to 1.1 percent in 1986. In terms of the required reduction of domestic absorption, the remaining problems do not appear formidable. Adjustment has, however, taken the form of import compression, and exports have actually fallen, so that debt is very large in relation to trade. Debt service owed exceeded earnings of goods and nonfactor services from 1981 to 1985.

(xx) In late 1986, the Government prepared five-year balance of payments projections, for both the convertible and non-convertible currency accounts, for the remainder of this five-year plan period (i.e. 1986-90) and for the subsequent five-year plan period (1991-95). For the first period these were based on the Plan trade projections, adjusted to take account of trade performance since the initial drafts were drawn up. The Plan projects a growth in convertible currency exports of only 3 percent in real terms over the period 1986-90. Even with implausibly low import elasticities, these projections implied a trade surplus in convertible currencies that grew only very slowly until 1990, and remained inadequate to meet the interest on Poland's debt. In consequence the debt continued to grow and the current account worsened. Although after 1990 the rate of growth of exports was projected to improve and a current account surplus was forecast for 1993, this was not very convincing, since the low rate of import would have reduced the technological competitiveness of exports, and the rate of interest assumed for Polish debt, 8 percent, was probably too low. Debt service paid would remain at about 30 percent of exports of goods and nonfactor services, but the slow and uncertain pace of adjustment would deter new credits.

(xxi) The shortcomings of this scenario, important changes in international economic relations, and a realization that a better export performance was possible led the authorities to revise the official medium-term projections and the related macroeconomic scenario in June 1987. The revised scenario place greater emphasis on giving the economy a more solid basis for sustainable long-term growth and therefore on convertible currency trade, with both exports and imports increasing more rapidly. National income produced (NMP) would grow at 3.1 percent per year, in line with the upper range of the Five Year Plan projection. Investment would grow at 3.0 percent per year, compared with about 3.8 percent in the Plan. Consumption would grow at a projected 2.4 percent per year, close to the 2.3 percent which was the low end of the Plan range. Interest rates have been more realistically assumed to be 8.5 percent. The elasticity of imports to national income is projected at 1.2, in response to the import needs of a restructuring and modernization program. Exports are projected to grow at

6.5 percent. This increase is based on a detailed review of export potential in a number of sectors, and already observed improved performance in some key subsectors such as engineering exports. It assumes improved access to international credit needed to remove import-related constraints on export production and to increase technological competitiveness of exports. It also anticipates the expected impact of the reforms, especially such things as the reduction of central allocation and more active exchange rate policy, on export performance in general. The revised scenario yields a convertible currency current account balance by 1991, two years earlier than former projections.

(xxii) The scenario seems generally feasible. The rates of growth of national income and consumption are not at all austere. The implicit improvement in the response of output to investment is understood to reflect an intention to revise the investment program and to weed out some of the projects with very low rates of return. This increase in efficiency could also reflect the results of the accelerated reform program. However, the return to new investment, though improved, still seems to be low by international standards, and the rate of implicit stock accumulation appears excessive. There is therefore scope for further reductions in domestic absorption. Even without these, careful demand management will be important in achieving the objectives of internal and external adjustment. The benefits of a more rapid adjustment program, including an earlier return to normal financial relations with creditors, and the possibility of fresh capital inflows to support restructuring, suggest that it would be worth carefully considering a faster pace of adjustment.

(xxiii) Export prospects are greatly affected by projections for coal, which provides over 20 percent of export earnings from nonsocialist countries. Coal mining productivity is already high in Poland, and geological conditions make it very difficult to increase output. Having fallen sharply already, the new projection assumes that coal exports to nonsocialist countries can level out, but this forecast calls for vigorous pursuit of the existing program of energy conservation and the carrying out of proposals to raise domestic coal prices by 60 percent, and achievement of target output levels, currently threatened by shortages of imported inputs. Copper and sulphur are profitable exports but are constrained on the supply side. The official projection of a 7 percent growth in agricultural exports is very ambitious. The 11 percent growth rate of engineering exports is also an ambitious target, but attainable if bottlenecks can be removed by importing critical inputs, and profitable exports are not constrained by central allocation. The improved export performance for light industry and wood products and the modest growth projected for construction services both seem feasible. The attainment of the projected 6.5 percent growth rate of exports in 1988-92 is on balance feasible but far from easy. It depends heavily on export increases by enterprises and subsectors which currently contribute little to exports. There is reason to be hopeful in this regard: only a very few firms export significant proportions of their output; very many export tiny amounts; if such firms could shift only a small share of their output to exports, exports would increase significantly, and export growth could be impressive. For this to be accomplished, however, the reform has to be successful in its objective of improving the capacity of the economy to respond to opportunities, domestic shortages have to be largely eliminated by improved supply and careful demand management, and adequate incentives for exports have to be ensured. Much more attention needs to be given to export market development and information-gathering.

(xxxiv) There exist a number of special incentive schemes to encourage convertible currency exports. In present circumstances tax exemptions and preferential access to credit may be justified, but they are clearly inferior to a situation in which relative prices provide adequate incentives to profit-seeking enterprises to seek export markets. Recent steps to make export retention quotas fully marketable, and the progressive real devaluation of the exchange rate, are potentially major changes to an inadequate system of export incentives to convertible currency markets. Such incentives are not likely to work effectively if there is persistent excess demand in domestic markets. Internal market adjustment requires better demand management, and increased efficiency to allow higher output so that the rest of the system of central allocation can be abolished. Shortages that emerge should signal profitable opportunities for further expansion of output and reallocation of productive resources; prices should be freed sufficiently so that the profits can be realized. Firms that fail to respond to market signals should not be protected from the consequences by subsidies and grants.

(xxxv) These points are fully accepted in principle by the Polish authorities, and are reflected both in a discussion paper on the "Second Stage of the Reform" published by the Economic Reform Commission and in a "Program for Strengthening the Zloty" recently proposed by the National Bank of Poland. It is anticipated that these programs will be the basis for a new timetable for reform activities to be determined in the autumn of 1987. There is therefore reason to be optimistic that the adjustment path proposed is one that will, after a current account balance is reached, offer the promise of a path of faster growth, greater competitiveness, greater potential import liberalization, larger imports of machinery, faster technological progress, a more rapid improvement of living standards, and a smaller external debt. The challenge will be to ensure its implementation.

(xxxvi) If the objectives of external and internal adjustment are to be achieved within the time-frame envisaged in the new scenario, exports will have to be kept competitive, and careful demand management will have to be pursued to ensure that domestic absorption remains within target levels and that imports attain but do not exceed their projected levels. There are several other vitally important and mutually reinforcing elements of economic policy: reform measures to improve price incentives to export and increase producer responsiveness to price changes, and improve the efficiency with which scarce resources are used; a carefully balanced reduction in the investment program to improve its overall efficiency and allow new and more productive investment; and the restructuring of the economy and improvement of factor markets to allow resources to be used where they contribute most to national income. Any delay in adjustment will greatly increase the cost to the economy in the medium term, and delay the time when a greater share of resources can be devoted to improving living standards.

## I. PRESENT ECONOMIC PROBLEMS

### A. Introduction

1.01 Removed from its historical context, Poland's economic performance since 1983 looks respectable. The annual growth of net material product (NMP) has been about 5 percent.<sup>1/</sup> In several respects, 1986 was the best year since 1983. A record grain harvest enabled gross agricultural output to grow by 5 percent. Industrial production rose about 4.4 percent. Private consumption rose about 4 percent per head. Exports "accounted for in convertible currency" (including some under bilateral clearing agreements but excluding CMEA trade) rose by 6.1 percent in dollar terms (but only 0.9 percent at constant prices); the trade balance showed a surplus of \$1.1 billion, down slightly from \$1.2 billion in 1985.<sup>2/</sup> Nearly 30 percent of convertible currency earnings of goods and nonfactor services went in 1986 to service debt, and several debt rescheduling discussions were held.

1.02 The extent of economic recovery, however, is disappointing. Growth rates of 5 percent are no more than might be expected with investment of over 20 percent of GDP, and lower than might be hoped, given the substantial excess capacity which must have resulted from the large drop in output after 1978. Output and per capita consumption are still below their peak pre-crisis levels. Worse, the trajectory of improvement in foreign

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<sup>1/</sup> As with other East European countries, Polish national accounts are normally calculated using the Material Product System (MPS) rather than the System of National Accounts (SNA). The major difference between them is that the MPS excludes housing, educational, health and cultural services, public administration, defense, finance and insurance etc. Although GDP on SNA definitions has been published for the years since 1970, it is on a current rather than a constant price basis, and does not permit sectoral breakdowns. For this reason this report tends to use the MPS concept of net material product (NMP)—also known as "national income produced"—as its basic measure of output. Where a standard SNA term like GDP is used, however, it refers to the SNA concept.

<sup>2/</sup> Unless explicitly stated otherwise (as here) a reference to 'convertible currency' export earnings in this report during the 1980s will exclude bilateral clearing agreements. Clearing agreement trade, which is dominated by Poland's arrangements under the Council for Mutual Economic Assistance (CMEA, also known as COMECON), is treated as nonconvertible, irrespective of whether the accounting currency was itself convertible. This follows IMF practice, and economic logic of the concept of "convertibility." This makes debt service ratios higher than if earnings were classified by currency of account, as is normal Polish practice. In this report, debt service ratios for convertible currency debt will be derived with reference to exports of goods and nonfactor services in convertible currencies, unless otherwise stated. Further discussion of the definition, use and interpretation of this concept can be found in Appendix 1.

trade is not enough to lift Poland out of the problems imposed by the massive external debt contracted between 1971 and 1980. The country has been unable to pay all interest due on its foreign debt, which has caused the debt situation to worsen steadily. Lost shares in international markets have not been regained. Compared with the adjustment in the external balance so far achieved, the magnitude of the further resource shifts needed for Poland to pay all interest due on her debt (i.e. to balance her current account) are not very large, but they are proving very difficult to achieve. It is therefore uncertain whether even the present modest rate of recovery will be sustainable.

1.03 The crisis of 1978-81 resulted from bad management compounded by bad luck. The effects of the attempt to invest beyond the economy's absorptive capacity, the increase in debt that could not be serviced, and the failure to constrain consumption growth as the crisis developed, were worsened by external recession, rising interest rates and oil prices, and the effects of poor weather on local harvests. A contraction of investment led to a host of unfinished projects, designed for the 1970s rather than the 1980s. The need for economic restructuring has therefore been apparent, but relatively little has yet been achieved. By 1981, it was generally recognized in Poland that the misguided investment policies largely reflected defects of the system of central planning that had prevailed for the preceding three decades. In consequence, far-reaching measures to decentralize the system of economic decision-making, in order to utilize the pressures and incentives associated with market competition and to increase responsiveness to external opportunities, were enacted during 1982-3. It has, however, proved difficult to reduce central control over resource allocation in a situation of internal excess demand and severe external payments difficulties, and discontent with the extent of systemic change so far achieved were in 1986 reflected in a Party Congress resolution calling for the "second stage of the reform."

1.04 The focus of this report is on the obstacles that impede the recovery of the Polish economy and its external equilibrium, and on the approach Poland might take to resume long run growth, which requires creditworthiness to be restored. The first chapter reviews the economic structure inherited from the past, the nature of both the internal and external adjustment Poland has made in response to the crisis, and the present situation of the external debt. Chapter II reviews how far Poland has come in reforming its economic system, and discusses priorities for further reform. Chapter III discusses how returns from the investment program can be raised. Chapter IV discusses the policies and prospects for external adjustment.

## B. The Evolution of the Economic Structure

1.05 The post-war development strategy laid the basis for a heavy, capital-intensive and energy-using industrial structure, making effective use of Poland's abundant coal, and geared to providing machinery for both Poland's own extensive investment program and those of neighboring countries. The broad consequences of the strategy can be seen in Table 1.1. The reconstruction of a war-devastated economy was completed rapidly and material output increased six-fold between 1950 and 1980. Since 1975,

industry, including mining and energy, has provided about half Poland's NMP, compared with a quarter in 1950, and close to one-third of total employment, compared to just over one-fifth in 1950. Some 91 percent of this employment is in the socialized sector (i.e. in state enterprises and cooperatives) and is highly concentrated in large enterprises. Enterprises employing over 1000 workers account for 67.2 percent of industrial employment and 67.8 percent of industrial output. Electro-engineering now provides about a quarter of industrial output and about a third of industrial employment, and except for 1981-82, has been consistently the fastest growing subsector.<sup>1/</sup>

**Table 1.1: SELECTED DATA ON ECONOMIC DEVELOPMENT, 1950-1986**

	1950	1960	1970	1975	1980	1986
Index of Net National Income Produced (NMP), 1950 = 100	100	207	374	596	633	640
Index of National Income Distributed, <sup>2/</sup> 1950 = 100	100	212	373	645	639	618
Gross Investment as percent of National Income Distributed <sup>3/</sup>	20 <sup>2/</sup>	24	27	36	20 <sup>2/</sup>	18 <sup>2/</sup>
Percentage Contribution to National Income Produced: <sup>4/5/</sup>						
Industry	24	34	44	48	51	48 <sup>1/</sup>
Construction	8	10	12	14	10	11 <sup>1/</sup>
Agriculture	60	34	23	15	13	13 <sup>1/</sup>
Percentage Contribution to Employment by Sector: <sup>2/</sup>						
Industry	21	26	30	32	31	28
Construction	5	7	7	9	8	8
Agriculture	54	44	35	30	30	28
Transport, Communications and Trade	10	12	13	14	14	14

<sup>1/</sup> NMP - exports + imports.

<sup>2/</sup> Investment was much higher between 1950 and 1955, reaching 28 percent in 1953.

<sup>3/</sup> The investment share was 26 percent in 1980 in 1982 constant prices, and 19 percent in 1986 in constant 1984 prices.

<sup>4/</sup> Calculated from a constant price series using a 1977 base.

<sup>5/</sup> Components do not sum to 100 due to exclusions.

<sup>6/</sup> Constant 1982 prices. Using 1982 prices for 1980 changes the industry and construction shares to 50 percent and 13 percent.

Source: Concise Statistical Yearbook of Poland, 1984, CSO Warsaw 1984, pp. xxiv and xxxvi, and 1986, pp. xxvii and xlii.

<sup>1/</sup> This report uses the Polish industrial classification which differs from the SITC. Electro-engineering (hereafter referred to simply as "engineering") includes metal products (which accounted for 16 percent of sales by the sector in 1986), engineering (31 percent), transport equipment (29 percent), precision instruments and apparatus (5 percent) and electrical engineering and electronics (19 percent).

1.06 With industrialization has come urbanization. The number of people living in urban areas has risen from 9.1 million in 1950 to 22.7 million in 1986, while those in rural areas have declined from 15.7 million to 14.9 million. Urban consumers have been provided with highly subsidized food, housing and social services, but wages have been relatively low. Efforts to collectivize agriculture were short-lived and largely reversed after 1956, and today agriculture is 75 percent in private hands. Years of discrimination against private agriculture were formally ended by a 1983 constitutional amendment which guarantees its permanence. To redress previous imbalances, a policy of income equality between the farm and nonfarm sectors is being implemented by budgetary subsidies for farm inputs in combination with carefully regulated procurement prices. A fall in agricultural employment from 5.5 to 4.9 million since 1950 represents a drop from 54 percent of total employment to 28 percent. The sector produced 60 percent of NMP in 1950, and only 13 percent in 1986. More than half of agricultural production comes from crops; the remainder is livestock. Productivity is relatively low compared with other East European countries, although it is not fully clear why. The soils are poor and the climate not ideal, but these are not severely limiting constraints, and mechanization is high relative to yields. Only about 5 percent of agricultural production is exported. Small farms predominate, with two-thirds of the 2.8 million private farms below 7 ha. in size.

1.07 Before 1970, very high investment rates and priority given to heavy industry (with a temporary shift towards agriculture, consumption goods and infrastructure after 1956) precluded significant rises in living standards. Growth of NMP was rapid by world standards, but showed a declining trend: 6.8 percent per year from 1956-60, 6.4 percent from 1961-65, and 5.8 percent from 1966-70. There was much discussion of economic reform after 1956, but little change made in the economic system. Discontent was fuelled by the slow growth of real wages, the diminishing availability of inexpensive, rent-controlled housing and periodic food (and other) shortages. In 1970 and 1980, protest demonstrations against proposed price increases led to their withdrawal and to changes in the top political leadership.

1.08 In a fundamental change of development strategy in 1970, it was decided to use foreign resources to permit a simultaneous increase in investment and consumption. A dramatic increase in imports (especially of modern machinery) was financed by foreign credit, with the intention of repaying by exporting some of the expected increase in output. At first the strategy seemed highly successful. Rates of growth of investment, labor productivity, wages and consumption all reached levels unmatched since 1950. NMP growth averaged 10 percent per year from 1971-5; real wages and consumption kept pace. The ratio of investment to NMP rose continuously, from 32 percent in 1972 to 38 percent in 1975. This was substantially in excess of planned levels and was spread over a wide range of projects. The absorptive capacity of the economy proved to be limited; there were substantial delays in bringing investments into operation. Although exports in convertible currency rose from \$1.3 billion in 1970 to \$4.4 billion in 1975, imports rose from \$1.2 billion to \$7.4 billion over the same period. The growing trade deficit led to a rapid increase in external debt from negligible levels in 1970 to \$12 billion by the end of 1976. Shortages in the supply of consumer goods and freeze on food prices resulted in a very

rapid rise in food consumption. Agriculture faltered after 1975, and increasing reliance was placed on agricultural imports, especially grain and protein feed for livestock. Subsidies on food and other items rose from about 10 percent of national income in 1973 to about 17 percent in 1975 and 20 percent in 1977. In mid-1976 riots led the government to reverse a proposed 60 percent increase in food prices.

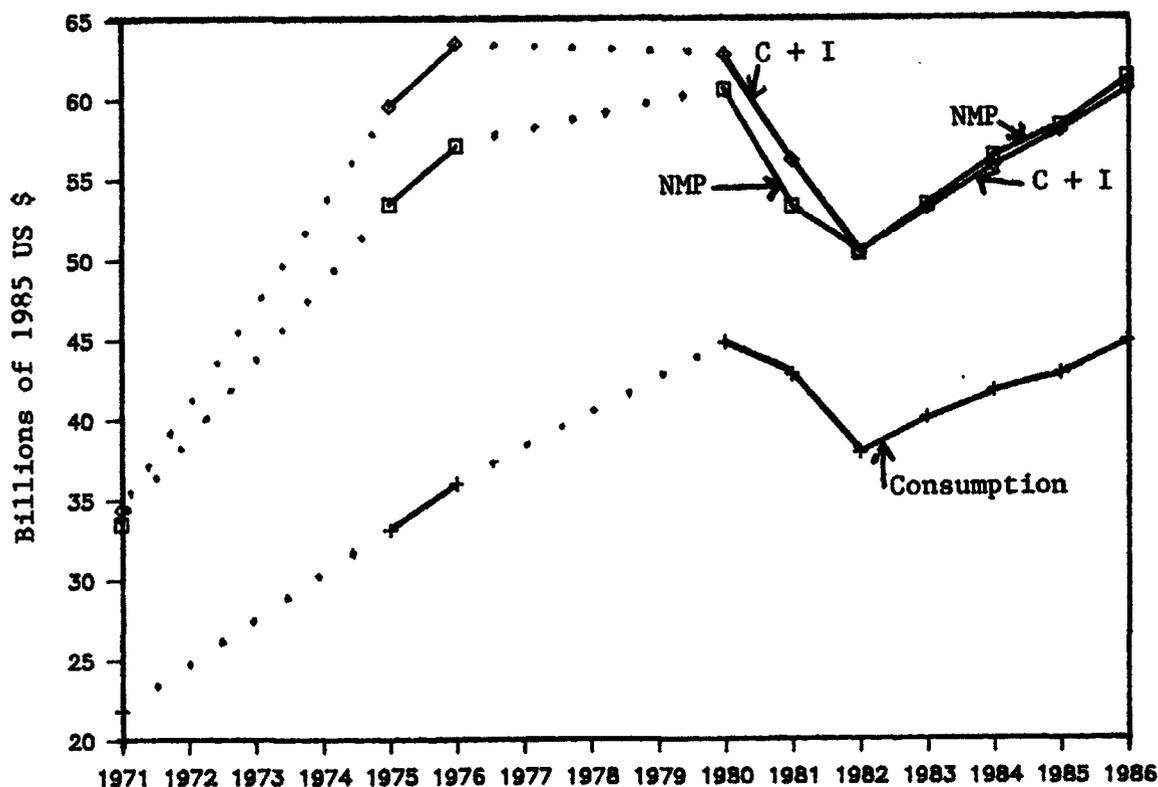
1.09 The Five-Year Plan 1976-80 retained a high rate of investment. In 1977 an "economic maneuver" was announced, under which investment and imports were to be curbed. A temporary improvement was achieved in 1978, but cuts in imports--of which a high proportion were raw materials, components and spare parts--had significant adverse multiplier effects on output. NMP fell by 2.3 percent in 1979 and 4 percent in 1980. Consumption, however, continued to grow, at a rate averaging 4.5 percent during 1976-80. Successive years of poor harvests caused imports of grain and protein feed for convertible currency to rise from 2.9 million tons in 1970 to 9.2 million tons in 1980. The trade deficit in food and agriculture exceeded the aggregate trade deficit and rose to nearly \$2.5 billion in 1981. Although the trade deficit in convertible currencies fell from \$3 billion to \$800 million, external debt doubled from \$12 billion at the end of 1976 to \$24 billion at the end of 1979, with roughly half the additional net borrowing over the three years required to finance interest payments in convertible currencies.

1.10 The Party Congress of February 1980 launched a campaign to obtain popular assent for austerity measures. The July 1 announcement of increases in some meat product prices initiated an 18 month period of economic and political turbulence and strikes. The independent trade union which was established concluded agreements with the Government on wage increases, pensions, the base rate of pay, and working hours. Output fell by 4 percent in 1980 and 15 percent in 1981. The nonconvertible currency trade deficit worsened from \$220 million to \$840 million in 1980, and reached \$1.3 billion in 1981. The convertible currency trade deficit fell from \$2.2 billion to \$800 million in 1980, largely because of a 7 percent fall in import volume. Imports fell a further massive 31 percent in 1981. The 5 percent rise in export volume was dramatically reversed in 1981, to fall by 21 percent, reflecting supply difficulties, especially of coal and imported inputs. The reduction in the working week and labor unrest in the coal industry which led to a fall in output of about 15 percent, and a drop in exports of 51 percent. Debt service was paid in full in 1980, even though it took 96 percent of Poland's convertible currency exports. The economic situation was obviously unsustainable. In 1981, the first debt rescheduling with Poland's official creditors took place, and discussions began with Western commercial banks, though an agreement was not signed until 1982.

1.11 Among the outcomes of this turbulent period was the initiation of major reforms to the economic system, discussed in Chapter II. But the strains imposed on the political and economic structures were too great, and Martial Law was enforced from December 1981 to July 1983. This made possible some harsh but necessary economic measures. Retail prices doubled, but money wages rose only 50 percent in 1982. Coal output increased 16 percent, almost regaining its 1979 peak. Total output (NMP), however, fell a further 5 percent, bringing the cumulative decline in output over the years 1980-82 to 22 percent. Over this period domestic expenditure fell by 25 percent, consumption by 14 percent and total investment by a huge 52 percent. Only

about one-sixth of the reduction in domestic absorption was diverted to improving the external account—at constant 1985 prices, the turnaround in total net exports of goods and nonfactor services between 1980 and 1982 amounted to \$2.6 billion or 4.2 percent of domestic absorption in 1980. This restored a positive convertible account trade balance (of about \$350 million) for the first time in over a decade, and reduced the nonconvertible deficit to about \$550 million. Figure 1.1 charts consumption, consumption plus investment, and NMP between 1971 and 1986. The gap between NMP and domestic consumption plus investment is, of course, met by net trade flows.

**Figure 1.1: CONSUMPTION, CONSUMPTION PLUS INVESTMENT, AND NMP, 1971-86**



**Note:** Data are not available for 1972-1974 and 1977-1979.

**Source:** Table 3.4 of the Statistical Appendix.

1.12 Since 1983 there has been a recovery in aggregate output, consumption and investment, and a substantial increase in the trade surplus in 1983 and 1984. The severe imbalances in the domestic market have been reduced. The doubling of retail prices in 1982 had made a major dent in the excess demand in the consumer goods market and improved the profitability of firms. The attendant reduction in budgetary subsidies facilitated the adoption of the cautious fiscal and monetary policies required to prevent an inflationary spiral and to improve the balance of payments current account. These conventional demand management policies were accompanied by price controls, improved supplies of consumer goods and wage restraint.

1.13 In 1985, the recovery appeared to be slowing down. The growth of NMP was 3.4 percent compared to 5.4 percent in 1984 and 6 percent in 1983. For the first time since the middle of the 1970s, domestic expenditure increased at a faster rate than output. The consequent reduction in the trade surplus fell disproportionately on convertible currency trade. Exports to nonsocialist countries fell by 5.5 percent in value (6.5 percent in volume) with the decline almost entirely accounted for by exports of energy and metallurgical products (the former, in particular, being adversely affected by the weather). The appreciation of the real exchange rate against convertible currencies compared with 1981 may also have contributed to faltering exports. These poor results aroused fears about the capacity of the economy to recover its export potential. More than eight years of investment cutbacks, and a severe starvation of imported inputs, capital goods, and new technology have had a debilitating effect on the Polish capital stock, with respect to both its technical efficiency and technological modernity.

1.14 While 1986 was a distinctly better year than 1985 for output and consumption, which grew at 5 percent, the apparent improvement of export performance was somewhat misleading. Significantly larger dollar earnings resulted entirely from expanded bilateral clearing arrangements, mainly with China. Some of the imports financed in this way would have had to have been otherwise obtained, but it is also likely that there was some distortion of the pattern of Polish imports towards consumer goods, and perhaps some diversion of exports from other markets. Strictly convertible earnings fell slightly in dollar terms, and clearly more so in terms of the currencies of Poland's main trading partners and creditors (Western Europe). Moreover, although engineering exports reversed the steady decline they have shown in this decade, this appears to have required an expansion in export credit by Poland. This was about \$20 million in 1982 and in 1983, net of repayments; it rose to \$80 million in 1984, and was \$250 million in 1986.

### C. Structure of Foreign Trade

1.15 Polish trade data is organized on a geographic basis, distinguishing socialist from nonsocialist countries. The nonsocialist trade data roughly approximates "strictly convertible" trade.<sup>1/</sup> The share of socialist countries in total trade has been rising in recent years, to 60 percent of imports and 55 percent of exports at present exchange rates, and Polish authorities expect this trend to continue. The USSR accounts for around 55 percent of Poland's trade with socialist countries, the rest of CMEA, about 35 percent, and China and Yugoslavia the remaining 10 percent. Raw materials dominate imports from the Soviet Union, but more than one-third are manufactured goods. About 80 percent of Poland's exports to the Soviet Union are manufactures. With other CMEA countries, three-quarters of all exports, and two-thirds of all imports are manufactures. Among nonsocialist

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<sup>1/</sup> See footnote 2, p.1. There are bilateral trade agreements with 10 nonsocialist developing countries. Trade data is on a customs basis and may differ from payments data for the same period. In particular, trade data for exports tend to exceed payments data by about \$300 million, since they classify the gross value of construction contracts as exports, even though this involves expenditures outside the country.

countries, the OECD countries dominate both imports and exports. The high proportion of engineering exports that goes to LDCs is an exception to this.

1.16 In relation to the size of the economy, Poland's volume of trade is modest. In 1986, total merchandise exports of goods and nonfactor services were equivalent to 16 percent of GDP and imports, 15 percent. Table 1.2 summarizes the commodity structure of trade by sector and by direction, and shows the shares of trade in total sales.

**Table 1.2: STRUCTURE OF SOCIALIST (S) AND NONSOCIALIST (NS) TRADE BY SECTOR, 1986 (percentages)**

	Imports			Exports			Trade Shares	
	S	NS	NS Total	S	NS	NS Total	Total X Prod. <sup>a/</sup>	Total M Sales
Fuel & Energy	30.7	5.0	9.5	9.1	17.9	62.7	20.2	18.5
Metallurgy	7.8	8.5	41.5	6.4	9.0	54.5	13.3	11.3
Engineering	37.8	31.8	35.2	57.3	23.2	25.7	18.8	19.6
Chemicals	7.5	23.4	66.8	9.8	11.0	49.0	22.5	22.2
Wood & Paper	1.9	1.5	34.3	0.8	4.0	80.4	6.3	6.8
Light Industry	6.0	5.8	38.5	5.6	7.4	52.8	6.9	7.5
Food & Agric.	5.0	21.2	73.2	4.0	18.4	79.8	n.a.	n.a.
Min., Constr.etc.	3.3	2.8	34.1	7.0	9.1	64.9	n.a.	n.a.
Total	100.0	100.0	39.2	100.0	100.0	46.1	16.5	15.5
Total Value (US\$ b) <sup>a/</sup>	6.8	4.4		6.5	5.6			

Note: <sup>a/</sup> US\$1.00 = Z1 175.23  
= TR 1.903

<sup>b/</sup> This column refers to 1985, production totals for 1986 being unavailable.

Source: concise Statistical Yearbook 1987, pp. 236-7 and 136

1.17 Energy trade includes large imports of crude oil and natural gas from the USSR and large exports of hard coal, two-thirds of which in 1986 was directed to hard currency markets. Poland remains a net exporter of energy in physical terms, but is already a net importer in value terms, at present exchange rates between the zloty and the dollar and transferable ruble (TR). Other important raw material exports include sulphur, which is Poland's largest chemical export, about half of which goes to nonsocialist countries, and copper, which goes predominantly to Western markets. Coal, copper and sulphur all have high average profitability at current prices and exchange rates, but, as discussed in Chapter IV, the elasticity of supply appears very low, at least in the medium term.

1.18 Five commodity groups--meat and meat products, fresh and processed fruits and vegetables, live animals, beverages, and sugar and honey--accounted for more than 80 percent of the value of agricultural exports until 1982, but their share has fallen to about half in recent years, and they require substantial subsidy. Cereals and feed accounted for nearly half of all food and agricultural imports in the late 1970s and early 1980s (in more recent years, about 40 percent).

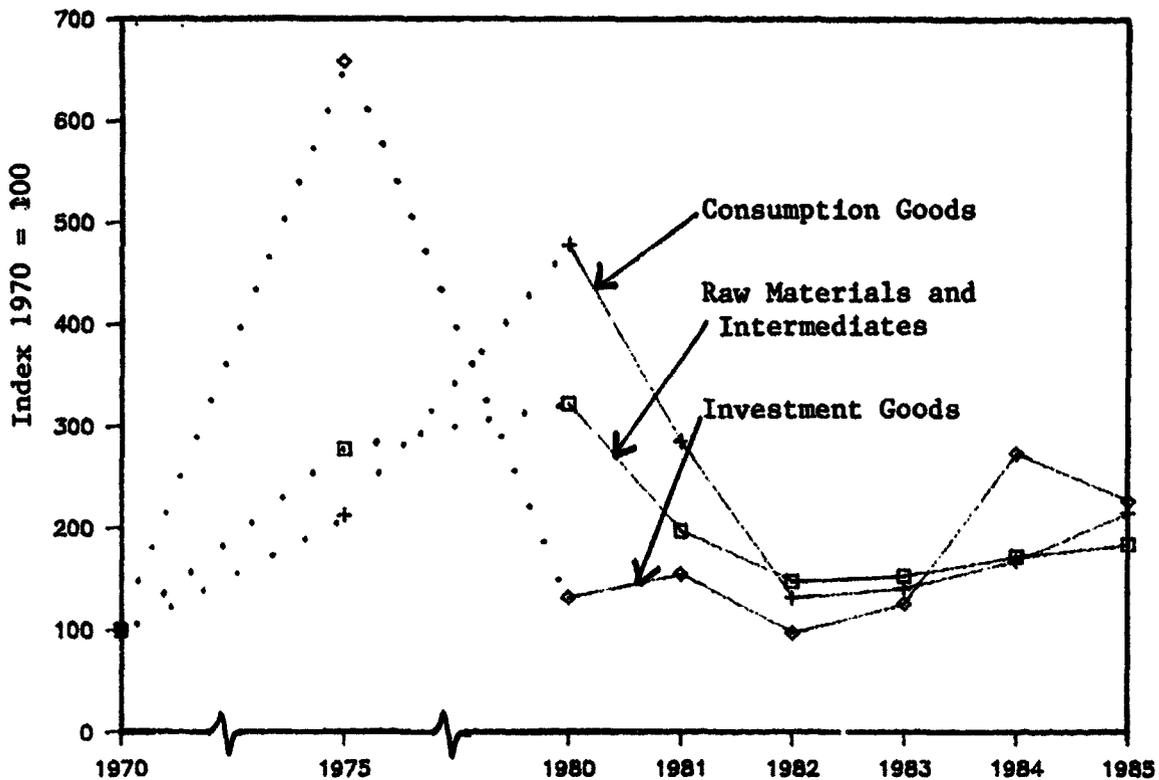
1.19 Manufacturing trade--both exports and imports--is dominated by engineering products. Engineering trade with socialist countries is much greater than with nonsocialist countries, as a result of CMEA's emphasis on integration and specialization in technical fields. Only about 5 percent of total engineering sales are convertible currency exports, and of these one half were delivered to LDCs; moreover, a sizable portion are sold under bilateral clearing agreements rather than in a competitive environment. Thus, while engineering dominates industry and makes a major contribution to total exports, it is not geared to Western markets. In spite of low wages in international terms--average industrial monthly wages, including bonuses, were about \$130 in 1986--trade shares for light industries are surprisingly small, at about 7 percent of sales. The export of construction services was roughly US\$623 million in 1986 (about 5 percent of total exports), half in CMEA countries. Exports represented about 7 percent of total construction output for 1986.

1.20 Exports to both currency areas approximately doubled in the 1970s. This was quite a respectable performance, but the debt crisis arose because imports from convertible currency areas more than tripled in the first half of the decade, and in 1980 were still 2.8 times the level of 1970 in spite of the attempts at stabilization. In the crisis year of 1981, supply factors caused a severe loss of exports to both market areas; trade with socialist countries fell by 17 percent, and by 22 percent with nonsocialist countries. Since 1982, exports to both areas have improved, and in 1986 exports to nonsocialist countries were 3 percent short of their 1978 level, while exports to socialist countries were 15 percent higher than their 1978 level.

1.21 Polish shares of nonsocialist markets are disappointingly low today compared to the past two decades. The share of Polish exports of agricultural and food products was nearly 0.9 percent in the mid 1960s, fell almost to 0.3 percent in 1981-2 and recovered to 0.5 percent in 1984. The market share of manufactured exports fell from nearly 0.4 percent to 0.3 percent in the late 1960s, but had recovered by the mid-1970s. Then from 1978 to 1982 a catastrophic drop in exports contributed to the economic crisis. Market shares dropped to below 0.2 percent in 1982, and have subsequently recovered very little.

1.22 About 75 percent of nonsocialist imports and two-thirds of socialist imports are raw materials and intermediate products, which indicates the difficulty of major import-saving without a serious fall in domestic output. Trends in nonsocialist country imports, by end use, are shown in Figure 1.2. (Data for both trade areas are in Statistical Annex Table 3.6.) All classifications of imports rose dramatically in the early 1970s, as the import bill tripled, and imports of investment goods rose 6.6 times (in constant prices). The subsequent fall was much more dramatic for investment goods, which by 1983 were only about one-tenth of their 1975 level, recovering in 1984 to approximately their level of 1970.

**Figure 1.2: GROWTH INDICES OF IMPORTS FROM NONSOCIALIST COUNTRIES BY END USE, 1970-85**



**Note:** The figure reflects data for 1970, 1975 and 1980-1985 only.  
**Source:** Table 3.6 of the Statistical Appendix.

#### D. Perspectives on Adjustment

##### (a) External Balance

1.23 The Polish economy has gone through sharp swings in the current account of its balance of payments during the last 15 years (see Table 1.3). In 1970, the current account surplus was equivalent to 0.4 percent of GDP, with the convertible account contributing almost all of the surplus (\$135 million out of \$140 million). A surge in convertible account imports from the equivalent of 3 percent of GDP in 1970 to 21.7 percent of GDP in 1975 caused the current account to deteriorate sharply. Convertible currency exports increased from 3.3 percent to the equivalent of only 12.8 percent of GDP. Since 1975, Poland has reduced its convertible account imports drastically, to 15.4 percent of GDP in 1980 and 5.8 percent in 1986. Poland has achieved an adjustment on the convertible account equivalent to over 8 percent of GDP since 1975.

1.24 The burden of adjustment has been on import reduction. There still may be some limited import substitution opportunities, but there is little scope for further general import compression. As we note later, in industry it appears that import starvation has already had a severe effect on capacity and technological quality of the capital stock, which is directly impeding exports. The analysis of Chapter IV confirms that a significant shift in policy to produce an appropriate growth of exports is now needed.

However, while the policy shift and focus of a new strategy imply a significant change, the resources needed to eliminate the present convertible current account deficit are very small compared to what has been achieved in the past, or by comparison with what is called for in the adjustment programs of many other countries.

