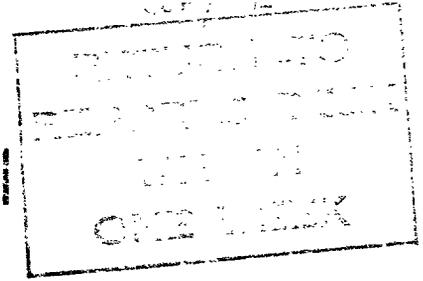


Report No. 1665a-BR

Economic Memorandum on Brazil

October 13, 1977

Latin America and the Caribbean Regional Office



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CURRENCY EQUIVALENTS

Currency Unit: Cruzeiro

Exchange Rates Effective September 30, 1977

Selling Rate:	US\$1.00	=	Cr\$15.02
	US\$1 million	=	Cr\$15,020,000
	Cr\$1 million	=	US\$66,578

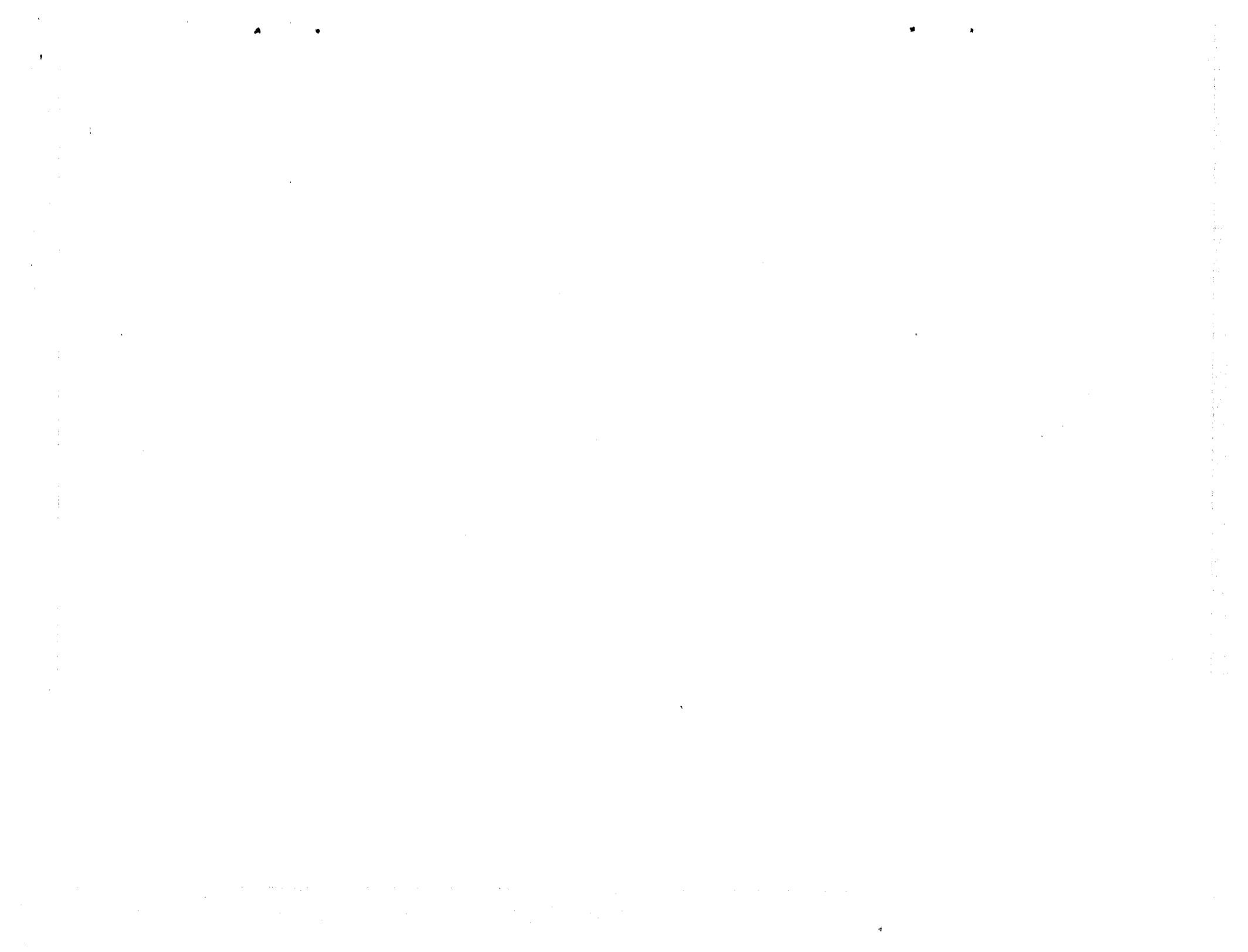
Buying Rate:	US\$1.00	=	CR\$14.92
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Average Exchange Rates (Selling)

	<u>1974</u>	<u>1975</u>	<u>1976</u>
US\$1.00	Cr\$6.843	Cr\$8.204	Cr\$10.786
US\$1 million	Cr\$6,843,000	Cr\$8,204,000	Cr\$10,786,000
Cr\$1 million	US\$146,134	US\$121,892	US\$92,712

PREFACE

This memorandum is based on the findings of an economic updating mission which visited Brazil in March and April 1977. The mission comprised Mr. Frank J. Earwaker (chief of mission), Ms. Michele Guerard (general economist) and Mr. Peter T. Knight (general economist).



ECONOMIC MEMORANDUM ON BRAZIL

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COUNTRY DATA - BRAZIL

<u>AREA</u> 8,512,000 km ²	<u>POPULATION</u> 107 million (mid-1975) Rate of Growth: 2.9% (from 1970 to 1975)	<u>DENSITY (1975)</u> 13.0 per km ²
<u>POPULATION CHARACTERISTICS (1975)</u>		<u>HEALTH (1972)</u>
Crude Birth Rate (per 1,000)	37.1	Population per physician
Crude Death Rate (per 1,000)	8.8	Population per hospital bed
		1,650
		260
<u>INCOME DISTRIBUTION (1970)</u>		<u>DISTRIBUTION OF LAND OWNERSHIP (1970)</u>
% of national income, highest quintile	62.0	% owned by top 10% of owners
lowest quintile	3.0	% owned by smallest 10% of owners
		45.0
		1.5
<u>ACCESS TO PIPED WATER (1972)</u>		<u>ACCESS TO ELECTRICITY (1972)</u>
Occupied dwellings with piped water (%)	33.0	% of population - total
		- rural
		53%
		11%
<u>NUTRITION (1971-73)</u>		<u>EDUCATION (1970)</u>
Calorie intake as % of requirements	115.0	Adult literacy rate %
Per capita protein intake (grams/day)	67.0	Primary school enrollment %
		68.0
		87.0

^{a/}
GNP PER CAPITA in 1975 : US\$1010

GROSS NATIONAL PRODUCT IN 1975ANNUAL RATE OF GROWTH (% constant prices)

	<u>US \$ Min.</u>	<u>%</u>	<u>1970-73</u>	<u>1974-75</u>	<u>1975</u>
GNP at Market Prices	107,666	100.0	11.4	6.6	3.6
Gross Domestic Investment	25,182	23.4	19.5	7.2	-6.6
Gross National Saving	19,705	18.3	18.5	1.2	-5.3
Current Account Balance	-6,712	-6.2			
Exports of Goods, NFS	9,255	8.6	18.0	5.2	-
Imports of Goods, NFS	14,236	13.3	21.0	7.2	-10.9

OUTPUT, EMPLOYMENT AND PRODUCTIVITY IN 1975

	<u>Value Added</u>		<u>EMPLOYMENT</u>		<u>V. A. Per Worker</u>	
	<u>US \$ Min.</u>	<u>%</u>	<u>Min.</u>	<u>%</u>	<u>US \$</u>	<u>%</u>
Agriculture	17,598	15.0	12.8	39.5	1,375	38.0
Industry	38,532	32.8	6.4	19.8	6,027	166.0
Services	61,194	52.2	13.2	40.7	4,636	128.0
Total/Average	117,324	100.0	32.4	100.0	3,621	100.0

GOVERNMENT FINANCE

	<u>Central Government ^{b/}</u>		
	<u>(Cr\$ Min.)</u>	<u>% of GDP</u>	
	<u>1976</u>	<u>1976</u>	<u>1971</u>
Current Receipts	172,351	12.4	9.5
Current Expenditure	101,272	7.3	6.1
Current Surplus	71,079	5.1	3.4
Capital Expenditures	66,999	4.8	3.4

^{a/} The Per Capita GNP estimate calculated by the same conversion technique as the World Bank Atlas. All other conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

^{b/} Budget accounts.

. not applicable

COUNTRY DATA - BRAZIL

MONEY, CREDIT and PRICES	1972	1973	1974	1975	1976
	(Million Cr\$ outstanding end period)				
Money Supply	61,550	90,490	120,788	172,433	236,506
Bank Credit to Public Sector	..	5,297	8,203	12,287	23,621
Bank Credit to Private Sector	81,560	119,324	189,663	297,278	461,347
	(Percentages or Index Numbers)				
Money as % of GDP	17.1	19.0	17.9	19.3	17.0
General Price Index (1965-67=100)	324	373	480	613	866
Annual percentage changes in:					
General Price Index	17.0	15.1	28.7	27.7	41.3
Bank credit to Public Sector	n/a	n/a	54.9	49.8	92.2
Bank credit to Private Sector	41.6	46.3	59.0	56.7	55.2

BALANCE OF PAYMENTS

	1973	1974	1975	1976
	(Millions US \$)			
Exports of Goods, NFS	6,596	8,471	9,255	10,657
Imports of Goods, NFS	7,577	14,678	14,296	14,435
Resource Gap (deficit = -)	-981	-6,207	-5,037	-3,778
Interest Payments (net)	-514	-652	-1,463	-1,758
Other Factor Payments (net)	-220	-264	-272	-530
Net transfers	27	1	-	4
Balance on Current Account	-1,688	-7,122	-6,712	-6,062
Direct Private Foreign Investment	940	887	895	1,010
Net MLT Borrowing				
Disbursement	4,558	7,059	6,727	8,406
Amortization	1,672	1,920	2,120	2,872
Subtotal	2,886	5,139	4,607	5,534
Other Capital (net) and capital n.e.i.	424	143	164	1,711
Increase in Reserves (+)	2,559	-953	-1,046	2,193
Gross Reserves (end year)	6,551	5,598	4,552	6,745
Petroleum Imports ^{a/}	711	2,840	2,838	3,585
Petroleum Exports ^{a/}	82	63	141	53

RATE OF EXCHANGE (SELLING)

AVERAGE 1975	AVERAGE 1976
US \$ 1.00 = Cr \$ 8.204	US \$ 1.00 = Cr \$ 10.786
Cr \$ 1.00 = US \$ 0.122	Cr \$ 1.00 = US \$ 0.093

MERCHANDISE EXPORTS (AVERAGE 1973-76)

	US \$ Mln	%
Coffee (beans + soluble)	1,414	17.0
Soybean products	1,232	14.8
Sugar	822	9.9
Cacao beans	184	2.2
Cotton	104	1.2
Iron Ore	712	8.6
Manufactured Goods	2,060	24.7
All other commodities	1,799	21.6
Total	8,327	100.0

EXTERNAL DEBT, DECEMBER 31, 1976

	US \$ Mln
Public Debt, incl. guaranteed	14,852
Non-Guaranteed Private Debt	11,133
Total outstanding & Disbursed	25,985

NET DEBT SERVICE RATIO for 1976^{b/}

	%
Public Debt, incl. guaranteed	18.7
Non-Guaranteed Private Debt	24.3
Total outstanding & Disbursed	43.0

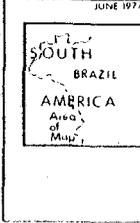
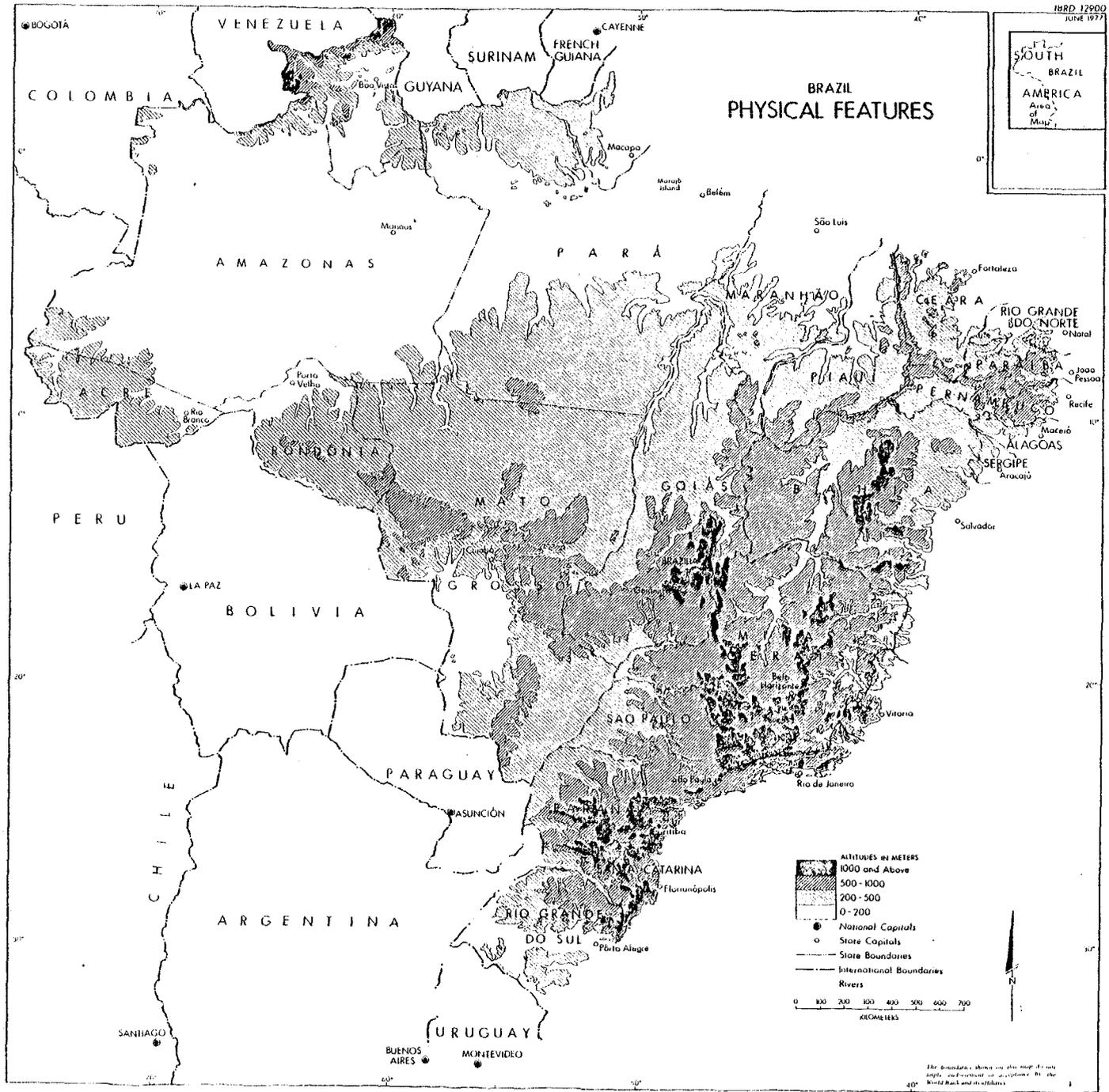
IBRD/IDA LENDING, (Dec. 31, 1976) (Million US \$):

	IBRD	IDA
Outstanding & Disbursed	1,217	-
Undisbursed	1,337	-
Outstanding incl. Undisbursed	2,554	-

^{a/} Crude and derivatives.^{b/} Debt Service net of interest earned on foreign exchange reserves as a percentage of Exports of Goods and Non-Factor Services.

.. not available

. not applicable



ALTITUDES IN METERS

- 1000 and Above
- 500 - 1000
- 200 - 500
- 0 - 200

● National Capitals
○ State Capitals

— State Boundaries
— International Boundaries
— Rivers

0 100 200 300 400 500 600 700
KILOMETERS

The boundaries shown on this map do not imply endorsement or acceptance by the World Bank and its affiliates.

SUMMARY AND CONCLUSIONS

i. Three years after the energy crisis of 1974 Brazil still finds itself grappling with the problems of adaptation to a new world economic situation. Although the fundamental issues of economic policy facing the Government today are similar to those of the past few years, there has been a reordering of priorities recently as a result of new developments. Whereas in previous years the search for a balance-of-payments equilibrium dominated government thinking, the immediate pressures of this problem have been relieved, at least temporarily, by favorable developments in the prices of Brazil's principal export crops -- coffee and soybeans.

ii. Although coffee prices have fallen significantly from the exceptionally high levels reached in early 1977, the average price realized by Brazil over the year as a whole is projected to be 70% above the corresponding price for 1976. On this basis the value of coffee exports is projected to reach US\$3.5 billion compared with US\$2.4 billion in 1976. Soybean prices are projected at 30% above their 1976 levels and export earnings from this source should amount to US\$2.1 billion in 1977. Furthermore, the prices of other export commodities, notably citrus products and cocoa, have also risen significantly in 1977. As a result of these developments, total merchandise exports are likely to reach about US\$13.0 billion -- about 28% higher than in 1976. If the Government succeeds in its declared goal of maintaining imports roughly constant in nominal terms for the third year running, there is every prospect of a US\$200-300 million surplus on the 1977 merchandise trade account. This would imply a current account deficit of approximately US\$4.0 billion compared with a US\$6.6 billion average for the past three years.

iii. It appears that balance-of-payments pressures will be substantially relieved this year. However, coffee prices have been notoriously unstable in the past and the present extraordinary levels cannot be expected to continue for long. A fallback in the average price of Brazilian coffee from US\$2 per pound to US\$1.60 per pound is projected for 1978. Prices will still remain above historic levels for a few years until world stocks are built up again, but in the longer run Brazil must depend upon a more solid and broadly based export performance to sustain its balance of payments.

iv. Notwithstanding these reservations, the increase in export prices has given the Government considerable breathing space on the balance of payments. The need for external borrowing will be much less than previously envisaged. In particular, the need for financial credits in 1977 is estimated at only US\$3.7 billion gross -- much less than the level of 1976. Likewise, the net debt service ratio (public and private together) should decline notably from 43% in 1976 to 41% in 1977, and the public debt service ratio from 19% to 17%.

v. The Government is using the opportunity afforded by a better balance-of-payments situation to focus its attention upon the problem of inflation which became particularly acute last year. Prices in 1976 were 41% above the average level of 1975. In each of the two years prior to 1976 prices rose by some 28%. This was a disturbing departure from the much lower levels of

inflation averaging less than 20% per annum which characterized the early 1970s.

vi. Both controlling inflation and achieving a more solid equilibrium in the balance of payments will require moderating GDP growth. Although the Government has explicitly recognized the need to restrain aggregate demand through strict monetary policies and tight controls on public expenditures, it has had difficulty in consistently restraining the expansion of aggregate demand. Only in 1975 (when GDP increased by 4.2%) was growth significantly below the 10% annual average which prevailed prior to the energy crisis. Unaccustomed to such a relatively low growth rate, the Government feared that Brazil might be heading for a severe recession and once again adopted expansionary policies towards the end of 1975. As a result of these policies, and notwithstanding subsequent measures introduced in the course of 1976 to control the situation, growth last year reached 8.8%.

vii. Since 1976 Government policy has stressed the importance of restraining aggregate demand by applying increasingly restrictive monetary and fiscal measures. A slackening in the pace of inflation towards the end of 1976 was not sustained and prices surged forward again in the first several months of 1977. However, there has been a notable decline in the rate of price increases since mid-year. While from the present perspective it appears that inflation in 1977 will not be greatly below that of the previous year this, in part, reflects a feedback from 1976. Indexing of prices and wages is widely practiced in Brazil and high wage rises are being reported in the wake of last year's rapid rise in prices. These factors tend to make reduction of inflation a difficult task.

viii. The Government's difficulty in bringing inflation under control was due in part to problems in the execution of monetary policy. A number of classical restrictive monetary measures have been adopted such as raising reserve requirements for commercial banks, raising the Central Bank rediscount rate, and freeing commercial bank interest rates. On the other hand, the Government permitted an excessive expansion of subsidized credit from public sector financial institutions in 1976. However, its efforts to curtail credit expansion in 1977 appear to have been more successful so far.

ix. Fiscal policy is yet another area in which the Government has announced measures to combat inflation. Late in 1976 a program was instituted to reduce the gap between public sector investment and public sector savings. It was stated that this gap would be reduced by some Cr\$40 billion (in 1977 prices) -- equivalent to about 2.2% of GDP. Elements of a program to achieve this goal included the limitation of wage increases in 1977 for federal and state government employees, strict control over the hiring of additional personnel, and elimination or reduction of a number of subsidies. In addition, ceilings were set on the investment programs of public enterprises and the savings of such enterprises were to be bolstered by raising tariffs. Nevertheless, the operating deficits of some enterprises (the railways being a prime example) are still excessive despite recent increases in tariffs and fares.

x. When it comes to estimating the overall impact of fiscal policy upon aggregate demand, quantitative analysis is seriously impeded by the lack of any consolidated public sector accounts in Brazil. This shortcoming also constrains the Government in its economic decision making and constitutes a deficiency in the apparatus of economic management. Furthermore, Brazil is lacking an up-to-date public sector investment program at the present time. As important as the investment program itself, however, is the need to devise an administrative mechanism for continuously up-dating and monitoring the program. Some headway towards such control has recently been made but much more needs to be done before a fully effective public investment plan can be said to exist.

xi. The financial constraints to increasing levels of expenditure are now plainly being felt. This calls for a more careful programming of expenditures, particularly of investment expenditures, than has been customary. In the case of state and local governments the financial constraints have become particularly acute. Recent measures by the Federal Government to ease the financial difficulties of state and local authorities are likely to alleviate the situation somewhat but largely at the expense of the federal budget. In order to resolve the basic problems a more fundamental review of state and local authority finance is needed.

xii. In dealing with the difficult problems of inflation and the balance of payments and in drawing up a stabilization program, the Government has not overlooked broader objectives of social development. Recognizing the marked income inequality which exists in Brazil, the present Government has introduced a number of programs to improve the situation. A significant reorientation of wages policy was brought about in order to raise real wage rates. A more liberal wage adjustment formula was established in November 1974 and official monthly wage guidelines for workers under collective wage agreements more than compensated for inflation through mid-1976. Faced with the need to curtail inflation, wage guidelines have been set somewhat lower than the rise in prices during the past year, however. Nevertheless, it is noteworthy that the latest adjustment in the minimum wage in May 1977 fully compensated for the rise in prices during the previous twelve-month period. In contrast to the deflationary programs adopted in the mid-1960s, the Government is attempting to conduct its current stabilization policy without exacerbating unemployment and disparities in the personal income distribution.

xiii. The short-term outlook for Brazil will depend upon the success with which the Government can implement its stabilization policies. It appears that growth rates over the next few years will be lower than in the recent past reflecting the Government's recognition that the prime objective of economic policy during the next few years must be to bring inflation under control and to place the balance of payments on a sound footing, in order to establish a strong basis for sustained growth in the future. Under the circumstances, it is unlikely that growth will average much more than 6% annually for the remaining years of the decade.

xiv. Such a rate of growth would mean that Brazil's external capital requirements in the next three years or so will continue to be substantial, although lower than in the recent past. Interest payments on existing debt are quite large, so that the current account deficit is likely to average US\$4.7 billion per year in the period 1978-80 even if export volumes can be expanded rapidly enough to sustain the surplus on merchandise trade once coffee prices fall back from their present high levels. Adding to the average US\$4.7 billion current account deficit, a further US\$5 billion per year in amortization requirements, projections indicate that gross capital requirements may average US\$9.7 billion per year during the next three years. Of this amount approximately US\$1.3 billion annually may be forthcoming as direct foreign investment. A further US\$3.2 billion annually is projected from gross disbursements of international and bilateral lenders and from suppliers. The remaining US\$5.2 billion annually would be in the form of gross financial credit inflows.