**Table 1.3: THE CURRENT ACCOUNT, 1970-1986**  
(percent of GDP)

	1970	1975	1980	1985	1986
<b>1. Nonconvertible</b>					
Trade Balance	-0.5	0.4	-1.5	-1.0	-0.5
Exports	5.7	11.5	10.9	7.3	8.5
Imports	6.2	11.0	12.4	8.3	9.0
Services and Transfers	0.4	0.3	0.3	0.1	0.1
Current Account	0.1	0.7	-1.2	-0.9	-0.4
<b>2. Convertible<sup>a/</sup></b>					
Trade Balance	0.3	-8.8	-1.4	1.7	1.4
Exports	3.3	12.8	14.0	8.2	7.2
Imports	3.0	21.7 <sup>b/</sup>	15.4	6.5	5.8
Services and Transfers	0.1	-0.5	-3.2	-2.4	-2.5
Current Account	0.3	-9.3	-4.6	-0.7	-1.1
<b>3. Total Current Account</b>	<b>0.4</b>	<b>-8.6</b>	<b>-5.8</b>	<b>-1.6</b>	<b>-1.4</b>
<b>Memo Items:</b>					
GDP (billion Zlotys)	959	1690	2511	10367	12926
Exchange Rate (Zl/\$)	24.0	49.8	44.3	147.2	175.2

Note: <sup>a/</sup> Trade under bilateral agreements has been included in the convertible currency accounts for all years for consistency.  
<sup>b/</sup> This increase partly reflects the large devaluation of the zloty between 1970 and 1975.

Source: Polish Authorities

1.25 The nonconvertible account reflects trade agreements that are normally expected to be balanced, and in principle would not be expected to play a major role in either Poland's debt problem or its adjustment process. At the time of Poland's economic crisis, however, the current account deficit with CMEA countries rose from \$80 million (at cross-commercial rates) in 1979 to \$1.3 billion in 1981. Subsequently it has been about \$400-600 million. It is planned to balance the nonconvertible account over the 1986-90 period. The Polish debt in transferable rubles at the end of 1986 was TR 8.7 billion (\$4.2 billion.)

**(b) Prices and Shortages**

1.26 External adjustment cannot be sustained without internal adjustment. Although the system of foreign exchange allocation prevents excess domestic demand from spilling over into imports, domestic demand

competes quite directly for exportables, and the authorities have limited exports of some goods (see Chapter II). Such allocation systems and restrictions on price increases in the face of pervasive shortages rob prices of the allocative function that they must have if the reform is to bring about improvements in efficiency. Serious shortages can weaken the domestic currency, especially given the widely used black market in foreign currency with a huge premium over official rates. This may have a severely negative effect on work effort, and require very large incentives to increase working time, such as the overtime payments to miners in coupons good in special shops where imported items are available.

1.27 The most conspicuous indicators of internal imbalance--consumer goods rationing, central allocation procedures, and physical shortages--have improved. Consumer rationing remains only for meat, petrol and chocolate, and the scope of central allocation is being markedly reduced. Consumer goods in short supply are produced under government contract and, with some other items in short supply such as coal, fertilizer and building materials, are subject to geographic rationing (by voivodship).<sup>1/</sup> The number of such goods declined from over 90 in 1985 to 46 in 1986, and plans for 1987 call for a further reduction to 28. There seems to be a general consensus that physical shortages--manifest in long searches for goods, queues, waiting lists, higher prices for goods retraded in or produced by the private sector, etc.--diminished during 1982-86, but have by no means been eliminated.

1.28 The rate of increase of retail prices rose from 2.5 percent per annum in the first half of the 1970s to 6.8 percent in the second. In the 1980s inflation has been faster (Table 1.4) with prices doubling in 1982, and remaining at 15 percent or more since then. The retail price index rose 18 percent in 1986. Open inflation does not tell the full story; Annex I discusses the phenomena of hidden and repressed inflation. Large wage increases and consumption stagnation have generated flow disequilibria ("inflationary gaps"). The cumulation of these gaps, together with constraints on open inflation have created an "inflationary overhang"--i.e., a stock disequilibrium between liquid assets in the hands of the population and their demand for them, which means excess household liquidity and "forced savings". The Polish Central Bank (NBP) assumes that personal savings above a rate of 5.5 percent are involuntary, although acknowledges this to be a crude assumption. The decline of saving rates from 17 percent in 1981 to 8 percent in 1984 and trends in other indicators suggest a reduction of excess demand from 1981 to 1984 (see Table 1.4). Imbalance in the consumer goods market seems to have widened in 1985 when monetary policy eased, real household incomes recovered and the growth of output slowed. This inference is supported by the jump in the personal savings rate to over 12 percent.

1.29 "Forced saving" has undesirable microeconomic effects on incentives. General excess demand and high levels of liquidity are uncondusive to price stability, to hard work on the part of individuals, and to efficiency and searches for foreign markets on the part of enterprises. The Government plans to try to reduce this excess demand by restraining the growth of private disposable income (see Chapter II). On the other hand, net private sector saving is an important component of national saving. It is not possible to

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<sup>1/</sup> Poland is divided into 49 areas of local government, or voivodships.

readily separate out saving by private farmers from household saving, but it is clear from Table 1.5 that net household saving contributes importantly to financing the existing level of investment.

Table 1.4: MONETARY AND MARKET INDICATORS, 1981-85

	1981	1982	1983	1984	1985
Retail Price Index (percentage increase)	21	101	22	15	15
Increment of liquid assets in the hands of population, as a percentage of disposable income	14.4	12.0	7.2	5.9	10.7
Savings out of personal disposable income	16.8	14.3	9.1	7.7	12.3
Ratio between the value of yearly market supplies of consumer goods and disposable income	75.7	86.7	90.2	90.8	-

Source: Polish Authorities.

Table 1.5: SAVINGS AND INVESTMENT BY SECTOR, 1985  
(as percent of GDP)

	Govt.	Enter-prises	Public Sect.	Private Sect.	Foreign		Total
					Con.	Noncon.	
Invest.	5.7	19.1	24.8	3.0			
Savings	5.7	12.1	17.8	8.5	0.8	0.9	1.6
I-S	0.0	7.0	7.0	-5.5	-0.8	-0.9	-1.6

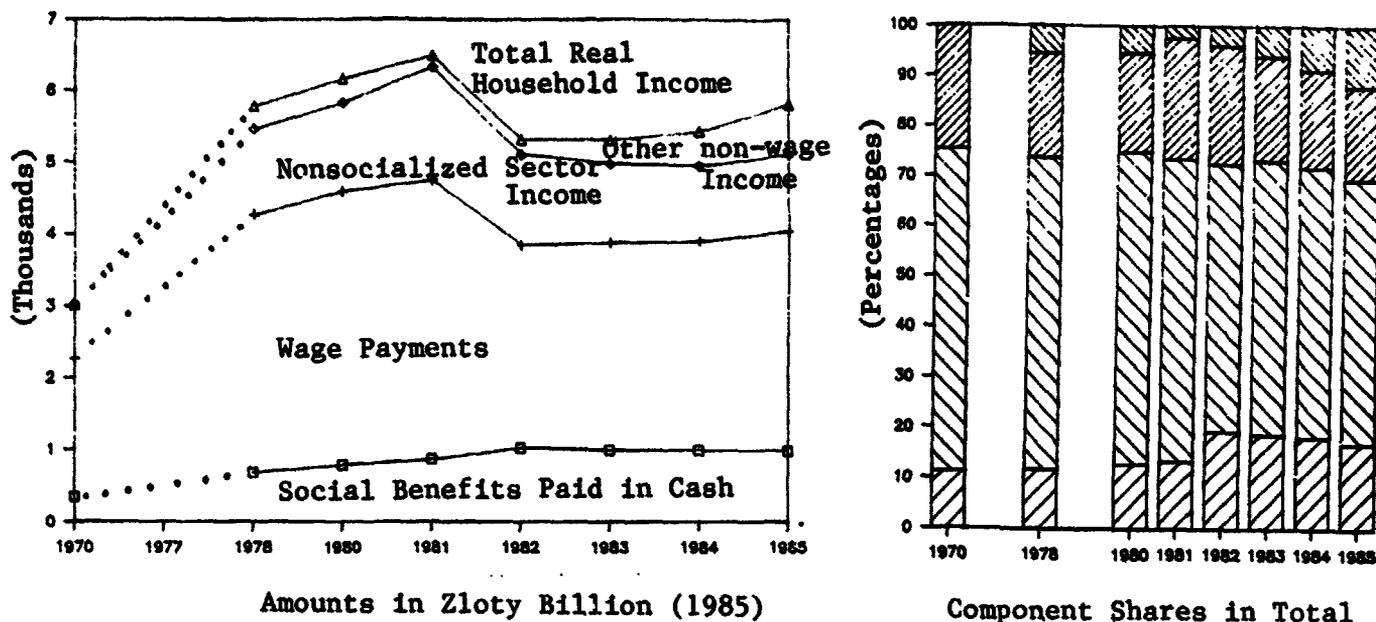
Source: Mission estimates

(c) Wage Policy

1.30 One of the key elements of demand management has been restraints on consumer demand imposed through wage policy. The system of taxation of wage increases (described in Annex I) has helped slow the erosion of the real wage cut brought about by the price increases of 1982. Real monthly wages <sup>1/</sup> in the socialized economy rose 41 percent between 1970 and 1975 and 10 percent between 1975 and 1980, and fell by 25 percent in 1982. Since then they have crept up slowly in a cumulative increase of 6.6 percent by 1985, with more than half the increase occurring in 1985. In 1986 there was an increase of 2 percent, 20 percent in nominal terms. This left the monthly real wage in 1986 about 18 percent below its peak in 1981 (see Figure 1.3).

<sup>1/</sup> Deflated by the cost-of-living index for households of employees in the socialized sector.

**Figure 1.3: HOUSEHOLD REAL INCOME TRENDS AND COMPONENTS, 1970-1985**  
(Deflated by retail price index. Excludes income in kind)



Source: Table 12.1 of the Statistical Appendix.

1.31 The number of employees in the socialized sector has stagnated since 1981, so the decline in the monthly wage has been matched by a fall in the real wage bill of the socialized sector. The fall in total real household income has been moderated by a sharp increase in the share of social benefits paid in cash (see Figure 1.3). In 1982, a 19 percent decline in total real household income was partially offset by a 19 percent rise in the value of social benefits. Since then, social benefit payments have declined slightly in real terms while total household income has partially recovered, but both have been restrained. Payments from the wage fund of the socialized sector declined from 62 percent of total recorded household money income in 1980 to 53 percent in 1985. The rise in social benefits is accounted for by: a rise in pensions; an increased number of pensioners, because of demographic factors, the expansion of pension benefits to private farmers, and the reduction in the full-pension retirement age; and the rise in maternity benefits, to permit (unpaid) leave for up to 3-years. (The last two were introduced in 1982 in the unrealized expectation that economic reform would reduce the demand for labor.)

(d) Fiscal policy.

1.32 The share of GDP going through the state budget has generally been between 40 and 50 percent (see para. 2.15 and Table 1.6). Extrabudgetary or "special purpose" funds have grown since 1980 from around 7 percent of GDP to about 14 percent largely because of the increase in the size of the Pension Fund, which accounts for about half of all these expenditures. Until 1980, the budget remained in surplus. In 1980 it experienced its first deficit, equivalent to 1.2 percent of GDP. The extrabudgetary funds were also in

deficit in 1980. In 1981, large losses by socialized sector enterprises as a result of output falls elicited subsidies to enterprises equivalent to 17.6 percent of GDP. These, plus consumer subsidies of 13.2 percent of GDP caused the deficit to rise very sharply to 11.5 percent of GDP. The restoration of enterprise profitability in 1982 reduced the deficit to 2.9 percent. By 1985 it was down to 1.2 percent, and was matched by a surplus on extrabudgetary funds, which have shown a surplus in all years since 1981, equivalent to nearly 1 percent of GDP on average. There was continued increase in extrabudgetary funds in 1986, and little change in the state budget, relative to GDP, despite large subsidy increases. Consumer and enterprise subsidies were each 8.3 percent of GDP in 1985, roughly their level since 1983. In 1986, however, producer subsidies are reported to have increased by 46.2 percent and food subsidies (which comprise over a third of total consumer subsidies) by 39.7 percent, both more than twice the rate of inflation. The structure of subsidies to enterprises and planned levels for 1987 are shown in Table 18 of Annex I. Large disparities in profitability between enterprises continue to be partly offset by subsidy payments. Plans for a 3 percent subsidy rise for 1987 have been revised; we understand it has been decided that these should be held constant in nominal terms, which implies a 14 to 15 percent reduction in real terms, and there are unfinalized plans involving further reductions in 1988. The reduction and eventual elimination of subsidies is important for its macroeconomic benefits, but perhaps even more so because this will allow prices to play a much greater role in allocation.

**Table 1.6: SUMMARY OF GOVERNMENT FINANCIAL OPERATIONS, 1980-1986**  
(as percent of GDP)

	1980	1981	1982	1983	1984	1985	1986
<b>State Budget</b>							
Revenue	48.3	41.7	43.4	39.1	39.7	40.7	40.0
Expenditure	49.5	53.1	46.3	41.2	41.9	41.9	41.1
Surplus/Deficit(-)	-1.2	-11.5	-2.9	-2.1	-2.2	-1.2	-1.1
<b>Extrabudgetary Funds</b>							
Revenue	6.9	9.7	9.3	11.7	12.7	13.1	14.5
Expenditure	7.6	8.8	8.9	10.5	10.9	11.9	13.7
Surplus/Deficit(-)	-0.7	0.8	0.4	1.2	1.7	1.2	0.8

**Source:** Polish Authorities.

1.33 Investment expenditure financed through the budget has been around 5 percent of GDP in recent years. Despite the reform's emphasis on the role of self-finance and hard bank loans, this is a slightly higher proportion than in 1978. Chapter III discusses investment issues.

### E. External Debt

1.34 Martial Law had quite direct consequences for the present structure of Poland's foreign debt. After signing a rescheduling agreement in 1981, Western official creditors broke off talks with Poland for nearly two years. Many imposed restraints on new export guarantees. Poland made no payment to its official creditors during 1982-3. Interest arrears amounted to 21 percent of convertible currency exports of goods and nonfactor services in 1982, 20 percent in 1982 and 23 percent in 1984. Only in July 1985 was a new agreement signed, covering 100 percent of the 1982-4 maturities and delayed interest. The effect of the 5-year grace period and 11-year maturity was to shift nearly \$11 billion of maturities into the 1990-5 period. Similar arrangements were made for the 1985 maturities in November 1985, and for the 1986 maturities in March 1986 (though the latter was initialed only; signing was to be contingent on completing all bilateral agreements on both previous reschedulings, clearing all payments due on the 1981 rescheduling, and on Poland's getting complete rescheduling and new money from commercial banks; this did not occur). Poland has also been unable to make payments due under the 1982-4 agreements, and at the time of writing this issue is still unresolved. Arrears have again been accumulating.

1.35 In contrast, commercial bank reschedulings have continued smoothly as needed. The July 1984 agreement rescheduled all the maturities due in 1984 through 1987. Agreements on the further rescheduling of 95 percent of the rescheduled 1981-2 maturities falling due in 1986 and 1987 were signed in September 1986. Since 1982 most auditors and regulatory authorities have begun to require loan loss provisions against Polish medium- and long-term debt. In these circumstances, commercial banks have not extended any new medium- and long-term loans to Poland, but since November 1982 they have been regularly agreeing to place a large proportion (initially 50 percent and subsequently increased) of interest actually paid into a six-month trade credit facility, which currently has over \$800 million in it, and is regularly fully utilized.

1.36 These repeated reschedulings, and the failure of Poland to meet her interest obligations in full, should not obscure the fact that, in spite of the virtual absence of significant new credit, Poland has been devoting a very substantial proportion of her export earnings to debt service (Table 1.7). Although it was obviously impossible to maintain payments at their 1980 proportions, debt service paid as a percentage of exports of goods and nonfactor services in convertible currency was 63 percent in 1981, and averaged 36 percent from 1982 to 1986 (Table 1.7, line 2). Between 1982 and 1986 all interest owed to commercial banks (more than US\$800 million per year) was paid.

1.37 Some modest repayments since 1981, and in many cases reimbursement of banks under various official guarantee programs, have led to a substantial reduction in commercial bank exposure. In contrast, official debt has tended to increase since 1982, because of the capitalization of accumulated interest arrears, and interest on late interest, which has amounted to about US\$1.6 billion each year. In addition a small part (about US\$1 billion) of the debt originally classified as unguaranteed turned out to have official guarantees. Of the \$27.8 billion owed to Western creditors at the end of 1986, \$19.8 billion was to official creditors, making Poland one of the largest debtors

to the Paris Club.<sup>1/</sup> Polish convertible currency medium and long term debt at the end of 1986 was about 43 percent of that year's GDP, and total debt (including debt to CMEA countries) about 46 percent, which is substantially less than for many countries. The picture is more serious in terms of the relationship of debt service to export earnings; even after a series of reschedulings, debt service due in 1986 was almost 70 percent of the convertible exports of goods and nonfactor services; within this, the interest ratio was nearly 44 percent. The reason for this contrast is that convertible currency exports have fallen to only 8 percent of GDP, down from nearly 16 percent in 1980.

**Table 1.7: CONVERTIBLE CURRENCY DEBT INDICATORS, 1978-86**  
(Percentages)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
Debt Service Due/Exports of G&NFS	71.4	87.7	95.9	155.4	172.0	113.0	103.7	105.4	69.7
Debt Service Paid/Exports of G&NFS	71.4	87.7	95.9	63.5	43.2	37.4	26.8	43.8	28.7
Exports G&NFS/GDP <sup>2/</sup>	-	-	14.8	10.8	7.9	7.4	8.0	8.4	8.1
MLT Debt/GDP	-	-	39.0	46.2	38.5	33.2	33.9	39.6	45.2
Current Account Deficit/ GDP <sup>2/</sup>	-	4.6	5.5	3.3	1.4	1.6	0.5	0.9	0.9
MLT Debt/Exports G&NFS (ratio)	-	3.0	2.6	4.3	4.9	4.5	4.3	4.7	5.4

<sup>1/</sup> Since the official data for exports for 1978-81 include some exports under bilateral clearing agreements (see text), they have been adjusted by the same proportion that such exports bore to "truly convertible currency exports" in 1982.

<sup>2/</sup> Note that the definition of the current account is the conventional (IMF) one, which includes interest due in the current account of the balance of payments (i.e. on an accrual basis). The Polish national presentation of the balance of payments includes only interest actually paid in its current account. Interest arrears are then treated as a capital inflow.

Source: Mission estimates based on data from the Polish Authorities

### Future Maturities

1.38 As can be seen from Table 1.8, Western official creditors now hold almost two-thirds of Polish convertible currency debt. At mid-year 1985--i.e. before the recent devaluations--some 50 percent of Polish convertible currency debt was denominated in dollars. Table 1.8 is based on figures and exchange rates prevailing at the end of 1986; the discrepancy between the total of \$31.4 billion in this table and the \$33.8 billion used in the official balance of payments projections discussed in Chapter IV is principally due to the exclusion of short term debt (including revolving credit) from this table.

1.39 The most striking feature of Table 1.8 is the maturity burden that Poland faces from 1990 onwards. At present, commercial bank maturities taper off noticeably from 1992, but future rescheduling is likely to change this. Official reschedulings have placed all the maturities originally due in 1982-6 into the 1990-6 period. The \$23.4 billion due during that period will rise still further as maturities falling due between 1986 and 1989 require rescheduling. Even if Poland achieves a current account surplus by 1990 (see paras. 4.16-4.20), it is most improbable that it could be large enough to make full amortization payments.

<sup>1/</sup> Egypt has a larger debt to the Paris Club.

**Table 1.8: MATURITY SCHEDULE OF MEDIUM- AND LONG-TERM EXTERNAL DEBT  
CONVERTIBLE CURRENCIES AT END-1986<sup>A/</sup>**

(US\$ million)

	Debt out- standing end 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Later Years	Delayed	
												Principal	Interest
1. Paris Club creditors	20,470	1,233	1,198	1,040	2,152	2,332	2,406	2,274	2,264	2,266	103	1,285	1,917
Previously rescheduled debt	17,025	694	695	695	1,879	2,187	2,187	2,187	2,187	2,189	-	424	1,701
Other rescheduling agreements	231	77	77	77	-	-	-	-	-	-	-	-	-
Nonrescheduled debt	3,214	462	426	268	273	145	219	87	77	77	103	861 <sup>C/</sup>	216
2. Commercial banks partici- pating in rescheduling agreements	8,027	473	1,589	1,294	1,795	1,850	610	400	4	6	-	6	-
Previously rescheduled debt	7,576	335	1,558	1,226	1,626	1,839	599	393	-	-	-	-	-
Nonrescheduled debt	451	138	31	68	169	11	11	7	4	6	-	6	-
3. CMEA	2,219	129	148	65	59	306	325	302	223	214	439	6	3
4. Commercial credits	187	97	60	26	3	1	-	-	-	-	-	-	-
5. Other	1,233	318	235	190	174	34	128	18	42	16	16	42	20
<b>Total</b>	<b>32,136<sup>B/</sup></b>	<b>2,250</b>	<b>3,230</b>	<b>2,615</b>	<b>4,183</b>	<b>4,523</b>	<b>3,469</b>	<b>2,994</b>	<b>2,533</b>	<b>2,502</b>	<b>558</b>	<b>1,333</b>	<b>1,940</b>

**Notes:**<sup>A/</sup> This maturity schedule includes interest arrears and is based on the debt restructuring provisions of the following agreements: with the Paris Club: for 1982-4, signed July 15, 1985

for 1985, signed November 15, 1985

for 1986, initialed March 7, 1986

with the Commercial Banks, Memorandum/Amendment to DDRA 1981 and DDRA 1982, signed June 11, 1986.

<sup>B/</sup> The discrepancy between this number and the US\$33.8 billion in Table 4.1 which is used in chapter IV reflects short-term and revolving credit.

<sup>C/</sup> 1986 Maturities exchange rate Zl 197.62/US\$

**Source:** Polish Authorities

## II. ECONOMIC REFORM

### A. The Reform Project

2.01 After 1948, the economic system followed the standard model of central planning. The Planning Commission was given the task of exercising direct and detailed economic control, with central targets broken down into detailed instructions for each enterprise. Reform attempts of 1956 and 1974 left the key elements of the system of central planning basically unchanged. While the economic system, per se, cannot be held wholly responsible for Poland's crisis at the end of the 1970s, since other countries with very similar economic systems had much less serious problems, and several non-socialist countries had comparable debt difficulties, many negative systemic features contributed to the crisis, and to the poor performance of the economy in general. These included the excessive eagerness of enterprises to grow and invest, and a corresponding tendency for investment to exceed the absorptive capacity of the economy, with imbalances and shortages for both production and consumption goods. The lack of concern for profit or worry about losses, and the limited scope for choice by producers and consumers, had also led to numerous microeconomic inefficiencies in technical choice, input utilization, output quality and consumption structure. Inflexible factor markets made the system unresponsive to new opportunities, so that as labor and natural resources had become fully employed, productivity growth had slowed down. The price structure was insulated from international trends, and enterprises were unresponsive to new possibilities in foreign markets.

2.02 These systemic weaknesses and their contribution to the economic crisis were increasingly recognized at an official level. The result was a reform project endorsed by the Party Congress of July 1981 and enacted by Parliament in a series of legislative measures in 1982-3. Adverse economic conditions and a period of Martial Law slowed down its implementation, which is still far from complete. Considerable changes have, however, taken place in legislation and actual practice, and the basic blueprint for the reform was reaffirmed at the Party Congress of July 1986. In April 1987, proposals for discussion for the Second Stage of the Economic Reform were published, which reaffirm and extend the original reform project. (Annex I, paras. 229-235 contains a brief overview of these proposals.)

2.03 The keynotes of the original project were:

- (i) enterprise autonomy, i.e., decentralization of economic decisions and reliance on competitive markets and prices instead of central plans and commands. There was to be greater exposure to international prices, removal of market imbalances and, subject to macroeconomic management by central authorities, liberalization of enterprise employment and wages;
- (ii) financial viability of enterprise activities, i.e., self-reliance instead of budgetary support, commercialization of credit, and penalization of loss-making activities with the possibility of ultimate bankruptcy; and

- (iii) workers' self-management in enterprises, including managerial appointments, decisions about the distribution of value added and investment policies in addition to the traditional areas of workers' involvement.

2.04 Progress has been made in each of these areas. This chapter briefly describes the extent to which the reform has been implemented so far, and further measures that are needed in critical areas—central allocation, foreign trade, taxation, enterprise autonomy, procedures for price setting, and the capital and labor markets. There is a much fuller discussion of all of these issues in Annex I. Much remains to be done, and the final section reviews the policies that will be necessary to prevent an inflationary spiral resulting from necessary price adjustments and to realize the long-term benefits expected from the reform.

## B. The Core of Central Planning

### (a) Material Balances and Central Allocation

2.05 Before 1982, central balances of materials (CBMs) determined volumes of deliveries to users. Since 1982, CBMs have been prepared only for some materials—164 in 1986, compared to 178 in 1984 and 1985, when they accounted for about 45–50 percent of fuels, energy, raw materials, and components—and in theory, the balances are used only to forecast availability of materials, and to help set targets for consumption. However, some central allocation has persisted. The number of centrally allocated materials (CAMs) has been drastically curtailed, from 130 groups of materials in 1982 and 1983, 110 in 1986, to 64 in January 1987, and it is planned to reduce this to 39 by the end of 1987. This will still leave 35 percent (by value) of all inputs being centrally allocated (see Table 2.1). Under central allocation procedures, designated distribution agencies (DDAs) arrange contracts between producers and consumers to implement the decisions of the Council of Ministers. The DDAs replaced the branch ministries in this function in 1982. The Government has decided to terminate the system of central allocation by 1990, except for coal, electric power to large users, and possibly a few other items. Convertible currency imports which are financed from central funds, are also centrally allocated, and some other goods, not included in the list of CAMs, whose prices are well below market-clearing levels, are informally centrally allocated.

Table 2.1: PERCENTAGE OF INPUTS CENTRALLY ALLOCATED, 1978–1987  
(value terms)

	1978	1982	1984	1985	1986	1987
All Inputs	90	70	60	50	45	35
Exported Inputs	100	88	70	41	40	40
Imported Inputs	92	91	69	56	55	50

Source: Polish Authorities

2.06 Priority supply lines were established in 1982 for 14 vertically integrated groupings of essential products (the so-called operational programs); these have been reduced to two in 1987 (supplies to agriculture and health protection (mainly pharmaceuticals)). Government purchase orders, also involving supply priority and access to foreign exchange for their implementation, have been widely used to reduce imbalances and steer the economy. In 1987-89, 100 non-final products and 26 consumer goods are to be produced under government contracts. About 9 percent of all convertible currency imports have been used in producing goods under Government contracts and operational programs. Household products have been generally in short supply, and exports of some items, such as vacuum cleaners, have been restricted. A system of geographic rationing (by voivodship) is followed for such items, and also for other items in short supply, such as coal, fertilizers and building materials. The latter are probably the items for which shortages are greatest. The number of goods subject to rationing declined from over 90 in 1985 to 46 in 1986, and plans for 1987 call for a further reduction to 28.

**(b) Imports and Foreign Exchange**

2.07 The allocation of foreign exchange and centrally financed imports is closely linked to the centrally-planned core of the economy, being carried out by the same organizations and often based on the same information sources. In principle, foreign exchange allocation is part of the annual planning process, but recent acute shortages of convertible currency have necessitated quarterly or more frequent allocations by an inter-ministerial committee. An exception to import rationing through foreign exchange availability is the import of major capital goods, which require a specific import license.

2.08 Consistent with the general principles of the reform, the share of imports which are centrally financed has been declining, from 70 percent in 1984 to about 64 percent in 1986, with a corresponding increase in the imports financed from enterprises' own resources. The most important source of enterprise funds to finance imports is the convertible currency retention quotas (ROD), introduced in 1982, which were options for exporting enterprises to purchase back a quota of their foreign exchange earnings at the official exchange rate. (Paras. 2.09 and 2.10 discuss the changes to the ROD system introduced in 1987.) Foreign exchange purchased under these quotas has been able to be used for imports of raw material and intermediate goods and spare parts, freeing enterprises from dependence on centrally allocated imports. A rule excluding the purchase of equipment, which was not completely enforced, has now been repealed. Enterprises have been able to transfer their currency entitlements to cover the import requirement of their suppliers, but not to make currency transfers to firms other than them. In 1984 enterprise funds, mostly ROD accounts, financed less than 20 percent of Polish convertible currency imports. In 1985, the proportion of imports financed in this way rose to nearly one-quarter, and rose further to 27 percent in 1986. This level is expected to be maintained in 1987. This means that fewer imports will be available through central allocation. Imports which are neither financed centrally, nor out of enterprise resources (about 22 percent in 1986), are financed out of foreign exchange allocations under the control of branch ministries, to cover enterprise needs related to government contracts.

2.09 The ROD retention quotas are generally considered the most important incentive to export. They have ranged from 1.5 to 95 percent of export earnings; in theory these percentages should reflect import intensity of output but often they have been negotiated on a case-by-case basis with the Ministry of Foreign Trade (MFT). Trade under bilateral agreements can also qualify for RODs, but until 1987, at lower rates, and with restrictions on the currency which could be drawn. The rates for convertible and bilateral trade are now the same, but there are restrictions on the proportion of currency earned under bilateral export arrangements that can be used to purchase imports paid for in hard currency. The denial and delays in permission to use ROD entitlements forced by the shortage of foreign exchange in late 1985 and during 1986 endangered the credibility of the scheme. In 1987, significant changes have been introduced to remedy this. Socialized enterprises and those with foreign capital have been allowed to transfer up to 5 percent of existing accumulated entitlements to a new "M account", which can be held with any Polish bank authorized to deal in foreign currency. The balance is to be replaced by certificates that will be usable on a phased basis between 1988 and 1995. The retention quota now confers actual ownership of the hard currency held in the M accounts, as part of the assets of the enterprise. All previous retention rates have been cut by an average of one fifth. Private exporters will continue to operate under the ROD system, with most ROD accounts held with Bank PKO.

2.10 From May 1987, foreign exchange held in M accounts began to be tradable in fortnightly auctions arranged by the Export Development Bank. The amounts offered for sale at the first few auctions have been small, but increasing. The effective rates paid (the official exchange rate, plus the premium "right to buy" bid) have been close to the black market rate. This marketability defuses some of the major general criticisms of retention schemes, such as: that the limitation of the use of accumulated credits to direct and indirect import needs creates a ceiling beyond which they have no further incentive effect on exports; that firms endowed with a net balance of undervalued foreign currency entitlement might indulge in greater import intensity than technically and economically necessary; and that this system penalizes import substitution relative to export promotion.

2.11 In special circumstances the MFT will allow an enterprise to use its M account to purchase exportables for use as inputs to its own exports, up to US\$50 million in any year. This should diminish complaints that the incentive system (plus the structure of foreign tariffs) has encouraged the export of raw materials rather than processing and export of finished products. An example is the export of copper at a time when Poland has substantial excess capacity in its cable industry and is importing copper cables.

2.12 Marketability is a substantial improvement to the ROD system, but it effectively confronts enterprises with a rate for foreign currency transactions which differs significantly from the official exchange rate. There is clearly a danger that this will generate unwelcome side-effects and distortions, with no obvious advantage over a unified exchange rate with some degree of currency convertibility. Steps should therefore be taken to devalue the official rate while expanding the ROD market, so that the two rates begin to converge, eventually eliminating the need for RODs. Discretionary rates of retention should be replaced by a flat rate unconnected to import content.

(c) The Role of Foreign Trade Enterprises

2.13 In the traditional system of central planning and allocation, foreign trade was conducted through foreign trade enterprises (FTEs) with monopolies in assigned product ranges. FTEs would buy products from enterprises at the domestic price. Any difference between domestic and foreign prices was financed from or paid into a central exchange equalization account. The producer was consequently indifferent between exporting through an FTE and selling domestically, and was unaffected by exchange rates. Such a system still largely prevails in CMEA trade, whose planning and operation has been little changed by the reform, and continues to impose a significant element of rigidity onto decisions about production and trade. CMEA trade is governed by long-term inter-governmental agreements, which coincide with the five-year planning periods. (See Annex I, paras 68-83.) This has tended to give CMEA trade a preemptive claim on exportable surpluses to meet agreed balances. Polish authorities stress that this has changed. The exportable surplus of some hard goods is earmarked for the convertible currency area, with only the residual available for CMEA trade. FTEs are still responsible for identifying domestic suppliers and consumers for agreed CMEA trade flows, and also manage agreed balances in other bilateral and clearing trade operations.

2.14 In 1982, changes were introduced into convertible currency trade, designed to increase the sense of participation of enterprises. FTEs can now either purchase or sell as intermediaries (as before), or act as agents to domestic producer or consumer enterprises, at a negotiated commission. Both forms are estimated to be currently of about equal importance, but with the second arrangement growing faster, at least in trade with market economies. A new organizational form was devised--the Foreign Trade Company (FTC)--which are joint stock companies with majority shareholding by the MFT and minority shareholding by interested state enterprises. Most FTEs have been converted into FTCs, which carry out about 60 percent of Polish foreign trade; the traditional FTEs trade primarily in the import and export of primary goods. We shall use the term FTO (foreign trade organization) to refer to both FTEs and FTCs. Also in 1982, FTOs lost their traditional monopoly of foreign trade. Permits to engage in foreign trade may now be issued on request to qualified producing enterprises and individual producers. These allow producers to market directly their own output and purchase their own inputs, if they meet certain requirements as to size of production and exports, proportion exported (25 percent) and qualified staff. Only a very small fraction of producers hold permits, and not all use them fully, but continue to operate at least in part through FTOs. The number of permits issued fell sharply in 1985, but increased again in 1986 and 1987 after procedures were simplified. Reportedly permit holders accounted for only about 3.5 percent of exports in 1984; this increased to over 10 percent in 1986.

2.15 In market economies, direct foreign trade operations are preferred by most producers, and are presumably in the long run the more efficient pattern, provided that producers have sufficient profit incentive to seek foreign markets aggressively. Closer direct market contact should influence the quality of product made and offered for sale. World Bank research on the causes and consequences of Korea's success in increasing its share of exports

of manufactured goods strongly indicates that direct contact between the producer and purchaser can also have beneficial effects on technological transfer - in the Korean case this was more important than licensing agreements.<sup>1/</sup> The more that can be done to increase the interest of enterprises in exporting, the better. Permits to export directly should be automatic, or, better still, abolished. An active entrepreneurial trading house system along a Japanese model can also be effective in promoting trade, and this approach is being tried in Hungary. FTOs might, if they become sufficiently profit-minded, move in that direction.

(d) Taxes and Subsidies

2.16 The share of national income going through the state budget is an indicator of the degree of centralization of a planned economy. As a percentage of GDP, tax revenue rose from 40 percent to 48 percent from 1970 to 1980, and then fell sharply to 39 percent in 1983. It rose slightly to 41 percent in 1985, and fell slightly to 40 percent in 1986. Budgetary expenditure peaked at 53 percent in 1981, and fell to 41-42 percent in 1983-6.

2.17 Five main taxes are levied on socialized sector enterprises-- turnover, profit, wage, real estate, and PPWW taxes on above-norm wage increases (see Annex I, para. 141). The socialized sector contributes about 80 percent of state revenue (Table 2.2), although this would be halved if wage and turnover taxes were included under household taxes, as they are in other countries. Taxes paid by households and private firms (including Polonia firms) provide less than 5 percent of state revenue. The rest is accounted for by charges for services to households, including social insurance.

2.18 Past policies have left the tax system complex and in need of an overhaul. Many taxes and subsidies are individually set for each enterprise, often as a result of negotiation with central organs, and change often as a result of enterprise performance so as to reduce the dispersion of ex-post profitability. This reduces the progress made towards economy-wide rates in the last few years. High basic rates have led to pressure for numerous rebates and exemptions. These are variable and sometimes subject to individual negotiation as a reward to enterprises for fulfilling diverse central objectives, including production increases, investment, quality improvements, export, and employment of old age pensioners. A reduction in the number and complexity of rebates would undoubtedly increase their effectiveness as incentives. These rebates are equivalent to specific subsidies, and ought to be limited to a very small number of specially justified cases.

2.19 Subsidies and taxes should not distort prices any more than strictly required by social preferences which cannot be otherwise expressed. Public support for education and health care are subsidized by most societies for

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<sup>1/</sup> Y.W. Rhee, B. Ross-Larsen and G. Pursell, Korea's Competitive Edge: Managing the Entry into World Markets, World Bank and Johns Hopkins Press, 1984, Chapter 4.

well-known reasons. There also may be public goods, cases of genuine externalities, or needs of people (like children or the very old) who depend on decisions taken by others on their behalf, where subsidies or tax exemptions may be justified. But many of the present range of tax exemptions and subsidies have no redeeming social purpose and impose a heavy fiscal burden. The long-run objective should be to eliminate as many subsidies as possible. In general it is preferable to target poorer groups specifically, rather than to use generalized subsidies which benefit the whole population. Targeting would require the government to (i) eliminate subsidies now being granted to groups that do not need them to achieve an adequate living standard; (ii) define clearly the characteristics and circumstances of groups entitled to receive each kind of government assistance; (iii) determine the amount of resources that the government can afford to transfer to these groups; and (iv) identify the most efficient channels to convey these resources, defining efficiency both in terms of the ratio of delivered services to costs of delivery and the effectiveness of the transfers in improving the conditions of target groups.