xv. On a net basis the average level of borrowing is projected to be in the order of US\$3.5 billion per year during the remaining years of the decade. Net financial credits are projected to constitute about half of the total, or US\$1.8 billion annually. The proportion of financial credits relative to credit from other sources (multilateral, bilateral lenders and suppliers) is projected to decline significantly over the period.

xvi. It is not envisaged that the servicing of this debt will pose a serious problem to Brazil. As noted above, the public debt service ratio is likely to fall to 17% and the total debt service ratio to 41% in 1977 as a result of exceptionally good export prospects. A 17% public debt service ratio is not out of line with that of other countries at a similar stage of development. Moreover, Brazil has an excellent record of increasing exports in real terms over sustained periods, so that even if coffee prices decline from their current high levels there are good prospects that the dollar value of exports can be maintained. Projections for 1980 point to a public debt service ratio of about 19%. Beyond that year the public debt service ratio is expected to decline gradually to about 16% by 1985. The net debt service ratio for all debt, both public and private would be about 28% at that time.

xvii. In the longer run there is every indication that Brazil has the potential to sustain high levels of growth similar to those of the past provided the present difficulties can be overcome and provided sound economic policies are consistently pursued. Today more than any time in the past, moreover, Brazil is well placed to deploy its extensive resources in pursuit of its development objectives. It now has a broadly based and relatively sophisticated industrial sector as well as a dynamic agriculture. There are large mineral and land resources still untapped and yet the basic infrastructure is sufficiently well developed to permit quite rapid exploitation of these latent assets. Most important of all, human and management resources have developed significantly in the recent past and institutions in both the public and private sector have demonstrated an ability to tackle development issues effectively. On the basis of these considerations, it is projected that Brazil may reach a growth path of some 9% annually in the 1980s.

I. BACKGROUND

1. During the years 1967-1973 Brazil experienced a period of rapid and sustained growth such as is rarely attained by developing countries. A 10% average annual growth in GDP was based upon impressive developments in both industry and agriculture. Value added in industry grew at an average of 13% per annum during this period and production was diversified to encompass to some extent capital goods and sophisticated consumer durable goods. At the same time agricultural production increased at an annual rate of 5.5% -- principally due to a large expansion of the area under cultivation. This was a solid achievement when set against the low net growth of the rural population which amounted to less than 1% per annum. Agriculture was thus able to satisfy a growing domestic demand for food and for industrial crops while at the same time producing for export in ever greater quantities. The remarkable performance of both agriculture and industry during this period made a deep impression upon economic thinking in Brazil which is still in evidence today. On the one hand, it established great confidence in the long-term growth potential of the country. On the other hand, it may have made it more difficult to adjust to the need for moderation in the rate of growth as a means of tackling the balance-of-payments problems and the problems of inflation which confront Brazil today.

2. The exceptional growth performance from 1967 to 1973 was associated with a shift in the emphasis of government policy away from import substitution which had previously dominated Brazil's development effort during the fifties and early sixties. The change of political regime in 1964 brought with it a reorientation of economic policy towards export promotion. Fiscal incentives were introduced to encourage exports and administrative procedures were simplified. Subsidized credit was made available to exporters. A particularly important move was the adoption in 1968 of a "crawling peg" exchange rate policy whereby frequent small devaluations could be regulated in such a way as to compensate for domestic inflation and prevent the cruzeiro from becoming overvalued. The price competitiveness of Brazilian exports was thereby maintained and exporters could rely upon costs and profit margins being reasonably stable in real terms. The encouragement of exports still remains today an important focus of government policy even though more recent events have rekindled interest in import substitution.

3. As a result of these various measures there was a vigorous expansion in the value of exports averaging 25% a year. A noteworthy feature of these years was the diversification of the export base. Particularly impressive was the development of manufactured and semi-processed exports which increased in value terms at an annual rate averaging between 30 and 40%. By 1973 manufactured and semi-processed goods constituted an important 30% of total merchandise exports. Agriculture also played a significant role in export growth with the development of new major cash crops. Sugar, orange juice and especially soybeans became major sources of foreign exchange earnings alongside the traditional coffee crop. As a result of these several developments, the dependence of Brazil upon coffee as the single most important source of foreign exchange earnings

declined significantly. Whereas in 1967 coffee accounted for some 45% of merchandise exports its contribution amounted to only 22% in 1973. In the long run the relative decline of coffee is expected to continue although exceptionally high coffee prices in 1977 have temporarily reversed this trend.

4. Notwithstanding the exceptionally rapid growth of exports from 1967 to 1973, imports grew at a somewhat more rapid pace. Capital goods figured prominently in this process and their share of total merchandise imports grew from 36% to some 43% over the seven year period. This is a telling indicator of the massive investment which took place in Brazil at this time. Gross investment increased at more than 16% a year, considerably faster than GDP. Concomitant with the rise in investment, savings also increased rapidly although there was some widening of the resource gap. At the same time the Government set about increasing the level of foreign exchange reserves so that there was need for a steady and increasing flow of capital from abroad both in the form of direct foreign investment and in the form of borrowing. Borrowing from abroad constituted a major source of finance for Brazil and by 1973 gross borrowing from all external sources had grown to the level of US\$4.5 billion. Service payments on this debt were quite high averaging over the period some 40% of export revenues from goods and non-factor services. From the perspective of Brazil's current external debt situation it is instructive to note that the debt service ratio today is no higher than that of the past many years.

5. A major aim of government policy during the period 1967-73 was to continue to reduce inflation. Steady progress towards price stability continued to be made even when growth was proceeding at a fast pace. Action was taken towards an improvement in the public sector fiscal performance by mobilizing resources on the one hand and on the other hand by controlling current expenditures. Wage controls constituted a third important instrument for the control of inflation. As a result of these measures inflation was reduced to an annual rate of between 15% and 20% in the early seventies. This constituted a remarkable improvement over the mid-sixties when inflation reached annual rates of 100% or more.

The Energy Crisis of 1974

6. The world economic crisis of 1974 marked a turning point in the economic development of Brazil and precipitated a series of problems which continue to preoccupy policy makers today. It would be an oversimplification to attribute all of Brazil's current problems to the events of 1974, however, because strains were already appearing in the economy before that. Many years of high growth eventually led to capacity limitations and raw materials bottlenecks which by 1973 were becoming increasingly evident. The point had already been reached where a continuation of high growth was exerting pressures upon the general level of prices and upon the balance of payments. By 1973 there were many indications of suppressed inflation. The prospect of open accelerating inflation and a widening trade deficit became reality once petroleum prices were increased fourfold in late 1973.

7. Despite an environment of worldwide recession the Brazilian economy registered a growth rate of 9.6% in 1974. It proved impossible, however, to maintain the good balance-of-payments performance that had accompanied growth in previous years. Prior to 1974 the merchandise trade account had been closely balanced and the current account deficit, although increasing year by year, amounted to no more than US\$1.7 billion in 1973. By way of contrast the continuation of rapid growth during 1974 and the associated heavy demand for imports in the context of a sharp deterioration in the terms of trade resulted in a trade deficit amounting to US\$4.7 billion and a current account deficit of US\$7.1 billion. The reduction of that deficit and the establishment of a basis for the long-term viability of the balance of payments has been a major objective of economic policy since that time.

8. At the root of the balance-of-payments disequilibrium which emerged in 1974 was a massive increase in the volume and value of imports. Total merchandise imports more than doubled from US\$6.2 billion in 1973 to US\$12.6 billion in 1974. This rise cannot be attributed solely to the oil price increase or to the impact of international inflation. Within the total increase of US\$6.4 billion from one year to the next only US\$2 billion was attributable to the higher price of petroleum. Taking full account of the rise in other international prices it may be concluded that import volumes rose by 25% in 1974. While in part this large increase was due to the high marginal import requirements associated with growth, there is also evidence of considerable stockpiling particularly with respect to raw materials. The utilization of these stocks during subsequent years has enabled GDP to grow without there being an increase in the level of imports above the 1974 level.

9. As a result of the current account deficit widening abruptly in 1974, Brazil was obliged to borrow heavily from abroad. Most of the additional borrowing was in the form of financial credits which carry terms significantly harder than those which normally apply to project-related development finance. Although recourse to financial credits was nothing new for Brazil the need became much greater in 1974. Whereas in each of the two previous years gross borrowing from this source had been in the order of US\$3.2 billion, it rose to more than US\$5 billion in 1974. In subsequent years the need for financial credits continued to be substantial because a rising burden of debt service partially offset the gains obtained from a steady narrowing of the merchandise trade deficit. This heavy dependence upon financial credits may be broken in 1977, however, given the excellent prospects for a surplus on the merchandise trade account.

10. In common with many other countries Brazil became subject to increasingly strong inflationary pressures at the time of the world economic crisis. The general price index rose by 28% in 1974 compared with less than 16% in the previous year. To some extent the initial impulse to inflation came from abroad, but domestic factors have now assumed a dominant role. There can be little doubt that continued high levels of aggregate demand were a major contributory factor. Moreover, once a higher rate of inflation had become established it was difficult to reverse, and the problem persists today as one of the most pressing issues of economic management.

11. The world economic crisis of 1974 coincided with a change of political administration in Brazil. Immediately upon assuming office the new administration of President Geisel was faced with the task of stabilizing the economy. In 1975 the rate of growth slowed abruptly to 4.2%. For the most part this reflected the impact of world-wide recession upon Brazil, but it may also have been a response to the restrictive measures that were introduced for a brief period by the new administration. The slowing-down of growth gave rise to fears, however, that the country may be heading for a severe recession and there was a relaxation of economic policy. When as a result, the rate of growth picked up again in 1976 inflationary pressures became even more acute and the need for policies to restrict aggregate demand became evident once more.

12. The search for an appropriate balance between growth and price and balance-of-payments stability has been a major preoccupation of the present Government. The task has not been easy, and there have been changes in the direction of policy from time to time. It now appears, however, that the balance of policy is firmly inclined towards moderate growth for the next few years. This is in keeping with the need to bring inflation under control and to establish a sound basis for the long-term viability of the balance of payments.

II. ECONOMIC PERFORMANCE IN 1976

Growth

13. After a single year of relatively low growth in 1975 (the first time for eight years that Brazil had experienced a growth rate of less than 9%) GDP increased by 8.8% in 1976. All sectors of the economy, including agriculture, contributed significantly to this renewed growth. That agriculture should have attained a 4.2% growth rate despite the devastating effect of the previous year's frost upon coffee production, is a telling indicator of the sector's diversified production structure. Sugar production increased by 17%, soya production by 13%, the production of oranges by 16%, corn production by 9% and rice production by an estimated 27% in 1976. There was also a strong recovery in wheat production from the low level of 1975 when bad weather had resulted in poor harvests. Particularly significant in the case of wheat was an extension of the area under cultivation by some 20-25% compared with the previous year. Advances in the production of these crops and of many other minor crops were more than sufficient to offset the major setback in coffee production which, according to the Brazilian Coffee Institute (IBC), fell from 22.2 million bags in the 1975/76 coffee year to an estimated 6.0 million bags in the 1976/77 coffee year. ^{1/} Nor was coffee the only crop to suffer setbacks in 1976. The production of cocoa and cotton also declined significantly partly because of weather conditions but also, in the case of cotton, because of substitution by other crops -- particularly soya and corn. The substitution of other crops for cotton in 1976 probably reflects the reaction of farmers to low cotton prices which prevailed on the world market during 1975. This confirms once again the sensitivity of Brazilian agriculture to price incentives.

Table 1: GDP SECTORAL GROWTH, 1967-76
(percent)

	Average 1968-73	1974	1975	1976
Agriculture	5.3	8.5	3.4	4.2
Industry	13.0	8.2	4.2	10.9
Manufacturing	(13.6)	(7.6)	(3.8)	(10.5)
Civil construction	(10.5)	(11.2)	(3.8)	(12.8)
Public utilities	(11.9)	(12.0)	(10.2)	(10.1)
Services	<u>10.3</u>	<u>10.8</u>	<u>4.4</u>	<u>8.8</u>
GDP	10.2	9.6	4.2	8.8

Source: Getulio Vargas Foundation (FGV).

^{1/} The U.S. Department of Agriculture has estimated the 1976/77 crop at 9.5 million bags. This still constitutes a major fall in production compared with the previous year, however.

14. Industry, however, was the leading sector of the economy in 1976. Value added by this sector increased by close to 11%--much more than the 4.4% of 1975 and almost comparable to the performance of the sector during the years 1967 to 1973. Within manufacturing industry the increase in intermediate goods was particularly strong. The sectors relating to electrical equipment and communications, rubber, and plastics exhibited rates of growth well above 11%.

Table 2: GROWTH OF MANUFACTURING INDUSTRY, 1972-76
(percent)

	1972	1973	1974	1975	1976
Nonmetallic Mineral	13.8	16.3	14.8	9.0	10.8
Metallurgy	12.3	9.4	5.2	9.2	9.2
Machinery	19.9	28.5	11.6	15.1	6.1
Electrical and Communications Equipment	22.1	27.9	10.4	0.5	16.2
Transport Equipment	22.5	27.6	18.8	0.5	7.2
Paper	7.5	9.4	4.3	-14.8	21.8
Rubber	13.0	12.4	10.8	4.7	13.4
Chemicals	17.0	23.4	5.4	2.5	11.2
Plastics	18.3	28.3	23.2	5.1	14.0
Textiles	3.8	6.9	-3.5	2.3	6.9
Clothing and Footwear	5.0	14.1	2.1	7.2	8.5
Food	16.2	9.6	5.4	-0.1	11.8
Beverages	4.8	17.8	8.3	5.5	14.2
Tobacco	6.0	6.4	12.8	7.9	10.2
Other	<u>9.1</u>	<u>6.6</u>	<u>11.5</u>	<u>3.7</u>	<u>8.8</u>
Total	<u>14.0</u>	<u>16.3</u>	<u>7.6</u>	<u>3.8</u>	<u>10.5</u>

Source: Brazilian Institute of Geography and Statistics (IBGE).

15. The high growth of 1976 was not without its cost. Domestic prices in 1976 were 41% above the average level of 1975. By way of comparison prices rose by about 28% in each of the preceding two years. This was a disturbing departure from the much lower rates of inflation averaging less than 20% per annum which characterized the early 1970s. During the course of 1976 measures were taken on a number of fronts to curb inflation. The deployment of monetary and fiscal policy to this effect is discussed elsewhere in this report. In response to many quite stringent measures inflation abated in the final quarter of 1976 to a rate equivalent to some 30% on an annual basis.

The Balance of Payments

16. In 1976 Brazil made significant progress towards reducing its merchandise trade deficit although the improvement was less than had been targeted. Merchandise imports were only slightly above their 1975 level in nominal terms but still remained below the level of 1974. Although the Government had originally planned to reduce imports by 14% in 1976 the actual outcome was not unsatisfactory when judged within the context of high growth. Imports did fall in volume terms by about 15% even though there was a small rise in terms of value. The value of petroleum and derivatives imports rose by 29% reflecting rapid growth of the economy, a small decline in domestic oil production and, to a certain extent, stockpiling of crude oil in anticipation of the price increase at the end of 1976. Had it not been for the large increase in fuel imports, the Government would have come much closer to achieving its lower import target. Indeed, non-petroleum imports fell by nearly 7% in value terms. The overall decline would have been greater still were it not that wheat imports had to be increased by over 67% in volume to make good the previous year's crop damage. Wheat figures much less prominently in the total import bill than does petroleum but such a large variation from one year to the next is, nevertheless, significant. Imports of wheat and petroleum together rose by almost 30%. Imports of all other merchandise fell by 10% in 1976. It is remarkable that such a reduction could be achieved in a year when GDP was growing at almost 9%. The explanation probably lies in a draw down of stocks other than petroleum and some domestic import substitution.

Table 3: MERCHANDISE IMPORTS, 1975-76
(million US dollars)

	1975	1976	% Increase In	
			Value	Prices
Wheat	322	504	57	-6
Other nondurables	616	489	-21	-6
Consumer durables	527	518	-2	2
Crude oil	2,674	3,460	29	8
Fertilizers	304	202	-32	30
Steel	1,263	610	-52	2
Other metals	448	468	4	7
Paper, Rubber, Plastic	452	497	10	-9
Chemicals	1,135	1,364	20	1
Machinery & Equipment	3,238	2,911	-10	24
Transport Material	694	606	-3	2
Other	496	648	31	.
Total	12,169	12,277	1	16

Source: Central Bank of Brazil.

17. Merchandise exports also increased much more rapidly in 1976 than was expected. The actual increase amounted to 17% as compared with a target of 10%. This was due principally to the high price of coffee in the international market. Coffee exports rose from US\$934 million in 1975 to almost US\$2,400 million in 1976. If coffee is excluded from the picture, then Brazil's other exports exhibited no increase at all in nominal terms.

18. It would be an oversimplification, however, to draw the conclusion that non-coffee exports were weak across the board in 1976. Sugar prices declined from the exceptional levels they had reached in the previous two years and this coincided with a significant fall in export volumes. As a result the value of sugar exports fell from US\$1,100 million in 1975 to only US\$307 million in 1976. This decline offset the gains made in other commodity exports, notably soybeans and iron-ore.

Table 4: MERCHANDISE EXPORTS, 1975-76 /1
(million US dollars)

	1975	1976	% Increase In	
			Value	Prices
<u>Coffee</u>	<u>934</u>	<u>2,398</u>	<u>157</u>	<u>147</u>
<u>Other Agriculture</u>	<u>3,482</u>	<u>3,029</u>	<u>-13</u>	<u>-10</u>
Sugar	1,100	307	-72	-59
Soybeans	685	787	15	5
Soy meal	466	795	71	22
Corn	151	165	9	-9
Cotton	98	7	-93	37
Cacao	220	219	-1	36
Other	762	749	-2	9
<u>Minerals</u>	<u>1,022</u>	<u>1,085</u>	<u>6</u>	<u>25</u>
Iron Ore	921	996	8	22
<u>Semiprocessed</u>	<u>645</u>	<u>791</u>	<u>23</u>	<u>2</u>
Soybean Oil	152	175	15	-36
<u>Manufactured</u>	<u>2,379</u>	<u>2,449</u>	<u>3</u>	<u>2</u>
<u>Other</u>	<u>209</u>	<u>381</u>	<u>82</u>	<u>9</u>
<u>Total</u>	<u>8,670</u>	<u>10,130</u>	<u>17</u>	<u>8</u>

/1 Details may not sum to totals because of rounding.

Source: Central Bank of Brazil

19. The performance of manufactured exports was particularly disappointing in 1976. The full extent of the poor performance is not readily detected from official export statistics, however, because refined sugar and soluble coffee are included within the category of manufactured exports. The value

of these two items is heavily influenced by the commodity markets. Manufactured exports other than soluble coffee and refined sugar increased by only 3% in 1976 and this implies virtually no change in real terms. This setback could be serious if it were to signify a halt or a significant reduction in the longer term expansion of manufactured exports.

Table 5: SUMMARY BALANCE OF PAYMENTS, 1975-76

(million US dollars)

	1975	1976
Merchandise Exports	8,670	10,130
Merchandise Imports	12,169	12,277
Trade Balance	<u>-3,499</u>	<u>-2,147</u>
Services Balance (inc. net transfers)	-3,213	-3,915
(Interest Payments)	(-1,828)	(-2,039)
<u>Current Account Deficit</u>	<u>-6,712</u>	<u>-6,062</u>
Amortization	-2,120	-2,872
<u>Gross Capital Requirements</u>	<u>-8,832</u>	<u>-8,934</u>
Direct Foreign Investment	895	1,010
Medium- and Long-term Loans	2,212	2,080
Financial Credits	4,515	6,076
Short-term Capital and Capital n.e.i.	164	1,961
Change in Reserves (-increase) <u>/1</u>	1,046	-2,193

/1 IMF definition.

Source: Central Bank of Brazil.

20. Apart from an improvement in the balance of trade there are other features of the 1976 current account that merit particular attention. First, it is to be noted that there was only a US\$650 million improvement in the current account deficit despite the fact that the merchandise trade deficit had been reduced by fully US\$1,350 million. This is a measure of the rising deficit on service payments facing Brazil. The deficit on trade in non-factor services widened again in 1976, as it has tended to do in the past. Furthermore, gross interest payments on the external debt rose by 12% despite the fact that international interest rates declined significantly in 1976 for the second year running.

The Capital Account and External Debt

21. Despite a modest improvement in the current account, the gross capital inflows needed to cover both the current account deficit and amortization on the external debt actually increased slightly in 1976 because of an increase in amortization payments from US\$2.1 billion in 1975 to US\$2.9 billion in 1976.

22. After two successive years of foreign exchange reserve losses, Brazil entered 1976 with a level of reserves amounting to US\$4.5 billion -- sufficient to cover between four and five months merchandise imports. 1/ Although this level of import coverage is satisfactory by the standards of many countries, it is nevertheless significantly lower than that during 1971-73. During the course of 1976 the Government concluded that a higher level of reserves would provide it with more leeway for maneuver in managing its external accounts. Judging the international credit market to be favorable, the Government borrowed heavily to build up its reserve position to US\$6.7 billion by the year end -- sufficient to cover more than six months of merchandise imports.

23. The gross capital inflow during 1976 to finance a current account deficit of US\$6.1 billion, amortization of US\$2.9 billion and an increase in reserves of US\$2.2 billion amounted to US\$11.1 billion. 2/ This was by far the highest capital inflow that Brazil had ever sustained in any one year. Direct foreign investment provided US\$1 billion of the total need. The disbursement of medium- and long-term loans was slightly down on the previous year so that the need for financial credits was correspondingly greater. Gross financial credits amounted to over US\$6 billion over the course of the year, with a large proportion of the borrowing concentrated in the last quarter.

24. It is not possible to document all of the capital inflow in a satisfactory manner. It can be seen from Table 5 that almost US\$2 billion was in the form of short-term capital. Only half of this amount can be traced through the commercial banking system, however. The net foreign liabilities of commercial banks rose by some US\$1.1 billion during 1976 so that the nature of about US\$0.9 billion is not known.

25. As a result of the large borrowings during 1976 Brazil's total external debt outstanding and disbursed, both private and public, increased from US\$21.2 billion at the beginning of the year to US\$26.0 billion at the year end. Rather more than half of this total (57%) was public or publicly guaranteed, the remainder being private non-guaranteed debt. In the last two years, public external indebtedness has increased somewhat faster than private debt. In part this may reflect the desire of lenders for government guarantees

1/ The IMF definition of foreign exchange reserves is used throughout this report.

2/ Figures do not sum to total because of rounding.

as a condition for making loans. Another important reason has been the government's active policy of borrowing, especially after the decision to build up foreign exchange reserves in 1976. The public sector has been particularly active in seeking financial credits from abroad. Total net indebtedness in the form of financial credits increased by US\$7 billion during the two years 1975 and 1976. Of this total US\$5 billion was in the form of public or publicly guaranteed credits.

26. The debt service ratio for public and publicly guaranteed debt in Brazil is estimated at 19% for 1976. This is not out of line with other countries at a similar stage of development. The net debt service ratio (debt service less interest earned on reserves) on public and private debt together is estimated at 43% compared with an average of 38% during the early seventies. It should be noted, however, that the year-to-year variations in this ratio have been quite large in the recent past. In the five-year period prior to 1976 the net debt service ratio ranged from a high of 44% in 1971 (a year when export growth was relatively sluggish) to a low of 30% in 1974.

III. INFLATIONARY PRESSURES AND MONETARY POLICY

Inflation

27. In 1976 and the first half of 1977 there was a surge of inflation in the Brazilian economy. Prices, as measured by the most general index of domestic prices, rose by 41% in 1976 compared with an average of 28% in the two previous years. This was a disturbing departure from the much lower levels of inflation averaging less than 20% per annum which characterized the early 1970s. Furthermore, after some slackening towards the end of 1976, inflation picked up once again in the first part of 1977. The general index of domestic prices rose by 22.5% during the first six months. Since June, however, there has been a marked reduction in the pace of inflation to about 2% a month.