Table 2.2: STATE BUDGET REVENUES, 1986

	Zl.b.	% total revenue	% tax
Total revenue	5171.0	100.0	
Tax revenue	4855.7	93.9	100.0
Soc. Sector taxes	4109.5	79.5	84.6
Turnover tax	1508.5	29.2	31.1
Income (profit) tax	1430.0	27.7	29.5
Wage tax	405.3	7.8	8.3
Real Estate tax	111.3	2.2	2.3
Capital depreciation	75.7	1.5	1.6
Foreign Trade taxes	360.9	7.0	7.4
PPWW	78.8	1.5	1.6
Other	49.0	0.9	1.0
Nonsoc. Sector taxes	172.2	3.3	3.5
Household taxes	81.7	1.6	1.7
Social Security	492.3	9.5	10.1
Nontax revenue	315.3	6.1	
Fin.inst	167.9	3.2	
Other	147.4	2.9	

Source: Polish Authorities

2.20 The government is in fact planning a substantial reduction in subsidies during the period 1987-90. Subsidies have been frozen at their 1986 nominal levels for 1987. Beyond this are two alternatives: to maintain the nominal freeze or to reduce subsidies by 60 percent. The Government has made it clear that it prefers the latter, and wishes the major change to be made at the beginning of 1988. In either case, these reductions imply substantial price increases. Some subsidies would be maintained (for farms in the worst-rated land, for milk and other basic products) and transportation subsidies will be reduced at a slower pace. The price of coal will be raised by 60 percent; this would still be below long-run marginal costs, as determined by the cost of maintaining in operation some ten high-cost mines and by investing in some very deep ones. But it is a major step towards bringing coal prices closer to world levels. The reduction of subsidies reverses a well established pattern of yearly growth in nominal terms (20 percent in 1984, 17 percent in 1985, 42 percent in 1986); its impact on government finances will be very substantial. It is intended that the price increases not be completely compensated by wage increases, in order to speed up the achievement of market balance. An effective wage ceiling of 12 percent was imposed for 1987, equal to the average expected price increase (excluding alcohol and tobacco).

2.21 Legislation exists which would allow turnover taxes to be imposed on inputs and investment goods. It is planned to introduce these for a very limited number of inputs (at a basic rate of 10 percent of sales price), and investment goods whose shortage is intense (some trucks, buses, machine tools and building and construction machinery at a rate of 25-30 percent). These price increases will help eliminate excessive demand, and facilitate the planned shift from administrative to contractual pricing (see below, para 2.26) and a reduction in the system of central allocation. Turnover taxes are thought to offer less scope for enterprises to apply for exemptions and reductions. However, they may "cascade" onto succeeding stages of production, distorting prices, encouraging inefficient and monopolistic vertical integration, and possibly discouraging exports. A value added tax avoids these problems and is therefore preferable.

### C. Progress Towards Enterprise Autonomy

#### (a) Self-management

2.22 Coal and energy production have been little affected by the reform. In contrast, manufacturing enterprises are free to determine what and how much to produce. Enterprise decision-making is vested in the enterprise director and other managerial and technical personnel. New organs of self-management have been created under the reform--the general assembly and the workers councils--with informational and consultative functions. These bodies participate directly in decisions about managerial appointments, distribution of profits, yearly plans, investments, mergers, as well as in the traditional areas of work organization and welfare. It is, however, branch ministries rather than workers' councils who make managerial appointments in "enterprises of national interest" (approximately 20 percent of enterprises in the socialized sector employing a larger proportion of the workforce). This is only one way in which branch ministries, in their new role as "founders" or "founding organs" exercise controls over enterprises

they formerly administered. In some areas they retain directive powers; in others they have prescribed consultative and constraining powers. Enterprises require the consent of founders to change their activities, split, merge, or form associations with other enterprises. Founders can require enterprises to form associations. Managerial salaries are fixed and reviewed by founders, whose preferences therefore can be expected to have a dominant role in managerial behavior. Managerial rewards, however, also include bonuses geared to enterprise profitability (without allowance for any real appreciation of the enterprise capital that might be due to above average good management). Other things being equal, self-management organs will presumably favor distribution of profits rather than reinvestment, but some reinvestment is desirable to improve working conditions and future earnings.

2.23 A step which could potentially increase enterprise autonomy is a 1986 law which allows Polish state institutions and cooperatives to establish a joint stock company with a foreign company or with Polish expatriates. Polish equity must be at least 51 percent, and the company manager must be a resident Polish citizen, but the MFT has discretion to reduce any of the legal restrictions. Permission of the MFT and of the Ministry of Finance is required, and will be given if the company will (i) introduce modern technology and equipment, (ii) supply goods and services for export, and (iii) improve the supply of goods and services of high quality to the domestic market. Details of the regulations are in Annex 1, paras. 56-60. Two major provisions in favor of joint ventures represent significant systemic innovations. The MFT may allow the joint venture to sell its output and purchase inputs freely even when its competitors are subject to central allocation; and NBP may guarantee the initial capital stake of the foreign partner against loss resulting from decisions of the state which affect a company's assets. By June 1987, three joint ventures had been licensed, two others were under consideration, and discussions of several more were well under way. Competition within Eastern Europe to attract joint ventures is, however, increasingly intense, and there may be fewer interested Polish partners than foreign investors.

2.24 Still more autonomous and flexible, the non-agricultural private sector has been growing rapidly. Employment in this sector grew by 40 percent in 1981-84, and was 5.9 percent of total employment in 1986. The growth rate of new Polonia firms fell after 1983, when profit tax rates (following a three-year tax holiday) were increased from 50 to 80 percent.<sup>1/</sup> This rate is too high and imposed too abruptly. It does not encourage these firms, which utilize foreign investment resources predominantly to improve market balance, to take a long-term view of opportunities in the economy.

#### (b) Price Setting

2.25 Since 1982, prices charged by state enterprises have been divided into three categories: contractual prices, and administrative and regulated prices. Contractual prices are in principle determined by free negotiations between supplier and customer. In practice, however, since April 1983 there

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<sup>1/</sup> These are foreign-owned firms, whose establishment was allowed for by a 1976 decree, extended by legislation in 1982.

has been a freeze on all contractual producer prices unless the increase was considered to be beyond the control of the manufacturer (e.g., increases in the prices of raw materials). In 1984 analogous restrictions were imposed on retail prices of manufactured consumer goods with the maximum price increase limited to 10 percent. In 1986 ceilings were differentiated by product group. Retail prices exempted from these price controls account for approximately one half of retail expenditure. Regulated prices, fixed centrally according to a cost-based formula for each producer, have now been virtually eliminated. The scope of administrative prices is defined by the Sejm on Council of Ministers' recommendations. The level of these prices is determined by the Ministry of Finance or other organs of State administration, usually at a uniform level for each commodity, subsidized in some cases (e.g. coal, metallurgy, meat, wheat products), and taxed in other cases (e.g. cigarettes, alcohol, benzine). They are the price counterpart of the direct allocation of materials. There was little change in the share of turnover covered by these prices between 1983 and 1986. About 45 percent of all sales of consumer goods and services take place at administered prices--this included 65 percent of sales of foodstuffs. Seventy-two percent of sales by agricultural producers and about 35 percent of sales of other producer goods have administered prices.

2.26 The reform principles require that transactions between producing or consuming firms and FTOs, and transactions with foreign customers or suppliers be carried out at "transaction prices", i.e., prices determined in the world market (c.i.f. for imports and f.o.b. for exports) converted through official (now uniform) exchange rates. These prices were applicable to roughly one half of total foreign trade turnover in 1986, and the range of goods to which they apply has been increasing. Export transaction prices are treated as a ceiling which in theory should not be exceeded in domestic transactions. It has now been decided to drop administrative prices in foreign trade, except possibly for a very few products of some particular social importance, like grains, and to eliminate differences between domestic and international (convertible currency) prices during 1987-8, with the possible exception of energy--although the coal price will be raised 60 percent.

### (c) Market Competition

2.27 The degree of concentration of Polish industry is high by international standards (see Annex III); serious consideration must be given to splitting some multi-plant enterprises when there are no technical advantages from concentration. The regulations which prevent enterprises splitting or changing activity without their founders' authorization should be liberalized. New steps are needed to break up old style industrial associations which group enterprises horizontally, where they are justified by administrative convenience rather than economies of scale. Though technically liquidated since 1982, such associations have been set up again ostensibly on a voluntary basis but often as a precondition for participating in government contracts and operational programs.

2.28 In addition to the anti-monopoly legislation enacted recently, entry by new firms must be encouraged. At present the birth of new firms is still largely an administrative act rather than an expression of entrepreneurship.

Existing enterprises require the blessing of their own "founders" before starting a new individual or joint venture. There has been no provision for "venture capital" except for the recently established Bank for Export Development, which, however, is not open to the private sector. The Second Stage of the Reform proposals include initiatives to encourage the establishment of new business ventures.

#### D. Factor Markets

##### (a) Credit

2.29 The reform project envisaged "new, independent credit institutions" competing for funds and for the extension of commercial credit, with enterprises choosing freely among them and entertaining contractual relations with any one bank in the context of a banking system which was to be far more autonomous than the old system. Banks have become legally autonomous, and the President of the National Bank of Poland (NBP) is no longer a Deputy Minister of Finance but is now appointed by Parliament. The possibility of new banks taking the form of joint-stock companies with local or mixed local and foreign capital is specifically allowed.

2.30 Although a major reform of the banking system is under discussion, the basic role and functioning of the banking system has not yet changed markedly. There is no competition among banks, which are specialized in specific activities. The NBP accounts for 75 percent of non-Government and 100 percent of central Government deposits. The Bank of Food Economy (BGZ, which is the financial center for 1500 cooperative banks that operate in the countryside, lending mostly to the agricultural sector) is the only other sizable credit institution, but it gets 61 percent of its resources from NBP. Firms can only open one basic account through which they have to carry out their normal transactions, and can get credit only from the bank where they have their basic account.

2.31 One of the potentially most far-reaching changes proposed in the reform project was the replacement of automatic credit-granting to enterprises for the fulfillment of planned tasks, with discretionary contractual relations based on a bank's assessment of enterprises' "creditworthiness". The principle of "self-financing" of enterprises implies the avoidance of losses requiring subsidies and the ability to finance investment partly out of reinvestment of profits and partly from commercial credit, instead of relying on state grants.

2.32 The principle of creditworthiness is very much strengthened by the new provisions for liquidation and bankruptcy of enterprises which do not make enough profits to service their loans. Technically the Central Bank--- or any other interested party---can initiate a procedure whereby an enterprise facing financial difficulties has to subject itself to monitoring of its activities, and prepare within 3 months a recovery plan acceptable to the workers' councils and to the Bank. If the recovery plan is not presented or fails to produce results, and the enterprise has (i) shown a deficit in the previous year, (ii) exhausted its reserve fund, and (iii) been refused further credit by the bank, the enterprise passes under the control of a special administrator for two (exceptionally four) years. If the

administrator fails to restore economic viability, the enterprise can be liquidated or declared bankrupt and its assets sold to other state or private enterprises or individuals. In case of alarmingly bad results the procedure can be speeded up. By mid-1987, ten relatively small enterprises (including 6 construction companies) had been declared bankrupt, and there were about 350 enterprises under the control of an administrator.

2.33 Effective operation of the principles of the reform requires the use of positive, realistic interest rates; without these enterprises can make very low returns and still remain creditworthy for NBP lending. Weighted average interest rates paid on deposits and charged on credit are shown in Annex I Table 13. Private depositors have received rates of the order of 8 percent, socialized enterprises only 2 percent. Interest on credit to the private sector has been in the range of 3-4 percent, and enterprises have paid about 6 percent. Although interest rates were raised after the drastic price increases in 1982, (and savings deposits rose by 20 percent), real interest rates have been negative throughout the 1980s.

2.34 The retention of NBP's major role in commercial banking, together with the lack of competition from other commercial banks and the persistent direct authority exercised by branch Ministries as "founders," make it difficult to change the traditional relationship between enterprises and banks. At present the responsibilities of NBP include the implementation of the financial aspects of the Plan, and in the frequent cases of conflict between the profitability of ventures and their contribution to plan implementation, NBP is bound to be subject to intolerable pressure from branch Ministries and local bodies. It would be much easier to resist this pressure if NBP had only central banking functions, while commercial banking was subject to general rules of financial viability and to general constraints (reserve and deposit ratios, etc.). A competitive banking system would also increase the degree of competition in the economy in general, and the development of institutions whose sole concern is financial profit could do much to force financially unprofitable firms into liquidation or increased efficiency.

#### (b) Capital

2.35 Capital equipment, which is redeployed in market economies through mergers and takeovers engineered by stock exchanges, is rarely redeployed in Poland; liquidation is still rare, and mergers tend to preserve nonviable production units. The practical and formal constraints on the ability of enterprises to invest in profitable ventures outside their statutory sector, and the poor return earned on retained profits which are reinvested in financial assets, are disincentives to striving for higher profits. Greater opportunities and managerial flexibility in these areas are needed.

2.36 Even accepting objections to private equity ownership, it may be possible to develop an equity-based capital market for socialized institutions such as insurance companies, pension funds, mutual funds holding workers' participation in the state enterprises in which they are employed, state enterprises wishing to diversify their risk without entering the long term commitments of joint investment with other state enterprises, etcetera. It should be possible to permit such bodies to have the control (voting) rights associated with such investment, and to permit secondary trading of such equity capital.

2.37 There are relatively few financial instruments in the system. No enterprises have yet issued bonds, though empowered to do so. One reason is the very high liquidity of many socialized sector enterprises. NBP issues two kinds of bonds, both negotiable with 5-year maturities. Savings instruments include one which is tied to the purchase of housing, and which now pays 15 percent or the rate of inflation in construction costs, whichever is higher. House purchase is heavily subsidized with loans at 3 percent. The non-socialized sector holds over 90 percent of the cash in circulation, corresponding to about a third of its monetary assets. In addition to cash, less liquid financial assets include time and saving deposits. These holdings are no more than three times the rate of yearly savings and could be run down fairly fast; thus the overall position of households can be regarded as highly liquid. There can be no doubt that there is a wide gap in the range of longer term, less liquid and riskier assets. If these were made available they could absorb excess liquid resources in the hands of households and enterprises.

2.38 Medium- and long-term bond issues by enterprises should begin to replace NBP loans. The substitution of bond-holders for the NBP would subject enterprises to a more generalized scrutiny of their activities, open the possibility of introducing a market-assessed risk premium, and partly protect NBP from pressure to grant credit automatically.

2.39 Government bonds could be issued to finance future budget deficits, and be sold to the public directly, instead of the central bank's making interest-free loans to the government and collecting savings through interest-yielding bonds and deposits; in this way the cost of public debt would be properly reckoned and included in the state budget. These bonds and those of public utilities would be fully guaranteed by the state but there seems no reason why other bonds should be similarly guaranteed.

### (c) Labor

2.40 In traditional socialist economies, labor markets function poorly. It is very difficult for expanding enterprises to attract labor from other enterprises. Wage differentials are small, and cost-plus pricing, impunity to financial loss, and worries about future ability to meet output targets lead enterprises to hoard labor. The Polish labor market continues to exhibit such characteristics. Labor shortages are regarded as a severe constraint on output. The number of vacancies reported by firms to official employment exchanges is a large multiple of the number of job seekers. Shortages have been aggravated by sluggish labor force growth of below one percent a year in the 1970s and 1980s, more the result of social policy, which reduced working hours, and encouraged maternity leaves and early retirement, than of demographic factors. Recent measures to try to overcome perceived labor shortages, such as encouraging pensioners to return to work by raising the earnings ceiling at which pension reductions take effect and laws against "work evasion" or parasitism, requiring persons without jobs to register at employment exchanges, appear to have had little success.

2.41 The mission believes that the shortage of workers is more a symptom of problems induced by the operation of the labor market under the planning system than it is a constraint on economic progress. Shortages of labor result from excessive demand for workers due to subsidization of enterprises

and policies which have kept wages low. They become severe when the economy contracts as well as when it expands: enterprises seek additional labor to counteract output declines. They are likely to grow as the private sector expands and attracts workers. In regions where mining is important, however, the high premium on mining wages has caused shortages in other industries.

2.42 The persistence of labor shortages suggest that so far the reform has not been successful in creating an adequate labor market. Labor mobility is restricted by limited wage differentials, by enterprise hoarding and by housing shortages. There is a danger that the highly desirable long-term movement of labor out of agriculture, especially from the smallest farms, into industrial and service occupations could be seriously impeded by a commitment to income equality for agricultural and non-agricultural households, which is reflected in agricultural pricing policies (see Annex II.) The urban wage structure also offers little incentive to efficient allocation. There has been a tendency to attempt too many changes of regulations, often contradictory (as witnessed by the simultaneous moves towards plant-level and nation-wide principles of wage-fixing), with enterprises attempting to obtain exemptions and special allowances. Branch ministries and plant managers have tended to operate "as usual", while trade unions necessarily have an ambivalent attitude to economic reform, supporting reform while wishing to protect individual members from any adverse effects, even short-run ones.

2.43 It is complained in Poland that workers exhibit too much turnover, reducing industrial efficiency. The Government has considered stiffening penalties on job-changers and extending the period of notice before a worker can legally leave his job. By market economy standards, the rate of labor turnover does not appear excessive. In a shortage situation it might well have been higher if greater wage differentiation had been permitted and if the housing shortage (see Annex VI) had not limited mobility. Centrally imposed restrictions on mobility will impair the functioning of the labor market without curing labor shortages.

2.44 Wages in Poland have been kept relatively low, and the price of necessities has been highly subsidized. Inter-industry wage differentials are generally small and diverge significantly from those generated in free market economies (see Annex I), with extreme pay advantages for sectors favored by the center (notably mining). In 1985 47 percent of Polish workers in the socialized sector were paid according to a formula including some kind of piece rate; this is much greater than in Western economies where piece rate systems are generally avoided. Enterprises tend to set lax norms as one way to attract or keep labor in a shortage market. Recent reforms of norms and of wages have lowered overfulfilment of norms from 48-74 percent to 14-24 percent. In many industries, supplementary payments make the base wage a remarkably small component of overall pay. The most extreme case is probably coal mining, the highest paid industry; in 1986, base pay constituted little over a quarter of total monthly remuneration, with export and other bonuses contributing as much in pay as an average worker's income in some other sectors. This system is potentially open to all sorts of abuses and inefficiencies.

2.45 To deal with the problem of wage inflation which emerged in the 1980s, the central authorities placed first a levy, then a straight tax on above norm wage payments. Now known as PPWW, these establish a link between wages and productivity, and induce enterprises to compress the share of wages in value added. Wage increases above a fraction of labor productivity percentage increases are subject to PPWW at pre-fixed, progressive rates. In 1987 the rate for all increases over 12 percent will be 500 percent, which is intended to cap wage increases below the expected rate of price increase. In practice the system has been open to all sorts of bargaining and political maneuvering to gain exemptions. In 1985 it was estimated that over half of all enterprises, employing nearly two-thirds of workers in the socialized sector, benefited from concessions on the PFAZ tax (the predecessor of PPWW). Several attempts are being made to reform the wage system further. They include movement to plant level agreements, national job evaluation and subcontracting experiments (see Annex I).

### E. Priorities

2.46 This chapter has shown that although the present economic system still has a long way to go to achieve the objectives laid down in 1981, a number of important steps have recently been implemented or proposed. These include: (i) major reductions in the systems of central allocation systems, (ii) the development of a market in ROD foreign currency holdings, (iii) the planned reduction in the level of subsidies, (iv) the use of creditworthiness criteria in decisions concerning enterprise credit, (v) the beginning of the use of the possibility of bankruptcy and (vi) the greater use of international (transaction) prices and a more active exchange rate policy. Faster progress would be desirable in many areas, especially with respect to the adoption of positive interest rates, reform of the financial system, and the liquidation of non-viable enterprises. There is, however, a maximum pace at which social and political structures can absorb systemic change, and this mission is unable to judge how close the present program comes to reaching this. The direction of the present proposals, and the apparent decision to carry reform forward forcefully and on a broad front, are to be commended.

2.47 The dominant theme in this chapter is that direct central intervention should not be replaced by equivalent ad hoc discretionary measures. Uniformity of treatment in the matter of taxation and other public policies is essential if market forces are to lead to a desirable allocation of productive resources. Where it is judged that special exceptions need to be made to the process of adjustment and special subsidies be given to a particular activity, it is important both that the process be as transparent as possible and that the temporary nature of the special treatment be made clear. For example, if it appears necessary to cover the losses of a particular enterprise, it is better to do this through explicit budgetary allocations than through departures from the desirable norm of positive real interest rates.

2.48 Other recurring themes come from a consideration of three necessary, though not sufficient, conditions for an efficient and flexible economy: enterprises must be able and willing to maximize profits; prices must signal domestic and international opportunity costs; and markets must clear. Many of the recommendations and requirements listed below are included in the theses on the Second Stage of the Economic Reform.

(a) Enterprises Must be Able and Willing to Maximize Profits

2.49 It is evident, and confirmed in the mission's visits to enterprises (discussed in Annex III), that while enterprise managers are aware of the need to make profits, they are very far from seeking to maximize the returns on their assets. Tendencies to hoard inputs, including labor, and to overinvest have not yet been overcome. There is probably some persistence of habits formed under traditional central planning, in which enterprise directors have an incentive to maximize an output index, subject to making minimum profits. Cost-plus pricing, which is still the basic norm, is antithetical to profit maximizing. Inflation ensures that costs will rise to some extent, so greater efficiency may simply imply slightly slower cost and permissible price increases, and not greater profits. Furthermore, a purchasing firm which believes a supplier to be setting contractual prices higher than a "reasonable" profit mark-up may request branch ministry intervention, which prevents profit maximization.

2.50 Disincentives against loss-making remain weak, because credit allocation according to "creditworthiness" has not been fully implemented, and enterprises still have access to after-the-event support by branch ministries in their role as "founders" in the form of grants or credits. The budget constraint of enterprises must be hardened. The residual powers of founders, the combination of central and commercial functions in the Central Bank and the lack of competition in commercial banking are important obstacles to implementation of the reform principle of "self-finance." Enterprises should be freed from branch ministerial authority, possibly replaced by the supervision of functional agencies or new enterprise organs (a board of trustees, perhaps, as suggested in some of the 1980 reform proposals).

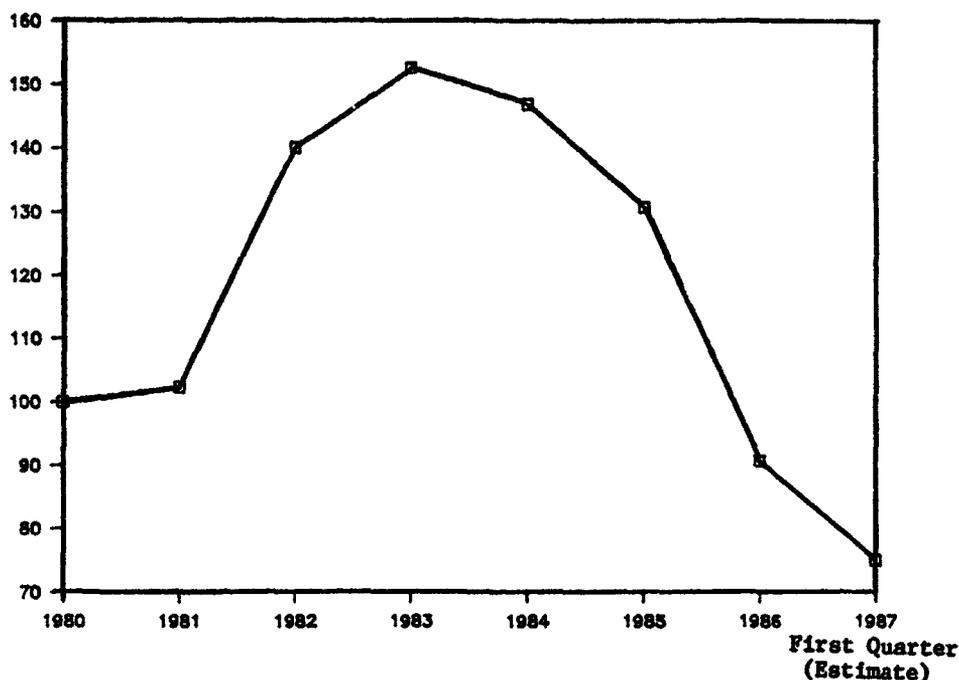
2.51 The taxation system provides only limited incentives to enterprises to maximize profits. Higher levels of value-added allow larger wage increases before high taxes apply. Enterprises have discretion over post-tax profits, which can be retained for reinvestment or distributed as bonuses or as provisions for social funds, but profits are largely creamed off into the state budget and redistributed via a complex system of taxes and subsidies. Continuous manipulation of individual parameters on the part of central authorities strongly reduces the incentive to maximize profits. The adoption of parameters which are stable over a predetermined period and uniform--at least by sector, initially, then on an economy-wide scale--is an important necessary step towards economic reform.

2.52 Insofar as workers can put formal (through self-management organs) or informal pressure on management for higher pay, there will be a tendency to distribute profits as bonuses or social funds to the extent possible, subject to the minimum required by financial solvency and access to bank credit. Official anticipation of this tendency has led to prohibitive tax rates on above average bonuses, which in turn reduce the individual incentive to productivity, and the enterprise incentive to maximize profits. Standard schemes for profit-sharing, coupled with progressive income taxation, would be less of a disincentive.

**(b) Prices Must Signal Domestic and International Opportunity Costs**

2.53 Price liberalization remains a central and as yet largely unachieved objective of the reform. There is recognition, however, that this will not be feasible unless monopolistic and collusive behavior in the Polish market is held in check by international competition, both in the domestic and in the world market. Some progress has been made in this respect, at least compared with other CPEs and the earlier Polish model. The extension of "transaction prices", i.e., actual foreign currency prices converted to zlotys at the official exchange rate, to a widening share of turnover is a good indicator of the progress of economic reform. In these circumstances the level of the exchange rate becomes critical. Serious overvaluation, as been the case in recent years, can negate any attempt to use prices and profits as the principal means of resource allocation. A reluctance to devalue, in the interest of domestic price stability has, however, now been overcome. Devaluations since 1983 have reversed appreciations of the zloty earlier in the decade (see Figure 2.1).

**Figure 2.1: REAL EXCHANGE RATE INDEX, 1980 = 100**



**Note:** An appreciation of the value of the zloty relative to the currencies of Poland's trading partners is shown here as a rise in the index. Note that 100 does not in any sense imply an equilibrium rate.

**Source:** Mission estimates based on data from Polish authorities.

2.54 At present the value of the zloty is in principle set to make profitable 80 percent of all exports. Exports are ranked by relative profitability, defined as the ratio of prices received in the export market to prices in the domestic market, and the value of the zloty is set to equate

the domestic and export prices of the 80th percentile. The rationale for excluding the remaining 20 percent is that these are predominantly agricultural exports faced with highly subsidized competitors. A series of real devaluations has begun to be carried out to achieve this target, which the Polish authorities estimate to require an exchange rate of the order of Zl 265/\$—not much different from the July 1987 rate of Zl 254/\$. While agreeing that the zloty appears to remain overvalued, and strongly endorsing the principle that exports need to be kept profitable, the mission feels that the rule of thumb being applied is not ideal since it neglects many other considerations determining an appropriate exchange rate. It pays no attention to opportunities for efficient import substitution. It also takes as given the existing bundle of exports, technologies, relative prices, etc., rather than considering how these would respond to alternative incentives. It pays no attention to the macroeconomic or monetary considerations affecting trade and the balance of payments.

2.55 The auction bids of M account foreign currency holdings provide an indication of the value that enterprises place on foreign exchange, and steps should be taken to increase the allocation of currency through the ROD system, while continuing to devalue the official exchange rate, until eventually the effective auction rate and the official rate begin to converge. At present, use of the exchange rate as a policy instrument is further undermined by the extensive black market in foreign currency, at a rate which has been about 4 times the official zloty rate to the dollar since 1982. The black market rate has moved in step with domestic inflation, and dollars are held as a hedge against inflation, in addition to other stores of value such as real estate, land and art. The value of foreign currency in circulation is not known but is believed to be very substantial; foreign currency is used for many transactions in the housing market, for example. Polish citizens are allowed to hold interest-bearing hard currency accounts without disclosing the source (although slightly better terms are offered for hard currency which can be shown to have been legally acquired) at considerably higher interest rates than on zloty savings. Polish vouchers denominated in US dollars can be traded legally in the domestic market and used to purchase imported and domestic scarce goods at particularly favorable prices against hard currency and dollar vouchers. Special state shops (Pewex being the largest chain) retail large amounts of such goods and run a large yearly turnover (\$503 million in 1986). Hard currency can grant priority access to houses and cars at a low price, with the zloty contribution implicitly calculated at the going black market exchange rate. This wide use of dollars for domestic transactions creates very strong demand pressure on the black market price. It is likely that the price of domestic goods sold for dollars sets a floor to the exchange rate; at the official rate of exchange, for example, the price of vodka, which accounts for over 25 percent of Pewex sales, costs about one quarter of its normal domestic price, so it is not surprising to find a black market rate of about 4:1. Measures such as raising the dollar price of alcohol in Pewex shops would nudge the black market rate down. Other measures, especially reducing the interest rate differentials between zloty and foreign currency deposits, preferably by raising zloty interest rates; increasing domestic prices and supply to improve market balance; and widening the range of zloty-denominated financial assets which offer positive rates of return or interest rates, would all help reduce the black market rate. The present wide spread between the official and black market rates worsens the lack of confidence in the zloty and lowers

domestic demand for it; undermines monetary and exchange rate policy; and contributes to excess demand for goods and inflationary pressures, both through wealth effects on dollar holdings and through portfolio substitution between financial and real assets.

(c) Markets Must Clear

2.56 The survival of central allocation beyond the transitional period envisaged in the original reform project of 1981 continuously casts doubts on the credibility of reform and thus adversely affects expectations and behavior. The residual machinery and procedures for central allocation will only be able to be dismantled when market clearing is obtained in the state sector. (The fact that almost by definition private production and retrading at flexible and higher prices reestablish overall macroeconomic balance in the economy as a whole does not alter imbalance in the fixed-price state sector).

2.57 Market clearing cannot be discussed simply as aiming at a given equilibrium price level. The absorption of current inflationary "overhang" through price changes requires--other things being equal--a higher price level than necessary to maintain equilibrium once it is achieved. A period of uninterrupted equilibrium is necessary to reverse expectations and to reduce speculative purchases of commodities; after that the maintenance of equilibrium is easier. Thus market clearing is a complex process; to reduce inflationary "overhang" and "gaps" it is desirable to use fiscal and monetary measures in addition to price changes. Monetary measures include higher interest rates, at least moderately positive instead of grossly negative in real terms, and above all a wider range and larger amount of longer term financial investments for households and firms through which liquid financial assets can be funded. Fiscal changes are needed to remove the various subsidies, taxes and ad hoc measures currently designed to insulate enterprises from disequilibrium gains and losses resulting from past decisions by central authorities operating under different principles, and which are regarded as "unfair". These ad hoc measures slow down the response of enterprises to market stimuli. If some kind of once-for-all asset revaluation and agreed schedule of payments to or from the government is necessary to alleviate this feeling of unfairness, this would be preferable to the present continuous ad hoc treatment.

2.58 Once established, market clearing will not persist unless the primary sources of excess demand are removed. In recent years Poland has suffered more from market imbalances than the average centrally-planned economy owing to the persistent pressure on investment demand by enterprises and the center, the combination of inflationary wage settlements and an official policy of price stability, and the need to raise net exports to service its foreign debt. Policies adopted to deal with imbalance have contributed to its persistence: shortages have been exacerbated by additional investment directed at removing those perceived as capacity bottlenecks; wage increases granted to reduce popular discontent with shortages have worsened the imbalance between supply and demand; and central allocation has removed some of the pressure on prices to adjust to market clearing levels, allowing shortages to persist, and maintaining the need for central allocation to avoid supply disruptions.

(d) Combining Reform and Stabilization

2.59 Success of the reform and maintenance of balance (once it is restored) require macroeconomic policies which are consistent with the reform principles. The more that price and wage decisions are decentralized and self-managed, the greater the danger that the price rises necessary to move from imbalance to market clearing would set in motion a self-feeding inflationary spiral. To avert this as far as possible, it is important to establish an incomes policy that keeps real incomes in line with real consumption. Such a policy should maintain a link between real incomes and nation-wide productivity (with moderate links with enterprise performance) and abstain from periodic freezes or absolute ceilings. The success of Sweden in obtaining a broad consensus on the general level of wage movements, while retaining some flexibility at a plant level in a situation of full employment, should be considered in trying to develop appropriate labor market institutions.

2.60 Legislative changes submitted to Parliament in October 1986, (rejected, and resubmitted in amended form, see Annex I para. 228) demonstrate a possible dilemma between requirements of short-term stabilization and the reform program. Some of the proposed measures were intended to resist the inflationary spiral, which could develop if enterprises whose profits increase raise real wages, while others strive to maintain them. The bill enabled periodic wage freezes, changed the PPWW wage tax on above-norm wage increases to apply to all enterprises regardless of performance, and made official and regulated prices on long term government contracts subject to surcharges and rebates decided by the Ministry of Finance. These, and measures designed to increase enterprise management accountability, but which appeared to do so at the expense of worker self-management, contradict some of the principles of the reform while being intended to facilitate its success.

2.61 There is no textbook answer to this dilemma, but it is critical to preserve the principles and maintain the momentum of the reform as much as possible, even if it at times seems a less direct way of achieving short-run adjustment. Although in theory the recovery and stabilization of the Polish economy might be attempted by means of a return to allocative and decision methods associated with traditional central planning, in practice this option is not viable. At this stage, any major reversal of the reform could eliminate the confidence of enterprise managers that the reform means real change, and that it is more important to make their decisions in the light of the expected evolution of markets than their interpretation of the wishes of branch ministries.

2.62 The discussion of the bills by the Press and public confirmed underlying support for the reform. A Plenary Session of the Party's Central Committee in December 1986 took the decision that systemic reform had to be accelerated. In April 1987 a special supplement of Rzeczpospolita published "Theses Concerning the Second Stage of the Economic Reform" (proposals for discussion), which had been prepared under the auspices of The Secretariat of the Economic Reform Commission, with widespread participation of many other organisations and individuals. The document is intended to present ideas

rather than a concrete program. After these have been subjected to extensive public debate, a Ministerial committee will formulate an action program, for approval during the autumn of 1987. A keystone of the theses is that reform cannot succeed without equilibrium, but reform is necessary to achieve it. Changes in the structure of the economy are a prerequisite, including reducing the weight of heavy industries and increasing participation in international trade. Steps to achieve market balance are given priority--raising prices to market-clearing levels, reducing and targetting subsidies more sharply, and further reducing central allocation. The rate of price adjustment will be decided after wide discussion. A flexible and realistic exchange rate is to be maintained. Further steps to increase enterprise self-management and autonomy vis-a-vis Branch Ministries will be taken, the enterprise budget constraint will be hardened and bankruptcy and anti-monopoly laws increasingly enforced. Tax and banking reforms are to be carried out. Greater labor mobility and more subcontracting to labor teams is envisaged. Controls over the growth of wages will be retained. Changes in some aspects of social security--such as setting small charges for some services--are on the discussion agenda.

2.63 The spirit of the proposals is a liberal one: "Whatever is not prohibited, is allowed." It will not, however, be easy to liberalise with such a tight balance of payments, nor to make major price adjustments in an already inflationary situation, nor to restructure in circumstances of excess demand for labor. It is easy therefore to be sceptical, especially since many of the measures now proposed were originally among the 1981 reform proposals but have still not been implemented. Nevertheless, the reform menu has been reaffirmed and extended in an impressive way. The theses and this Report were written at the same time, and of course quite independently, but they reflect very similar assessments of the situation and analyses of policy priorities, and the proposals are a systematic attempt to tackle the problems that we highlight.

2.64 Many of the items on the reform agenda would assist in stabilization and macromanagement. Subsidy reductions would ease the fiscal burden. The importance of financial discipline, combined with positive real interest rates can scarcely be overstressed, and should reduce the overaccumulation tendencies typically present at all levels in growth-minded socialist economies. More use of transaction prices, a more active exchange rate policy and more effective factor markets should improve international competitiveness and stimulate exports. The reform measures--particularly harder budget constraints and better factor mobility--should result in greater efficiency, with resulting improvements in productivity and supply.

### III. INVESTMENT

#### A. Legacy of the Past

3.01 The scale and quality of the investment program adopted in 1970 bear a major responsibility for Poland's subsequent problems. The ambitious level of investment in the central plan was exceeded by the investment targets of ministries - by 15.2 percent during 1971-75 and by 25.8 percent in 1976. Moreover, actual investment expenditures were even higher, since once a project was incorporated into the plan, the investing enterprise typically raised its resource requirements. This led to shortages and bottlenecks (particularly in construction, which considerably lengthened gestation periods), intensification of inflationary pressures and inappropriate investments. Strong emphasis was given to projects to produce investment goods at the expense of projects oriented towards exports and consumer goods, particularly during 1976-80. Only 20-25 percent of industrial investment was devoted to the modernization of existing plants (compared with 60-70 percent in East Germany and Czechoslovakia). A large number of foreign licences were acquired but many of them were apparently of little or no use, and about half of the utilized licences turned out to be highly import-intensive.