28. There are several reasons for the persistence of inflation. One of them is the widespread use of indexing arrangements in various forms. This has introduced an element of automatic inflationary feedback throughout the economy making cost inflation particularly difficult to deal with. In addition, there have been difficulties in the execution of monetary and fiscal policy. A substantial expansion of money and credit took place during 1975 and 1976, and public sector outlays continued at a high level. In addition, shortages of key food crops on the domestic market caused food prices to rise sharply and the wholesale price index for foodstuffs rose by 48% in 1976 as a whole and by a further 24% in the first six months of 1977.

Price Policy

29. In its efforts to ensure that prices do not get further out of hand, the Government is carefully controlling administered prices. Increases in public utility rates were limited in February 1977 to a maximum of 25% for the current year, unless special Presidential approval was obtained. Such approval has been given in well-justified cases such as rail transport, water supply and postal services. In addition, it was decided in May 1977 to strengthen the control by the Interministerial Price Council (CIP) over the prices of publicly produced goods and services by centralizing all public sector price decisions in the hands of the Finance Minister. In the public sector there will be a more even distribution of price adjustments over the calendar year.

30. With the May measure, the authority of the Finance Minister is now extended to price decisions that had previously been taken by other government bodies. These include decisions relating to the price of gasoline and other petroleum derivatives (normally set by the National Petroleum Council) and to agricultural support prices (usually fixed by the Ministry of Agriculture). It is expected that the pace of adjustment in the price of gasoline will slow down considerably during the rest of this year, in order to moderate the impact

on transportation costs. The new measure also made it easier to limit increase in agricultural support prices: the average increase this year will be only 23.5%, as against 53.3% last year.

31. In addition to the above measures, the Government has continued to use the existing price control mechanisms to moderate increases in basic food and other mass consumption items in an effort to reverse consumer price expectations. The price of coffee continues to be subsidized on the domestic market, and a subsidy was introduced for domestic consumption of soybean oil and meal. These subsidies have been financed with the proceeds from export taxes on these products. The coffee export tax has been increased regularly as prices rose in the world market. The tax on soybean exports, created in March 1977, was increased in May from 7 to 12%, permitting an increase in the domestic subsidy to producers of soybean meal and oil by 75 and 22.5%, respectively. It has since been suspended in response to a decline in soybean prices on the world market.

32. As a further measure to stem the rise in consumer prices it has been decided to defer the elimination of the consumer wheat subsidy, which had been planned in two installments for March and September 1977 (the first installment had involved a 40% reduction of the wheat subsidy at the end of 1976). Wheat subsidy costs in 1977 will be higher than anticipated, as a combined result of the recent freeze on the consumer price, and the increase in the minimum price granted to domestic producers in March.

33. In March 1977 Government attention became focussed not only upon the level of prices but also upon the index that measures them. It was felt that the cost-of-living index for Rio de Janeiro was unduly vulnerable to sharp changes in the prices of agricultural products resulting from variations in crop yields. It was argued that, in the event of exceptional price increases, consumers would substitute for other foods so as to cushion the effect upon their household budgets. It was further argued that the existing cost of living index based upon the Laspeyres formula, did not allow for changes in the composition of the food basket and therefore exaggerated the effect of such exceptional price increases. Accordingly, the cost of living index for Rio de Janeiro was adjusted to include a provision for consumer substitution. The adjustment to this particular index is of special significance because it is used in many parts of Brazil as a reference benchmark for consumer prices.

Wage Policy

34. While there is no intention on the part of the Government to allow a significant erosion of real wage levels, the full indexation of wages at this time is clearly viewed by the Government, along with indexing arrangements in other sectors, as a serious obstacle to slowing down the rate of inflation. Therefore, in contrast to 1975, when the guidelines issued monthly by the Government for annual union wage adjustments provided a 7% average increase in purchasing power, the outcome of the policy pursued in 1976 was

Table 6: OFFICIAL WAGE GUIDELINES
AND COST-OF-LIVING TRENDS,
1975-1977

(percent)

	Wage Adjustment Guidelines	Cost-of-living/ ^a Increase Over Previous 12 Months	Implied Change in Real Wage Rate
<u>1975</u>			
Average	38.7	29.2	+7.4
<u>1976</u>			
January	36.0	31.2	+3.7
February	36.0	32.9	+2.3
March	40.0	37.1	+2.1
April	42.0	38.9	+2.2
May	43.0	40.8	+1.6
June	44.0	42.9	+0.8
July	43.0	43.6	-0.4
August	43.0	43.6	-0.4
September	43.0	42.5	+0.4
October	43.0	43.8	-0.6
November	42.0	44.6	-1.8
December	<u>41.0</u>	<u>44.1</u>	<u>-2.2</u>
Average	41.3	40.5	+0.6
<u>1977</u>			
January	41.0	44.8	-2.6
February	41.0	46.1	-3.5
March	40.0	43.2	-2.2
April	40.0	44.7	-3.2
May	<u>40.0</u>	<u>44.4</u>	<u>-3.0</u>
Average	40.4	44.6	-2.9

^a Rio de Janeiro cost-of-living index.

Sources: Wage Guidelines: Ministry of Labor.
Cost-of-living Index: Getulio Vargas Foundation.

essentially neutral over the year as a whole. Moreover, in the first five months of 1977, the guidelines have implied a 3% decline in purchasing power, when compared to the Rio cost-of-living index.

35. Anti-inflationary considerations have also led to a pause in the Government effort to improve the position of the lower paid workers through periodic increases in the purchasing power of the official minimum wage. While in 1976 the minimum wage level was increased by 3% in real terms, the annual adjustment in May of this year was just equal to the cost-of-living increase over the previous 12 months -- 44.4%. On the other hand, the disposable income of some lower income groups will be increased in the second half of this year, as a result of the decision to pay an additional month's salary as a bonus to those low income participants in the PIS and PASEP forced savings schemes who earn less than five times the minimum wage in their regular employment. This should have little additional inflationary impact because countervailing measures have been taken to reduce other disbursements from the funds to high income participants. The measure, however, will only benefit workers in the formal sector of the economy. Those in the informal sector remain beyond the reach of compulsory minimum wage legislation, and do not participate in PIS-PASEP.

Monetary Policy

36. The rapid expansion of money and credit has been a major factor of inflation for several years. After a pause in 1974, the growth of liquidity accelerated sharply in 1975 as a result of the easy credit policies adopted in that year. These included reductions in commercial bank reserve requirements, increases in Central Bank credit and substantial increases in Bank of Brazil credit ceilings. Although a number of restrictive measures were subsequently taken in 1976, they had only a marginal impact upon the pace of monetary expansion during that year. The shift toward a policy of restraint was hampered by the large inflow of funds on external account and the continued rapid growth of official credit lines. Furthermore, the Central Bank has made less use of the open market instrument than would be necessary to absorb excess liquidity.

37. Beginning in 1974 the monetary authorities have increased their net domestic credit on a very large scale. This credit expansion far more than outweighed the contractionary impact of international reserve losses in 1974 and 1975. As a result there was a substantial increase in the liabilities of the monetary authorities which serve as the monetary base for the expansion of commercial bank credit. Total net domestic credit of the banking system expanded in 1975 by 48% of monetary liabilities outstanding at the beginning of the year. The result was an increase in the money supply of 42.8%. The growth of net domestic credit of the banking system in 1975 was the fastest in a decade.

Table 7: SUMMARY ACCOUNTS OF THE BANKING SYSTEM, 1972-76

(Percent) /a

	1972	1973	1974	1975	1976
Monetary Authorities					
Net foreign assets	56.6	54.8	-14.3	-13.9	26.3
Net domestic credit	<u>-38.1</u>	<u>-7.7</u>	<u>47.2</u>	<u>50.3</u>	<u>23.5</u>
Monetary Base	18.5	47.1	32.9	36.4	49.8
Banking System					
Net foreign assets	29.5	22.6	-5.9	-5.6	5.8
Net domestic credit	<u>8.7</u>	<u>24.5</u>	<u>39.4</u>	<u>48.3</u>	<u>30.6</u>
Money Supply	38.3	47.0	33.5	42.8	37.2

/a Changes with respect to corresponding monetary liabilities outstanding at beginning of year.

Source: Central Bank of Brazil and IMF.

38. With the large inflow of foreign exchange reserves in 1976 the monetary authorities moderated their internal credit expansion but not sufficiently to offset the inflow of liquidity from abroad. As a result the growth of the monetary base reached about 50% during the year. However, the stricter policy stance adopted by the Central Bank led to a somewhat smaller rate of expansion of the total money supply amounting to 37%. The restrictive measures helped cushion the impact that the large expansion of the monetary base would otherwise have had on commercial bank liquidity. Nevertheless, the 37% rise in total money supply was significantly in excess of the 25% target set by the monetary budget.

39. The more restrictive credit policy adopted in 1976 has affected principally the commercial banks. Beginning in April of 1976, commercial bank reserve requirements were raised progressively, and their composition changed in such a way that the banks were faced with the obligation to meet them to an increasing extent with cash rather than government securities and selective credit assets. In addition, Central Bank discount rates were raised and curbs were placed on installment and real estate credit. Furthermore, most money market lending rates which previously had been subject to ceilings were freed, bringing about a substantial increase in the cost of short-term credit.

40. Despite these various measures Table 8 indicates that there was no slowdown in the growth of commercial bank credit in 1976. Credit grew by 52% as compared with a target of 42% in the 1976 monetary budget. This indicates that even stricter measures would be necessary to contain the expansion of credit in present circumstances.

41. In the first months of 1977 the commercial banks still appeared to be fairly liquid, with substantial amounts of free reserves. Foreign borrowing under Resolution 63 has continued to provide the Brazilian commercial banks with a substantial source of liquidity. Other resources include re-discounts and advances from the Central Bank for special credit programs, and funds supplied by other official institutions (BNH, FINAME), all of which have continued to increase.

42. Until 1977 it seems that there was little success in controlling the growth of either Bank of Brazil or Central Bank lending programs. The Central Bank administers an increasing number of special credit programs, for which it opens credit lines to the Bank of Brazil and other financial institutions. ^{1/} The amount of resources transferred by the Central Bank to the financial system under these programs has increased at about 100% a year in the past two years. At the end of 1976, total credit outstanding under this heading amounted to Cr\$ 60 billion. This is equivalent in size to fully one-fourth of total Bank of Brazil credit. Furthermore, it can be seen from Table 8 that Bank of Brazil lending has been increasing faster than commercial bank credit for many years. This lending has three major components. By far the most important (a little over one half of the total) is credit for agricultural, industrial and commercial activities carried out with the resources of the Bank of Brazil itself. A smaller but rapidly growing component (currently 12 to 13% of the total) consists of loans made with Central Bank credit lines. Finally, the third component (roughly a third) involves the operation of numerous special funds, such as the coffee account, the wheat fund, the fund for agricultural price supports, and the urban development fund. After many years of exceptionally rapid growth, it is encouraging that progress was made in limiting the expansion of Bank of Brazil credit to 23% during the first half of 1977 compared with 31% in the corresponding period of 1976. As a result, the expansion of overall banking system credit decelerated somewhat in the first half of 1977.

^{1/} The most important of these is FUNAGRI (General Fund for the Financing of Agriculture and Industry). Others include PROTERRA (Northeast development credit program) and FINEX (export credit).

Table 8: BANK CREDIT TRENDS, 1972-77

(Annual change in percent)

	Bank of Brazil	Other Commercial Banks	Total
1972	37.8	45.4	41.4
1973	50.0	43.5	46.5
1974	80.4	45.6	58.5
1975	63.9	51.3	56.6
1976	62.0	52.1	56.5
<u>January/June</u>			
1976	31.4	24.4	26.6
1977	23.1	23.6	23.5

Source: Central Bank of Brazil.

43. While the growth of bank credit was rapid in 1976, there was some absorption of liquidity through prior import deposits, and sales of Treasury securities in the open market. The former was responsible for absorbing nearly Cr\$.34 billion in 1976. This is a once-and-for-all contribution to monetary contraction, however.