3.02 Investment bore the brunt of the stabilization and eventual contraction of domestic absorption. Stocks began to be run down in 1977, and fixed investment started to fall in 1978. In 1982, fixed investment was only 55 percent of its 1978 level. By 1985 it had recovered only to 71 percent, and to an even lower 65 percent in the so-called productive sectors. Nevertheless this still represented over 20 percent of GDP, which should be enough to permit substantial economic restructuring. Why then has it proved so difficult to restore output to its 1978 level, as a basis for further sustained development? In this Chapter we shall first discuss the causes of the apparent low return to investment. Next we review the changing structure of investment, both in the recent past and in the new Five Year Plan, and discuss the effects of economic reform on investment planning and finance. The composition of sectoral investment programs is then discussed.

#### Investment Has Been Spread too Thinly

3.03 The deep investment cuts of the period 1978-81 were undertaken haphazardly, with a general tendency to lengthen gestation periods rather than reallocate investment resources from less to more promising projects. In 1981, the Government established a State Commission to rationalize the socialized sector investment program inherited from the past. Ongoing projects were subjected to detailed scrutiny. By the time it completed its work in 1983, the Commission had frozen or abandoned some 1,500 projects with a value well in excess of 1,000 billion zlotys (\$8.8 billion) in 1984 prices. Although this exceeded the annual value of socialized sector fixed investment at the time, it amounted to only 10-15 percent of the total value of the ongoing investment program.

3.04 In spite of the very considerable qualifications that must be attached to any valuation of sunk and future project costs in current terms, Table 3.1 gives an idea of the nature of the problem faced by the Commission.

**Table 3.1 COST OF SOCIALIZED SECTOR INVESTMENT PROJECTS, COMPLETED, ONGOING AND STARTED  
(billions of zlotys, current prices)**

	1975	1978	1980	1981	1982	1983	1984	1985
Investment Outlays During Year	359.7	431.4	361.1	278.7	658.5	816.7	1,076.8	1,350.6
Total Cost of Projects Completed During Year	276.9	350.6	256.5	240.3	380.5	557.6	733.8	941.5
Sunk Costs of Uncompleted Projects (end year)	360.7	620.9	797.5	835.5	1,113.5	1,373.1	1,711.7	2,118.2
Estimated Further Investment Required (end year)	714.7	1,081.6	1,292.3	1,216.6	3,339.2	3,395.4	3,637.8	4,637.8
Total (i.e. Cost of Ongoing Investment Program) of which:	1,352.3	2,053.1	2,346.3	2,292.4	4,833.2	5,326.1	6,083.3	7,697.5
Total Cost of New Projects Started During Year	393.8	438.1	211.1	142.7	679.8	786.1	902.4	1,105.2
Cost of New Projects as percent Total Program	29.1	21.3	9.4	6.2	14.1	14.8	14.8	14.4
Outlays as percent Further Investment Required	50.3	39.9	27.9	22.9	19.7	24.1	29.6	29.1
Industrial investment Outlays as percent								
Further Industrial Investment Required	48.9	36.1	21.6	17.0	13.6	17.0	21.7	21.5

**Note:** All projects involve some construction - i.e. those that simply entail the purchase of machinery are excluded. Project Cost figures include projects that are officially "frozen". The annual amounts are not available, but it appears that the total cost of these projects was of the order of Zl 100-200 billion in 1985.

**Source:** Statistical Yearbooks

In 1975, with the investment program at full steam, annual fixed investment (in socialized sector investments requiring some construction) was equivalent to about half the investment requirements of uncompleted projects at the end of the year. By 1978, with investment starting to fall, it was equivalent to 40 percent. At the depth of the drop in investment in 1982, it was less than 20 percent. By 1984 it had recovered to just under 30 percent. For industrial projects taken alone, the drop in the early 1980s is even more dramatic--to 17 percent in 1981 and to less than 14 percent in 1982, and the recovery was to less than 22 percent by 1985. In other words, if no new investment projects at all were started, at the rate of investment carried on in 1985, it would have taken 3-4 years to complete all the ongoing projects, and in industry about 5 years.

3.05 The principles on which the Commission operated were sound. Priority was accorded to projects (i) with a high ratio of sunk to total costs; (ii) directed to increasing food production both in agriculture and in industries supplying inputs to agriculture and processing its outputs (and thereby reducing the deficit in agricultural trade); (iii) for exports and (iv) for substitution of imported inputs and spare parts with strong inter-industry linkage. Moreover the basic principles on which projects should be evaluated were well known to the Planning Commission, whose formal procedures have been based on UNIDO recommendations since 1974, and in theory all investments in the socialized sector are subject to evaluation by these methods (see Annex I).

3.06 In practice, however, the Commission's success at pruning the investment program was limited. Frozen and "abandoned" investments were made subject to an annual review and many have been subsequently revived. While some of these revivals may reflect the haste in which many of the original decisions to suspend had been made, reportedly they also reflected both political pressures and the ability of some highly liquid enterprises with increased autonomy to evade central directives. At the beginning of 1985, the number of projects halted was down to 1,100 and several of these were either resumed during the course of 1985 or are earmarked for possible resumption (see Statistical Appendix Table 5.5).

3.07 The pressure to resume suspended projects was part of a continuing general desire to invest. Although the Three Year Plan 1983-5 had predicted no increase in investment, actual investment rose by 33 percent. This was not, however, reflected in the faster completion of on-going projects--rates of project completion slowed. Investment projects brought on stream were only 72 percent of the planned level in 1983, 70 percent in 1984, and 66 percent in 1985. The average gestation period for investment, which had risen from 26 months in 1975 to 35 months in 1980, has risen to almost 4 years, (though with a slight improvement in 1985.) In the industrial sector the average is over 5 years. The tendency to spread investment resources too thinly over too many projects does not appear to have diminished. The systemic pressures to invest, fostered by credit at negative real rates of interest and a lack of concern for maximizing the rate of return to assets, remains strongly in evidence.

3.08 Low rates of project completion in the industrial sector are reflected in the apparently slow growth in the stock of physical capital, after allowance for wear and tear. The proportion of the industrial capital stock already written off for wear and tear (i.e. the difference between gross and net) rose from about 35 percent in 1975 to 43 percent in 1984; later data are not available. Applying these percentages to the estimated 12 percent growth in the gross capital stock between 1980 and 1984 shows a growth in the net stock averaging 0.8 percent per year. This is probably an overestimate of the growth of the economic worth of the net stock, which may well have declined, since the depreciation measures in use appear to be based on physical depreciation, rather than taking into account technological obsolescence, as would be the case with comparable Western estimates of the written-down value of capital assets.

#### Too Much, and Too Inefficient, Construction

3.09 A shortage of imported machinery and equipment has also meant that within industry a disproportionately large part of investment resources has been devoted to buildings. Since 1983, over half of industrial investment has been devoted to construction, compared with around 40 percent in the 1970s. To a limited extent, this reflects a significantly greater than average increase in construction prices. Problems in the construction and building materials industries have tended to compound problems of investment implementation (see Annex V). Although construction output in 1986 was only 75 percent of its 1978 level, the industry appears to have been operating in a sellers' market, dominated by state enterprises able to negotiate comfortable profit margins (31.5 percent in 1984), and efficiency has declined.

3.10 Construction enterprises have been plagued by greater labor shortages and turnover than most parts of the economy. The fall in output partly reflects a shrinkage of about 5.6 percent in its labor force between 1978 and 1986 (14 percent in the socialized sector) and a decline in working hours per employee, which have fallen by about 9 percent in socialized enterprises. Output per employee is 11 percent lower than in 1978, reflecting additional problems with material supplies, tools and equipment, managerial inefficiencies and pervasive evidence of poor worker motivation and discipline. Private work pays two or three times more, and workers from public enterprises participate, legitimately or illegitimately. Mission visits to a number of construction enterprises provided evidence that the construction labor force is, on the whole, well qualified and can perform satisfactorily in good working conditions. The managers of enterprises with export contracts stated that the productivity of their (Polish) workers abroad, where materials, tools and equipment are more readily available and remuneration is higher, is 50 percent to 100 percent higher than at home.

#### Low Returns from Completed Projects

3.11 The mission asked for details of the results of a sample of investment projects in a number of sectors. This was not expected to be fully representative, but it was hoped that it might be a useful indicator of some of the characteristics of the investment program. Results from the 45

projects on which data were provided by the Planning Commission confirm that the quality of the investment program appears to be low. Our sample included 18 centrally-financed projects (many carried over from the previous plan), accounting for 40 percent of the investment program in this category, with a total cost of 1,388 billion zlotys, and 28 enterprise-financed projects with a total cost of 140 billion. Although the information on the projects is primarily financial rather than economic, it confirms the low returns on investment. For the sample as a whole, the payback period is 50 years (an internal rate of return of less than 2.0 percent), with the centrally-financed projects having a (weighted) average payback period of 81 years (an IRR of less than 1.2 percent) and the enterprise-financed projects a payback period of 9.4 years (IRR of less than 10.6 percent.) This extremely long payback period for centrally financed projects can be largely explained by a sectoral analysis. The 9 centrally-financed projects in the power and mining sectors have a weighted average payback of 62 years (an IRR of less than 1.6 percent). These poor financial returns reflect government policies to keep domestic energy prices well below world levels (a policy which is about to be abandoned). In addition to these nine projects, two large projects (fertilizer and PVC) are projected to have operating costs exceed revenues. Other centrally-financed projects have an average payback period of 21.6 years (an IRR of less than 4.6 percent.) Economic rates of return were not available, suggesting that these may not in fact play much of a role in current decision-making about investment.

#### Limited Changes in Investment Program

3.12 The impact of the greater decentralization of investment decisions inherent in the reform program on the program of investment has been severely limited by the relatively few new project starts; a large share of investment resources continues to be pre-empted by projects started before the reform was introduced in 1982. Although there have been between 32,000 and 37,000 new projects started each year since 1983, these have mostly been small, averaging about Zl 26 million in 1984 prices (US\$230,000). Table 3.1 shows that the contribution of new projects to the proportion of the total cost of the investment program at the end of each year declined from nearly 29.1 percent in 1975 to 21.3 percent in 1978, and was only 6 percent in 1981. More recently it has been about 14 percent. Close to 60 percent of the socialized sector's outlays on fixed investment with a construction component in the period 1982-85 has been on projects started before 1982 (see Statistical Annex Table 3.4). By 1985 this ratio was 40 percent and is projected still to be 13 percent by 1990.

3.13 Recent changes in the structure of investment (Table 3.2) have therefore been driven primarily by sectoral differences in rates of project completions and suspensions, rather than by responses to a changing pattern of profitable opportunities and new starts. The investment reductions were disproportionately concentrated in the so-called "productive" sectors, with the exception of energy and agriculture, which dropped from about three-quarters in the 1970s, to two-thirds in 1981-5. Although, as noted below, housing remains in extremely short supply, it did claim over one-quarter of investment funds in 1981-5.

**B. The Five-Year Plan, 1986-90**

3.14 Table 3.2 shows the structure of investment implicit in the projections of the Five-Year Plan 1986-90. In the spirit of economic reform, Plan figures are regarded by the authorities as forecasts rather than as central directives. Investment as a whole is expected to rise by nearly 24 percent, with a rise in investment in the "productive sectors" by 30 percent, making it 70 percent of the total investment of Zl 10 trillion at 1984 prices<sup>1/</sup>. The relatively rapid increases in investment in energy and metallurgy have been strongly criticized in Poland, as likely to perpetuate the present industrial structure. The increase in energy in particular represents a continuing growth in its share, and emphasizes the importance of energy conservation discussed in Annex IV. The growth in metallurgy investment is only a partial restoration of the much higher share it held in the 1970s, but that in itself is not a justification for it. The world-wide problems with this sector, and its capital-intensive nature, suggest that all proposals in this area need careful evaluation. In contrast, the projected investment in light industry is still modest.

**Table 3.2: STRUCTURE OF INVESTMENT, FIVE YEAR PERIODS, 1971-1975 - 1986-90 (percentages)**

	1971-5	1976-80	1981-5	1986-90 (Plan)	Increase 1981-5/1986-90
Energy	9.0	8.9	10.7	12.2	42
Metallurgy	5.4	5.6	1.8	2.8	89
Engineering	9.6	9.2	6.4	7.0	36
Chemical	4.2	4.2	2.8	3.5	53
Light Industry	3.1	1.7	1.3	1.6	48
Food Industry	4.4	3.3	3.5	4.1	44
Other Industry	5.3	4.2	2.5	3.3	66
Agriculture & Forestry	15.0	16.7	19.0	17.3	13
Transportation	10.5	8.7	6.9	7.3	30
Other Mat. prod & serv.	11.1	12.1	12.0	11.0	14
Total Material Prod.	77.6	74.7	66.8	70.0	30
Housing and local services	16.5	19.9	25.6	21.3	3
Education	1.8	1.5	2.4	2.9	51
Health	1.2	1.3	2.5	2.7	32
Other Non-material serv.	3.0	2.7	2.7	3.2	44
Total Non-material serv.	22.4	25.3	33.2	30.0	12
Total	100.0	100.0	100.0	100.0	24
Total (Zl. b (1984))	n.a	n.a	8,078	10,000	

<sup>1/</sup> Where for comparative purposes Plan figures have been converted into dollars, the average 1984 exchange rate of Zl 114 to the dollar has been used. Since then there has been a substantial real depreciation of the zloty, so the use of project costs in 1987 zlotys and an exchange rate of Zl 240 would lower the dollar cost of individual projects.

3.15 The pattern of future economic activities will not be determined only by the allocation of investible resources. The labor supply is an effective constraint on the growth of output in many parts of the economy, and the growth of the population of working age is going to be particularly small during the next few years (see Annex VI). Table 3.3 shows the expected shift in the sectoral distribution of the labor force between 1985 and 1990, and the percentage growth expected over the period (not per year). This gives a very different concept of priorities. There will be very little change in the labor force in industry, or indeed in the whole "material (or productive)" sphere. In contrast, growth will be relatively substantial in the non-material sphere. Although present employment in the health system is only about 17 percent of that in industry, the absolute increase in employment in the former is more than ten times the latter. As discussed in Annex VI, the case for this change in labor allocation is extremely weak.

**Table 3.3: SECTORAL EMPLOYMENT 1985 AND EXPECTED 1990**

	Numbers (thousands)		Distribution %		Growth
	1985	1990	1985	1990	
Total	11,697	12,118	100.0	100.0	3.6
Industry	4,269	4,278	36.5	35.3	0.2
Construction	1,111	1,127	9.5	9.3	1.4
Agriculture	807	824	6.9	6.8	2.1
Forestry	152	170	1.3	1.4	11.6
Transport and Communication	1,041	1,091	8.9	9.0	4.8
Trade	1,252	1,272	10.7	10.5	1.7
Other Mat. Prod & services	421	448	3.6	3.7	6.5
Total Material Sphere	9,053	9,210	77.4	76.0	1.7
Housing & Non-mat services	211	230	1.8	1.9	9.4
Science & Technological dev.	105	145	0.9	1.2	38.1
Education	901	969	7.7	8.0	7.6
Health Care	737	836	6.3	6.9	13.5
Other Non-mat. services & social orgs.	690	727	5.9	6.0	5.4
Total Non-material sphere	2,644	2,908	22.6	24.0	10.0

#### Effects of the Reform on Investment Planning and Finance

3.16 Improving the efficiency of investment by decentralizing investment decisions and altering the structure of incentives is a major objective of the economic reforms introduced in 1982. The system introduced in 1982 divided socialized sector investment into the following four principal categories:

- a) centrally planned investments in very large projects of physical infrastructure or in productive sectors with a major impact on the structure of the economy, in certain social sector projects (which

automatically receive foreign exchange, credit and fiscal allocations), and in Ministry investment from budget sources;

- b) local authority (voivodship) investments mainly in localized physical and social infrastructure (which have received about 70 percent of their financing from the state budget but generally do not require much foreign exchange);
- c) enterprise investments which were to account for the largest part of investment, especially in productive sectors, and were to be decentralized; and
- d) cooperative residential construction, which carries virtually guaranteed bank financing.

3.17 The share of centrally planned investments has ranged from 16-18 percent in earlier plans. In the 1986-90 plan, centrally-financed projects will be included up to a limit of Zl 1800 billion (18 percent). Projects named in the Plan will be about Zl 1100 billion. Projects totalling Zl 796 billion have already been approved, including Zl 450 billion for energy projects, and Zl 115 billion for heavy industry. Other central projects from a list with a total cost of nearly Zl 1.3 trillion will be selected. Energy is again prominent, including coal and lignite mines (Zl 227 billion) and a second nuclear power station (Zl 500 billion.) Water supply and sewerage projects, for which Zl 90 billion has already been approved, account for Zl 135 billion on this second list.

3.18 In recent plans, local authorities have been responsible for 13-15 percent of investment. It is intended to reduce the extent of central funding for this investment and to subject them to greater central control by requiring all investments in excess of Zl 500 million in 1984 prices be subjected to central approval.

3.19 Enterprise investments have in recent years accounted for about 43 percent of total investment, and more than half of socialized sector investment. The share of investment left to enterprise decisions is a misleading indicator of the degree of effective decentralization of investment decisions, since a variety of tax rebates and allowances, and also direct budgetary allocations and government contracts, are brought to bear in influencing both the level and the allocation of enterprise investment. Central influence also operates through the allocation of imports and some domestically produced inputs. Priority is accorded to projects for raising exports and food production.

### C. Sectoral Investment Priorities, 1986-90<sup>1/</sup>

#### (a) Agriculture

3.20 The food economy complex is expected to receive the same proportion of total investment in the present Five Year Plan period as in previous plans--22 to 24 percent of all national investment outlays. Of this, about 71 percent is indicated for agriculture, 21 percent to the food processing

industry, and the remainder to industries providing inputs. This allocation reflects a shift in priorities favoring food processing, which receives a 62-73 percent increase over the previous period, compared to agriculture's 13 percent increase.

3.21 Investment in agriculture is grouped around a few major categories: mechanization and equipment (Zl 690 billion); farm buildings (Zl 425-490 billion), and water amelioration and drainage (Zl 250 billion), and water supply and rural electrification (Zl 65 billion). Water amelioration and drainage have an average cost per hectare of Zl 360,000 in 1984 prices, or more than \$3,000 per hectare. The average increase of wheat is about 0.6 tons/ha--about \$70--which is a gross return of about 2 percent. This investment should be very selective, and the easiest way to ensure this is to insist that beneficiaries are charged the full economic cost of the improvement. The plans for electrical infrastructure and water supply to villages also require careful scrutiny.

3.22 About half the total investment in mechanization and equipment supply, and in the construction of farm buildings is expected to be from the private sector, though this figure is purely indicative. It is expected that about 30 percent of private investment will be financed by credit, a fall from recent levels of as much as 50 percent. The private sector will make sound investment choices only if prices (and interest rates) are good guides to resource allocation. Subsidies of farm inputs and agricultural credit are too high, and threaten to lead private investors to over-mechanize. The level of tractor availability in Poland is already fairly high, and there is no longer any significant difference in this respect between the private and socialized sectors.

3.23 In many respects, the food processing industry is antiquated, resulting in large post-harvest losses and products of low quality, and its improvement is essential to export prospects for agricultural products. Investment is expected to shift from its 1970's emphasis on meat to fats and oils, dairy products, potatoes, fruit and vegetables, and cold storage facilities. Nine of the eighteen distinct branches of the food industry have been accorded high priority in the investment plan. These need careful appraisal, and some like sugar-beet processing might be queried. There seems little justification for an investment of Zl 9-12 billion (largely in convertible currency) in investment in tobacco processing; any health benefits would be negligible. To the extent that these agroprocessing projects are intended to earn foreign exchange through exports, there is also a need to examine the market potential for the products concerned. The cost of some of these exports in terms of subsidies to cover the difference between domestic purchase costs and export prices also requires evaluation.

#### (b) Industry

3.24 The industrial sector has been beset with problems in recent years and net industrial output in 1985 was still about 13 percent below its peak of 1978. It has been badly affected by the fall in investment, which has adversely affected modernization and replacement of the capital stock,

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1/ Details of these programs will be found in the sectoral annexes.

particularly in the food and light industries. The lack of foreign exchange is probably the most important constraint on the sector. Shortages of imported raw materials, spare parts and investment goods restrict the growth of output, cause production bottlenecks, and prevent replacement of aging and technologically backward capital equipment. Deteriorating product quality has resulted from the forced substitution of lower quality domestic inputs for imports, and the excess domestic demand for many products has reduced incentives to achieve higher quality.

3.25 Given that net output has not yet reached its peak, and that some investment has been taking place, it seems reasonable to conclude that there is considerable excess capacity, particularly as scrapping rates are reportedly low. Under changes in labor legislation there has been a fall in the average number of shifts worked from 1.49 in 1978 to 1.29 in 1985. This is also consistent with the view that the shortage of foreign inputs is the main constraint on industrial activity. Nevertheless the impression of the mission is that the picture is far from uniform; in plants visited by the mission capacity utilization in some of the engineering enterprises seemed full, whereas the opposite was true for light industry. Other studies based on production functions have, however, suggested relatively low capacity utilization in engineering and in general a utilization of capacity in manufacturing in the range of 60-80 percent.

3.26 Planned industrial investment for the period 1986-1990 in the socialized sector (which includes energy) is Zl 3,300-3,600 billion. Under the principles of the economic reform, the government expects that industrial enterprises will make most of their own investment decisions. Projects over Zl 500 million will, however, require special approval from the Planning Commission if budgetary subsidies are involved. In 1985, about 78 percent of investment outlays were financed by the enterprise's own resources, 16 percent by bank credits, and less than 6 percent by government subsidies. An increase in bank credit and a reduction of subsidies is expected. Enterprise investment funds may be increased by new asset revaluation laws, income tax and depreciation tax exemptions for exporting enterprises, and energy and material savings.

3.27 Indirect mechanisms such as credit and fiscal incentives and R & D will be used to encourage financial resource allocation to priority subsectors. Special emphasis is to be given to investment projects for (i) modernizing industry and increasing productivity, especially through more efficient use of energy and other materials; (ii) expanding exports; and (iii) expanding industrial linkages and using locally-produced inputs and domestic raw materials more intensively. To improve project implementation, substantial fines will be imposed for delays, and building and construction in enterprises will require a deposit equal to 50 percent of the value of the construction component or 20 percent of the project value.

3.28 The Industrial Restructuring Program comprises 44 projects with a total investment of Zl 1,845 billion, to be implemented within the next 5-10 years. Engineering projects claim 30 percent of the program resources, 10 percent are allocated to chemical industry. These sectors are expected to lead future industrial growth because of their export potential and substantial spillover effects. Over 40 percent of the proposed investment

in energy is in nuclear power, discussed below. The program seems to have identified correctly the main needs for resource reallocation--i.e. towards projects which modernize industry, generate industrial linkages, complete existing investment projects, save materials and energy, increase the supply of particularly scarce intermediate products, and expand exports to convertible currency markets--but it appears to reinforce the existing capital-intensive and vertically integrated structure of industry. Investment selection criteria have given insufficient priority to short-term financial returns. Moreover a significant number of projects would establish capacity to produce goods in Poland which are already in excess supply worldwide and often produced at a higher level of technical sophistication than anticipated in the Polish investment. These include the production of electronic components, ball bearings, diesel engines, delivery trucks, robots, and computers and peripherals. Poland's inability to participate freely in international trade and to take advantage of low-cost inputs from existing producers appears to be leading to investments of a defensive, import-substituting nature with limited direct export potential. Long implementation times may make them outdated or obsolete by the time they come on-stream. This risk is particularly great for electronics components.

(c) Energy

3.29 The growing role of energy investment in the Plan comes in spite of a projected decline in coal exports amounting to about 8 percent a year to convertible currency areas (see Chapter IV) and a vigorous energy conservation program. There appears to be a good deal of scope for the latter; energy consumption per unit of NMP in 1985 was still more than 90 percent of its 1970 level. The Government energy forecasts implicitly project energy intensity to decline at a rate of 2.6 percent per year during the period 1986-90, which is rapid but not impossible. In general, energy savings of 20-25 percent in industry appear possible, some requiring little investment. The present energy conservation program is based on centrally determined investments in the manufacturing of energy-efficient products and materials and process changes, plus a set of incentives and direct measures to encourage enterprises to purchase the improved products and materials and to initiate their own energy-saving schemes.

3.30 Although there is much in the energy saving program to be commended, there are a number of issues that need resolution to make its success more likely. Energy conservation has not been a high priority for enterprises because of deficient incentives. Systemic issues, such as the prevalence of cost-plus pricing, and lack of financial discipline, which reduce interest in minimizing costs, are partly responsible. But energy prices have also been far too low. Except for petroleum products and natural gas, energy is priced significantly below its economic cost. Steam coal for industry is about 50 percent of the transport-adjusted price of exports. Even the projected 60 percent rise in its price is therefore inadequate. Electricity prices are, on average only 32 percent of a preliminary estimate of long run marginal cost (LRMC) and for households, only 18 percent of LRMC. In addition the procedures for implementing energy conservation projects are unnecessarily bureaucratic and there is a need to streamline procedures and institutions, as well as to strengthen the

institutional support to enterprises. Few energy audits are carried out and consequently simple, low investment options for saving energy are overlooked. There is also considerable potential for saving energy and other resources used in energy supply.

3.31 Investment in hard coal in the 1986-90 plan period is expected to increase the Zl 300 billion (1984 prices) of 1981-5 by 23-42 percent. Emphasis has shifted from construction of new mines to expansion and modernization of existing mines, on which investment will triple from Zl 110 billion to Zl 330 billion. Such a big commitment needs careful evaluation. Coal is extraordinarily important to the Polish economy and to its foreign trade. On average, at current and foreseeable exchange rates, the financial cost of producing coal appears very competitive with present and projected export prices adjusted for transport. Productivity is already high; even the modest 5-14 percent increase in output that the government projects for the period 1985-2000 will require substantial investment and be hard to achieve. In spite of its high priority, coal investment and production decisions must be justified by economic criteria. There are a number of mines whose costs are above the export price, even taking into account the likelihood of further devaluation. In the long-run, these need to be closed. Despite its technical problems, the Bogdanka mine in the new Lublin field should be completed, since 70 percent of construction has been carried out. It will indicate the technical and economic feasibility of mining coal in the Lublin area. The Stefanow mine (now only 16 percent completed) should be probably be abandoned, if its capital costs are truly as high as \$350/ton of annual capacity, (as is reported in Annex IV (para. 6.13). Even if implementation were instantaneous, so that no allowance need be made for investment tied up in work under construction, the implicit interest cost on this capacity at 10 percent is greater than the f.o.b. world price of coal, so that it could not be justified, even if the coal could eventually be extracted free. The authorities argue that Stefanow can also be justified on experimental grounds.

3.32 Other than the giant Belchatow mine which is nearing completion, the only other lignite mine which looks viable at present is the Szczercow project, which should be accelerated to substitute for exportable hard coal and to insure against delays in the nuclear program.

3.33 There is an urgent need to develop a least-cost power investment strategy using modern planning tools that would re-evaluate the power generation investment program. At present, electric power investment is centered around increases in generating capacity, mainly from nuclear plants, which are expected to use 58 percent of the Zl 464 billion investment in power generation forecast for 1986-90, and about 75 percent of the Zl 600 billion forecast for 1991-5. The present program runs the risks of shortfalls in supply and is vulnerable to slippages and cost over-runs in the nuclear program. However, other investments such as reducing distribution losses, rehabilitation of old plant and especially demand management (particularly by adjusting electricity tariffs) could lead to substantial savings in the investment program. Apart from any safety considerations, there are economic grounds for re-evaluating the third and fourth reactors at the Zarnowiec station which are at an early stage of construction. The Mloty pumped storage hydro plant should also be reviewed

since pumping energy will come from marginal coal-based generation for the foreseeable future, and the economic cost of coal is about twice the present price. Furthermore, a shift in resources from generation to transmission and distribution seems justified in view of the high losses and increasing outages.

(d) Transport

3.34 There is much transport investment in addition to that in the central plan, in the investment plans of many different agencies and municipalities, and in their budgets for maintenance and rehabilitation. While it is therefore not easy to estimate its entire amount, transport investment, like the transport system as a whole, is plainly dominated by railways. The railway network is one of the most densely used in the world. The 27,000 km of track carry about 70 percent of total domestic freight and about half of passenger traffic, although these shares are declining, as with railway systems elsewhere. Although general operational efficiency is relatively high by international standards, there are signs of deterioration. Modern track maintenance equipment is in seriously short supply. The number of available railway wagons decreased by 25 percent between 1980 and 1985. The resulting shortage is worsened by low utilization, affected by labor shortages and by congestion in obsolete marshalling yards. Signalling systems on many main lines are obsolete, and need to be upgraded, particularly by introducing more automatic line block signals on main lines.

3.35 Almost two thirds of the Zl 644 billion of centrally planned transport investment is for the railways. An extensive program of modernization and rationalization of existing marshalling yards is already underway. The proposals here seem well-conceived. The proposed investments in signalling and telecommunications appear surprisingly modest. On the other hand, some resource saving might come from abandoning or postponing parts of the electrification program, for which Zl 33 billion is proposed. Each electrification project must be justified separately and not on the basis of a perceived general benefit. Although a reduction of energy use is of the highest priority, the mission sometimes had the impression that it was given excessive weight in economic analysis of investments. Further railway electrification would reduce diesel oil consumption only marginally, and should only be undertaken if reduced operating costs are large enough to justify the substantial installation costs. Additional resource-saving might be derived from closing between 3,000 and 4,000 km of the network which carry very little traffic and hold little prospect for rationalization.

3.36 The use of containers is relatively low, constrained by limited handling facilities, and is a potential bottleneck to export growth. The present plans aim at increasing the number of terminals; it would be more efficient to consolidate a smaller number of centers and stations, and improve the standard of equipment at each, to permit an efficient balance of container movement by road and rail.

3.37 The Warsaw metro is a centrally-financed investment, whose first phase comprising 14 km of line is due to be completed by 1991 at an estimated cost of Zl 45 billion. Some 23 km have been approved. This is

only the first stage of a larger plan which involves very substantial investment, and at a cost estimated at \$30 million per km. This is not a particularly high figure by international standards, and is similar to the expected cost of the Budapest metro. Since it is highly unlikely that an acceptable pricing structure can be found to cover operating costs, this is investment with a negative financial rate of return. Metros invariably involve massive subsidization out of general revenues, and benefit the inhabitants of major cities at the expense of their compatriots. Even in very congested cities, their economic justification is therefore doubtful, and Warsaw is not very congested. Further extension beyond the initial stage should be undertaken only if investible resources become much less scarce, and when alternative patterns of public transport have been thoroughly explored.

(e) Telecommunications

3.38 Planned growth in telecommunications is so inadequate that service is likely to deteriorate, and the gap between supply and demand to widen. Unmet demand grew nearly three times as fast as new telephone connections in 1984 and 1985. The current Five-Year Plan calls for an annual growth in connections of 5.3 percent--only slightly above that of the last 7 years, and below present rates of growth of demand. This implies an increasing gap between demand and supply, which will accelerate the deterioration in service which appears to have begun already in Poland and can be expected to worsen in the absence of remedial measures. Further, if the limited resources available to PPTT are overloaded in favor of new connections (to relieve political pressure) at the expense of replacing, rehabilitating and maintaining the basic network, service quality is likely to deteriorate still further.

3.39 Although profits from the telecommunications side of PPTT already exceed losses on the postal service, tariff increases from their current low level could finance additional investment and make a net contribution to government revenue. This would be especially so if it were permitted to supplement internal cash generation with new sources of finance such as subscriber bonds, general bonds, joint ventures, etc., (which subsequently it could, and should, service from its own cash surplus).

3.40 Most of the country's needs under current technology can be manufactured in Poland. Assuming that imports and foreign exchange will remain constrained and that a large percentage of output will continue to be exported (mostly to CMEA), an enlarged program for network growth would depend upon increasing capacity in the domestic manufacturing industry. Despite not having the very latest technology, it does have a sufficient technical basis to support major upgrading and expansion of the network.

(f) Housing

3.41 The proportion of GDP devoted to housing investment has consistently been below countries at an equivalent level of development or with similar housing deficits. The result has been the most severe housing problem in Europe, measured in terms of households per dwelling unit.

Housing waiting times in large cities are 15-20 years. Building times are very long—six years on average for private housing. Housing shortages are a severe deterrent to geographical labor mobility, and therefore contribute to the continued low marginal productivity of labor on small private farms. A concerted program to increase the rate of housing production was badly disrupted by the economic crisis of the 1980s, and has been weakened by the problems with the construction industry noted above (para. 3.10). In consequence, there is a very large difference between market prices for housing and construction or replacement costs; ratios of housing value to cost are from perhaps 1.5 to 2.5, which, with discount rates of 10 to 15 percent, would indicate incremental rates of return on housing investment of from 15 to 37.5 percent, extraordinarily high relative to those observed in most other parts of the world. While subsidized credit may play some role in stimulating the market, the ceiling on the amount available is so far below the market price of much new housing that it cannot play much of a role in determining these rates of return. The absence of alternative assets available to households may also stimulate housing demand. But the major factor must undoubtedly be the severity of the housing shortage.

3.42 The present plan is for 1.05-1.15 million dwellings to be built between 1986 and 1991. At the low end of the target range, this is an increase in annual output of about 10 percent over the last three years, but some 25 percent below the peak production years of 1978 and 1979. Again at the low end of the range, housing investment is projected to make up 22.2 percent of gross fixed capital formation, down from 26.5 percent during the period 1981-1985. Technical infrastructure investments, however, are projected to rise from 5.0 percent of gross fixed capital formation during 1981-85 to 6.1 percent in 1986-91. It appears that proposals to increase the rate of house construction were rejected primarily because of limitations on the supply of building materials. Cement production, for example, is restricted in order to reduce energy consumption.

3.43 Expenditures by households for existing housing are extremely low by international standards. The capacity to increase spending on housing is considerable, and there is corresponding scope for major reductions in housing subsidies, both on- and off-budget. Any financing for expanded resource allocation to the housing sector should be by households themselves. Several measures would allow expanded private sector housing production and would increase incentives to save: easing the regulation of small private building contractors; ending the relegation of the private sector to the bottom of the queue for building materials; lower transfer taxes on the sale of private housing; and relaxing restrictions on multiple dwelling ownership. In addition, subsidies to cooperative and state housing need to be reduced. Innovation in building materials to permit unit construction costs to fall should be encouraged, and adequate infrastructure provided to privately owned land. Selling off some state housing to tenants, as has recently been done in Hungary, would create more saleable stock of housing, particularly in urban areas, and would begin to open up the market for housing, reduce future subsidies and create a source of funds that could be used to provide financing for additional housing.

(g) Health

3.44 Over two-thirds of the Zl 290 billion indicated for health in the 1986-90 investment plan is to be spent on the construction of 34 new hospitals. It is also planned to continue increasing the number of physicians beyond the present level of about 20 per 10,000 population. Fifteen percent of the total labor force increase in 1986-90 is expected to be employed in health care. International evidence suggests that simple quantitative expansion of clinical resources is unlikely to have a noticeable impact on mortality. Planned increases in the ratios of hospital beds and physicians to population will impose substantial capital costs and incremental recurrent cost burdens. Despite the pressing need for new hospital beds, it would probably be more efficient to postpone a few of the planned new hospital starts, and reallocate the resources for facilities for the aged, which would release hospital beds presently occupied by elderly people requiring care but not hospitalization, and, second, for rehabilitation of existing hospital facilities where feasible. Nearly three quarters of all existing hospitals are over 40 years old, creating substantial repair and maintenance needs. Poland's ratio of physicians to people is adequate--higher than the UK and Yugoslavia and similar to that in France. The training of each physician costs Zl 3 million, but increases in the number of physicians will not buy much improvement in health or in patient satisfaction. A slightly smaller hospital building program would allow some of the planned increase in health manpower (especially less-skilled workers) to be used elsewhere in the economy. Without commitments on the part of the population to improved health-related behavior and on the part of industry to pollution reduction, government investment in clinical facilities will be ineffective in reversing present rising mortality trends.

3.45 Specific attention should be paid to the health implications of investment in other sectors. Energy conservation and other pollution control investments have already been noted. In agriculture, increased rapeseed oil production for domestic consumption would improve dietary choice and allow some substitution for saturated fats, whereas the planned commitment of foreign exchange to improving the quality of cigarettes produced seems unjustifiable.

(h) Education

3.46 About 3 percent of the total planned investment for 1986-90 will be devoted to education, but nearly 10 percent of labor force growth will be teachers. Given the substantial cost of training (more than Zl 1 million for a 5-year course) and the large wage increases that will be necessary to attract this many people to one of the lowest paid professions, the mission recommends increasing class size where the distribution of pupils and classroom space allows, as a resource-saving solution, which probably has little cost in learning effectiveness. A substantial research literature suggests that class size has a negligible impact on student learning in the range around 25, and that adequate and high quality text books and other materials are relatively more important. Less emphasis should be placed on the quantity of teachers, and more on the quality of training, with continued reliance on the existing impressive system of teacher upgrading and in-service training.

3.47 The main determinants of educational investment plans are demographic factors, and the age and condition of the capital stock. Demographic fluctuations have resulted in the present large pre-school cohort, a primary school group that will continue to grow until 1990, and a secondary group that will continue to rise from its 1983 low for the rest of the century (see Annex VI). The spatial distribution of the population increases educational demand, because the growth in child population is expected to be in new suburbs, with few, if any, buildings that could be used as schools. Many of the existing buildings are old and in disrepair; half of the stock of educational buildings was built before the Second World War. As far as possible, existing schools are to be expanded, and non-educational buildings and rooms taken over by schools, but there is to be a considerable amount of new construction, and of repairs to existing buildings. Resource constraints require this be kept to the absolute minimum, making use of increases in class size and in shift teaching where possible.

#### D. Strategic Issues in Investment Choice

3.48 This chapter has highlighted the need to improve the quality and implementation of the investment program. Specific attention needs to be paid to the problems of the construction industry, so that gestation periods may be shortened. In the shorter term, there are several projects which seem economically unjustifiable, and which should not be undertaken under the present circumstances of resource scarcity. The very low returns estimated to some projects, and the experience of the State Commission in 1983 suggest that the present investment program should be carefully reconsidered, and some projects dropped or at least postponed. The Stefanow coal mine, and some of the proposed railway electrification, rural infrastructure, and additional engineering product capacity (see para. 3.28) are candidates.

3.49 Although it has not been possible to do a full project analysis, it appears that returns to many central projects has been low, and that the ongoing and prospective investment program has not overcome this problem. Much more attention needs to be paid to proper project evaluation, not only at the central government level, which directly or indirectly controls a large part of investment, but also at the level of the National Bank and intermediaries which are going to play an increasing role in resource allocation. This requires meticulous use of prices which reflect opportunity costs. This may lead to unexpected conclusions; certainly this mission has been surprised by some of its own findings. Thus in a situation in which increasing the production of tradeables is obviously Poland's highest present priority, and it is also important to reduce the incremental capital output ratio, we have recommended steps that may lead to an increase in the volume of resources devoted to housing, a capital-intensive non-tradeable. Similarly, coal is a product of very high export potential for convertible currency, with exports the marginal use of coal; nevertheless we recommend considering the abandonment of Poland's most recent major investment project in this area. Again, energy conservation is of the highest priority, but it does not itself justify railway electrification.

3.50 The resolution of such paradoxes is that there must be careful tradeoffs among competing objectives; no single goal or set of goals can be given absolute priority. Decisions have to be taken with regard to the opportunities open to Poland on the international market in the long run, and the costs to Poland of the resources that are entailed. In the case of housing, the first priority is to move to a system of pricing that reflects true economic costs. If there are to be subsidies in the system they should be given to individuals, preferably as an income supplement rather than a rent rebate. The subsidy should not be on the price of housing. In itself this might correct some of the excess demand and the gross inequities of the present system. While consumer expenditure would switch into housing, and private saving might fall, this could be offset by a fall in government expenditure on subsidies. It is likely that there would still be a perceived housing shortage, and that the rate of building should be increased. This need not be at the expense of investment in the production of tradeables. Industrial investment has been excessively construction-intensive; the program of hospital and school building is probably too large; and further extensions to the Warsaw metro are difficult to justify.

3.51 Systemic factors that led to excessive enterprise investment in the 1970s have not yet been overcome. Highly liquid enterprises, with little fear of bankruptcy, concerned to maximize total income more than returns to assets, faced with excess demand and access to credit at negative real rates of interest, are eager to invest. The decentralization of investment decisions will lead to efficient outcomes only if other reform measures are also effective. The adoption of principles of creditworthiness for bank lending will improve investment decisions only if interest rates are significantly positive. Moreover much more can be done to improve the utilization of the existing capital stock and remove production bottlenecks, especially through the development of markets for foreign exchange and for labor.

#### IV. EXTERNAL ADJUSTMENT

4.01 A very important milestone in Poland's economic recovery will be the achievement of a surplus on the current account of the "strictly" convertible balance of payments. Once the trade surplus in goods and non-factor services plus net remittances exceeds net interest obligations, the debt problem will begin to diminish. Although refinancing or rescheduling will continue to be necessary until the size of the current account surplus becomes large enough to cover repayment obligations, trade credit should become more accessible. Creditors might also be more willing to take a longer view of the obligation to repay principal, so as to reduce the disincentive to better long-term trade performance that is currently inherent in the need to apply any improvement in the trade balance automatically to debt service. This achievement requires balance both domestically, which was discussed earlier in the report, and externally, which is the focus of this chapter.

4.02 In relation to total output, the magnitude of Poland's debt is not as serious as that of several other countries. At the end of 1986, Poland's medium and long-term debt in convertible currency was 43 percent of its 1986 GDP (calculated using the average 1986 exchange rate). Several other countries with external debts larger than GDP are pursuing programs supported by the World Bank and the IMF that require much larger shifts from domestic absorption to the current account than Poland would face. The further adjustment required is also small compared with what has been achieved in the past. As we showed in Chapter I, Poland reduced its convertible current account deficit from 9.3 percent of GDP in 1975 to 1.1 percent in 1986. The problem for Poland is that convertible currency exports have been declining as a proportion of GDP and are now very small relative to GDP, so that the value of debt at the end of 1986 was over five times the value of strictly convertible exports. The deficit on current account was therefore substantial in relation to convertible currency trade--in 1986 it was approximately 9 percent. (Note that the current level of reserves is about \$900 million equivalent, or less than two months of convertible currency imports). The small share of convertible currency exports in GDP means that a small resource shift of total output could have a large impact on exports.

4.03. In late 1986, the Government prepared five-year balance of payments projections, for both the convertible and non-convertible currency accounts, for the remainder of this five-year plan period (i.e. 1986-90) and for the subsequent five-year plan period (1991-95). For the first period these were based on the Plan trade projections, adjusted to take account of trade performance since the initial drafts were drawn up. The Plan had originally been drawn up on the explicit assumption of unchanged international economic relations from the situation in 1984 and 1985--i.e. with virtually no access to new international credit and without membership of the IMF or the World Bank. For reasons we discuss below, these projections provided an unsatisfactory basis for the reestablishment of international creditworthiness and this was the conclusion of the draft of this Report when first discussed with the Government. The shortcomings of this scenario, prospects of important further improvements in international economic relations, and a realization that a better export performance was possible and indeed had showed signs of beginning in some sectors (especially as a consequence of efficiency improvements due to further reform) led the authorities to revise the official medium-term projections and the related macroeconomic scenario in June 1987. These were presented to the World Bank,

accompanied by a preliminary outline of a set of policies to be implemented under the "second stage of the reform." They are intended to orient the productive structure towards convertible currency exports, while retaining tight management of domestic demand.

#### A. Earlier Scenario

4.04 The projection in convertible currencies shown in Table 4.1 was based on the Plan assumptions of continuing higher growth rates (6.7 percent) for exports to socialist countries than to nonsocialist countries (3 percent). This was true in all product groups except for engineering products and minerals. The relative structure of exports to socialist countries was projected to change little. The slower growth of exports to non-socialist countries largely resulted from an average 8.1 percent annual reduction in coal exports (heavily concentrated in the early years of the Plan period), reflecting increased domestic consumption and inability to expand supply. In contrast, the (much smaller) coal exports to socialist countries were expected to grow at 3.6 percent per year.

4.05 After 1990, growth rates of both exports and imports in convertible currency were projected to accelerate. Exports were to grow by 7.9 percent per year (or about 6 percent per year in real terms) compared to only 5.5 percent from 1986 to 1990 (or about 3.5 percent per year in real terms). The inflation rate of 2 percent was applied to both exports and imports--there was no projected change in the terms of trade. The amount due in interest was derived from applying a rate of 8 percent to the estimated debt outstanding at the end of the previous year. In contrast to debt figures presented in Chapter I, these include both short-term and revolving credit. In this projection, the current account was first balanced in 1993, by which time external debt would have risen to over \$38 billion. The cumulative financial gap--i.e. the amount of debt service that could not be paid and must be refinanced or rescheduled--would have risen to \$11.3 billion in 1990 and to \$18 billion by 1995.

4.06 The implications of the official projections were examined more fully in a simulation using the World Bank's medium term macro-economic framework (RMSM), along with a number of other assumptions taken from the five-year plan. GDP was projected to grow at 3.2 percent per year in real terms, based on the mid-point of the Plan target range for NMP. The implicit elasticity of imports with respect to GDP fluctuated: 0.6 in 1987, 0.3 in 1988, approximately 1.0 in 1989 and 1990, and then 1.4 for 1991-1995. Consumption was projected to grow by 2-3 percent per year, equivalent to 1-2 percent per capita per year--not austere by international standards. Investment was to remain at a fairly high level, equivalent to just over 20 percent of GDP. The implicit incremental capital-output ratio (ICOR) would have been about 8 throughout the time period; this is a very high figure by international standards (normally ICORs are in the range 3 - 5), and implies a low productivity of investment.<sup>1/</sup> On the non-convertible account,

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<sup>1/</sup> Without detracting from this conclusion it should be noted that there are some difficulties in making a direct comparison between Polish ICORs and those in more typical Bank member countries. First, we have taken one point on a range of NMP growth outcomes, crudely extrapolated that to GNP, and then calculated the ICOR. We have no separate data on the growth of non-material services.

**Table 4.1: BALANCE OF PAYMENTS IN CONVERTIBLE CURRENCIES, PROJECTION 1986-1995 BASED ON ORIGINAL PLAN 1/**

(\$ (US) million)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>1. Current Balance</b>	-491	-954	-550	-586	-550	-314	-74	152	474	700
<b>Merchandise, net</b>	1118	1000	1400	1370	1470	1670	1900	2150	2430	2640
Exports	6225	6200-6400	6860	7180	7570	8170	8820	9520	10820	11100
Imports	5107	5200-5400	5460	5810	6100	6500	6920	7370	7850	8360
<b>Services, net</b>	-2488	-2654	-2650	-2656	-2720	-2784	-2774	-2798	-2756	-2740
Credit, incl.	805	750	830	920	960	1000	1090	1130	1220	1260
Interest	182	150	150	200	200	200	250	250	300	300
Debit, incl.	-3293	-3404	-3480	-3576	-3680	-3784	-3864	-3928	-3976	-4000
Interest	-2588	-2704	-2800	-2856	-2920	-2984	-3024	-3048	-3056	-3040
<b>Transfers, net</b>	879	700	700	700	700	800	800	800	800	800
<b>2. Repayments of credits drawn/mlt/ incl. rolled over financial gaps</b>	-2105	-3236	-5575	-8174	-10503	-13082	-14524	-16073	-17333	-18488
<b>3. Credits extended, net</b>	-253	-200	-150	-200	-200	-200	-250	-250	-300	-300
<b>4. Other items</b>	-163	-	-	-	-	-	-	-	-	-
<b>5. Financial Gap</b>	3012	4390	6275	8960	11253	13596	14848	16171	17159	18088
<b>Debt in US\$ bln</b>	33.8	35.0	35.7	36.5	37.3	37.8	38.1	38.2	38.0	37.6

1/ Official projections; include trade under bilateral trade agreements denominated in convertible currency.

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annual export growth of 5 percent and import growth of 3 percent were assumed, reflecting the Government's intention to reverse its recent deficits with the Soviet Union, so that trade would be balanced over the period 1986-90 as a whole, and a surplus generated during the period 1991-95, large enough to pay off its debt on this account, now amounting to some \$4.2 billion. Earnings from services were assumed to follow the same growth path.

4.07 The proposed adjustment process in relation to GDP is summarized in Table 4.2. The non-convertible account was projected to show an improvement equivalent to 0.7 percent of GDP from 1986 to 1990, and 0.5 percent from 1990 to 1995. By contrast, the convertible current account deficit was forecast to improve by only 0.3 percent of GDP between 1986 and 1990, with a modest improvement in the trade surplus largely offset by a deterioration in the balance on services, so total adjustment effort from 1986 to 1990 was equivalent to less than 1 percent of GDP, mostly on non-convertible account. An improvement in the convertible account equivalent to 1.6 percent of GDP was, however, projected to occur between 1990 and 1995. The adjustment effort for 1990 to 1995 of 2.1 percent of GDP was split between the non-convertible and convertible accounts on a roughly 1:3 basis.

**Table 4.2: ADJUSTMENT UNDER THE OLD SCENARIO  
(as percent of GDP)**

	1986	1990	1995
Nonconvertible Current Account Balance <sup>a/</sup>	-0.4	0.3	0.8
Convertible Current Account Balance	-1.1	-0.8	0.8
of which: Trade Balance	1.4	1.9	2.8
Services and Transfers	-2.5	-2.7	-2.0
Current Balance Total (i.e -Foreign Savings)	-1.4	-0.5	1.6
Investment-Domestic Savings	1.4	0.5	-1.6
Public <sup>b/</sup>	7.4	6.5	4.4
Private <sup>b/</sup>	-6.0	-6.0	-6.0

a/ The non-convertible account here includes the bilateral trade which was subtracted from the convertible accounts.

b/ Mission estimate.

4.08 The implications of these projections for debt service are presented in Table 4.3. Because of the bulge in maturities currently scheduled for the 1990s, the debt service due ratio was projected to remain very high,

<sup>1/</sup> (continued from page 2)

Second, the ICOR is a useful indicator when capital is thought to be a specially scarce factor of production - i.e where there appear to be large reserves of under-employed labor that can be readily utilized if capital is available. When labor becomes fully employed, as in Poland, it is more helpful to think in terms of total factor productivity, but this would require a more sophisticated model than RMSM.

returning above 100 percent in 1991. Interest payments declined slowly; they dropped to 40 percent of exports of goods and non-factor services by 1990 and to below 30 percent by 1995. Debt service paid (derived as a residual after deducting payments for imports and net credit extended) was in the range of 29-30 percent from 1988 to 1992, rising thereafter.

**Table 4.3: CONVERTIBLE CURRENCY DEBT INDICATORS, 1986-95, OLD SCENARIO**  
(Percentages)

	act. 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Debt Service Due/Exports of G&NFS	69.7	86.6	94.2	74.7	98.4	105.9	98.9	95.1	95.2	98.4
of which interest	43.6	45.1	42.7	41.6	40.2	38.1	35.9	33.6	31.3	28.9
Debt Service Paid/Exports of G&NFS	28.7	24.2	30.0	29.4	28.8	30.6	31.3	31.5	32.6	33.6
Debt/GDP <sup>A/</sup>	45.2	53.2	51.8	50.4	49.0	47.2	45.3	43.2	40.9	38.4
Exports G&NFS/GDP <sup>A/</sup>	8.1	9.3	9.5	9.5	9.5	9.8	10.0	10.2	10.5	10.8

<sup>A/</sup> The change in these indicators between 1986 and 1987 reflects primarily the drop in the dollar value of GDP due to the zloty devaluations of late 1986 and early 1987.

Source: Mission estimates

4.09 There were several problems which made this scenario unsatisfactory. Despite wide recognition that a dynamic trade sector is an important component of efficient development processes, the role played by external trade in Poland's development remained limited until the 1990's, after which it was projected to increase. The recovery of a current account balance therefore appeared not only very slow under the old scenario, with especially limited progress in the period before 1990, it also seemed very uncertain. It depended on an unexplained discontinuity in export growth rates just after the planning period, which raised the question of why it could not be achieved earlier. The import elasticities projected for 1987 and 1988 appeared unrealistically low; more reasonable levels would have made the projected balance of payments even less satisfactory. Moreover a current account balance in 1993 would not have been achieved if the assumption of an 8 percent interest rate had proved unrealistic. World Bank forecasts of US dollar LIBOR currently suggest a (nominal) rise from an average of 7 percent in 1987 to 8.5 percent in 1983-90, before returning to 7 percent in 1991-95. It is not unreasonable to expect Polish debt to incur an average interest rate of at least a percentage point higher than LIBOR. Polish debt is held in too many currencies to be able to take these projected changes readily into account, and the rise in interest rates might also presage changing inflation rates which would affect both the prices of exports and imports, and further complicate the projections. It is nevertheless worth noting that if the interest rate applicable to Polish debt rose to an average of 9 percent in 1987, and maintained that level while all other aspects of the old official projection remained unchanged, a current account surplus under this scenario would have been achieved only in 1995.

4.10 In brief, this scenario was not likely to be adequate to restore Poland's international creditworthiness. Even if rescheduling were granted, and eventually some repayments made, there was little prospect of any new

capital inflows. While inflows of fresh capital would, in a technical financial sense, only substitute for debt rollover, they would have several advantages from both a short and longer term perspective. First, commitments of fresh capital would take place in the context of more normal financial and technical contacts than now exist. This would permit Poland wider access to suppliers and technical assistance, and would allow, in general, a broader basis on which to decide on technologies and systems to support restructuring programs. This additional flexibility would be highly desirable and could have an important impact on exports. Second, fresh capital inflows could be part of a program to actively manage Poland's debt. Such a program could allow use of financial techniques to reduce the cost of debt and to structure the debt portfolio to take advantage of market developments in line with Poland's repayment capacity. Finally, as part of a debt work-out strategy, inflows of fresh capital in the longer term would offer Poland the opportunity to match better the economy's need for capital inflows with supply.

### B. The Revised Scenario

4.11 The revised scenario envisages greater emphasis on convertible currency trade with both exports and imports increasing more rapidly. National income produced (NMP) would grow at 3.1 percent per year, in line with the upper range of the Five Year Plan projection. Investment would grow at 3.0 percent per year, compared with about 3.8 percent in the Plan; this implies some improvement in the response of output to investment, and it is understood that this reflects the intention to revise the investment program and to weed out some of the projects with very low rates of return. This increase in efficiency could also reflect the results of the accelerated reform program. Consumption would grow at a projected 2.4 percent per year, close to the 2.3 percent which was the low end of the Plan range. There are no new official projections for the non-convertible trade variables.

4.12 The major changes are in convertible currency trade projections. Imports grow more rapidly than national income to provide the imports needed to remove import-related constraints on export production, in response to the import needs of a restructuring and modernisation program, and reflecting improved access to international credit. The weighted average elasticity of imports to national income is projected at 1.2. This reflects elasticities of imports of: (a) industrial inputs to value-added of 1.2; (b) capital goods to investment outlays of 1.3; (c) consumer goods to consumption of 1.0; and (d) cereals and feedstuffs to domestic consumption of 0.5, reflecting import substitution possibilities. These import elasticities appear realistic in the light of international experience. Interest rates have also been more realistically assumed to be 8.5 percent; as argued above, 9 percent might be even more appropriate. A somewhat more rapid rate of international inflation (3 percent) has been assumed.

4.13 The most important changes in the new scenario are those regarding exports. Whereas under the old scenario exports were to grow at about 3 percent per year, they are now projected to grow at 6.5 percent. This increase is based on a detailed review of export potential in a number of sectors, assumed increases in the supply of imported inputs, and already observed improved performance in some key subsectors such as engineering exports. It also anticipates the expected impact of the reforms, especially such things as the reduction of central allocation and more active exchange rate policy, on export performance in general.

4.14 The two projections extend over different time periods so direct comparison of export growth rates is not strictly possible. Nevertheless, as can be seen in Table 4.4, the biggest apparent change in growth rate is for fuel and energy, where exports are projected to be as high in 1992 as in 1988, rather than decreasing by an average 8.1 percent per year. It is understood the decline in the projected Plan exports was largely concentrated in the 1986-8 period, and that the new projection also reflects an initial fall and recovery rather than constancy. The improved trade performance is to be the result of a vigorous conservation program under which subsidies for energy are to be removed in the next few years and selected investments made to increase the efficiency of domestic energy use. If this projection is to be realistic, it will be important to proceed as quickly as possible with pricing reforms (removal of subsidies), appropriate energy saving investment, and institutional reforms. The most rapid growth is projected for engineering products. We comment further on these sectoral projections below.

**Table 4.4: PROJECTED EXPORT GROWTH RATES  
(percent per year)**

	Plan Projection 1985-90	New Projection 1988-92
Agricultural Products	5.3	7.4
Fuels and Energy	-8.1	0.0
Metal Products	1.6	3.6
Chemicals	7.3	5.1
Engineering	7.1	11.2
Wood and Paper	7.3	9.4
Light Industry	3.3	5.4
Construction	n.a.	4.6
Other Exports	5.4	7.5
Total	3.0	6.5

4.15 Transfers are assumed to play a substantial role in generating foreign exchange. A high rate of return on deposits denominated in foreign currency (up to 11 years for three-year deposits), growing confidence in the reliability of access to these accounts, as well as the use of foreign currency in domestic housing and other transactions, has encouraged net transfers, and these have grown rapidly in recent years—from \$764 million in 1985 to \$944 million in 1986, with transfers during the first quarter of 1987 at an annual rate of over \$900 million. Despite the relatively high level of transfers recently, Government has projected a relatively modest annual level of \$700 million until 1990, with an increase to \$800 million in 1991. It is indeed important that the country not rely too heavily on this source of foreign exchange. In the first place, bank accounts in foreign currency are also a form of external debt, though not classified as such since the debt is held by Polish residents, and the rate of interest paid is higher (except for demand deposits) than on other parts of the debt. Second, we have earlier recommended that steps be taken to reduce the gap between the official and black market rates of exchange, and this may (though not necessarily) reduce the volume of net private transfers.

4.16 The assumptions discussed above are brought together in a set of projections set out in Table 4.5. They show an increasing trade surplus in convertible currency, from \$1.05 billion in 1987 to \$2.35 billion in 1992. By 1991, foreign exchange earnings (including net unrequited transfers) are adequate to pay all interest owed on convertible currency external debt--i.e. the current account is in balance. Since the interest rate being used differs in this scenario, a direct comparison of the debt indicators is misleading. Even though it uses a higher interest rate, however, the debt service due is a significantly smaller proportion of export earnings (though it is still about 90 percent in 1990) and if the projection had been extended to 1995, it would have indicated a continuing need for rescheduling throughout the period.

**TABLE 4.5: OFFICIAL MEDIUM-TERM BALANCE OF PAYMENTS PROJECTIONS IN CONVERTIBLE CURRENCIES, 1987-92, REVISED SCENARIO**  
(In millions of US dollars at current prices unless otherwise indicated)

	1987	1988	1989	1990	1991	1992
1. Current balance	- 800	- 800	- 550	- 350	50	300
Trade balance	1,050	1,250	1,500	1,800	2,150	2,350
Exports	5,550	6,050	6,600	7,250	8,000	8,650
Imports	4,500	4,800	5,100	5,450	5,850	6,300
Net Services	-2,650	-2,800	-2,800	-2,900	-2,950	-2,900
Receipts	750	830	920	960	1,000	1,090
Of which:						
Interest receipts	150	150	200	200	200	250
Payments	-3,400	-3,630	-3,720	-3,860	-3,950	-3,990
Of which:						
Interest obligations	-2,850	-2,933	-3,022	-3,094	-3,149	-3,170
Private transfers/net	800	750	750	750	850	850
2. Medium- and long-term capital repayment obligations	-2,250	-3,230	-2,615	-4,183	-4,497	-3,443
3. Credit extended/net	- 200	- 150	- 200	- 200	- 200	- 250
4. Change in reserves	0	- 100	- 100	- 100	- 100	- 100
5. Balance to be financed (1+2+3+4)	3,250	4,280	3,465	4,833	4,847	4,093
Memorandum items:						
				(In percentage changes)		
Merchandise exports						
Change in volume	1.6	5.8	5.9	6.6	7.1	5.0
Change in price	2.8	3	3	3	3	3
Merchandise imports						
Change in volume	3.8	3.6	3.2	3.8	4.2	4.6
Change in price	1.3	3	3	3	3	3
				(In percent)		
Average interest rate on external debt	8.5	8.5	8.5	8.5	8.5	8.5
Accrued debt service payment obligations as a proportion of receipts from exports of goods and nonfactor services/debt service ratio	82.9	91.6	77.0	90.8	86.9	69.7
				(In billions of US dollars)		
External debt in convertible currencies/ at end of period	34.5	35.55	36.4	37.05	37.3	37.35

**Note:** Trade flows under bilateral arrangements are excluded  
**Source:** Polish authorities

4.17 The proposed adjustment process in relation to GDP is summarized in Table 4.6. Over the period 1986-90, the adjustment process is faster on both non-convertible (1.0 percent of GDP) and convertible (0.5 percent) accounts than in the earlier scenario. After 1990 the adjustment process is then assumed to concentrate mainly on the convertible account, as only a modest surplus is required to repay CMEA credits. The projected changes imply a total adjustment effort equivalent to 2.6 percent of GDP by 1992. External adjustment requires a counterpart in an improved balance between domestic savings and investment. No official projection of what this would entail is available. Here it is assumed that it would be reflected in a higher level of public sector savings. It would of course be highly desirable for reformed financial markets to offer positive rates of return to private saving, and a wider range of financial assets. But private sector savings already finance public sector investment by about 6 percent of GDP, and a certain amount of this probably reflects continued market shortages, whose elimination is a high priority. If private savings do increase it will probably be to finance, directly or indirectly, an expanded housing program. An increase in public sector saving therefore seems essential. Moreover this should be achieved by reducing and even eliminating budgetary subsidies, rather than by increasing the rate of enterprise profit taxation, which is already so high as to reduce the incentive to increase profits.

**Table 4.6: ADJUSTMENT UNDER THE REVISED SCENARIO**  
(as percent of GDP)

	1986	1990	1992
Nonconvertible Current Account Balance <sup>a/</sup>	-0.4	0.6	0.8
Convertible Current Account Balance	-1.0	-0.5	0.5
of which: Trade Balance	1.3	2.3	2.8
Services and Transfers	-2.3	-1.8	-2.3
Current Balance Total (i.e -Foreign Savings)	-1.4	-0.1	1.2
Investment-Domestic Savings	1.4	0.1	-1.2
Public <sup>b/</sup>	7.0	5.7	4.4
Private <sup>b/</sup>	-5.6	-5.6	-5.6

<sup>a/</sup> The non-convertible account here includes the bilateral trade which was subtracted from the convertible accounts.

<sup>b/</sup> Mission estimate.

Source: Polish Authorities

#### The Feasibility of the Revised Scenario

4.18 The new scenario is a substantial improvement on the old in a number of respects: the need for a dynamic export sector is explicitly recognized, which should have a beneficial effect on efficiency throughout the economy, a more realistic assessment of import needs is proposed, and a wide-ranging

reform program is outlined, which could greatly improve efficiency throughout the economy in general and the trade sector in particular. As noted, there might be questions as to whether an 8.5 percent interest rate is realistically high enough. Similarly, it might be queried whether, given the importance of West German trade, the international inflation projection of 3 percent is not too high. But the resulting real interest rate is certainly not low by historical standards, and given that so much Polish debt is owed to official creditors, it may not be appropriate to apply standards of commercial creditworthiness in projecting the interest rate.

4.19 The proposed rates of growth of national income and consumption are not austere, and although the Mission recognizes that there are political constraints to be considered, there might be some room for adjusting these if economic developments make this necessary and advisable, or if faster adjustment were desired. Faster external adjustment would facilitate the inflow of fresh capital and new technologies, greatly increasing the prospects for a sustained and efficient growth path for the economy. Slightly slower growth of national income would reduce the imports required and the growth rate of domestic coal use, perhaps releasing additional amounts for export. There might also be some room for a further adjustment to the 3 percent planned annual growth in investment, which would ease domestic absorption and improve efficiency of resource use.

4.20 A critical question concerning feasibility is the rate at which exports can realistically be projected to grow. In part, this depends on the level of domestic absorption, which should not be difficult to manage. Convertible currency exports are only about 9 percent of GDP, so that even a 10 percent rate of growth of exports would take less than a third of the projected increase in total output. As noted elsewhere, however, for certain key exportables there is direct competition between domestic and export markets. Coal is the most obvious example, but there are many other products in this position.

4.21 There is also direct competition between convertible and non-convertible trade, which raises the question not so much of the feasibility of the revised projections, but of whether faster convertible export growth can be achieved by diverting some exports from the non-convertible area. Poland appears to have little flexibility to do this. Decisions about socialist trade are incorporated in the five-year plan and concluded as inter-governmental agreements (as described in Annex I, paras 68 and 76). For the period 1987-91, there is probably little prospect of changing the planned nonconvertible trade balance. For the later period, the rate of adjustment of this account can be considered a policy variable. Even without the agreements, however, the margin for diverting some hard exports away from CMEA trade, to convertible trade, to Poland's additional benefit, is very small. Imports from the USSR are generally thought to be "harder"--i.e. more readily sold in world markets--than Polish exports, and Poland now faces considerable pressure to harden its export mix to the USSR. The fine balance of CMEA trade (other than with the USSR) means that switching exports would imply losing imports of comparable hardness, which would then have to be replaced by convertible currency imports. Moreover, transport costs are generally lower for CMEA trade. The quality margin between hard and soft goods is narrowing, as "world market standard" is increasingly turned from a slogan into a practical norm for CMEA trade. This may be a valuable stimulus

to the efficiency of Polish enterprises, which will be no longer able to rely on easy profits from an undemanding CMEA market, but it increases the potential competition between exports for convertible and non-convertible markets. This is likely to be especially important in engineering.

4.22 Turning to individual product groups, the most challenging feature of the present projections is the attempt to arrest the originally projected decline in coal exports. As described in Annex IV, supply constraints are severe. On the supply side there is little prospect for expanding output (see para. 3.31), and indeed, it now seems likely that output targets for both hard and brown coal will be compromised by lack of critical imports. Exports for convertible currency bear the brunt of fluctuations in coal demand and supply, and depend on events, like the winter climate, that are not wholly under Poland's control. Even the earlier projections took into account an ambitious energy conservation program and a rise in energy prices. The mission's projections suggest that total coal exports in 1992 will probably lie in the range 60 percent to 100 percent of the 1985 level, depending on performance in energy conservation. However, this could fall as low as 30 percent if current trends in coal output continue. Convertible currency earnings will depend also on the share of the non-socialist countries in total coal exports. This share declined from 67 percent in 1985 to 57 percent in 1986. Achieving the projected coal exports will require meeting challenging output targets and energy conservation goals, price reforms, and arresting the decline in the share of exports to convertible currency areas.

4.23 There are a number of ways of releasing modest but valuable additional quantities of coal for export. Efficiency improvements in electricity generation and distribution, for example, could release about 1.5 Mtce p.a. by 1990, and more than twice that amount by the year 2000. However, this potential needs to be offset against the fact that the Government's present power projections are based on nuclear generation that is about 3.5 Mtce higher in the year 2000 than could be achieved with the current construction schedule.

4.24 Copper and Sulphur are other important primary exports which are severely constrained in supply, even though currently profitable. The projections do not assume significant growth in either. Despite the comparatively disadvantageous underground mining conditions, the copper industry is a low cost producer. The main reasons for its cost-competitiveness are a high degree of mechanization with associated high mine productivity, and low wages for a highly skilled labor force. Prospects for expansion are small, since present investment programs do not entail any major production increase in the foreseeable future. Similarly, although mining costs for sulphur are very competitive with international prices, it is not intended to increase production significantly in the medium to long term. This industry might offer possibilities of faster export growth; Poland has a great comparative advantage in sulphur mining and reserves. The present adverse market outlook may make substantial capacity expansion unwise, but Poland should not lose opportunities to exploit its well established position, especially by improving efficiency and production from its existing plants.

4.25 One of the most difficult of the export projections to accomplish is that for food and agricultural products. These are predominantly to convertible currency markets, and reached a peak of of \$1.2 billion in 1979 but then fell by nearly a half in 1981 and 1982. There have been some signs of an export recovery since then, but the growth that brought the 1985 value of agricultural exports back to approximately its 1980 level was largely in minor products, whereas meat products exports in 1986 had recovered only about 90 percent of their 1980 level. Recovery of traditional markets for meat, fruit and vegetables offers the best short-term chance for export growth in this sector, but these market prospects are not strong and competition is fierce. Moreover Polish agricultural exports are largely unprofitable at present world prices and exchange rates, based on the domestic purchase prices, and selling prices in foreign markets. The procurement prices for primary agricultural products given in Annex II, Table I-17, however, do not seem to have been very much out of line with world prices. Although this tells us little about costs of primary production (and subsidies to agricultural inputs), and nothing about agroprocessors' production costs and input subsidies, it does suggest that improving the efficiency of the food processing industry deserves priority. Agricultural exports have been substantially constrained by shortages of foreign exchange for imported inputs needed by the food processing industry, as well as by policies which insulate domestic suppliers from export incentives, inhibit the efficient use of inputs and distort relative prices. The projected growth of export earnings of 7.4 percent for this sector looks optimistic. However, the more active exchange rate policy, the new reform measures, aggressive marketing and some easing of the import constraint may enable the target to be attained.

4.26 Although massive imports of grain and feed (8 million tonnes (mmt) in 1980) are a thing of the past, further efficient import substitution could make an important contribution to the balance of payments, and this is reflected in the low elasticity (0.5) of cereal and feedstuffs imports to domestic consumption. Imports of agricultural products accounted for 22 percent of convertible currency imports in 1985. The country still imports about 1 million tons of high protein animal feedstuffs, primarily soybean meal, and considerably more could be efficiently used. Continued improvements in domestic rapeseed varieties, their yields, and processing capacity could meet some of this need. An increase in yields of grain, which are below those of some other Eastern European countries, would reduce import needs which in 1986 amounted to 1.2 million tons, valued at \$125 million. Imports of hard varieties of wheat, which are not grown domestically, would remain. Attention must also be given to grain milling and processing. Much of the wheat produced is "feed quality" and with a poor milling industry is not well suited for human consumption.

4.27 With relatively poor growth prospects for its primary exports, Poland must increasingly look to its exports of manufactures to supply its foreign exchange earnings. In this respect, the most striking and important feature of the export projection is the 11.2 percent growth projected for engineering exports. The mission believes this to be challenging but feasible. Even this growth rate would not mean that a very high proportion of the sector's output would be exported to convertible currency markets--the share of exports in total production in 1990 would still be less than its 7.4 percent share in 1982.

4.28 Although capacity utilization is relatively high in some (by no means all) parts of the engineering industry, some areas where modest injections of foreign exchange could allow expansion are computerized production planning and control systems, energy and material saving processes, provision of spare parts and accessories for equipment and machinery, and investment in modernization. The following are a few of the more important shortages identified during the plant visits: castings (particularly good quality specialized items), forgings, electronic components, cables, aluminum parts, bearings, plastic and rubber-band items, and special materials. These shortages have adversely influenced product design and timely delivery, both essential to an effective export strategy.

4.29 There appear to be only a selected number of finished goods which compete successfully in Western markets. In machine tools, technical knowledge and standards are high, and there appears to be scope for the export of technical services as well as of machines. The production of certain specialized high quality items to international standards for a limited range of "niche" markets could boost exports slightly. For many parts of the engineering industry, however, essential technological upgrading has been neglected in recent years, and the short-term comparative advantage now lies in the manufacture of parts, components, and intermediate goods. Here capacity constraints will make it extremely difficult to exploit export opportunities. On the other hand, for some end-products, especially machine tools, relatively minor investments in plant and technology could restore comparative advantage. In addition to the export expansion this would allow, it would lead to improvements in other engineering industries which use domestically produced machine tools.

4.30 Two important hard currency earning engineering products show troubling signs--passenger cars, and ships. Passenger car design is badly outdated, and the rate of model upgrading is much slower than in Western Europe and elsewhere. This industry is unlikely to survive in export markets much beyond 1990 without major new investment. A decline in volume could set in much sooner, even with the restyling presently underway. Shipbuilding is also a troubled and unprofitable industry, and until proven otherwise any projected growth should be discounted (especially as no significant investment appears to be planned in shipbuilding facilities).

4.31 Other than sulphur, pharmaceutical products seem to have the best export prospects of the chemical industry. In 1986, the export of pharmaceutical products amounted to about 59 percent of production, but only 7 percent of these exports went to the convertible currency area. Modern equipment and an appropriate scale of operations suggest that Poland could be competitive in new export markets. There are domestic shortages of many pharmaceutical products, however, so steps would have to be taken to ensure that the incremental production did not find its way only into the highly subsidized domestic market. Other products in the chemicals subsector (fertilizer, synthetic rubber, plastics) appear to have more limited scope for export.

4.32 Light industry exports are projected to grow by 5.4 percent per year. The Mission believes that this is on the pessimistic side, given the small present base, even taking into account the poor state of much Polish capacity and heavy international competition. Textiles, garments, and footwear, for example, have substantial room for export growth in the near term, provided some small amounts of foreign exchange are allocated to overcome bottlenecks. With competent, low-cost labor available, spare installed capacity, and established links with Western clients, it could be possible to achieve an annual growth rate of between 7 and 10 percent in the next few years. The main constraints to further expansion appear to be the need to adopt a more appropriate mix of product lines, introduce more modern measuring and control systems, and to strengthen the linkages between domestic manufacturers and foreign buyers.

4.33 Wood and paper exports are projected to grow at 9.4 percent per year, which appears reasonable. Furniture exports represent about 33 percent of the subsector's convertible currency earnings, and have good prospects based on existing close contacts with Western markets. Relatively small injections of foreign exchange could have a large impact on furniture production. There does not appear to be a large potential for increased wood exports, so that improved processing will be the key to this sector's export performance. Increased use of waste wood from the forest and from mills could allow an expansion in production and exports of wood-based panels. Minor investments in technological improvement could improve quality and also increase output.