44. Open market operations, on the other hand, could continue to assist in the reduction of excess liquidity. It appears, however, that there has been a change in the use of the open market instrument since August of 1976. Whereas in previous years the total of Treasury bills outstanding had been steadily increased each month, redemptions have frequently exceeded new issues since August 1976. In the last four months of 1976, the redemption of maturing government securities exceeded new issues by Cr\$ 3.5 billion. There was a further net injection of Cr\$ 4.6 billion in the market during the first four months of 1977 via Treasury debt operations.

45. The Government has apparently been reluctant to put pressure on the security markets by expanding the supply of Treasury bills for a number of reasons. In the first place, the government security market is still relatively narrow in Brazil, and has in recent years been subject to a considerable amount of speculative activity. In addition, the financial position of a number of financial intermediaries is apparently quite vulnerable to sudden variations in the supply and cost of short-term credit. Recently moreover, the Government has been trying to induce banks and other lenders to reduce interest rates, and sought to lead the way by pushing down the rate on its

own Treasury bills, through offering smaller amounts of bills at the weekly auctions. Another consideration underlying this development is that Treasury bills, because of their high degree of liquidity, have been used as near-money in the Brazilian economy. The Government feels that an increase in the public's holdings of Treasury bills would have little or no impact upon the general liquidity situation.

46. A more fundamental question, in the long run, involves the policy to be followed with respect to the expansion of bank credit from official sources. The current high rate of monetary expansion can only be moderated if tighter restraints are placed on the present growth of Bank of Brazil and Central Bank credit programs. Only then will it be possible to reduce the level of liquidity of the economy sufficiently. Private commercial banks do not appear to be the major factor in monetary expansion today. There are indications that the Government now recognizes the problem posed by excessive official credit expansion. It prepared a revised monetary budget for 1977, which principally cut back on credit targets for the Bank of Brazil, and some of the Central Bank special credit lines.

Monetary Correction and Interest Rates

47. The recent acceleration of inflation has caused the Government to re-examine the system of monetary correction once again and to introduce changes which significantly modify its role in the process of economic adjustment. Some of these changes have been directed at the actual price index on which the monetary correction formula is based and others have been directed at the formula itself.

48. Since September 1975, an adjustment has been made to the wholesale price index for purposes of calculating the monetary correction coefficient. The adjusted index excludes the impact of those price changes which are the result of "fortuitous" factors or factors beyond the control of the Government. These might include changes due to extreme weather conditions or changes decreed by outside forces such as OPEC. In the month of March 1977, for example, it is estimated that these adjustments had a 0.3% effect on the wholesale price index. Whereas the published index revealed an increase in prices of 4.3%, only 4% was taken into account to calculate the monetary correction index. The difference between the adjusted and unadjusted price index may amount to as much as 4% over a 12-month period.

49. The wholesale price index constitutes the basis from which monetary correction (indexing) is determined. The formula linking the index of monetary correction to the price index has been revised from time to time since it was first introduced in 1964. The last revision of June 1976 was particularly significant, however, since it introduced a principle which substantially modifies the system of monetary correction. With a view to dampening the feedback effect of monetary correction upon inflation, the formula has

been revised to include a term for anticipated future inflation. 1/ Under the new system past inflation is given a weight of 80% while anticipated future inflation is accorded a weight of 20%. Present practice is to assume that future inflation will amount to 1.17% per month, or 15% on an annual basis. As long as the actual rate of inflation exceeds 15%, monetary correction will be less than sufficient to compensate for rising prices. Moreover, the higher the rate of actual inflation, the greater will be the gap between the rise in prices and the prescribed coefficient of monetary correction. For annual rates of inflation of about 45% (similar to the rate experienced in 1976) monetary correction will lag behind inflation by about six percentage points. In these circumstances the real rate of interest on a financial instrument bearing 6% interest plus monetary correction would be zero.

50. When the effects of the adjusted monetary correction formula are compounded with the effects of excluding "fortuitous" factors from the price index, the resulting divergence of monetary correction from actual inflation can be quite substantial. In the twelve-month period through May 1977 wholesale prices rose by 46.8%. The index of monetary correction for the same period amounted to 37.4%.

51. The widening gap between actual inflation and the index of monetary correction, along with the freeing of interest rates on unindexed financial instruments in 1976 as well as a tightening of Central Bank regulations for repurchase agreements, led to a substantial shift of financial savings away from indexed government bonds back into private sector instruments such as commercial paper and certificates of deposit. On the other hand, there has not been so far any disaffection from indexed savings accounts, another major form of indexed financial holdings. 2/ Small savers have few alternative forms of liquid savings, and their overall return is increased because of the tax incentives on this form of investment.

52. As inflation accelerates the already considerable distortions existing in the market for loanable funds are intensified and the market for loanable funds is becoming more fragmented. Three sub-markets can be distinguished; one highly subsidized by government financial institutions, another (entirely private) that does not enjoy any subsidy, and a third, also official, which in recent years has operated to an increasing extent with subsidized credit.

1/ This is not the first time that such an adjustment has been made to the formula. In December 1972 a similar idea was introduced but it was withdrawn in March 1974, as the rate of inflation accelerated.

2/ Apart from government bonds and savings accounts the only other group of financial assets subject to monetary correction have been the compulsory savings funds (FGTS, PIS and PASEP).

53. The first of these sub-markets consists of numerous special lines of credit available from public sector financial institutions for specific end-uses at subsidized rates of interest. Many agricultural lines of credit from the Bank of Brazil are of this nature. In January 1977 interest rates on relatively large loans were raised so that they now range from 13% to 21% compared with the previous range of 13%-15%. The increase in rates was modest, however, when related to current rates of inflation.

54. At the other end of the spectrum commercial bank credit and credit from private investment banks constitutes a second sub-market which operates exclusively in the short and medium term. In this market, too, credit is lent at fixed interest rates but the rates are sufficiently high as to be positive in real terms. Currently the interest rates charged for such credit are in the range of 50-60%.

55. A third sub-market comprises the loans of public sector development finance institutions that are subject to monetary correction. This sub-market includes most of the lines of credit from the BNH and from the BNDE, and it is in this sub-market that medium- and long-term financing for capital formation is to be found. Since 1975, however, the principle of full monetary correction has been significantly modified.

56. Mortgage payments on housing loans financed through the BNH and associated savings institutions have been substantially reduced by the introduction of cash subsidies to the borrowers. The subsidy has a sliding-scale structure designed to favor low-income borrowers, and there is a ceiling for higher income borrowers. In the lower and middle income range, it has had the effect of keeping the effective increase in monthly mortgage payments to approximately half of what would normally result from the application of the indexation coefficient. For borrowers at the very bottom of the income scale, it has compensated for almost all the increase in payments which results from the application of indexation.

57. The application of monetary correction by the BNDE and other official development institutions has also been modified in the recent past. Loans made during 1975 and 1976 to a large number of sectors were subject to a maximum monetary correction of 20% for the life of the loan. The ceiling has been abolished in 1977 (for new loans, not for existing ones made under the ceiling provision), but a number of new special lending programs still do not carry regular monetary correction. PROCAP (the underwriting fund) for instance, will continue to enjoy a 20% maximum for monetary correction this year. The PROGIRO program which provides working capital to small and medium enterprises carries only 10% percent monetary correction and interest rates of 12% to 17%.

58. The difference in credit terms offered by the subsidized and the free markets has widened considerably as a result of recent inflation. The relative advantage of obtaining subsidized credit in the first half of 1977 was much greater than at any time in the past. Furthermore, the inherent fungibility of credit makes it difficult to ensure that loans are ultimately applied to the sector for which they are designated.

IV. FISCAL MANAGEMENT

Federal Budget Policy

59. In Brazil, the federal budget is not used, except very marginally, as a tool of countercyclical policy. As a rule, the budget is kept approximately in balance. Over the past eight or ten years, conservative budgeting and careful cash programming have regularly insured a close match of income and outlays in the Treasury (or "cash") accounts, and the budget has had very little direct influence on monetary expansion. However, in the past two years, the Treasury has maintained its accounts in balance only by virtue of a strict control on disbursements. Other public entities, on the other hand, have turned to borrowing on an increasing scale and have accumulated substantial payments arrears.

60. There was a marginal easing of budgetary policy in 1975, when the Government feared that the economy was headed for a recession. The Cr\$ 3.9 billion budget surplus that had accumulated in 1974 disappeared in 1975 as taxes were cut to stimulate demand. Thus, cash revenues as a percent of GDP fell from 11.4% to 10.6%. Expenditure pressures were simultaneously beginning to intensify as a result of sharply rising costs and sizable increases in civil service salaries. Total spending was nevertheless held down tightly in order to avoid a cash deficit. The formal budget accounts maintained by the Finance Ministry, which give a better reflection of the pressure brought to bear on aggregate demand, show a more pronounced turnaround from a surplus of 0.6% of GDP in 1974 to a deficit of 0.4% in 1975.

61. In 1976, by way of contrast, a number of taxes were increased to finance the rising cost of federal programs. The cash accounts remained approximately in equilibrium and the budget account registered a small surplus. This balance was achieved in part by transferring some of the planned 1976 expenditures into the first quarter of 1977.

62. In the recent past federal government revenues have continued to demonstrate considerable buoyancy. The 1975 tax reductions brought only a brief pause in their strong growth path. In 1976, cash revenue rose by more than 20% in real terms as a result of an accelerating tempo of business activity as well as several new tax increases. The most significant tax measures affected the levies associated with road transport. Petroleum tax rates were increased sharply during the year and a 12% surcharge earmarked for public transport was added. As a result, petroleum tax revenues doubled in real terms. In addition, the 5% tax on road transport services was extended from passenger to freight traffic and a 16.7% surcharge was placed on the motor vehicle tax on passenger cars, also earmarked for public transport.

Table 9: FEDERAL GOVERNMENT OPERATIONS, 1972-76
CASH AND BUDGET RESULTS COMPARED

(million cruzeiros) /a

	1972	1973	1974	1975	1976
<u>Cash accounts</u>					
Revenue	37,738 (10.5)	52,863 (11.1)	76,810 (11.4)	95,446 (10.6)	166,220 (11.9)
Expenditure	38,254 (10.6)	52,568 (11.0)	72,928 (10.8)	95,373 (10.6)	165,797 (11.9)
Surplus or Deficit (-)	-516 (-0.1)	295 (0.1)	3,882 (0.6)	73 (-)	423 (-)
<u>Budget accounts</u>					
Revenue	38,688 (10.8)	52,466 (11.0)	75,660 (11.2)	100,586 (11.2)	172,351 (12.4)
Expenditure	38,198 (10.7)	50,767 (10.6)	71,750 (10.6)	103,838 (11.6)	168,181 (12.1)
Surplus or Deficit (-)	490 (0.1)	1,699 (0.4)	3,910 (0.6)	-3,252 (-0.4)	4,170 (0.3)

/a Percent of GDP indicated in parentheses.

Note: The cash accounts show cash receipts and disbursements registered in the Treasury account at the Bank of Brazil. The budget accounts are prepared by the Ministry of Finance on the basis of tax and expenditure accounting documents. Although there are some differences in coverage, the chief discrepancy between the two sets of accounts involves a lag in timing, particularly in the recording of expenditure, with the difference appearing as change in floating debt and accounts payable.

Source: For the cash accounts, Central Bank of Brazil.
For the budget accounts, General Accounting Office (Ministry of Finance).

Table 10: FEDERAL GOVERNMENT REVENUE, ^{/a} 1972-76

(percent of GDP)

	1972	1973	1974	1975	1976
<u>Total revenue</u>	<u>10.5</u>	<u>11.1</u>	<u>11.4</u>	<u>10.6</u>	<u>11.9</u>
Income tax	3.1	3.0	3.4	3.3	3.3
Business	(1.3)	(1.3)	(1.5)	(1.5)	(1.5)
Personal	(0.5)	(0.3)	(0.4)	(0.2)	(-) ^{/b}
Withholding	(1.3)	(1.4)	(1.5)	(1.6)	(1.8)
Sales tax	4.1	4.0	4.1	3.8	3.6
Tobacco	(1.2)	(1.2)	(1.2)	(1.3)	(1.3)
Other	(2.9)	(2.8)	(2.9)	(2.5)	(2.3)
Petroleum tax	1.3	1.2	1.0	0.9	1.7
Import duties	0.8	0.8	1.0	1.1	1.1
Other and unclassified	1.2	2.1	1.9	1.5	2.2

^{/a} Cash accounts.

^{/b} Refunds exceeded payments in 1976 because of the increase in withholding at the source.

Source: Statistical Appendix Table VIII.

63. Despite the need for additional revenues the 1975 income tax and sales tax cuts, which had a redistributive as well as a countercyclical motivation, were not rescinded in 1976. Revenues from the sales tax has gradually been losing ground in the federal tax structure in recent years, reflecting both a growing revenue loss from the fiscal incentive system as well as a series of rate reductions on a broad range of mass consumption goods. By way of contrast income tax receipts are being strengthened by the extension of the regular business income tax to public enterprises (previously exempt or subject to reduced rates). ^{1/} There was a further increase in withholding of personal income tax in the higher brackets for the second year running. Bringing

^{1/} It should be noted that state monopolies (PETROBRAS) remain exempt, while public utilities (ELETROBRAS, TELEBRAS) continue to pay reduced rates. Other industrial, commercial and financial enterprises must now pay the regular 30% income tax.

collection of this tax forward by one year has made a once-and-for-all contribution to the rise in tax revenue. It has also raised the effective tax rate on higher incomes. ^{1/} At the same time a series of adjustments in the structure of personal tax rates, deductions and exemptions have continued to reduce the effective rate of income tax on the lower and middle income groups.

64. The pressure on the federal budget to increase spending has grown considerably in the past two years. Part of the pressure has stemmed from a change in federal wage policy. After 10 years of a very restrictive policy, which led to a marked compression of personnel costs in the federal budget, the government initiated in late 1974 a two-year program for upgrading qualified civil servants to a new salary scale about 60% above the old one in real terms. As a result, there was a rapid growth of personnel expenditure in relation to GDP from 3.3% in 1974 to 4.0% in 1976. This trend should slow down markedly in 1977. Since July 1976, new civil service hiring has been limited by decree to no more than 3% of the personnel budget in each government agency, and the annual cost-of-living increase for government employees was limited to 30% in March 1977.

65. The main expansionary factor in the federal budget continues to be the financing of public investment. Although very little investment is actually carried out directly by the Federal Government, the budget contributes on a large scale to the financing of investment in the rest of the public sector. The greater part of this contribution is effected through revenue earmarking. In addition, the federal budget bears the brunt of the pressure for supplementary allocations when there are financing gaps, as has been the case increasingly throughout the public sector.

Table 11: FEDERAL GOVERNMENT EXPENDITURE, ^{/a} 1972-76

(percent of GDP)

	1972	1973	1974	1975	1976
<u>Total expenditure</u>	<u>10.7</u>	<u>10.6</u>	<u>10.6</u>	<u>11.6</u>	<u>12.1</u>
Earmarked revenue transfers	3.6	3.8	3.8	3.8	5.0
Personnel	3.7	3.8	3.3	3.7	4.0
Other current expenditure	2.7	2.4	2.9	3.3	2.1 ^{/b}
Direct fixed investment	0.4	0.3	0.4	0.4	0.3 ^{/b}
Financial investment	0.3	0.3	0.2	0.4	0.7

^{/a} Budget accounts.

^{/b} Estimated.

Source: Statistical Appendix Table IX.

^{1/} Only 30% monetary correction is applied to the tax withheld.

66. The practice of revenue earmarking has also played a significant part in pushing up federal expenditure levels. In Brazil the technique of earmarking budgetary revenue for specific purposes has been used extensively to insure a steady flow of resources for major infrastructure and other public investment programs, as well as for revenue sharing with state and local governments. It has, however, introduced a considerable element of rigidity in the allocation of public resources among sectors. Spending on programs favored with earmarked finance has tended to rise automatically pari passu with the revenue available. Since earmarked revenues tend to be among the most buoyant of tax receipts, this has constituted a built-in factor of expenditure growth. At the same time little margin has been left for financing new programs out of existing budgetary resources. These have required new tax measures and sometimes new earmarking links to finance new programs every year.

67. Through 1975, about one-third of federal budgetary revenues were earmarked for predetermined uses. In 1976 most of the tax increases enacted involved earmarked revenues, and the earmarking percentage went up to 41.5% of cash revenue and 5% of GDP. This trend is expected to continue, and by 1979 a projected 51% of federal budgetary revenue will be assigned to predetermined uses. Unearmarked revenue, in the meantime, is expected to grow much more slowly. In an attempt to offset this tendency a gradual de-earmarking process was initiated in 1975. A progressively larger percentage of the federal government share in most earmarked taxes is being transferred to the National Development Fund (FND), to be invested in accordance with broader and more flexible criteria than those allowed by the strict earmarking links. So far, however, it has been difficult to break away from the restrictive guidelines of the earmarking system. Large amounts of revenue have been disbursed by the FND on the basis of the standard earmarking percentages. In time, however, a reordering of priorities at the planning stage should permit greater flexibility in the allocation of resources by the FND.

68. The prospect for 1977 is for a tight Treasury cash situation. Although revenue has continued to rise quite rapidly, it has been necessary to take a number of measures to restrain spending by a severe rationing of cash allotments throughout the year and by strict limitations on supplementary credits. On the other hand, the Federal Government is under pressure to reduce the backlog of unpaid bills, particularly by the Highway Agency and the Federal Railways, using for this purpose its temporary cash surplus built up in the early months of the year. Furthermore, there will be substantial additional claims on the Treasury to finance the continuing wheat subsidy.

Public Sector Investment

69. Although there are no comprehensive data on Brazilian public sector finances, there are clear signs of difficulties in overall fiscal performance. Many autonomous agencies and public enterprises appear to have embarked on investment programs which are overly ambitious within the context of the public sector's revenue constraints and some are heavily in debt. State and local governments have also resorted to borrowing on an unprecedented scale

to finance their growing budget deficits. The backlog of unpaid bills by some decentralized agencies remained large throughout 1976 although some progress was made to settle the outstanding accounts in early 1977. By the end of 1976, the public sector came to be recognized by the Government as a major factor of inflationary pressure, and the decision was taken to scale down the investment program proposed by the public enterprises and autonomous public sector agencies for 1977. The Government views the payments arrears as a temporary phenomenon symptomatic of a period of transition during which public entities are adjusting to tighter control by the Federal Government. In 1975-76 many decentralized public entities continued to aim at ambitious physical investment targets that had been incorporated in the original 1975-79 National Investment Plan. It was not until late 1976 that the Government imposed ceilings upon the investment budgets of these entities for 1977. The Government feels that investing entities of the public sector now understand they must abide by the prescribed ceilings and that physical targets are to be subordinated to financial constraints.

70. It would appear that the pace of public investment was actually stepped up during 1975 and 1976 from the already high levels reached in the early 1970s, despite serious balance-of-payments deficits and an accelerating inflation. At the same time, the growth of public sector savings was beginning to level off for a number of reasons, including the adoption of a more liberal federal wage policy, the natural tapering of the exceptional federal revenue growth rates brought about by a decade of reforms in tax structure and administration, and the continuing deterioration of state and local government finances. The savings-investment gap of the public sector, which in the early 1970s had fluctuated between 1 and 2% of GDP, is estimated to have reached 5-6% of GDP in 1976, on the basis of preliminary data concerning the aggregated financing needs of the major federal public enterprises (net of government transfers) and the borrowing requirements of state and local governments. The greater part of the savings-investment gap appears to originate in the public enterprises.

71. On the basis of preliminary data, the gross fixed investment of the major federal public agencies and enterprises increased about 13% in real terms in 1976. ^{1/} The largest increases were in the energy sector (PETROBRAS, ELETROBRAS), and in CVRD (which is principally a producer and exporter of iron ore). Growth was slower in steel and rail transport. Investment appears to have declined in real terms in the road transport and telecommunications sectors, which are receiving a lower priority.

72. As a major element of its stabilization strategy, the Government plans to reduce the public sector savings-investment gap by 2% of GDP in 1977.

^{1/} Agencies and enterprises included in this group are DNER, RFFSA, SUNAMAN, PORTOBRAS, TELEBRAS, CVRD and the SIDERBRAS group (including CSN, COSIPA and USIMINAS).

The most important component of this plan is to stabilize public sector investment at 1976 levels in real terms. ^{1/} To this end, investment ceilings have been defined for each enterprise. The transport sector will be hard hit, along with some social and regional development projects, as the investment effort concentrates increasingly in petroleum, steel and other basic industrial inputs, within the framework of the overall export and import substitution strategy. Ceilings are also being placed on the lending programs of the National Economic Development Bank, the Housing Bank, and the Federal Savings Bank. Part of the funds mobilized by the financial system for housing will be transferred to sectors of higher priority.

Investment Planning

73. For the longer term it will be necessary for the Government to make a more in-depth review of financial requirements by sector. The allocation of scarce fiscal resources among competing sectors will call for a more systematic evaluation of investment priorities than has been customary in the past. This is undoubtedly the most urgent task now facing the Brazilian public sector planners.

74. In the past, Brazilian development plans have consisted principally of a compilation of projects and programs, with little analysis of priorities within and among sectors. This "programmatic" approach contained little in the way of systematic examination of financial constraints. The dramatic success of the public sector in mobilizing resources permitted the financing of rapidly rising levels of public investment without difficulty as well as the channeling of increasing amounts of public savings to the private sector through the National Economic Development Bank, the National Housing Bank and other official financial institutions. The residual financing gap was covered with foreign borrowing. In the context of today's more severe financial constraints, the Federal Government now recognizes the need for a more careful budgeting effort for the public sector as a whole, with a more thorough evaluation of priorities.

75. Another important shortcoming of Brazilian public sector management is the absence of a well-established monitoring system of investment plan execution. Even within the Federal Government's own administration, the expenditure reporting system is used principally for accounting control rather than for purposes of investment programming. When it comes to the rest of the public sector, the information coming forth from autonomous agencies, public enterprises, and state and local governments is at best fragmentary. An improvement in this area is essential if substantial progress is to be achieved in the quality of Brazilian planning.

^{1/} Other measures in the package include tighter public sector wage policies, and stricter control of state and local government borrowing. It does not appear that there will be a significant reduction in subsidies on consumption, as had been originally planned.

State and Local Government Finance

76. The state and local governments are now in a growing financial squeeze because of the failure of their tax revenues to keep up with current expenditure growth. Revenue from the state value added tax (ICM), which is the cornerstone of both state and municipal finance, is rising very slowly (the increase was less than 2% in real terms in 1976), partly because of a progressive reduction in rates and partly because of the increasing cost of fiscal incentives to exports. The basic ICM tax rate has been reduced by one-half of a percentage point annually, from 18% in the North and Northeast and 17% in the Center-South in 1970, to 15 and 14%, respectively, in each of these two regions by 1976. The interstate tax rate was reduced even more (from 15 to 11%) in order to achieve some redistribution of revenue in favor of the poorer states. Of even greater significance, the states have been required to grant tax reductions and exemptions to a number of key agricultural exports, as well as complete exemption and tax bonuses for manufactured exports and for domestic equipment. The revenue loss resulting from the fiscal incentive system has been growing rapidly, in both industrial and agricultural states. In the state of Sao Paulo this loss was estimated at about Cr\$ 7.5 billion for 1976, equivalent to 25% of the state's revenue from the ICM in that year (excluding the share earmarked for the municipalities).

77. From the fragmentary data available it appears that state tax revenues have covered little more than current outlays in recent years, leaving the states entirely dependent on federal government transfers and borrowing to finance their investment programs. In 1976, the financing gap of the state governments (after allowing for federal transfers), was estimated at approximately Cr\$ 15 billion, or close to 20% of total state spending, and about 1% of GDP. State and local governments have had to rely more and more heavily on borrowing in both domestic and foreign capital markets. Domestic bond issues rose by about Cr\$ 10 billion, on a net basis, in 1976. The private market now appears to be saturated, however, and substantial amounts of securities are placed with the Federal Savings Bank, the Federal Housing Bank, the state savings banks, and other state financial institutions. Demand for state bonds was also affected by a general shift away from indexed government paper after private interest rates were freed in 1976 and the monetary correction on public bonds altered by the federal government to provide substantially less than full compensation for inflation.