4.34 In the mission's view, the export of construction services could grow faster than the projected 4.6 percent, in spite of relatively poor market prospects in areas such as the Middle East. Participation in foreign construction contracts is highly prized by Polish enterprises, but they complain about the tight control exercised over their foreign currency earnings and about difficulties in obtaining contract insurance and credit to finance the start of contract work. Managers of enterprises with export contracts stated that the productivity of their workers abroad is 50 percent to 100 percent higher than at home. They attribute this higher productivity to the timely availability of materials, good quality tools and equipment, and better remuneration. Construction industry exports have been low in comparison with countries such as Turkey.

4.35 To sum up, the sectoral export projections appear feasible but by no means easy. An adequate supply of imported inputs and investment goods will be of critical importance. The engineering industry is clearly of key importance, as are agriculture and energy conservation. But achieving the projected growth also depends heavily on raising exports from enterprises and subsectors which currently contribute little to exports - for example, those making wood and paper products and light industry. In general the projections are based on the assumptions that the reform can be successful in its objective of improving the capacity of the economy to respond to opportunities, that domestic shortages can be largely eliminated and that steps are continuously taken to ensure adequate incentives for exports. At present about half the manufactured goods sold for convertible currency are provided by 42 enterprises; on the other hand, about 2,680 do some exporting. Provided that the incentives to export make it profitable for this latter group of firms, there should be considerable scope for export growth.

4.36 For comparison, World Bank projections for exports from middle-income countries show a growth of 5.4 percent for the period 1986-90, 6.0 percent for oil importers. The revised Polish projection would still leave her total exports in 1991 significantly less than they were in 1980, which provides some perspective on the task. The problems are, however, more difficult than simply returning to previous markets (market opportunities have shifted, capital has become obsolete, and other suppliers have become more competitive). Moreover there are innumerable ways in which the present system deters exports, especially the remaining measures of central allocation which give priority to domestic sales, and the poor working of product and factor markets, which inhibits the expansion of successful lines of export production. The evident determination to push ahead with further reforms should make it possible to overcome these obstacles. Undoubtedly the achievement of adequate export growth will take a substantial effort in seeking out markets, and developing them, which enterprises will only do if they feel that they will then be able to get the resources needed to exploit opportunities, and that the rewards will be worth the risks of venturing into the uncertain field of foreign trade.

#### Export Incentives

4.37 The system of export incentives is obviously critical, especially with increasing enterprise autonomy and profit-mindedness. There are at present a large number of specific incentives to export or to expand export capacity. There are 3 fiscal incentives to export. (i) Enterprise income tax rebates range from 3 to 18 percent of exports, depending upon export value, country of destination, type of product, domestic value added, and domestic cost relative to export value, and up to 22.5 percent of export increases. Exports of a small number of CBMs qualify for much smaller rebates. (Details of these rebates are to be found in Appendix 3 of Annex I.) (ii) Exporters are automatically eligible for reimbursement of turnover taxes on intermediate products and of import duties on inputs used in exported production. (iii) The Ministry of Foreign Trade has at its disposal a very small special bonus fund (about Zl 3-4 billion per year) from which it can reward firms for exports in convertible currency. There is also some earmarked credit and preferential credit terms. (i) The Ministry for Foreign Trade has a modest fund to provide credits for financing of working capital for export production. (ii) The "Small Restructuring Fund", jointly created by the Ministry of Foreign Trade, the Ministry of Finance, and the National Bank in 1985, has granted Zl 18 billion credit for about 50 investment projects to expand production for export. (iii) The National Bank charges 3 percent lower interest on credits for export oriented projects (9 percent instead of the normal 12 percent). (iv) Enterprises undertaking export-oriented investment are automatically granted an income (profit) tax rebate equal to 20 percent of the project value. In addition, some small, quick-yielding projects make the enterprise eligible for an additional 10 percent rebate, and a reduction in depreciation tax by 20 percent of the project value. These rebates can amount to budgetary finance for 50 percent of the investment outlays.

4.38 The new Export Development Bank (EDB) began operations on January 1, 1987 (see Annex I paras. 105-107). It is a joint-stock bank, with equity and reserve capital of Zl 7 billion (US\$ 28 million at the current official exchange rate), and additional domestic sources of funds in both zlotys and hard currency. EDB lends to socialized sector exporting firms exclusively, for investments, working capital and bridging operations, in both zlotys and foreign exchange, with the currency of the loan matched with that of the source of funds. In addition, since September 1986 the four banks authorized to deal in foreign exchange have been allowed to lend foreign exchange beyond the limits of the official lending plan for export-oriented investments, where full financial feasibility studies show the investment to be economically viable and self financing. The investor is allowed to use 100 percent of export earnings generated by the investment for repaying the loan during the repayment period. Some 4 or 5 loans have been made under this scheme, most for 2-3 years, at an interest rate of LIBOR plus up to 1.5 percent commission. Repayment is in the same currency as the loan, so that the final borrower bears the foreign exchange risk.

4.39 Other measures intended to promote exports are: the new Law on Joint Ventures which came into operation on July 1, 1986; regulations ensuring the supply of CBMs for export-oriented production of selected highly manufactured goods through long-term agreements between enterprises and distribution agencies; and exemptions from PPWW taxation on above-norm increases depending on type of export and export market (see Appendix 4 of Annex I). The last is reported to be a strong motivator (although exemptions from this tax are widely granted on other grounds as well).

4.40 Tax exemptions and preferential access to credit may be justified in view of the urgent need to increase exports, but they are clearly inferior to a situation in which relative prices provide adequate incentives to profit-seeking enterprises to seek export markets. Furthermore, the incentives have been too differentiated, and changed too frequently. The system of incentives should be simple and stable, and there should be fewer administrative bodies involved than at present. In the recent past, an overvalued zloty, a domestic sellers' market with lower quality requirements, and a tradition under which most exports have been arranged on a long-term basis through FTEs, have not encouraged enterprises to exercise much initiative in conquering new markets, especially given the imperfect access to their ROD accounts in late 1985 and in 1986. The Planning Commission recently carried out a survey on export performance and motivation for the period 1983-85 of some 2000 enterprises which had exported in 1983. 300 of these had stopped exporting altogether by 1985, and another 800 had significantly reduced exports. This was partly offset by other firms which began exporting, and there was a rise in the total number of exporting firms from 2,363 in 1985, to 2,680 in 1986. The latest changes in the procedures governing the ROD system, and the progressive real devaluation of the exchange rate, are potentially major improvements and provide impressive evidence of a determination to improve export incentives to convertible currency markets.

## An Assessment

4.41 Reaching the objectives implied in the new scenario will ultimately depend on the Government's ability to design and implement a coherent, balanced set of economic policies which combine effective demand management with economic reform as discussed in Chapter II and a more efficient investment program on outlined in Chapter III. Export incentives are not likely to work effectively if there is persistent excess demand in domestic markets. Internal market adjustment requires more efficient demand management, and increased efficiency to allow higher output so that the rest of the system of central allocation can be abolished. Shortages that emerge should signal profitable opportunities for further expansion of output and reallocation of productive resources; prices should be freed sufficiently so that the profits can be realized. Firms that fail to respond to market signals should not be protected from the consequences by subsidies and grants.

4.42 It is therefore encouraging that the reform program outlined in conjunction with the revised balance of payments scenario pays special attention to measures to expand exports and to control domestic demand. It highlights the continuation of an active exchange rate policy, the elimination of the equalisation fund, a review of both export incentives and tariffs, greater use of marketable retention quotas, a simplification of access to foreign trade licenses and an abolition of restrictions on an enterprise's choice of FTO. There will be a further expansion of foreign currency credits. On the domestic side, the program stresses the reduction of subsidies, the broader use of market-clearing prices, (e.g. in luxury items such as cars and electronic consumer goods which are currently scarce) and a reduction of the redistributive role of the central budget coupled with tax reform. The growth of credit will be restricted, interest rates will become positive, and a reform of the banking system is proposed that will separate the savings bank from NBP in 1987 and establish competing commercial banks in 1988.

4.43 Many of these measures have been included in a specific program for "strengthening the zloty", whose aim is to make the Polish currency a scarce and valued commodity, which will have the normal functions of money in motivating individuals and in providing the authorities with a means of macroeconomic regulation. This means eliminating "involuntary" household saving; reducing the disparity between the official and the black market rates for foreign currency by eliminating the use of dollars for domestically produced goods in short supply; and hardening the budget constraints of enterprises by enforcing bankruptcy on those that become insolvent, unless there is a transparent and explicit decision to continue support through the central budget.

4.44 The reform program also proposes further rationalization of the investment program to improve its efficiency. The criteria by which investment decisions are made at the central level will be reviewed, and presumably a tighter credit policy would force enterprises to be more selective. There is clearly a great deal of room for further improvements in the efficiency of investment. Simulating the new scenario with RMSM emphasises that although there is an improvement in the implicit ICORs, these still remain very high. Quite apart from the question of the efficiency of fixed investment, Poland has been making a large investment in stocks to

replace those run down at the time of economic crisis. Investment in stocks has exceeded 5 percent of GDP in the last few years, and it appears to be projected at similar levels for the future. Such investment may be rational from an enterprise's perspective in today's environment, where it can be financed by credits obtained at negative real interest rates, where enterprises have relatively few other attractive investments in view of the lack of financial instruments, and where pervasive shortages associated with price controls, Government allocation of materials, and the current foreign exchange regime ensure the profitability for the enterprise of such purchases. However, an appropriate reform would increase the costs of such investment and would encourage a reduction in net investment in stocks towards the levels of more efficient economies, which in relation to GDP are only about 10 to 20 percent of present Polish levels.

4.45 The new adjustment scenario is a clear improvement over the Five Year Plan, in many respects. The import and export projections appear more realistic, and do not contain the unexplained discontinuities of the Plan projections. The interest rate assumed on debt is also more realistic, although may still turn out to be slightly optimistic. External adjustment is achieved more steadily and sooner, bringing forward the time when the Polish economy can hope to take advantage of new inflows of capital and technology, and to regain a sustainable and efficient growth path. As noted above (paragraph 4.19), the growth rates for consumption, investment and GDP growth suggest that there may be scope for a faster pace of adjustment, or for sustaining the proposed adjustment pace should world markets prove less favorable than anticipated. This would mean, however, that the projected improvements in living standards would be lower initially, though still positive.

4.46 If the objectives of external and internal adjustment are to be achieved within the time-frame envisaged in the new scenario, exports will have to be kept competitive, and careful demand management will have to be pursued, to ensure that domestic absorption remains within target levels and that imports attain but do not exceed their projected levels. The other vitally important and mutually reinforcing elements of economic policy discussed in Chapters II and III of this report include: (a) reform which will both improve price incentives to export and increase producer responsiveness to price changes, and improve the efficiency with which scarce resources are used; (b) a carefully balanced reduction in the investment program aimed at both improving the overall efficiency of the ongoing program and allowing room for new and more productive investment; and (c) the restructuring of the economy and improvement of factor markets to allow resources to be used where they contribute most to national income, strengthening productive capacity and raising living standards.

Appendix 1

Note on Interpretation of Indicators of the Debt Burden

1. Socialist countries, especially those which do a great deal of their foreign trade on a bilateral basis, have some distinctive characteristics which mean that the indicators developed for debt analysis in market economies do not necessarily have the same significance. External debt is analyzed in two ways. Both compare actual or prospective debt service to the availability of resources for servicing it. One focuses on expected earnings of foreign exchange, given the present pattern of foreign trade and the potential for improving it. The other focuses on the relationship of debt or debt service to total output.

2. The debt service ratio is the most commonly used indicator that focuses on available foreign exchange. Debt service is divided by some measure of export earnings. It is common to eliminate short-term items such as short-term borrowing, interest on reserves, etc. since annual fluctuations are often considerable, and to use service payments on medium and long-term debt (i.e. with an original maturity of more than one year) as the numerator and exports of goods and non-factor services as the denominator. This is the practice that is followed here. It should be noted that, for Poland, interest received from abroad is extremely small, so its exclusion makes no appreciable difference. As with normal convention, there is no inclusion of "unrequited net transfers", although these have shown reasonable stability. In Poland, these include some workers' remittances, and also payments by relatives of Polish residents families. In 1985, these equalled 13% of exports of goods and non-factor services, but it is believed that some 40% represented one-time deposits of foreign exchange hitherto held in cash into interest bearing accounts. Apart from convention (which is often not observed where the payments in question are very large relative to exports of goods and services, as workers' remittances sometimes are) the main reason for its exclusion in the Polish case is the belief that a significant part of these payments are destined to be spent for imports of consumer goods in Pewex stores (which are discussed in Annex I). The foreign exchange involved is therefore only partially available for the service of debt.

3. Another common measure of the debt burden is the debt/export ratio. Since it is not affected by the pattern of amortization, it is likely to fluctuate less from year to year. An interest/export ratio shares this characteristic, and can also reflect the fact that some countries can obtain more favorable interest terms than others. For some analytical purposes, such a measure might be regarded as superior, especially if the country has reasonably unimpeded access to world capital markets and so can even out any temporary crisis of liquidity that might arise from a pattern of debt maturities too highly concentrated in the short term. But where, as in Poland, this is not the case, then the conventional debt service ratio gives a better indication of the particular problem that the country is likely to encounter at any particular time.

4. It has sometimes been argued that the practice, followed here as in other World Bank documents, of calculating debt service ratios for convertible currency debt using only convertible currency earnings, makes the

debt problem appear worse than it really is. Poland has a ruble-denominated debt, equivalent to about \$3 billion, while her ruble-denominated trade is about half of total trade. It is true that if convertible and non-convertible debt ratios were averaged, the ratio would be lower. But this is to miss the point that, for any country, debt service is compared with export earnings and not merely with total output precisely because of the difficulties that countries sometimes experience in turning domestic output into the needed foreign exchange. For the bulk of Polish debt, debt service has to be in convertible currency. Where non-convertible trade does enter the picture is by affecting the size of output available to service debt. But this is dealt with by comparing debt service with GDP, or similar indicator.

5. In the Polish case, there is a further complication that the national presentation of the balance of payments in "convertible currency" includes bilateral clearing agreements denominated in convertible currency, even though these are manifestly not convertible, and therefore do not provide foreign exchange that is available to service debt (see following note.) For the years 1982-5, it is possible to separate out this trade from other trade using convertible currency. The difference between exports of goods and non-factor services using the Polish definition of the "convertible currency" balance of payments and the stricter IMF definition has varied from 6.0% to 7.9% (with no clear trend). (Given the widespread use of countertrade in East-West trading relations, however, not too much should be made of the distinction.)

6. The other set of indicators concerns the proportion of national output that has to be devoted to the service of debt. In this Report, we have used the conventional measure of GDP as the denominator, converted from zlotys into dollars at the official exchange rate.

7. In interpreting debt service indicators for socialist countries, certain things have to be borne in mind. In the first place, there is virtually no private debt or obligations for profit repatriation, and no possibility of capital flight. For these reasons, a somewhat higher figure for future servicing obligations for a socialist than for a market economy might be held to indicate an equivalent degree of "safety". Moreover, a given GDP in a socialist country is likely to include a higher volume of tradeables, and a lower volume of services than its market economy equivalent. For example, roughly a third of Polish GDP consists of services, whereas it is about a half of Argentine GDP, a country of reasonably similar size and income level. Moreover, the availability of non-convertible imports as potentially alternative sources of supply for many commodities commonly purchased with convertible currencies (perhaps only with minor additional costs or loss of efficiency) may make the proportion of convertible imports that could be regarded as "comparable" larger than for countries that require convertible currencies for all their import needs. Against this, however, one must note the greater structural rigidities in socialist than market economy countries. The section on the foreign trade system in Annex I discusses the causes and implications of this in Poland.

Note on Definitions used in Trade and Balance of Payments Analysis

8. Polish statistical data are compiled and reported either by unit of account ("convertible currency" vs. "transferable ruble")<sup>1/</sup> or by country of origin or destination. In general, balance of payments data use the first and trade data use the second. However, fungibility of foreign exchange claims and obligations is far from strictly related to the currency denomination used for accounting purposes. In CMEA trade, there are some small genuinely convertible currency transactions which are in convertible currencies and are recorded as such in the balance of payments.<sup>2/</sup> Conversely, under bilateral clearing agreements, export revenues denominated in US\$ or Swiss francs are often no more convertible than those in TR; neither generates fungible foreign exchange which can be used by the receiving country at its discretion. Nor does specification of the country of exchange provide an unambiguous statistical measure for the extent of fungibility of export earnings. The bulk of trade with such important trading partners as China, Yugoslavia, India, Brazil and many Middle-East countries is, although denominated in convertible currency, predominantly carried out on a bilateral clearing basis.

9. Aggregate trade data for 1985 give an indication of the order of magnitude of the statistical ambiguity, though these were supplied before the 1985 results were finally accounted:

ILLUSTRATIVE TRADE DATA (EXPORTS PLUS IMPORTS): 1985

	(\$m)	(%)
Total	22,633	100
Convertible currency area, total	11,507	50.8
excl. clearing trade countries <sup>∟a</sup>	9,449	41.7
OECD countries	7,610	33.6
CMEA countries <sup>∟b</sup>	11,580	51.2
Socialist Countries <sup>∟c</sup>	12,958	57.3
Nonsocialist Countries	9,675	42.7

<sup>∟a</sup> Both the list of nonsocialist clearing trade countries and statistical data of the respective trade volumes are incomplete.

<sup>∟b</sup> CMEA: Albania, Bulgaria, CSSR, Cuba, GDR, Hungary, Mongolia, USSR, Vietnam.

<sup>∟c</sup> CMEA countries plus China, Yugoslavia, Korea (PR).

Source: Polish Submission to the Paris Club, February 1986.

<sup>1/</sup> Transferable ruble (TR) is a standard unit of account among CMEA countries. Contrary to what its designation suggests, it is strictly non-convertible in the dual sense as described above.

<sup>2/</sup> Ministry of Foreign Trade estimates such genuinely convertible currency transactions to be in the order of 4% for trade with the USSR, and 2% with the other CMEA countries.

10. Effective convertibility lies between a minimum given by the OECD figure and a maximum set by the figure for the "convertible currency area". Most Polish statistics, planning data, administrative practices and trading procedures are classified under country groups, distinguishing between socialist countries and nonsocialist countries. Since the total for the latter in 1985 is close to the average of the two extremes, data presentation and discussion of trade patterns in this report normally follows this classification by country group. With respect to the balance of payments, the term "convertible currency" is used, where possible, in the more narrow sense of full convertibility in a multilateral framework and not in the broader Polish convention. This is generally only possible for aggregates, and only for 1982 and later years.

11. It is worth noting two other sources of ambiguity in comparing trade flows derived from different sources, or among currency areas. One derives from the problem of broken cross-rates between CMEA currencies and the dollar. In converting TR into US\$, Polish statistics sometimes have been based on the accounting rate between the TR and the US dollar as established by the IBEC, (the Bank for International Economic Cooperation, in Moscow, which carries the bilateral trading accounts) and sometimes have converted the TR into zloty at the TR/zloty rate and then into dollars at the zlotys/US rate. So far as is known, the latter has been the practice for all the data in this report, but earlier balance of payments data used the former approach. A second source of bias, which cannot be measured, is the "reciprocity" bias in pricing among CMEA countries, according to which mutually balancing deliveries in certain commodity categories are priced on both sides with an offsetting bias.

12. Further discussion of the nature of CMEA trade and payments can be found in Annex I. There the concept of "hardness" which is closely related to convertibility is used. "Hard" currency is convertible currency; "hard" goods are those that have a well-defined market for convertible currency.

Table 1.1 Poland: Population and Demographic Indicators

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Millions of Persons (as of end-Year)</b>																	
<b>TOTAL POPULATION</b>	32.7	32.9	33.2	33.5	33.8	34.2	34.5	34.9	35.1	35.4	35.7	36.1	36.4	36.7	37.1	37.3	37.6
Male	15.9	16.0	16.1	16.3	16.4	16.6	16.8	17.0	17.1	17.2	17.4	17.6	17.7	17.9	18.1	18.2	18.3
Female	16.8	16.9	17.1	17.2	17.4	17.6	17.7	17.9	18.0	18.2	18.3	18.5	18.7	18.8	19.0	19.1	19.3
Urban	17.1	17.4	17.6	18.1	18.5	19.0	19.5	20.0	20.2	20.6	21.0	21.4	21.7	21.9	22.3	22.5	22.8
Rural	15.6	15.5	15.6	15.4	15.3	15.2	15.0	14.9	14.9	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8
Under 15 Years of Age	8.7	8.5	8.3	8.2	8.1	8.2	8.2	8.3	8.4	8.5	8.7	8.9	9.0	9.2	9.4	9.5	9.7
15 - 59 Years of Age	19.8	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.1	22.2	22.3	22.4	22.5	22.5	22.5	22.6	22.6
Over 59 Years of Age	4.2	4.3	4.5	4.6	4.7	4.7	4.7	4.7	4.6	4.7	4.7	4.8	4.9	5.0	5.1	5.2	5.3
<b>Percent Distribution</b>																	
<b>TOTAL POPULATION</b>	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	100.0	100.0	100.0
Male	48.6	48.6	48.6	48.6	48.5	48.7	48.7	48.7	48.7	48.6	48.7	48.7	48.7	48.8	48.8	48.8	48.8
Female	51.4	51.4	51.4	51.4	51.4	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.2	51.2	51.2	51.2
Urban	52.3	52.8	53.1	54.2	54.6	55.7	56.4	57.4	57.5	58.2	58.7	59.2	59.5	59.7	60.2	60.2	60.5
Rural	47.7	47.2	46.9	45.8	45.2	44.3	43.4	42.6	42.5	41.5	41.1	40.8	40.5	40.3	40.0	39.8	39.5
Under 15 Years of Age	26.5	25.8	25.1	24.5	24.1	23.9	23.8	23.9	24.0	24.1	24.4	24.6	24.8	25.2	25.4	25.6	25.7
15 - 59 Years of Age	60.5	61.0	61.4	61.8	62.1	62.4	62.6	62.7	62.8	62.7	62.4	62.1	61.7	61.2	60.8	60.4	60.2
Over 59 Years of Age	13.0	13.2	13.5	13.7	13.8	13.7	13.6	13.4	13.2	13.2	13.2	13.3	13.5	13.6	13.8	14.0	14.1
<b>Per Thousand Population</b>																	
Birth Rate	16.6	17.2	17.4	17.9	18.4	18.9	19.5	19.1	19.0	19.5	19.5	18.9	19.4	19.7	18.9	18.2	17.0
Death Rate	8.1	8.7	8.0	8.3	8.2	8.7	8.8	9.0	9.3	9.2	9.9	9.2	9.2	9.5	9.9	10.2	10.1
Rate of Natural Increase	8.5	8.5	9.4	9.6	10.2	10.2	10.7	10.1	9.7	10.3	9.6	9.7	10.2	10.2	9.0	8.0	6.9

Table 1.2 Poland: Employment by Sector

	1970	1978	1979	1980	1981	1982	1983	1984	1985 1/	1986	
Thousands of Persons (Yearly Averages)									I	II	
<b>Industry</b>	4452.9	5234.2	5236.5	5244.9	5237.2	4986.1	4973.5	4997.4	5000.1	4876.0	4906.7
<b>Socialized Industry</b>	4043.6	4763.5	4754.0	4741.2	4716.5	4474.0	4430.8	4406.8	4380.7	4257.0	4266.8
of which:											
Food Processing	456.0	531.7	526.8	526.1	536.0	524.2	531.9	528.2	530.6	447.0	421.9
Electro-engineering	1233.7	1619.9	1630.9	1625.1	1593.8	1487.7	1451.5	1435.7	1414.3	1414.0	1407.7
Fuel & Power	474.4	518.1	538.0	548.8	554.2	579.3	593.7	603.4	609.3	609.0	630.1
Metallurgy	239.1	259.9	260.7	259.5	251.9	234.8	229.6	225.9	226.6	226.0	222.8
Chemicals	288.0	326.9	325.4	327.4	325.2	305.4	301.5	297.3	291.2	291.0	289.4
Minerals	270.0	282.5	275.7	271.4	267.1	254.1	249.9	245.9	238.5	238.0	232.5
Textile & Leather	736.5	826.1	804.5	798.4	786.1	710.2	687.6	686.2	685.1	685.0	685.4
Wood & Paper	248.8	285.4	269.5	262.9	256.1	241.5	238.5	231.6	229.9	229.0	228.1
Mining	451.6	474.8	491.1	499.7	504.5	528.1	537.4	541.6	543.6	543.0	555.3
<b>Construction</b>	1074.9	1394.1	1372.0	1336.6	1294.1	1223.5	1218.9	1243.3	1282.4		1316.5
<b>Agriculture</b>	5209.8	5048.8	5099.0	5143.1	5197.9	5173.9	5062.0	4964.2	4958.4		4896.0
Forestry	182.5	159.8	153.1	155	152.9	153.5	157.8	160.7	162.9		162.9
<b>Transport &amp; Communications</b>	939.7	1103	1110.0	1119.3	1107.8	1061.4	1058.0	1057.8	1057.0		1053.2
<b>Trade</b>	1046.4	1284.3	1299.7	1304.7	1356.1	1316.5	1324.7	1325.0	1333.0		1476.6
<b>Community Services</b>	252.3	372	385.8	401.3	418.3	423.8	429.1	439.5	445.6		444.4
Housing & Non-Material Community Services	146.4	182.1	193.2	200.4	204.3	200.7	204	206.3	207.4		216.3
Science	72.5	150.6	149.7	148.5	144	117.9	112	109.4	110.9		112.6
Education	596.0	721.1	733.3	747.4	782.6	821.3	861.5	888.1	905.3		911.6
Cultural Services	83.7	81.1	82.5	82.7	85.1	82.2	83.3	85.7	90.2		91.3
Health Service & Social Welfare	424.5	563.2	583.7	598.7	632.3	658.4	679.8	695.2	716.7		757.5
Tourism, Recreation, Sports	27.2	101.0	101.4	103.8	101	94.2	96.3	101.5	111.7		115.9
State Administration & Justice	240.7	225.6	229.1	227.4	225.9	223.6	228.9	252.6	270.6		275.5
Finance & Insurance	134.6	154.5	156.6	157.1	156.3	152.4	153.6	159.2	162.2		158.4
Others	290.9	333.3	338.4	333.8	326.1	306.2	307.5	312.1	322.3		341.0
<b>Total Employment</b>	1513.0	17108.7	17229.0	17324.7	17419.9	16995.6	16950.8	16998.0	17136.7		17236.5

1/ Change in methodology in industry.

Polemp: A1.L41

Table 2.1: Macroeconomic Balances, 1980-1986  
(percent of GDP)

	1980	1981	1982	1983	1984	1985	1986
<b>1. Foreign Savings</b>							
Current Account Balance	1.9	2.0	1.6	1.4	1.4	1.5	1.4
1.1 Convertible Currency	1.4	1.5	1.2	1.0	1.0	1.1	1.1
1.2 Non-Convertible Currency	0.5	0.5	0.4	0.4	0.4	0.4	0.4
<b>2. Private Sector</b>							
2.1 Gross Domestic Investment	2.8	2.6	1.3	1.0	0.8	0.7	0.5
2.1.1 Fixed Investment	2.8	2.6	1.3	1.0	0.8	0.7	0.5
2.2 Change in Stocks	n.a.						
2.2 National Savings	25.3	16.6	14.3	13.8	17.0	19.8	22.0
2.3 Investment-Savings	-22.5	-14.1	-13.0	-12.8	-16.2	-19.1	-21.5
<b>3. Public Sector</b>							
3.1 Gross Domestic Investment	25.6	17.2	26.8	24.0	25.5	27.0	28.2
3.1.1 Fixed Investment	24.0	17.4	19.0	19.1	19.9	20.6	21.4
3.1.2 Change in Stocks	1.6	-0.2	7.8	4.9	5.6	6.5	6.7
3.2 National Savings	1.3	1.1	12.2	9.7	7.9	6.5	5.2
3.2.1 Current Revenue	54.2	49.4	24.5	19.7	15.9	13.0	10.5
3.2.1 Current Expenditures	52.9	48.3	24.0	19.2	15.5	12.7	10.3
3.2.3 Public Enterprise Saving	n.a.	n.a.	11.6	9.3	7.5	6.2	5.0
3.3 Investment Savings	24.4	16.1	14.7	14.2	17.6	20.6	22.9
<b>4. Public and Private Investment Saving</b>	1.9	2.0	1.6	1.4	1.4	1.5	1.4
<b>Memorandum Item: Share of gross domestic investment financed by foreign savings (%)</b>	6.6	10.0	5.8	5.6	5.4	5.4	5.0

Note: All change in stocks assumed to be in the public sector

Table 2.2: Incentive Indicators

	1980	1981	1982	1983	1984	1985	1986
<b>1. Real Effective Exchange Rate</b>							
1.1 Index 1980=100	100.0	96.58	70.57	64.77	67.29	75.61	114.10
1.2 Annual Change		-0.03	-0.27	-0.08	0.04	0.12	0.51
<b>2. Real Interest Rates</b>							
2.1 Short-term Deposit Rate			-50.4	-11.2	-10.4	-10.7	
2.2 Long-term Lending Rate			-49.0	-8.7	-7.9	-8.1	
<b>3. Index of Real Wages</b>							
3.1 Total, Economy 1980=100	100.0	104.8	76.3	77.2	80.8	84.4	
3.2 Industry, 1980=100	100.0	104.3	76.6	77.5	79.3	82.2	
<b>4. Ratios of Domestic Agricultural Prices to Border Prices (Official Exchange Rate)</b>							
4.1 Wheat						1.03	
4.2 Rye						1.30	
4.3 Barley						1.75	
<b>External Trade Indicators</b>							
<b>5. Volume Index of Major Exports to Non-Socialist Countries</b>							
5.1 Fuels and Energy		-58.9	45.4	41.8	14.1	-13.5	-13.2
5.2 Industry		-16.1	0.2	14.5	8.4	-4.9	-17.8
5.3 Agricultural Products		-36.0	3.6	47.5	35.4	29.2	16.5
<b>6. Export Shares World Trade</b>							
6.1 Food		0.34	0.37	0.46	0.57	0.71	
6.2 Non-Food Agriculture		0.57	0.46	0.56	0.64	0.75	
6.3 Metals & Minerals		1.38	1.44	1.44	1.62	1.97	
6.4 Total Non Fuel Primaries		0.59	0.60	0.69	0.79	0.97	
6.5 Fuels		0.33	0.55	0.62	1.28	1.48	
6.6 Total Primaries		0.45	0.57	0.65	0.97	1.14	
6.7 Machinery & Transport Equipment		1.26	1.03	1.00	0.87	0.85	
6.8 Other Manufactures		0.67	0.52	0.51	0.53	0.54	
6.9 Total Manufactures		0.94	0.76	0.74	0.70	0.69	
6.10 Total Merchandise		0.74	0.69	0.71	0.78	0.80	
<b>7. Manufactured Exports to Non Socialist Countries</b>							
7.1 Real Growth Rate		-16.1	0.2	14.5	8.4	-4.9	-17.8
7.2 Value as Share of Total Exports		65.0	60.0	56.3	53.2	50.6	56.1
<b>8. Commodity Terms of Trade</b>							
8.1 Index 1980=100	100.00	103.20	160.50	99.90	98.90	103.80	
8.2 Annual Change		0.03	0.03	-0.06	-0.01	0.05	

Table 3.1 Poland: GDP by Source in Current Values  
(Billions of Zlotys)

	1970	1971	1972	1973	1974	1975		1976	1977	1978	1979	1980		1981	1982	1983	1984	1985	
						I	II					I	II					I	II
	-----																		
<b>Material Sectors</b>	839.5	948.2	1049.9	1168.6	1317.3	1475.8	1479.8	1739.9	1891.0	2081.4	2135.1	2158.4	2186.7	2355.2	4936.5	6076.9	7417.9	8910.9	8988.5
of which:																			
Industry	454.7	479.7	318.4	590.5	729.5	853.9	868.6	897.0	992.4	1090.2	1126.9	1177.4	1135.1	1013.0	2486.6	3047.8	3681.3	4334.1	4271.4
Construction	79.3	99.4	119.9	140.7	149.6	199.9	161.9	211.5	215.0	247.3	231.4	196.1	214.7	171.1	515.6	641.7	828.7	1056.2	1056.7
Agriculture	131.1	159.7	182.2	197.6	202.2	203.5	207.1	252.9	281.0	317.7	323.2	323.6	332.3	649.1	894.4	1042.8	1235.9	1401.9	1401.9
Transport & Communications	67.7	76.0	84.0	95.2	113.4	115.2	117.0	144.7	155.1	161.1	169.6	184.2	179.3	177.1	239.5	352.0	465.6	635.1	613.8
Trade	75.6	97.0	104.8	99.6	81.9	74.7	77.0	162.6	186.3	198.4	208.2	207.0	254.0	268.7	651.1	793.3	968.2	1190.5	1330.4
<b>Non-Material Services</b>	96.3	106.9	117.7	132.6	140.2	156.4	182.3	209.3	227.3	248.5	284.4	302.0	324.5	397.4	609.9	847.1	1158.0	1456.3	1456.5
Satisfying Population's Needs	63.8	73.8	83.1	92.4	93.7	106.3	113.4	132.4	145.3	158.0	180.6	192.3	218.8	274.4	426.9	580.1	813.2	1006.9	1007.4
of which:																			
Housing	11.6	14.1	15.9	15.0	10.0	11.0	16.6	19.1	22.0	25.0	28.5	31.8	54.3	59.9	90.1	111.1	187.6	260.5	260.5
Education	21.1	25.2	27.8	31.1	31.0	36.5	41.0	46.1	48.9	54.1	61.2	68.0	65.6	84.2	134.0	188.1	256.2	298.0	298.0
Culture & Art	4.0	4.2	4.6	5.0	5.4	5.7	5.8	6.5	7.4	8.2	9.2	9.5	9.7	10.7	14.1	20.6	28.3	37.4	37.4
Health & Social Welfare	13.5	15.0	16.5	20.2	22.9	25.6	25.6	29.7	32.0	34.2	40.7	46.4	46.8	63.1	107.3	134.9	173.7	207.2	207.2
Satisfying Society's Needs	32.5	33.1	34.6	40.2	46.5	50.1	68.9	76.9	82.0	90.5	103.8	109.7	106.5	123.0	185.0	267.0	344.8	449.4	449.4
<b>Total, Value-Added Unadjusted</b>	935.8	1055.1	1167.6	1301.2	1457.5	1632.2	1662.1	1949.2	2118.3	2329.9	2419.5	2460.4	2511.2	2752.6	5546.4	6924.0	8575.9	10367.2	10445.0
(plus)																			
Depreciation of Fixed Assets																			
in Budgeting Units	11.5	12.4	13.4	14.5	15.6	16.9	17.0	18.3	19.2	20.0	21.1	22.5							
Imputed Rent	6.2	6.3	6.5	6.6	7.6	8.7	8.7	9.4	10.0	10.5	11.2	12.4							
Depreciation of Non-Socialized Residential Units	10.1	10.1	10.5	11.0	11.2	11.3	11.3	11.6	12.2	12.9	13.6	14.2							
(less) Banking Services	4.0	4.2	4.8	5.6	7.3	8.4	8.4	9.4	10.0	10.8	14.4	18.8							
<b>GDP at Current Market Prices</b> (According to SNA)	959.6	1079.7	1193.2	1327.7	1484.6	1660.7	1690.7	1979.1	2149.7	2362.5	2451.0	2490.7	2511.2	2752.6	5546.4	6924.0	8575.9	10367.2	10445.0
-----																			

Table 3.2 Poland: GDP by Expenditure in Current Values  
(Billions of Zlotys)

	1980	1981	1982	1983	1984	1985		1986
						I	II	
Gross Domestic Product	2511.2	2752.6	5546.4	6924.0	8575.9	10367.2	10444.9	12925.9
Resource Gap (X - M)	-73.5	-58.1	116.0	122.2	169.3	147.9	147.9	221.0
Exports (g+nfs)	706.8	638.4	1077.8	1192.4	1515.6	1900.6	1900.6	2356.5
Imports (g+nfs)	780.3	696.5	961.8	1070.2	1346.3	1752.7	1752.7	2135.5
Total Expenditure	2572.0	2809.4	5481.8	6830.5	8485.8	10308.1	10287.4	12791.7
Consumption	1910.3	2301.3	3931.2	5096.6	6228.8	7419.9	7399.2	9089.6
General Government	230.8	260.3	454.5	609.7	801.2	1022.9	986.1	..
Private	1679.5	2041.0	3476.7	4486.9	5427.6	6397.0	6413.1	..
Investments	661.7	508.1	1550.6	1733.9	2257.0	2888.2	2888.2	3702.1
Fixed Investments	621.2	513.9	1117.4	1394.5	1780.9	2210.7	2210.7	2832.9
Changes in Stocks	40.5	-5.8	433.2	339.4	476.1	677.5	677.5	869.2
Unallocated Items	12.7	1.3	-51.4	-28.7	-79.2	-88.8	9.6	-86.8
Domestic Savings	-60.8	-56.8	64.6	93.5	90.1	59.1	157.5	134.2
Net Factor Income a/								
Current Transfers a/								
National Savings a/								
Percent of GDP								
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Resource Gap (X - M)	-2.9	-2.1	2.1	1.8	2.0	1.4	1.4	1.7
Exports (g+nfs)	28.1	23.2	19.4	17.2	17.7	18.3	18.2	18.2
Imports (g+nfs)	31.1	25.3	17.3	15.5	15.7	16.9	16.8	16.5
Total Expenditure	102.4	102.1	98.8	98.6	98.9	99.4	98.5	99.0
Consumption	76.1	83.6	70.7	73.6	72.6	71.6	70.8	70.3
General Government	9.2	9.5	8.2	8.8	9.3	9.9	9.4	..
Private	66.9	74.1	62.7	64.8	63.3	61.7	61.4	..
Investments	26.3	18.5	27.9	25.0	26.3	27.8	27.7	28.6
Fixed Investments	24.7	18.7	20.1	20.1	20.8	21.3	21.2	21.9
Changes in Stocks	1.6	-0.2	7.8	4.9	5.6	6.5	6.5	6.7
Unallocated Items	0.5	0.0	-0.9	-0.4	-0.9	-0.8	0.1	-0.6
Domestic Savings	-2.4	-2.1	1.2	1.4	1.1	0.6	1.5	1.1
Net Factor Income a/								
Current Transfers a/								
National Savings a/								

a/ Not available.

PolGDP3: A1.162

Table 3.3 Poland: GDP by Expenditure in Constant Values  
(Billions of 1982 Zlotys)

	1980	1981	1982	1983	1984	1985		1986
						I	II	
Gross Domestic Product	6267.8	5642.6	5373.9	5672.5	5992.9	6210.5	9016.4	
Resource Gap (X - M)	-142.5	-95.9	116.0	158.6	202.4	129.2	86.3	
Exports (g+nfs)	1241.1	1014.8	1077.8	1176.6	1316.3	1319.6	1520.3	
Imports (g+nfs)	1383.6	1110.7	961.8	1018.0	1113.9	1190.4	1434.0	
Total Expenditure	6386.8	5831.6	5290.4	5566.0	5847.0	6076.3	8860.4	
Consumption	4672.4	4498.6	4003.1	4209.1	4403.9	4544.4	6519.4	
General Government	471.0	449.6	460.5	474.8	510.6	550.4	863.7	
Private	4201.4	4049.0	3542.6	3734.3	3893.3	3994.0	5655.7	
Investments	1714.4	1333.0	1287.3	1356.9	1443.1	1531.9	2341.0	
Fixed Investments	1606.2	1300.0	1122.3	1220.9	1340.8	1399.3	1872.1	
Changes in Stocks	108.2	33.0	165.0	136.0	102.3	132.6	468.9	
Unallocated Items	23.5	-93.1	-32.5	-52.1	-56.5	5.0	69.7	
Domestic Savings	-119.0	-189.0	83.5	106.5	145.9	134.2	156.0	
Net Factor Income a/								
Current Transfers a/								
National Savings a/								
Growth Rates (%)								
Gross Domestic Product		-10.0	-4.8	5.6	5.6	3.6		5.1
Resource Gap (X - M)		-32.7	-221.0	36.7	27.6	-36.2		
Exports (g+nfs)		-18.2	6.2	9.2	11.9	0.3		3.9
Imports (g+nfs)		-19.7	-13.4	5.8	9.4	6.9		3.3
Total Expenditure		-8.7	-9.3	5.2	5.0	3.9		4.7
Consumption		-3.7	-11.0	5.1	4.6	3.2		4.9
General Government		-4.5	2.4	3.1	7.5	7.8		
Private		-3.6	-12.5	5.4	4.3	2.6		
Investments		-22.2	-3.4	5.4	6.4	6.2		4.1
Fixed Investments		-19.1	-13.7	8.8	9.8	4.4		4.3
Changes in Stocks		-69.5	400.0	-17.6	-24.8	29.6		3.3
Unallocated Items		-496.2	-65.1	60.3	8.4	-108.8		
Domestic Savings		58.8	-144.2	27.5	37.0	-8.0		
Net Factor Income a/								
Current Transfers a/								
National Savings a/								

a/ Not available.

Figures for 1985 II are in 1984 prices. Growth rates for 1986 are provisional.

PolGDP4: A1.162

**Table 2.4: OUTPUT, DOMESTIC ABSORPTION AND NET EXPORTS AT CONSTANT PRICES<sup>a/</sup>**  
(Billions of 1985 US\$)

	1971	1975	1976	1980	1981	1982	1983	1984	1985	1986
<b>Net Material Product (NMP)</b>	<b>33.50</b>	<b>53.47</b>	<b>57.10</b>	<b>60.61</b>	<b>53.34</b>	<b>50.40</b>	<b>53.43</b>	<b>56.42</b>	<b>58.34</b>	<b>61.37</b>
<b>NMP Distributed i.e.</b>										
<b>Domestic Expenditures</b>	<b>34.43</b>	<b>59.60</b>	<b>63.47</b>	<b>62.84</b>	<b>56.24</b>	<b>50.34</b>	<b>53.16</b>	<b>55.82</b>	<b>57.94</b>	<b>61.01</b>
of which: Consumption	21.79	33.07	35.99	44.85	42.79	37.87	40.06	41.82	42.87	44.88
Investment	12.64	26.53	27.48	17.99	13.45	12.47	13.10	14.00	15.06	15.75
<b>Net Exports of Goods and</b>										
<b>Material Services</b>	<b>-0.26</b>	<b>-3.47</b>	<b>-3.24</b>	<b>-1.71</b>	<b>-1.20</b>	<b>0.90</b>	<b>1.33</b>	<b>1.74</b>	<b>1.01</b>	<b>1.17</b>
Exports of Goods and										
Material Services	5.16	8.67	9.55	12.13	9.92	10.53	11.51	12.88	12.92	13.51
Imports of Goods and										
Material Services	5.42	12.14	12.79	13.84	11.12	9.63	10.18	11.14	11.91	12.34

**Memorandum Item:** Turnaround in difference of domestic expenditures over NMP, 1975-85: \$6.53 billion.  
Turnaround in Net exports 1975-85: \$4.48 billion.

a/ The estimates were derived by applying constant price growth rates to 1985 current price data in zlotys which were converted into US\$ at the average annual exchange rate for 1985. The reason why domestic expenditures (NMP distributed) and net exports do not add up to NMP is partly because the data are expressed in constant prices and there has been a shift in relative prices between domestic expenditures and net exports and also because of statistical discrepancies (referred to as "losses and unallocable items" in Polish national accounts). The estimates for investment shown above represent the difference between domestic expenditures and consumption. However, when they are derived in the same manner as the estimates for domestic expenditures and consumption, i.e. by applying constant price growth rates, investment turns out to be significantly higher in the earlier years so that the sum of consumption and investment often exceeds domestic expenditures. This suggests a problem with the price deflators used to derive constant price growth rates. Deriving investment independently rather than as a residual yields the following series (in billions of 1985 US\$):

1971	1975	1976	1980	1981	1982	1983	1984	1985
14.87	34.15	34.97	18.67	13.51	12.62	13.24	14.21	15.06

**Source:** Mission estimates based on data from Polish authorities.

Table 4.1 Balance of Payments - Total (Millions of U.S. Dollars)

	1979	1980	1981	1982	1983	1984	1985
Exports (FOB)	1334	14170	1044	10457	11000	10912	11558
Imports (FOB)	1374	13006	1254	1054	1052	1043	10914
Trade Balance	-40	1164	-1100	-917	478	479	644
Freight & Insurance, Net	54	64	288	332	271	89	88
Credit	82	904	625	629	429	361	528
Debit	798	840	405	297	501	472	492
Travel, Net	-30	16	-101	-65	-65	-125	-45
Credit	240	260	105	88	81	98	113
Debit	279	253	206	133	192	221	176
Interest, Net	-167	-237	-300	-263	-292	-321	-263
Credit	71	139	171	92	92	195	188
Debit (before direct relief) 2/	1780	2498	3231	3053	2776	3216	2851
Other Current Items, Net	-28	-43	85	43	76	88	82
Credit	294	312	290	287	325	356	418
Debit	322	355	305	244	249	268	279
Total, Services	-1671	-2320	-2788	-2653	-2936	-2967	-2528
Credit	1466	1626	1259	1078	1362	1270	1368
Debit	3137	3944	4047	3729	3718	4197	3898
Unrequited Transfers, Net	520	666	625	323	300	467	768
Private	527	526	331	323	300	467	768
Official	3	130	324	324	300	467	768
Current Account Balance	-351	-3300	-4233	-2527	-1528	-1667	-948
MEDIUM- & LONG-TERM CAPITAL	342	2699	888	-2371	-982	-107	84
Actual Loans Drawings	835	8846	5317	2588	2588	427	723
Repayments (before relief) 3/	4783	5971	5985	7088	4165	3538	4183
Repayments (after relief) 4/	1778	2050	2050	2208	2471	2797	1443
Principal			1349	2050	2208	2471	1443
Interest			409		467	724	87
Other Capital, Net	-10	-45	8	84	100	-10	61
Export Credits, Net	-99	-168	-420	-5	-21	-84	-18
Export Credits, Net							
Revolving Credits, Net							
SHORT-TERM CAP, BONDS	60	239	-172	478	295	191	540
OVER-ALL BALANCE	161	-402	-3907	-4224	-1907	-1338	-2882
CHANGES IN RESERVES, VALUATION	99	233					
CHANGES IN RESERVES (-, INC)	-161	422	-33	-369	-119	-340	173
CHANGE IN RESERVES 4/	342	4593	4995	4995	2026	1678	117
Interest 2/	500	1100	1400	1400	1400	1400	1400
Principal	3062	3493	3493	3493	3493	3493	3493

1/ Current and capital account transactions within owing limits under bilateral payments agreements with 'market economy' countries have been excluded for the years after the break year 1982; these transactions are included in the balance of payments in nonconvertible currencies. Secondly, the current account presentation above includes all accrued interest payments obligations.

2/ Estimates of unpaid interest are very tentative as agreement has not been reached with a number of creditors on estimates of penalty interest on payment arrears.

3/ Includes unpaid principal obligations.

4/ In 1981-84, agreements for rescheduling the bulk of the annual principal obligations are treated as arrears until the effective operational date of the agreement, which for reschedulings with Western banks was in the year subsequent to the signing of the agreement.

Table 4.2 Balance of Payments  
Convertible Currency  
(US\$ Millions)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982 1/	1982 1/	1983	1984	1985	1986
Exports (fob)	1307	1460	1774	2515	3871	4357	4528	5076	5711	6574	7965	9482	4974	4685	4980	5471	5347	5316
Imports (fob)	1202	1351	2019	3995	6029	7358	7482	7097	7594	8766	8757	6233	4616	4362	3961	4108	4185	4281
Trade Balance	105	109	-245	-1480	-2158	-3001	-2954	-2021	-1883	-2192	-792	-751	358	323	1039	1363	1162	1035
Freight & Insurance, Net	43	47	53	61	61	79	31	-15	-41	-157	-142	28	38	32	-38	-150	-125	-128
Credit	152	161	181	252	372	397	424	443	470	581	630	370	272	256	388	262	270	275
Debit	109	114	128	191	311	318	393	458	511	738	772	342	234	224	426	412	395	399
Travel, Net	10	13	13	27	30	47	51	58	77	93	98	63	36	36	45	56	55	59
Credit	13	17	24	44	54	71	77	86	106	124	144	95	59	59	69	81	86	96
Debit	3	4	11	17	24	24	26	28	29	31	46	32	23	23	24	25	31	37
Interest, Net	-42	-33	-34	-78	-264	-470	-631	-688	-1170	-1637	-2335	-3012	-2876	-2874	-2534	-2929	-2270	-2587
Credit	9	14	17	18	30	34	35	34	37	69	136	169	86	85	153	183	168	177
Debit (before debt relief) 2/	51	47	51	96	294	904	666	902	1207	1706	2471	3181	2962	2959	2687	3112	2438	2734
Other Current Items, Net	-36	-35	-42	-45	-56	-62	-69	-89	-106	-105	-94	50	10	17	23	25	41	-22
Credit	23	25	28	54	80	109	124	107	126	152	180	180	160	158	163	191	202	225
Debit	59	60	70	99	136	162	193	196	232	257	274	130	150	141	140	166	161	247
Total, Services	-25	-8	-10	-35	-229	-406	-618	-914	-1240	-1806	-2473	-2871	-2792	-2789	-2504	-2998	-2299	-2644
Credit	177	217	250	368	536	602	660	670	739	926	1090	814	577	558	773	717	726	773
Debit	222	225	260	403	765	1008	1278	1584	1979	2732	3563	3685	3369	3347	3277	3715	3025	3417
Unrequited Transfers, Net	55	78	137	194	192	246	501	489	685	529	653	654	318	318	375	462	764	944
Private	62	85	143	202	200	256	322	313	454	526	526	331	318	318	375	462	764	944
Official	-7	-7	-6	-8	-8	-10	-179	176	211	3	127	323						
CURRENT ACCOUNT BALANCE	135	179	-118	-1321	-2195	-3161	-3071	-2446	-2458	-3469	-2612	-2968	-2116	-2148	-1090	-1173	-373	-665
MEDIUM- & LONG-TERM CAPITAL	-42	-28	156	1282	1468	2546	3100	1966	2266	3821	2884	478	-2393	-2409	-893	-39	-19	-1858
Actual Loan Drawings	278	267	463	1659	2346	3573	4507	4145	5488	8358	7269	4930	1474	1474	565	218	261	294
Repayments (before relief) 3/	280	237	263	330	626	900	1207	1886	3115	4445	5605	5811	5911	5911	3642	3113	3784	2458
Repayments (Refinancing) 4/												1778	2050	2050	2208	2938	3521	1538
Principal												1369	2050	2050	2208	2471	2797	1443
Interest												409			467	724	87	87
Other Capital, Net		-11	-14	-7	-6	-9	-12	-16		7	-15	1	-1	-1	2	2	1	-5
Export Credits, Net	-40	-47	-30	-40	-46	-118	-188	-277	-107	-99	-165	-420	-5	-21	-26	-84	-18	-211
REVOLVING CREDITS, NET													196	196	338	240	-2	139
SHORT-TERM CAP, ERRORS	-57	-122	-6	21	576	745	156	109	337	-191	-674	-1017	89	137	-262	-366	41	
OVER-ALL BALANCE	36	29	32	-18	49	130	185	-371	145	161	-402	-3507	-4224	-4224	-1907	-1338	-353	-2882
COUNTERPART ITEMS, VALUATION																		
CHANGES IN RESERVES					127		-14		99	235								
TOTAL	36	29	32	-18	49	130	185	-371	145	161	-402	-3507	-4224	-4224	-1907	-1338	-353	-2882
CHANGES IN RESERVES (-, INC)	-36	-29	-32	18	-49	-130	-185	371	-145	-161	402	-35	-369	-369	-119	-340	236	173
CHANGE IN ARREARS 4/												3542	4593	4593	2026	1678	117	2799
Interest 2/												500	1100	1100	1100	1400	-50	1500
Principal												3042	3493	3493	926	278	167	1300

1/ Current and capital account transactions within swing limits under bilateral payments agreements with 'market economy' countries have been excluded for the years after the break year 1982; these transactions are included in the balance of payments in nonconvertible currencies. Secondly, the current account presentation above includes all accrued interest payment obligations.

2/ Estimates of unpaid interest are very tentative as agreement has not been reached with a number of creditors on estimates of penalty interest on payment arrears.

3/ Includes unpaid principal repayment obligations.

4/ In 1981-84, agreements for rescheduling the bulk of the annual principal obligations are treated as arrears until the effective operational date of the agreement, which for reschedulings with Western banks was in the year subsequent to the signing of the agreement.

Table 4.3 Balance of Payments  
Non-Convertible Currency  
(US\$ Millions)

	1979	1980	1981	1982	1982	1983	1984	1985	1986
Exports (fob)	6780	6205	4982	5483	5772	6020	6329	5565	6242
Imports (fob)	6998	7049	6331	6038	6292	6641	6854	6251	6633
Trade Balance	-218	-844	-1349	-555	-520	-621	-525	-686	-391
Freight & Insurance, Net	211	206	260	294	300	309	239	210	212
Credit	271	274	323	357	373	384	319	293	385
Debit	60	68	63	63	73	75	80	83	93
Travel, Net	-123	-82	-164	-101	-101	-156	-179	-116	-184
Credit	125	125	10	9	9	12	17	27	35
Debit	248	207	174	110	110	168	196	143	139
Interests, Net	-30	-22	-48	-87	-89	-58	-92	-113	-106
Credit	2	3	2	6	7	31	12	8	11
Debit	32	25	50	93	96	89	104	121	117
Others, Net	77	51	35	33	26	53	63	99	104
Credit	142	132	110	127	129	162	165	216	236
Debit	65	81	75	94	103	109	102	117	132
Total - Services, Net	135	153	83	139	136	148	31	80	106
Credit	940	834	445	499	518	589	513	944	887
Debit	405	381	362	360	382	441	482	464	481
Unrequited Transfers, Net	1	3	1	5	5	5	5	4	2
CURRENT ACCOUNT BALANCE	-82	-688	-1265	-411	-379	-468	-489	-602	-283
MEDIUM- & LONG-TERM CAPITAL	-178	-225	420	22	38	-89	-68	103	176
Credits Received	-161	-195	413	-63	-63	-77	-8	63	187
Drawings	177	171	587	1114	1114	446	409	462	818
Repayments	338	366	174	1177	1177	523	417	399	631
Credits Extended	-27	-35	-7	74	90	-25	-74	27	22
Repayments	22	13	10	82	142	60	56	31	81
Drawings	49	48	17	8	52	85	130	4	59
Other Capital, Net	10	5	14	11	11	13	14	13	11
SHORT-TERM CAPITAL, NET	229	925	859	371	303	485	542	453	129
Credits Received	221	803	1044	561	561	148	633	396	284
Credits Extended									
Payments Agree Assets & Liab	8	120	-185	-190	-258	337	-91	57	-155
FINANCIAL ITEMS, NET	31	-10	-14	18	38	72	15	46	-22
TOTAL	0	0	0	0	0	0	0	0	0

1. There is a break in the series in 1982; data to the right of the line include transactions within swing limits under bilateral payments agreements with 'market economy' countries together with related capital account transactions; to the left of the line, such transactions are excluded.

2. This table differs from the national presentation of the balance of payments in nonconvertible currencies in two respects: (1) In the national presentation all data through 1981 were converted from transferable rubles into US\$ using cross rates derived from the 'accounting' rates of the zloty vis-a-vis the transferable ruble and US\$ (which corresponds closely with the US\$/ruble rate quoted by the International Bank for Economic Cooperation). In this presentation data were converted using cross rates derived from the 'commercial' rates of the zloty vis-a-vis the transferable ruble and the US\$. Since the change in exchange regime in 1982, the national presentation has converted the data at the cross 'commercial' rate. In 1981 the cross 'accounting' rate was TR 1 = US\$ 1.32; the cross 'commercial' rate in contrast was TR 1 = US\$ 0.87. (2) For the years 1982 to 1984, this presentation includes transactions within swing limits under bilateral payments agreements with 'market economy' countries and related capital account transactions. In the national presentation, they are included in the balance of payments in convertible currencies.

Table 4.4 Poland: Exports By SITC One-Digit Category  
(Millions of US\$)

	1975	1980	1983	1984	1985	1986
0 Food and Live Animals	807.7	1035.5	777.5	851.7	862.8	968.0
1 Beverages & Tobacco	66.7	101.4	69.2	72.6	76.2	80.0
2 Crude Materials, Inedible Except Fuels	352.8	856.0	679.3	767.3	822.1	789.0
3 Mineral Fuels, Lubricants & Related Materials	1863.0	2409.7	2012.2	2059.8	1801.2	1594.0
4 Animal & Vegetable Oils & Fats	36.1	5.5	3.6	29.4	25.4	18.0
5 Chemicals	784.2	933.4	641.6	713.2	705.1	776.0
6 Manufactured Goods Classified Chiefly by Material	1241.2	2601.5	1867.6	1832.0	1720.3	2111.0
7 Machinery and Transport Equipment	2244.7	4715.0	4816.8	4542.4	4530.1	4693.0
8 Miscellaneous Manufactured Articles	990.0	1510.3	686.2	728.9	778.6	870.0
9 Commodities & Transactions Not Classified According to Kind	15.5	23.1	17.8	152.5	167.6	170.0
<b>T O T A L E X P O R T S</b>	<b>8401.9</b>	<b>14191.4</b>	<b>11571.8</b>	<b>11749.8</b>	<b>11489.4</b>	<b>12073.0</b>
0 Food and Live Animals	274.8	183.4	158.9	161.8	164.2	180.0
1 Beverages & Tobacco	33.6	47.9	40.0	35.2	37.7	33.0
2 Crude Materials, Inedible Except Fuels	73.9	224.0	216.3	191.8	205.8	198.0
3 Mineral Fuels, Lubricants & Related Materials	652.9	778.1	835.7	810.6	605.6	594.0
4 Animal & Vegetable Oils & Fats	1.3	0.9	0.0	5.9	11.6	2.0
5 Chemicals	433.7	594.9	416.8	448.1	419.3	451.0
6 Manufactured Goods Classified Chiefly by Material	636.5	788.4	749.5	732.0	768.9	876.0
7 Machinery and Transport Equipment	1444.1	3037.8	3479.3	3401.9	3590.5	3652.0
8 Miscellaneous Manufactured Articles	727.6	1022.6	423.1	390.6	416.1	413.0
9 Commodities & Transactions Not Classified According to Kind	0.5	17.8	15.7	65.2	79.9	104.0
<b>T O T A L - S O C I A L I S T E X P O R T S</b>	<b>4278.9</b>	<b>6695.8</b>	<b>6335.3</b>	<b>6243.1</b>	<b>6299.6</b>	<b>6503.0</b>
0 Food and Live Animals	532.9	852.1	618.6	689.9	698.6	788.0
1 Beverages & Tobacco	33.1	53.5	29.2	37.4	38.5	47.0
2 Crude Materials, Inedible Except Fuels	278.9	632.0	463.0	575.5	616.3	590.0
3 Mineral Fuels, Lubricants & Related Materials	1210.1	1631.6	1176.5	1249.2	1195.6	1000.0
4 Animal & Vegetable Oils & Fats	34.8	4.6	3.6	23.5	13.8	16.0
5 Chemicals	350.5	338.5	224.8	265.1	285.8	325.0
6 Manufactured Goods Classified Chiefly by Material	604.7	1813.1	1118.1	1100.0	951.4	1234.0
7 Machinery and Transport Equipment	800.6	1677.2	1337.5	1140.5	939.6	1040.0
8 Miscellaneous Manufactured Articles	262.4	487.7	263.1	338.3	362.5	457.0
9 Commodities & Transactions Not Classified According to Kind	15.0	5.3	2.1	87.3	87.7	66.0
<b>T O T A L - N O N S O C I A L I S T E X P O R T S</b>	<b>4123.0</b>	<b>7495.6</b>	<b>5236.5</b>	<b>5506.7</b>	<b>5189.8</b>	<b>5563.0</b>
Memorandum Items:						
Non-Convertible Currency Area	3769.8	6217.3	5682.0	5411.0	5337.0	5450.0
Convertible Currency Area	4632.1	7974.1	5889.8	6338.8	6152.4	6622.0

Table 4.5 Poland: Imports (CIF) By SITC One-Digit Category  
(Millions of US\$)

	1975	1980	1981	1982	1983	1984	1985	1986
0 Food and Live Animals	1213.6	2681.7	2858.9	1509.0	949.4	1109.4	991.1	1065.0
1 Beverages & Tobacco	68.3	163.5	139.2	96.6	110.9	91.3	102.0	134.5
2 Crude Materials, Inedible Except Fuels	1524.1	1742.2	1182.9	1256.7	1132.7	1175.1	1148.8	924.6
3 Mineral Fuels, Lubricants & Related Materials	1169.4	3112.6	2379.4	2254.9	2773.6	2479.0	2416.9	2330.3
4 Animal & Vegetable Oils & Fats	97.5	135.8	103.1	97.4	70.9	87.6	93.1	65.1
5 Chemicals	942.4	1546.3	1136.8	991.5	948.1	935.3	980.0	1091.9
6 Manufactured Goods Classified Chiefly by Material	2154.2	2244.8	1385.2	1359.9	1530.2	1520.1	1510.5	1540.0
7 Machinery and Transport Equipment	3483.9	4227.0	2785.3	2521.7	2695.0	2974.0	3336.4	3649.8
8 Miscellaneous Manufactured Articles	452.0	808.0	601.7	548.2	701.0	581.6	568.2	701.8
9 Commodities & Transactions Not Classified According to Kind	0.5	27.9	16.3	10.5	14.8	31.8	37.7	32.5
<b>T O T A L I M P O R T S</b>	<b>11105.9</b>	<b>16689.8</b>	<b>12598.8</b>	<b>10648.3</b>	<b>10926.6</b>	<b>10985.2</b>	<b>11184.7</b>	<b>11535.5</b>
0 Food and Live Animals	320.2	341.9	383.2	360.3	312.9	370.7	253.1	272.0
1 Beverages & Tobacco	38.1	100.2	93.8	67.5	77.8	59.4	63.5	77.4
2 Crude Materials, Inedible Except Fuels	568.0	565.9	434.7	575.8	476.6	450.0	444.3	442.3
3 Mineral Fuels, Lubricants & Related Materials	808.2	2058.5	2078.9	2052.4	2257.3	2156.4	2065.8	2102.0
4 Animal & Vegetable Oils & Fats	13.6	14.0	5.7	16.5	15.5	9.6	13.4	8.6
5 Chemicals	339.1	516.4	557.2	372.4	344.7	310.7	310.8	347.2
6 Manufactured Goods Classified Chiefly by Material	538.8	900.7	802.1	812.9	826.2	821.4	796.5	833.0
7 Machinery and Transport Equipment	1063.5	2501.6	1821.6	1907.8	2043.8	2182.2	2331.3	2362.4
8 Miscellaneous Manufactured Articles	261.3	538.4	446.1	399.1	517.1	406.5	363.3	449.0
9 Commodities & Transactions Not Classified According to Kind	0.4	16.4	16.2	10.3	14.5	30.7	30.4	27.6
<b>T O T A L - S O C I A L I S T I M P O R T S</b>	<b>3951.2</b>	<b>7554.0</b>	<b>6639.5</b>	<b>6575.0</b>	<b>6886.4</b>	<b>6797.6</b>	<b>6672.4</b>	<b>6921.5</b>
0 Food and Live Animals	873.4	2339.8	2485.7	1148.7	636.5	738.7	738.0	793.0
1 Beverages & Tobacco	30.2	63.3	45.4	29.1	33.1	31.9	38.5	57.1
2 Crude Materials, Inedible Except Fuels	956.1	1176.3	748.2	680.9	656.1	725.1	704.5	4.3
3 Mineral Fuels, Lubricants & Related Materials	361.2	1054.1	300.5	204.4	516.3	322.6	351.1	228.0
4 Animal & Vegetable Oils & Fats	83.9	121.8	97.4	80.9	55.4	78.0	79.7	56.5
5 Chemicals	603.3	1029.9	579.6	619.1	603.4	624.6	669.2	744.7
6 Manufactured Goods Classified Chiefly by Material	1615.4	1344.1	583.1	547.0	704.0	698.7	714.0	707.0
7 Machinery and Transport Equipment	2420.4	1725.4	563.7	613.9	651.2	791.8	1005.1	1287.4
8 Miscellaneous Manufactured Articles	190.7	269.6	155.6	149.1	183.9	175.1	204.9	252.8
9 Commodities & Transactions Not Classified According to Kind	0.1	11.5	0.1	0.2	0.3	1.1	7.3	4.9
<b>T O T A L - N O N S O C I A L I S T I M P O R T S</b>	<b>7154.7</b>	<b>9135.8</b>	<b>5959.3</b>	<b>4073.3</b>	<b>4040.2</b>	<b>4187.6</b>	<b>4512.3</b>	<b>4614.0</b>
Memorandum Items:								
Non-Convertible Currency Area	3582.4	7041.8	6350.4	6003.0	6209.0	5888.0	5797.0	5759.0
Convertible Currency Area	7523.5	9648.0	6248.4	4645.3	4717.6	5097.2	5387.7	5776.0

**Table 4.6: CLASSIFICATION OF IMPORTS BY END-USE, 1970-85**

Nonsocialist Countries								
Percentages	1970	1975	1980	1981	1982	1983	1984	1985
Raw Materials and Intermediate products	77.8	65.5	74.4	75.5	76.0	73.8	75.4	74.2
Consumption	7.4	4.8	8.1	11.9	10.7	9.6	9.6	11.0
Investment	12.2	24.4	11.4	9.1	6.0	4.8	7.8	9.4
Other	2.6	5.3	6.1	3.5	7.3	11.8	7.2	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<hr/>								
Growth Indices a/								
Raw Materials and Intermediate products	100	277.7	321.8	196.9	148.8	152.5	171.6	184.4
Consumption	100	213.4	478.1	285.0	132.2	140.9	168.0	214.7
Investment	100	658.0	132.4	154.9	96.9	125.6	273.0	225.8
Non-material production	100	670.7	326.1	111.3	306.6	253.8	102.5	140.5
Total	100.0	329.0	283.0	194.0	147.0	157.0	168.0	187.4
<hr/>								
Socialist Countries								
Percentages	1970	1975	1980	1981	1982	1983	1984	1985
Raw Materials and Intermediate products	62.3	62.3	59.8	68.1	68.1	67.7	66.3	64.2
Consumption	14.4	13.7	15.3	15.4	19.4	18.7	17.0	18.8
Investment	19.6	21.8	19.7	13.3	8.4	9.5	10.7	10.5
Non material production	3.7	2.2	5.2	3.2	4.1	4.1	5.0	6.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<hr/>								
Growth Indices a/								
Raw Materials and Intermediate products	100.0	148.0	187.2	207.3	172.0	178.9	200.1	214.7
Consumption	100.0	140.8	217.8	183.2	216.7	173.5	203.6	231.6
Investment	100.0	164.6	176.2	122.9	108.6	203.6	174.0	217.6
Non-material production	100.0	88.0	460.9	112.0	220.4	180.0	160.7	288.2
Total	100.0	148.0	195.0	182.0	172.0	180.0	196.0	221.7

a/ Calculated by applying the percentage classification of imports (above) to constant price indices for the total.

Source: CSO

Table 5.1 Poland: Foreign Debt  
(US\$ Billions)

	1979	1980	1981	1982	1983	1984	1985
Total Foreign Debt	24.8	25.5	28.5	29.2	29.1	29.7	32.6
In Convertible Currencies	23.8	24.1	25.9	26.3	26.4	26.9	29.3
by Original Maturity:							
Short-term	2.9	2.0	1.1	1.1	1.3	1.3	1.4
Medium & Long-term	20.9	22.1	24.3	23.6	22.4	21.5	23.8
by Type:							
Guaranteed			11.3	11.9	12.5	12.6	14.0
Non-Guaranteed			11.2	9.8	8.3	7.4	8.0
Commercial Credits			1.8	1.9	1.6	1.5	1.8
by Creditor:							
Suppliers' Credits	1.8	1.7	1.8	1.9	1.6	1.4	1.8
Government Credits	0.2	0.1	0.1	0.1	0.2	0.3	0.3
Bank Credits	18.9	20.3	22.4	21.5	20.6	19.7	21.7
Interest Arrears			0.5	1.6	2.7	4.1	4.1
In Nonconvertible Currencies	1.0	1.4	2.6	2.9	2.7	2.8	3.3
by Original Maturity:							
Short-term	0.2	0.8	1.0	0.5	0.2	0.6	0.0
Medium & Long-term	0.8	0.6	1.6	2.4	2.5	2.2	3.3

Source: National Bank of Poland.

Table 5.2: Maturity Schedule of Medium and Long Term External Debt  
in Convertible Currencies at December 31, 1986<sup>A/</sup>  
(US\$ million)

	Debt out- standing end 1986 B/	1987	1988	1989	1990	1991	1992	1993	1994	1995	Later Years	Delayed	
												Principal	Interest
Total Payments Due	32,136	2,250	3,230	2,615	4,183	4,523	3,469	2,994	2,533	2,502	558	1,333	1,940
To Official Creditors	20,470	1,233	1,198	1,040	2,152	2,332	2,406	2,274	2,264	2,266	103	1,285	1,917
To Banks	8,027	473	1,589	1,294	1,795	1,850	610	400	4	6	-	6	-
To Other Creditors <sup>C/</sup>	3,639	544	443	281	236	341	453	320	265	230	455	48	23

A/ Includes Interest Arrears

B/ Exchange rate Zl 197.62/US\$

C/ CMEA, Commercial Credit and Other Debt

**Table 6.1: STATE BUDGET REVENUES a/  
(In billions of zlotys)**

	1980	1981	1982	1983	1984	1985	1986
<b>Total revenue</b>	<b>1,214.0</b>	<b>1,148.7</b>	<b>2,404.9</b>	<b>2,707.9</b>	<b>3,403.0</b>	<b>4,224.2</b>	<b>4,765.9</b>
<b>Tax revenue</b>	<b>978.4</b>	<b>917.0</b>	<b>2,163.5</b>	<b>2,515.6</b>	<b>3,131.3</b>	<b>3,865.0</b>	<b>4,560.9</b>
<b>From the socialized sector b/</b>	<b>885.5</b>	<b>802.8</b>	<b>2,014.8</b>	<b>2,180.7</b>	<b>2,648.4</b>	<b>3,306.6</b>	<b>3,887.2</b>
Turnover tax	416.0	406.2	638.3	952.2	1,170.4	1,285.1	1,422.6
Income tax c/	188.3	100.6	766.6	630.0	756.4	1,119.9	1,350.4
Wage tax	134.3	150.8	207.3	268.3	318.1	390.8	444.4
Real estate tax	5.7	6.9	34.7	50.1	105.2	108.3	112.7
Charge on capital depreciation d/	26.9	21.6	44.1	45.8	65.2	63.1	88.4
Taxes on levies on foreign trade	110.2	107.5	181.4	177.3	216.2	297.5	322.2
PPM (1986)							120.0
Other e/	4.1	10.1	142.4	57.0	16.9	41.9	27.0
<b>Social security contributions f/</b>	<b>64.0</b>	<b>80.3</b>	<b>100.1</b>	<b>255.5</b>	<b>354.0</b>	<b>380.5</b>	<b>453.6</b>
From the nonsocialized sector	14.3	15.1	27.8	44.1	71.7	112.0	144.5
From the population	14.6	18.8	20.8	35.3	57.2	65.9	75.1
<b>Nontax revenue</b>	<b>235.6</b>	<b>231.7</b>	<b>241.4</b>	<b>192.3</b>	<b>271.7</b>	<b>359.2</b>	<b>205.0</b>
Transfers from financial institutions	153.3	142.0	158.9	59.4	81.4	93.6	96.0
Transfers from the Fund for Occupational Training (PFAZ)	--	--	10.0	46.0	60.0	132.0	--
Other	82.3	89.7	72.5	86.9	130.3	133.6	109.0

- a/ In the Polish presentation of budgetary data, revenues also include receipts of foreign credits and the drawdown of government deposits with the banking system. In addition, in the Polish presentation, taxes and levies on foreign trade have not been included in the revenue accounts since 1981 but are netted against foreign trade subsidies in the expenditure accounts.
- b/ In Polish usage only receipts of turnover tax, income tax, wage tax, and real estate tax from the socialized sector are regarded as tax revenues. All other revenues from this sector are regarded as nontax revenues.
- c/ Taxation of enterprise profits.
- d/ A certain proportion, which may vary between enterprises and sectors, of total provisions by enterprises or capital amortization is paid to the budget.
- e/ Includes receipts from a stabilization tax which was imposed as a one-for-all levy on enterprises in 1982.
- f/ A certain proportion of social security contributions accrues to the State Budget and the remainder to the Pension Fund, which is an extrabudgetary fund.

Source: Staff compilation from data provided by the authorities.

**Table 6.2: STATE BUDGET EXPENDITURES a/  
(In billions of zlotys)**

	1980	1981	1982	1983	1984	Budget 1985
<b>Total expenditure</b>	<b>1,243.0</b>	<b>1,463.2</b>	<b>2,567.5</b>	<b>2,850.4</b>	<b>3,525.0</b>	<b>4,195.9</b>
<b>Current expenditure</b>	<b>1,138.4</b>	<b>1,363.6</b>	<b>2,299.7</b>	<b>2,468.1</b>	<b>3,143.1</b>	<b>3,656.4</b>
Purchases of goods and services	93.2	105.9	221.1	260.2	317.1	431.5
Payments of wages and salaries	87.2	113.6	183.7	224.1	279.1	329.0
Social insurance payments to the Pension Fund in respect of government employees	16.4	26.3	43.8	81.8	107.1	126.3
Social insurance and welfare benefits paid to the population	31.0	43.2	203.3	211.7	229.5	231.1
Subsidies	719.9	848.8	1,146.2	1,140.1	1,422.6	1,671.8
To the population	(300.0)	(363.3)	(572.6)	(576.2)	(748.6)	(806.7)
To enterprises and other economic units	(419.9)	(485.5)	(573.6)	(563.9)	(738.4)	(865.1)
Transfers to other units b/	79.4	104.2	250.9	261.5	330.7	365.9
National defense and public security	91.1	103.4	232.7	258.7	337.2	384.4
Other c/	20.2	18.2	18.0	30.0	55.8	116.4
<b>Expenditure on investment and   capital modernization</b>	<b>104.6</b>	<b>99.6</b>	<b>267.8</b>	<b>382.3</b>	<b>451.9</b>	<b>539.5</b>
Investment	71.4	67.2	183.0	292.6	349.0	444.0
Modernization and repair	33.2	32.4	84.8	89.7	102.9	95.5

- a/ In the Polish presentation of budgetary expenditure data, repayments of principal on the government's foreign borrowing are included as an expenditure item. In addition, after 1981 the Polish presentation shows subsidies to enterprises and other economic units are shown net of taxes and levies on foreign trade.
- b/ Consists mainly of transfers to extrabudgetary funds and other organizations to finance expenditures for various cultural, educational, and social purposes.
- c/ Includes interest payments on foreign credits contracted by the government and lending minus repayments of foreign credits extended by the government.

**Source:** Staff compilation from data provided by the authorities.

Table 6.3 Poland: Investment Outlays  
(Billions of Current Zlotys)

	1980	1981	1982	1983	1984	1985	1986
<b>Total, Investment Outlays</b>	<b>605.9</b>	<b>481.9</b>	<b>1056.0</b>	<b>1321.8</b>	<b>1711.3</b>	<b>2147.7</b>	<b>2771.0</b>
Productive	431.5	336.2	679.2	841.1	1104.2	1398.9	1816.0
NonProductive	174.4	145.7	376.8	480.7	607.1	748.8	955.0
Socialized Economy	535.7	405.5	839.3	1039.6	1377.9	1759.9	2308.0
NonSocialized Economy	70.2	76.4	216.7	282.2	333.4	387.8	463.0
of which: Agriculture	33.4	39.1	101.0	135.7	161.6	182.1	211.0
<b>BY TYPE OF OUTLAY</b>							
Construction & Assembly Works	311.4	246.5	688.5	872.9	1125.2	1365.9	1741.0
Machinery & Equipment	266.0	209.9	320.7	389.8	503.2	668.9	867.0
Others	28.5	25.5	46.8	59.1	82.9	112.9	163.0
<b>BY SECTOR OF NATIONAL ECONOMY</b>							
Industry	209.5	158.5	306.9	367.1	487.2	638.7	838.0
of which: Socialized Industrial Enterp	208.8	157.8	304.6	363.5	483.1	634.2	833.0
Fuel & Power	72.4	51.4	122.0	134.1	169.6	227.9	308.0
Metallurgy	22.9	12.8	15.9	18.1	28.8	40.5	55.0
Electro-Engineering	50.3	41.6	64.2	84.3	109.0	133.7	185.0
Chemical	21.1	15.8	29.1	37.1	50.0	59.3	68.6
Mineral	7.9	5.3	10.8	14.0	20.9	27.4	34.8
Wood and Paper	7.5	5.5	9.9	11.4	15.8	19.7	26.0
Light Industry	7.8	6.1	11.3	15.1	25.2	38.3	46.1
Food Processing	16.8	17.3	37.2	43.3	56.5	76.6	90.2
Other Industries	2.1	2.0	4.2	6.1	7.3	10.6	19.2
Total	208.8	157.8	304.6	363.5	483.1	634.2	833.1
Construction	27.2	15.6	18.7	25.1	37.0	48.1	64.7
Agriculture	97.7	87.9	196.8	243.8	294.7	346.5	414.0
Forestry	3.0	2.7	7.0	10.7	14.6	11.8	13.8
Transport & Communications	60.7	38.9	63.8	79.4	121.6	165.2	219.3
Trade	11.5	11.0	24.8	34.4	42.4	50.6	84.2
Community Services	29.9	27.8	75.7	94.4	122.5	156.4	210.9
Housing & NonMaterial Community Services	127.4	105.4	280.2	359.5	440.0	530.3	655.9
Science	2.6	2.2	3.8	3.7	5.2	7.9	11.9
Education	8.6	8.3	23.2	32.7	44.5	60.4	79.7
Cultural Services	1.6	0.9	1.9	2.7	3.9	6.2	7.2
Health Services & Social Welfare	9.5	9.7	25.1	34.2	46.7	64.1	84.8
Tourism, Recreation, & Sports	8.1	6.2	10.7	14.1	19.7	25.4	34.5
Other	8.6	6.8	17.4	20.0	31.3	36.1	52.9

INVEST2: A1.H60

Table 6.4 Poland: Investment Outlays  
(Billions of Zlotys)

	1980	1981	1982	1983	1984	1985	1986 1/
----- 1982 PRICES -----							
<b>Total, Investment Outlays</b>	<b>1550.9</b>	<b>1204.3</b>	<b>1058.2</b>	<b>1157.3</b>	<b>1289.7</b>	<b>1366.6</b>	<b>1906.0</b>
Productive	1052.2	804.6	681.4	737.4	839.4	895.7	1246.0
NonProductive	498.7	399.7	376.8	419.9	450.3	470.9	660.0
Socialized Economy	1359.4	996.0	839.3	920.1	1049.5	1129.0	1571.0
NonSocialized Economy	211.5	208.3	218.9	237.2	240.2	237.6	334.0
of which: Agriculture	96.9	104.7	103.1	112.4	116.2	112.3	157.0
<b>BY TYPE OF OUTLAY</b>							
Construction & Assembly Works	926.4	715.5	688.5	766.1	838.5	864.2	1203.0
Machinery & Equipment	571.2	440.5	322.9	342.7	393.6	437.8	604.0
Others	53.3	48.3	46.8	48.5	57.6	64.6	98.0
<b>BY SECTOR OF NATIONAL ECONOMY</b>							
Industry	484.0	352.5	307.0	325.9	370.5	407.1	561.0
of which: Socialized Industrial Enterp	482.2	350.9	304.6	323.0	367.5	404.3	558.0
Fuel & Power	178.9	123.9	122.0	118.4	128.2	144.5	205.0
Metallurgy	52.5	25.7	15.9	16.7	21.8	25.6	36.0
Electro-Engineering	108.2	83.1	64.2	75.0	84.1	86.7	124.0
Chemical	45.7	33.7	29.1	32.9	37.4	37.3	46.4
Mineral	18.7	12.7	10.8	12.4	16.1	17.7	23.5
Wood and Paper	17.0	12.5	9.9	10.2	12.3	12.7	17.8
Light Industry	16.2	12.8	11.3	13.5	19.2	24.4	31.3
Food Processing	40.2	41.6	37.2	38.5	42.8	48.5	60.6
Other Industries	4.8	4.9	4.2	5.4	5.6	6.9	13.1
Total	482.2	350.9	304.6	323.0	367.5	404.3	558.2
Construction	62.7	35.9	18.7	22.3	29.0	31.7	44.8
Agriculture	270.0	235.8	198.9	207.8	216.2	215.3	295.0
Forestry	7.7	7.3	7.0	9.6	11.2	7.6	9.5
Transport & Communications	142.6	89.4	63.8	70.8	97.2	110.7	152.6
Trade	27.4	26.3	24.8	30.4	33.5	33.4	58.6
Community Services	82.2	75.7	75.7	82.9	93.3	101.7	144.2
Housing & NonMaterial Community Services	376.0	299.2	280.2	313.1	324.2	330.8	453.0
Science	5.8	5.0	3.8	3.3	4.0	5.2	8.2
Education	22.3	20.9	23.2	28.8	33.5	38.7	55.5
Cultural Services	3.9	2.2	1.9	2.4	3.0	4.0	4.9
Health Services & Social Welfare	23.4	21.1	25.1	29.9	35.2	40.7	59.0
Tourism, Recreation, & Sports	21.0	15.8	10.7	12.4	14.7	16.0	23.5
Other	21.9	17.2	17.4	17.7	24.2	23.7	36.1

Figures for 1986 are in 1984 prices.

INVEST1: A1.H63

**Table 6.5: FROZEN AND ABANDONED INVESTMENTS**  
(Status in 1985)

	<u>Number</u>	<u>Billions of zlotys at 1984 Prices</u>		<u>Billions of zlotys at</u>
		<u>"Account"</u>	<u>Estimated Expenditures</u>	<u>current prices</u>
		<u>Value</u>	<u>to complete the project</u>	<u>Expenditures Incurred</u>
				<u>To date</u>
<u>Originally Frozen &amp; Abandoned</u>	<u>1,123</u>	<u>912</u>	<u>367</u>	<u>203</u>
Frozen	433	334	223	101
Abandoned	690	578	144	102
<u>Subsequently Resumed</u>	<u>329</u>	<u>221</u>	<u>137</u>	<u>85</u>
Out of Frozen	278	199	123	76
Out of Abandoned	51	22	14	8
<u>Earmarked for Possible Resumption</u>	<u>237</u>	<u>297</u>	<u>230</u>	<u>66</u>
Out of Frozen	121	123	100	23
Out of Abandoned	116	174	131	44
Other Frozen & Abandoned <sup>^</sup>	557	394	-	52

<sup>^</sup> This comprises three categories which are translated from Polish as follows: "transferred to other units or envisaged for resumption", liquidated or managed by investor within own sphere" and "earmarked for sale or liquidation or arrangement with own account." Precisely what these mean remains to be clarified. It would seem that some of these "frozen and abandoned" investment could be resumed as long as they do not involve any central allocation of funds or foreign exchange.

**Table 6.1: MONETARY SURVEY**  
(In billions of zlotys  
at end of period)

	1978	1980	1981	1982	1983	1984	1985	May 1986
1. Foreign assets	93.9	80.1	141.8	212.9	270.8	465.5	548.4	522.1
2. Domestic credit	2,060.3	2 594.3	3,104.8	3,774.0	4,266.8	4,724.7	5,552.4	5,960.3
Claims on central government (net) a/	-655.9	-641.6	-364.7	-237.7	-173.7	-186.2	-200.5	-118.6
Claims on rest of domestic economy	2,716.2	3,235.9	3,469.7	4,011.7	4,440.5	4,910.9	5,752.9	6,078.9
3. Broad Money	1,261.8	1,459.4	1,879.2	2,579.2	3,039.0	3,470.9	4,295.6	4,665.5
Money b/	724.5	792.4	991.4	1,392.9	1,611.5	1,858.0	2,286.6	2,559.8
Quasi-money holdings c/	537.3	667.0	887.8	1,186.3	1,427.5	1,612.9	2,009.0	2,105.7
4. Foreign liabilities	805.9	1,138.7	1,401.2	2,235.2	2,443.8	3,073.2	4,059.6	4,999.0
5. Other items (net)	86.5	76.3	-33.8	-827.5	-945.2	-1,353.9	-2,254.4	-3,182.1

a/ Credit to the Central Government budget minus bank deposits of state budgetary units, pension funds, and the State Fund for Occupational Training (PFAZ).

b/ Includes cash, demand deposits, savings deposits, foreign currency deposits and deposits of the State Insurance Institute.

c/ Includes fixed deposits, savings deposits, foreign currency deposits and deposits of the State Insurance Institute.

Source: Staff compilation from data provided by the authorities.

Table 8.1 Poland: Agricultural Production in Current Values  
(Billions of Zlotys)

	1970	1975	1980	1981	1982	1983	1984	1985	1986
Gross Production		484.6	755.0	1305.3	1838.1	2085.5	2333.1	2586.5	3094.0
Vegetable Production	180.3	263.4	399.1	744.1	1029.0	1192.4	1313.3	1406.2	1685.0
of which:									
Cereals	18.0	66.3	85.8	176.2	299.4	352.3	384.0	451.7	534.0
Wheat	15.9	20.8	21.4	38.9	63.7	90.3	94.2	147.9	186.0
Rye	7.5	18.5	27.4	59.7	108.5	137.8	149.0	124.0	132.0
Barley	8.7	13.2	18.6	34.3	56.8	52.9	64.5	88.5	96.0
Oats	37.0	8.3	8.7	21.2	34.7	34.5	37.2	42.8	45.0
Potatoes	37.0	61.0	83.4	185.8	245.6	249.0	255.5	257.3	292.0
Industrial Crops	17.3	28.5	28.7	67.6	89.2	108.9	132.7	146.5	171.0
Sugar Beets	7.7	15.0	14.4	42.0	50.6	55.6	59.3	59.8	71.0
Vegetables	11.8	19.2	40.8	60.5	92.7	112.9	152.1	150.1	196.0
Fruit	6.5	11.2	22.1	34.5	72.5	72.2	79.8	91.8	125.0
Meadow Hay	11.1	16.2	28.9	45.2	40.0	56.5	57.5	54.7	63.0
Animal Production		221.2	355.9	561.2	809.1	893.1	1019.8	1180.3	1410.0
of which:									
Livestock Slaughtered	61.8	115.1	187.4	256.6	418.7	444.1	496.3	611.1	750.0
of which:									
Cattle incl Calves	15.9	32.7	49.2	62.4	124.7	134.6	161.8	194.3	221.0
Pigs	38.2	68.0	106.9	149.8	247.8	248.7	254.1	320.0	404.0
Poultry	5.4	9.7	22.3	33.9	30.2	39.9	55.5	64.2	85.0
Change in Livestock Herd	-2.7	0.5	-20.4	8.1	-19.4	-15.8	6.0	-2.9	-11.0
Cow Milk	39.2	58.4	104.7	190.7	252.5	296.0	336.2	367.8	412.0
Hen Eggs	12.6	17.3	28.5	40.7	73.0	80.8	86.1	99.6	111.0

Figures for 1986 are provisional.

AGPROD1: A1.J44



Table 8.3 Poland: Livestock (As of June)

	1970	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>(Thousand Heads)</b>										
<b>Cattle</b>	10844	13115	13036	12649	11797	11912	11269	11197	11055	10940
of which: Cows	6082	6082	6049	5956	5757	5835	5776	5759	5528	5200
<b>Pigs</b>	13446	21717	21224	21326	18480	19471	15587	16657	17614	18940
of which: Sows	1505	2196	2313	2427	2184	1962	1613	1765	1935	1970
<b>Sheep</b>	3199	4248	4222	4207	3886	3899	4104	4534	4837	4990
<b>Horses</b>	2585	1891	1856	1780	1726	1734	1600	1537	1404	1272
<b>(Per 100 Hectares of Agricultural Land in heads)</b>										
<b>Cattle</b>	55.5	68.8	68.6	66.8	62.4	63.1	59.7	59.3	58.7	58.0
of which: Cows	31.1	31.9	31.9	31.4	30.4	30.9	30.6	30.5	29.3	27.0
<b>Pigs</b>	68.8	113.9	111.8	112.6	97.7	103.1	82.6	88.2	93.5	100.0
of which: Sows	7.7	11.5	12.2	12.8	11.5	10.4	8.5	9.4	10.3	10.0
<b>Sheep</b>	16.4	22.3	22.2	22.2	20.5	20.6	21.7	24.0	25.7	26.0
<b>Horses</b>	13.2	9.9	9.8	9.4	9.1	9.2	8.5	8.1	7.4	6.0

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Table 9.1 Poland: Gross Industrial Production  
(Billions of Current Zlotys)

	1979	1980	1981	1982	1983	1984	1985	1986
							I	II
Fuel & Power	326.1	341.6	308.5	975.9	1209.2	1433.9	1747.3	2180.0
Metallurgy	264.3	332.5	280.3	586.6	731.8	933.6	1136.4	1420.0
Electro-Engineering	880.8	957.0	872.8	1660.6	1940.2	2339.8	2926.1	3640.0
Chemical	270.7	292.2	275.4	554.1	655.6	787.9	986.5	1220.0
Mineral	99.0	106.8	93.2	254.0	300.5	359.5	421.5	512.0
Wood and Paper	129.1	141.4	129.6	280.9	324.1	374.4	471.1	594.0
Light Industry	381.7	414.7	383.9	625.5	811.3	996.5	1294.1	1520.0
Food Processing	612.7	616.4	696.7	1702.9	2054.1	2344.4	2723.6	2820.0
Other Industries	77.1	79.7	96.8	155.7	196.3	252.2	294.1	318.0
<b>T O T A L</b>	<b>3041.5</b>	<b>3282.3</b>	<b>3137.2</b>	<b>6796.2</b>	<b>8223.1</b>	<b>9822.2</b>	<b>12000.7</b>	<b>14224.0</b>

IndOUT1: A1.J26

Table 9.2 Poland: Gross Value of Productive Fixed Assets in Socialized Industry  
(Billions of Current Zlotys)

	1982	1983	1984	1985	1986
Fuel & Power	2312.3	2428.9	2576.0	2742.7	2921.8
Metallurgy	1148.5	1157.4	1173.7	1185.4	1211.9
Electro-Engineering	1905.4	1978.2	2036.6	2130.7	2229.6
Chemical	860.7	875.8	911.0	965.8	1010.0
Mineral	518.7	523.7	536.5	555.4	564.2
Wood and Paper	355.9	364.8	369.0	384.8	400.1
Light Industry	539.2	551.7	564.8	588.4	611.9
Food Processing	770.1	785.6	804.7	846.7	876.1
Other Industries	150.3	154.1	163.3	176.4	185.5
<b>T O T A L</b>	<b>8561.1</b>	<b>8820.2</b>	<b>9135.6</b>	<b>9576.3</b>	<b>10011.1</b>

Indval: A1.G26

Table 10.1: SOURCES AND USES OF ENERGY SUPPLY, 1970-1990  
(In millions of tons of coal equivalent)

	1970	1975	1980	1981	1982	1983	1984	1985	1986	Target 1990
1. Domestic production	136.7	164.8	175.3	149.1	169.6	172.0	175.1	177.1	179.3	184.2
Solid fuels	129.8	156.6	167.9	141.6	163.3	166.1	168.6	170.3	173.2	178.2
Oil and oil products	0.6	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.1
Natural gas	5.9	6.8	6.1	6.4	5.5	5.1	5.7	5.9	5.4	5.5
Other (e.g., hydro electricity nuclear power, etc.)	0.4	0.6	0.8	0.7	0.5	0.5	0.5	0.6	0.5	0.4
2. Imports	15.0	24.7	34.0	29.8	29.1	29.7	30.6	31.2	34.2	35.3
Solid fuels	1.2	1.1	1.0	1.1	1.0	1.0	1.0	1.1	1.2	1.1
Oil and oil products	12.6	20.6	26.7	22.5	21.3	21.4	22.2	22.5	23.7	23.5
Natural gas	1.1	2.8	6.3	6.0	6.4	6.8	6.8	6.9	8.2	8.8
Other	0.1	0.2	0.3	0.2	0.4	0.5	0.6	0.7	1.1	1.9
3. Exports	33.1	42.7	32.8	16.6	29.1	35.2	42.8	35.9	33.2	38.1
Solid fuels	31.3	40.3	30.4	15.4	27.5	33.2	40.3	34.1	31.6	38.0
Oil and oil products	1.7	2.1	2.0	1.0	0.7	0.5	0.5	0.4	0.5	0.1
Natural gas	--	--	--	--	--	--	--	--	--	--
Other	0.1	0.3	0.4	0.2	0.9	1.5	2.0	1.4	1.1	--
4. Changes in stocks	0.1	1.1	0.2	--	8.1	3.8	-5.8	-3.1	-0.2	-2.0
Solid fuels	0.2	0.7	-0.8	0.1	7.6	4.9	-5.9	-3.1	-0.2	-2.0
Oil and oil products	-0.1	0.4	1.0	-0.1	0.5	-0.6	0.1	--	--	--
Natural gas	--	--	--	--	--	--	--	--	--	--
5. Consumption and losses in the energy sector	36.0	44.8	54.0	48.6	50.2	52.2	54.4	57.2	59.4	...
6. Total domestic consumption (= 1+2-3-4-5)	82.5	100.9	122.3	113.7	111.3	109.8	114.3	118.3	121.1	...
By source										
Solid fuels	43.5	45.3	52.1	46.9	47.0	44.8	46.9	49.9	51.2	...
Oil and oil products	7.8	13.3	16.4	15.4	13.5	14.0	13.9	13.5	13.8	...
Natural gas	4.8	7.5	10.0	10.5	10.2	10.2	11.0	10.6	10.9	...
Other a/	26.4	34.8	43.8	40.9	40.6	40.8	42.5	44.3	45.2	...
By user										
Industry	39.2	47.0	57.7	52.5	48.3	47.3	49.1	52.2	53.2	...
Construction	1.0	2.2	2.7	2.5	2.3	2.4	2.6	2.3	2.3	...
Agriculture	1.5	2.6	3.9	3.7	3.5	4.1	4.5	4.5	4.4	...
Transportation	10.8	10.6	9.4	8.6	8.3	8.3	7.9	7.0	7.1	...
Household	30.0	38.5	48.6	46.4	48.9	47.7	50.2	52.3	54.1	...
	1975	1980	1982	1983	1984					
	1970	1975	1980	1982	1983					
	(Cumulative percentage change)									
Memorandum item:										
Domestic energy consumption per unit of material output	-23.3	14.2	9.4	-6.9	-1.4					

a/ Defined to include electricity and heat generation, over 95% of which is based on coal.

Source: Staff compilation from data provided by the authorities.  
1905G

Table 11.1 Poland: Producer Prices  
(1980=100.0)

	1979	1980	1981	1982	1983	1984	1985	1986
<b>INDUSTRY a/</b>	96.0	100.0	109.2	242.8	279.9	320.5	372.4	438.7
Fuel and Power	98.9	100.0	108.2	370.6	417.7	482.4	576.5	706.2
Metallurgy	89.4	100.0	102.2	230.4	270.7	337.0	409.8	500.4
Electro-Engineering	98.7	100.0	103.5	206.2	231.2	261.7	300.7	348.2
Chemicals	97.4	100.0	101.3	217.0	239.8	274.3	333.3	399.3
Minerals	99.7	100.0	100.7	283.2	323.7	373.2	442.2	517.4
Wood and Paper	98.2	100.0	102.6	231.8	246.2	275.7	334.2	393.7
Textiles and Leather Products	94.2	100.0	106.3	177.1	224.4	258.5	313.6	371.6
Food Processing	93.8	100.0	126.2	291.3	346.1	388.3	426.0	485.2
<b>CONSTRUCTION</b>	98.2	100.0	104.2	285.5	323.5	381.7	456.5	556.9
<b>AGRICULTURE</b>	89.4	100.0	162.2	252.4	281.2	301.1	332.7	379.9
	(Percentage Change from Previous Year)							
<b>INDUSTRY</b>	4.2	9.2	122.3	15.3	14.5	16.2	17.8	
Fuel and Power	1.1	8.2	242.5	12.7	15.5	19.5	22.5	
Metallurgy	11.9	2.2	125.4	17.5	24.5	21.6	22.1	
Electro-Engineering	1.3	3.5	99.2	12.1	13.2	14.9	15.8	
Chemicals	2.7	1.3	114.2	10.5	14.4	21.5	19.8	
Minerals	0.3	0.7	181.2	14.3	15.3	18.5	17.0	
Wood and Paper	1.8	2.6	125.9	6.2	12.0	21.2	17.8	
Textiles and Leather Products	6.2	6.3	66.6	26.7	15.2	21.3	18.5	
Food Processing	6.6	26.2	130.8	18.8	12.2	9.7	13.9	
<b>CONSTRUCTION</b>	1.8	4.2	174.0	13.3	18.0	19.6	22.0	
<b>AGRICULTURE</b>	11.9	62.2	55.6	11.4	7.1	10.5	14.2	

For industry producer prices are defined by the index of sales prices for the output sold;  
for agriculture & construction it is the price index of gross output produced.

a/ The methodology for calculating price indices changed in 1981.

PRINDX: A1.144

Table 11.2 Poland: Retail Price Index of Goods And Services  
(1970 = 100.0)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Consumer Goods &amp; Services</b>	100.0	99.9	99.9	102.7	110.0	113.3	118.3	124.1	134.2	143.6	157.1	190.4	392.3	466.8	536.8	617.9	727.3
<b>Goods</b>	100.0	99.3	99.7	102.7	110.1	113.7	118.9	124.9	133.8	149.4	159.4	194.6	402.4	486.9	558.5	636.7	748.1
Foodstuff	100.0	102.5	102.4	103.5	109.9	110.5	115.6	124.1	133.3	143.2	161.5	197.8	467.4	523.0	610.9	701.9	804.4
Alcoholic Beverages	100.0	100.0	100.0	100.0	124.6	127.2	127.2	127.2	130.0	164.9	174.3	257.3	509.2	725.6	767.7	797.6	935.6
<b>Non-Food</b>	100.0	97.2	97.1	102.7	106.4	113.1	119.9	125.3	134.7	142.6	154.7	175.0	324.5	397.3	461.5	538.6	646.9
<b>Services</b>	100.0	100.3	100.9	102.8	109.5	111.4	115.0	120.5	125.2	133.8	144.8	167.0	272.0	357.7	419.2	513.9	613.6
<b>NonConsumer Goods &amp; Services</b>	100.0	104.2	104.6	106.4	109.7	112.2	127.6	146.3	150.4	156.0	164.1	198.9	453.7	529.9	601.4	688.0	799.5
<b>Goods</b>	100.0	105.7	105.8	106.9	109.1	110.2	128.7	142.8	151.6	154.3	160.8	190.7	430.2	514.1	570.1	640.2	747.1
<b>Services</b>	100.0	101.1	102.0	105.3	110.9	116.7	123.0	137.8	145.7	157.4	170.6	216.8	438.2	553.4	671.3	810.3	930.2
<b>TOTAL</b>	100.0	100.4	100.4	103.1	109.9	113.2	119.5	127.0	136.4	145.4	158.3	191.9	392.4	476.4	546.9	628.9	759.0
(Percentage Change from Previous Year)																	
<b>Consumer Goods &amp; Services</b>		99.9	100.0	102.8	107.1	103.0	104.4	104.9	108.1	107.0	109.4	121.2	200.8	122.1	115.0	115.1	117.7
<b>Goods</b>		99.8	99.9	103.0	107.2	103.2	104.6	105.0	108.8	107.1	109.6	122.1	204.8	121.0	114.7	114.0	117.5
Foodstuff		102.5	99.9	101.1	106.2	100.3	104.6	107.4	107.4	107.4	112.8	122.5	236.3	111.9	116.8	114.9	114.6
Alcoholic Beverages		100.0	100.0	100.0	124.6	102.2	100.0	100.0	117.9	109.9	105.7	147.6	197.9	142.5	105.8	103.9	117.3
<b>Non-Food</b>		97.2	99.9	105.8	103.6	106.3	106.0	104.7	107.3	103.9	108.5	113.1	185.4	122.5	116.1	116.7	120.1
<b>Services</b>		100.3	100.6	101.9	106.5	101.7	103.2	104.8	103.9	106.9	108.2	113.3	162.9	131.5	117.2	122.6	119.4
<b>NonConsumer Goods &amp; Services</b>		104.2	100.4	101.7	103.1	102.3	113.7	114.7	102.8	103.7	105.2	121.2	228.1	116.8	113.5	114.4	114.2
<b>Goods</b>		105.7	100.1	101.0	102.1	101.0	116.8	115.6	101.8	102.1	103.9	118.6	236.1	114.2	110.9	112.3	116.7
<b>Services</b>		101.1	100.9	103.2	105.3	105.2	105.4	112.0	105.8	108.0	108.4	127.1	202.1	126.3	121.3	120.7	114.8
<b>TOTAL</b>		100.4	100.0	102.7	106.6	103.0	105.6	106.3	107.4	106.6	108.9	121.2	204.5	121.4	114.8	115.0	117.5

INDX: A1.R38

Table 12.1: REAL PERSONAL INCOME OF HOUSEHOLDS, 1970-1985  
(Billions of zlotys at constant 1985 prices)<sup>^</sup>

	1970	1978	1980	1981	1982	1983	1984	1985
<b>Total</b>	<b>3015.3</b>	<b>5786.2</b>	<b>6166.9</b>	<b>6492.4</b>	<b>5317.7</b>	<b>5315.2</b>	<b>5435.2</b>	<b>5814.0</b>
1. Payments from Wage Fund	1931.8	3589.6	3818.4	3894.1	2827.2	2887.4	2907.9	3053.8
2. Social Benefits in Cash	338.2	681.5	791.4	869.8	1027.5	996.3	992.0	983.1
3. Incomes from Work in non-Socialized Agriculture	619.8	1017.5	1014.7	1319.3	1060.9	933.0	853.0	859.8
4. Incomes from Work in other non-Socialized	125.5	174.9	210.6	249.5	192.5	170.8	203.6	217.6
5. From other Activities	58.6	115.1	102.4	84.9	70.8	75.7	80.4	99.9
6. Residual other Income	-58.6	207.6	229.4	74.8	138.8	252.0	398.3	599.8
7. Other Income (5+6)	0	322.7	331.8	159.7	209.6	327.7	478.7	699.7

Note: <sup>^</sup> Deflated by the cost-of-living index of households of employees in the socialized sector.

Source: Polish authorities.

Table 12.2 HOUSEHOLD REAL INCOMES, 1980-1985<sup>^</sup> <sup>B/</sup>

	1980	1981	1982	1983	1984	1985 c/	1980-85	1983-85
Average wages in the socialized sector <sup>D/</sup>	3.6	5.0	-24.7	1.9	1.2	3.4	-2.2	6.6
Social money benefits	5.7	13.0	19.2	-2.3	2.1	-1.2	5.8	-1.4
Incomes of the non-socialized sector <sup>F/</sup>	1.9 <sup>E/</sup>	31.6	-19.8	-9.3	-5.3	3.3	-0.8	-1.3
Other non-wage incomes	2.0 <sup>E/</sup>	-8.4	-12.6	5.5	30.7	30.9	6.7	21.7
Total real incomes	3.1 <sup>E/</sup>	8.3	-18.5	0.4	3.0	6.8	0.1	3.4
Memorandum item: Retail price index	9.4	21.2	100.8	22.1	15.0	14.8		

Sources: Central Statistical Office, *Rocznik Statystyczny*, 1984; and data provided by the authorities

<sup>A/</sup> Deflated by the retail price index.

<sup>B/</sup> Excludes income in kind.

<sup>C/</sup> Provisional

<sup>D/</sup> Excluding employment effects.

<sup>E/</sup> Based on the Polish definition which includes income in kind, borrowing, and revenue from the sale of physical assets. In subsequent years, excludes these items, affecting the rates of growth by less than 1 percent.

<sup>F/</sup> Comprises the following categories in the household income and expenditure surveys: "Incomes from work in non-socialized agriculture" and "Incomes from work in non-socialized economy outside agriculture." It should be noted that the definition of "incomes from work" in both these sectors includes profit.

GLOSSARY

ATAA	- Air Traffic and Air Administration
BFE, BGZ	- Bank of Food Economy
BH	- Bank Handlowy
BISTYP	- Center for Research and Design of Industrial Buildings
BOP	- Balance of Payments
BRE	- Export Development Bank, also EDB
CAM	- Centrally Allocated Materials
CBM	- Centrally Balanced Materials
CDC	- Coal Distributing Company
CHP	- Combined Heat and Power
CMA	- Coal Mining Association
CMEA(COMECON)	- Council for Mutual Economic Assistance
COCOM	- Coordination Committee for Export Controls
CPE	- Centrally Planned Economy
CSO	- Central Statistical Office
DCF	- Discounted Cash Flow
DDA	- Designated Distribution Agency
DDRA	- Debt Deferral and Restructuring Agreement
DEL	- Direct Exchange Line
EAP	- Economically Active Population
ECE	- Economic Commission for Europe
EDB	- Export Development Bank, also BRE
EEC	- European Economic Community
EPS	- Equalization Payment System
FAO	- Food and Agricultural Organisation
FTC	- Foreign Trade Company
FTE	- Foreign Trade Enterprise
FTO	- Foreign Trade Organization
GDP	- Gross Domestic Product
GMINA	- Unit of Local Administrative below Voivodship
GNP	- Gross National Product
G&NFS	- Goods and Non Factor Services
GOP	- Government of Poland
ha	- hectares
IAFE	- Institute of Agriculture and Food Economics
IBRD	- International Bank for Reconstruction and Development
ICOR	- Incremental Capital-Output Ratio
IEA	- International Educational Achievement
IGN	- Institute of National Planning
IKN	- Teacher Training Institute
ILO	- International Labor Organization
IMF	- International Monetary Fund
IRR	- Internal Rate of Return
KP	- Planning Commission
LDC	- Less Developed Country
LIBOR	- London Interbank Offer Rate
LOT	- Polish National Airline
LPG	- Liquid Petroleum Gas
LRMC	- Long-run Marginal Cost
MAFFE	- Ministry of Agriculture, Forestry, and the Food Economy
MFT	- Ministry of Foreign Trade
MGE	- Ministry of Mining and Energy
MGMiP	- see MMFM
MHSW	- Ministry of Health and Social Welfare
M&LT	- Medium- and Long-Term
MME	- Hard Coal Bureau
MMFM	- Ministry of Materials and Fuels Management

<b>MOC</b>	-	<b>Ministry of Communications</b>
<b>MoE</b>	-	<b>Ministry of Education</b>
<b>MPS</b>	-	<b>Material Product System</b>
<b>MSHE</b>	-	<b>Ministry of Science and Higher Education</b>
<b>MT</b>	-	<b>Ministry of Transport</b>
<b>Mt</b>	-	<b>Million tons</b>
<b>Mtce</b>	-	<b>Million tons coal equivalent</b>
<b>Mtoe</b>	-	<b>Million tons oil equivalent</b>
<b>NBP</b>	-	<b>Narodowy Bank Polski, Polish Central Bank</b>
<b>NCB</b>	-	<b>National Coal Board</b>
<b>NFOZ</b>	-	<b>National Fund for Health Care</b>
<b>NMP</b>	-	<b>Net Material Product</b>
<b>NRR</b>	-	<b>Net Reproduction Rate</b>
<b>NURT</b>	-	<b>Radio-Television University for Teachers</b>
<b>OECD</b>	-	<b>Organization for Economic Cooperation and Development</b>
<b>OGWBr</b>	-	<b>National Browncoal Equipment Association</b>
<b>OME</b>	-	<b>Office of Maritime Economy</b>
<b>ORGBUD</b>	-	<b>Institute of Management and Economics of the Construction Industry</b>
<b>Pewex</b>	-	<b>State Convertible Currency Retail Outlets</b>
<b>PFAZ</b>	-	<b>State Fund for Professional Activization (i.e. Training)</b>
<b>PKP</b>	-	<b>Polskie Kobje Panstwowe, State Railway Company</b>
<b>PKO</b>	-	<b>Bank Polska Kasa Opieki</b>
<b>PKS</b>	-	<b>Panstwowa Komunikacja Samochodowa, Road Transport Company</b>
<b>PLO</b>	-	<b>Polish Ocean Lines</b>
<b>PPWW</b>	-	<b>Tax on Above-norm Increases in Wages</b>
<b>PPTT</b>	-	<b>Polish Posts, Telephone and Telegraph</b>
<b>PRON</b>	-	<b>The Patriotic Movement of National Salvation</b>
<b>PTE</b>	-	<b>Association of Polish Economists</b>
<b>PZB</b>	-	<b>Polish Baltic Shipping</b>
<b>PZM</b>	-	<b>Polish Steamship Company</b>
<b>PZPR</b>	-	<b>The United Polish Workers' Party</b>
<b>R &amp; D</b>	-	<b>Research and Development</b>
<b>RMSM</b>	-	<b>Revised Minimum Standard Model</b>
<b>ROD</b>	-	<b>Export Retention Account</b>
<b>RS</b>	-	<b>Rocznik Statystyczny</b>
<b>SD</b>	-	<b>Democratic Party</b>
<b>Sejm</b>	-	<b>Parliament</b>
<b>SITC</b>	-	<b>Standard International Trade Classification</b>
<b>SLF</b>	-	<b>State Land Fund</b>
<b>SNA</b>	-	<b>System of National Accounts</b>
<b>SO<sub>2</sub></b>	-	<b>Sulphur Dioxide</b>
<b>TC</b>	-	<b>Telecommunications</b>
<b>TELKOM</b>	-	<b>Telecommunications Manufacturing Industry</b>
<b>TEM</b>	-	<b>Trans-European North-South Motorway</b>
<b>t/MS</b>	-	<b>tons per man-shift</b>
<b>tpy</b>	-	<b>tonnes per year</b>
<b>TR</b>	-	<b>Transferable Rubles</b>
<b>UNDP</b>	-	<b>United Nations Development Program</b>
<b>UNIDO</b>	-	<b>United Nations Industrial Development Organization</b>
<b>USDA</b>	-	<b>United States Department of Agriculture</b>
<b>Veto</b>	-	<b>Polish Consumer Association Weekly</b>
<b>Voivodship</b>	-	<b>Unit of Local Administration</b>
<b>WHO</b>	-	<b>World Health Organization</b>
<b>WOG</b>	-	<b>Large Economic Organizations</b>
<b>Zl</b>	-	<b>Zloty</b>
<b>Zrzszenie</b>	-	<b>Industrial Association</b>
<b>ZSL</b>	-	<b>United Peasants' Party</b>
<b>ZOZ</b>	-	<b>Zespol Opieki Zdowotnej, Integrated Health Service</b>

## NOTES

**MAP SECTION**

Baltic Sea

U. S. S. R.

# POLAND

- Main Roads
- Railroads
- ▲ Airports
- ⚓ Major Ports
- ⊙ National Capital
- ⊙ Province (Województwo) Capitals
- ⊙ Cities and Towns
- Rivers
- Canals
- Province (Województwo) Boundaries
- International Boundaries



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