78. The Federal Government has asked the states to join in the effort to reduce the public sector financing gap by keeping their budgets balanced in 1977, and limiting wage increases to 20%. State and local government borrowing will be highly controlled under existing federal regulations. At the same time, however, a number of steps have been taken by the Federal Government in 1976 and 1977 to ameliorate the tight financial position of state and local governments. Beginning in 1976, federal revenue sharing transfers are being increased annually by 2 percentage points until, by 1979, they reach 20% of federal income and sales tax receipts (excluding the business income tax revenue earmarked for PIN and PROTERRA). This should

bring some relief, particularly in the poorer states where federal tax transfers represent a substantial share of total revenue. In addition, the Federal Government will absorb 50% of the cost of state tax incentives on manufactured exports in 1977 and 100% of this cost beginning in 1978. This will permit a significant retransfer of fiscal resources to the more industrialized states but will be a substantial additional burden on the federal budget.

79. While these measures will help marginally to improve the fiscal position of the states, the basic issues confronting state and local government finance remain unresolved. It is clear that progress towards a lasting solution to the state governments' fiscal problems would be made, at least in the wealthier states, by giving them more freedom to develop their own sources of revenue. In the poorer states, on the other hand, the solution will probably have to involve a better interstate distribution of ICM revenue, either through a reform of the tax itself, or through the establishment of some sort of equalization fund. In the absence of alternative revenue sources, the problem of exemptions for agricultural exports will continue to be serious for the less developed regions, where these products constitute an important element of the state tax base.

V. BALANCE-OF-PAYMENTS MANAGEMENT

The Balance of Payments

80. In attempting to redress the balance-of-payments disequilibrium which stemmed from the 1974 energy crisis the Government has brought to bear upon the problem a wide range of direct controls and discretionary administrative measures. The primary target of these measures has been to control imports although export growth is still an important policy objective. The fact that imports in 1976 were held virtually constant in nominal terms for the third consecutive year is an indication that the controls have been quite effective.

81. Starting in mid-1975 a wide range of imports have been made subject to a prior deposit equal to 100% of their f.o.b. value. Initially the deposit was held for 180 days but subsequently this period was extended to 360 days at the end of which the deposit is reimbursed at face value without monetary correction or interest. At the level of inflation currently prevailing in Brazil the cost of this deposit to the importer is substantial and is equivalent in effect to a large, albeit partial devaluation of the cruzeiro. Many classes of imports are still exempt from this deposit, however, despite a gradual reduction of exemptions that has taken place.

82. A second instrument of import control since 1975 has been to define and enforce import ceilings for all government entities for the purchase of goods and equipment from abroad as part of their operational or capital programs. The aggregate 1976 target amounted to US\$1.5 billion -- fully 25% lower than the actual 1975 level in nominal terms. As far as direct imports are concerned the overall target was effectively enforced. An even stricter overall target is defined for 1977 with a further 12% across the board reduction in the nominal value of imports. The only sectors exempt from the further cuts are the steel and the petrochemical sectors. Both the import budgets and the investment programs of public entities in these sectors have been scrutinized by the Federal Government, however, to ensure that they stay within reasonable limits.

83. Most of the general measures of import control have excluded petroleum because of the special factors applying to that commodity. A number of special measures were taken in 1976 to cut back on the consumption of petroleum products -- particularly by raising the retail price of gasoline. These measures proved to be inadequate to prevent a large increase in the value of petroleum imports, however, amounting to 28% over the year as a whole. Even when due allowance is made for the increase in OPEC prices at the beginning of the year and for a certain amount of stockpiling on the part of PETROBRAS towards the end of the year in anticipation of the next OPEC price increase, it is clear that consumption of petroleum products increased substantially in 1976. Additional controls upon consumption were introduced in January 1977. All gas stations were required to close at night from 11 p.m. to 6 a.m. and at weekends from 6 p.m. on Saturday through all of Sunday to the following Monday morning. There are only

a few exceptions linked to the road transport of agricultural commodities for export. In addition to these direct controls the retail prices of diesel, fuel oil and gasoline were raised substantially and a one year compulsory deposit on fuel oil amounting to Cr\$250 per ton was put into effect.

84. In response to these measures gasoline consumption is reported to have fallen by 8% in the first four months of the year. It appears, however, that consumption of diesel and fuel oil has increased significantly in the same period so that the overall demand for petroleum products may show little change. While measures taken by the Government have been effective in controlling demand it has recently been announced that, as part of a price control package, there will be little or no further increase in gasoline prices for the remainder of 1977 above the Cr\$ 6 per liter fixed in April. This would imply an erosion of the price in real terms. The disparity between gasoline and diesel prices is another issue that the Government should consider. Diesel prices were raised to Cr\$3.30 per liter in May 1977 but still remain much lower than the price of gasoline. The relative price structure of petroleum derivatives acts as a strong incentive to substitute diesel for gasoline and the strong rise in diesel consumption apparent in the first part of 1977 may well continue as long as the wide price differential persists.

85. A number of stringent measures have been taken to limit the import of consumer goods and non-factor services. Toward the end of 1975 tariffs were raised to 100% on selected consumer goods and 30% on certain intermediate products. In February of 1976 quantitative import restrictions were applied through the issue of import licenses to a wide range of consumer goods designated as "non-essential". Later in 1976 a compulsory one-year, non-interest bearing cash deposit was required of Brazilians travelling abroad. The deposit was raised to Cr\$16,000 in February 1977. These measures undoubtedly helped to keep down imports of consumer goods and to curtail travel abroad. The importance of these items within the balance of payments is relatively small, however.

Exchange Rate Management

86. The crawling peg system of exchange rate adjustment currently practiced by Brazil constitutes a convenient instrument of exchange rate management in the context of persistent domestic inflation. By accelerating or decelerating the pace of exchange rate adjustments, the Government can offset variations in the rate of inflation without resorting to major devaluations. Market disruption can thereby be minimized and the value of the cruzeiro can be preserved in real terms vis-a-vis the currencies of Brazil's major trading partners.

87. If the cruzeiro is not to become overvalued, the pace of mini-devaluations under the crawling peg system should fully compensate for net inflation in Brazil (i.e., the ratio between domestic inflation and inflation in Brazil's major trading partners). In this context, industrial wholesale prices probably constitute the most appropriate measure of inflation. A month-by-month examination of exchange rate movements relative to net inflation over the past four-and-a-half years reveals a tendency for devaluation

to exceed net inflation for the period as a whole. Nevertheless, there have been significant deviations from the trend at times. In 1975 devaluation fell behind net inflation so that the competitive position of Brazilian exports was eroded by some 4-5% during the course of the year. This appreciation in the real value of the cruzeiro was arrested in March 1976, however. Since that time it appears that devaluation has been rather more than sufficient to offset further net inflation. As of June 1977 the value of the cruzeiro vis-a-vis the currencies of Brazil's major trading partners was about the same as the average real value for 1974.

88. It is of paramount importance that Brazil re-establish a strong growth in manufactured exports and the expansion of manufactured exports is particularly sensitive to exchange rate policy. The recent performance of manufactured exports is distorted by the inclusion of soluble coffee and refined sugar. If soluble coffee and refined sugar are omitted, it appears that in 1976 manufactured exports increased by less than 3% in nominal terms. This should be viewed within the context of a world market for manufactured goods which was expanding at a reasonably good pace. Imports of manufactured goods from all sources by the OECD countries rose by 17% in 1976. ^{1/} It appears, therefore, that Brazil's share of the market may have declined in 1976 for the first time in many years. This may reflect the lagged effect of devaluation falling behind net inflation in 1975. Data for the first five months of 1977 indicate some improvement of growth in manufactured exports other than soluble coffee and refined sugar. In the period January through May the dollar value of manufactured exports was 12% above the level of the corresponding period of 1976, probably 4% in real terms. This is still below the average of the last few years and below the pace that will have to be sustained if Brazil's overall export performance is to remain strong. It is, therefore, important that the competitive position of manufactured exports be maintained. A continuing active policy of exchange rate adjustment to compensate fully for net domestic inflation will contribute significantly to that goal.

Import Substitution

89. The industrial development strategy outlined in the Second National Development Plan for the period 1975-79 placed considerable emphasis on an acceleration of import substitution for a number of major products. In an effort to reduce the country's dependence upon imported petroleum a major program was launched to expand domestic petroleum production. At the same time, other domestic energy sources such as hydroelectric power were to be developed at an accelerated pace and, in preparation for the longer-term future when hydroelectric resources would be insufficient to meet the nation's rising energy needs, steps were taken to develop a national capability in nuclear

^{1/} SITC categories 5 through 9. The 17% expansion of manufactured imports in nominal terms by OECD countries in 1976 may be compared with expansion rates of 2% in 1975, 26% in 1974 and 34% in 1973.

technology. Yet another aspect of the strategy to reduce Brazil's dependence upon external sources of fuel was an ambitious program for the production of alcohol from sugar and manioc as an additive to gasoline.

90. The thrust towards import substitution went far beyond the energy sector, however. Explicit programs were prepared for self-sufficiency in iron and steel, non-ferrous metals, cement, paper, fertilizers and petrochemicals. Agriculture was to play an important role by attaining self-sufficiency in wheat. In addition, the capital goods industry was identified as a broad sector in which import substitution was to be a major goal. It was recognized in the Development Plan that these import substitution efforts might involve heavy foreign exchange outlays for the sophisticated capital goods most of them would require (the principal exceptions being the alcohol and wheat programs which were to be based largely on domestic technology). The government felt that they could become economically viable in the medium term and were indispensable if Brazil were to fully adjust to the sharp reversal in the terms of trade which took place in 1973 and 1974. Now that the halfway point in the Second Plan has passed, it is instructive to review the progress being achieved.

(a) Capital Goods

91. Data on the capital goods industry are difficult to aggregate and summarize because of the great diversity and heterogeneity of the sector. However, statistics on real production compiled by the Central Bank indicate that real production of capital goods rose by some 13.6% during the first two years of the Second National Development Plan. Alternative estimates by the Brazilian Machinery and Equipment Industries Association indicate that the real value of machinery and equipment production rose 26.4% during the same period. Despite the discrepancies in data, however, it would appear that the development of a national capital goods industry may be lagging behind the target 70% increase in production set by the Second National Development Plan for the whole 1975-79 period.

92. An effort to accelerate the growth of the capital goods industry can be expected during the next few years. Several steps in this direction have already been taken during 1977. These include an extension of the 100% prior import deposit requirement to many imports of capital goods, tighter limits on capital goods imports by the public sector, and a decrease in the permissible import content of most domestically produced capital goods from 20% to 15%. ^{1/} The BNDE is devoting substantial resources to financing the expansion of the domestic capital goods sector. Some 36 projects valued at about US\$500 million were approved during the period 1974-76 and it is expected that the sector will continue to absorb considerable amounts of BNDE funds in the future.

^{1/} In the case of capital goods produced by sophisticated technologies the maximum import content has been reduced from 30% to 20%.

93. The Industrial Development Council (CDI) indicates that the share of national equipment in CDI approved projects has risen from 30% in 1973 to 57% in 1976. There are other indicators that the Brazilian capital goods sector is growing in strength. Domestic firms have been increasingly successful in winning contracts subject to international competitive bidding in projects financed by international credit agencies and this suggests that the sector is reasonably competitive. However, firms participating in international competitive bidding qualify for the same substantial tax incentives as exporters and in the case of World Bank financed projects domestic suppliers enjoy a 15% preference.

(b) Petrochemicals

94. Three major petrochemical complexes will be in operation by the 1980s. One in Cubatao on the Sao Paulo coast is already in operation, one at Camacari near Salvador in Bahia is under construction, and a third is planned for near Porto Alegre in Rio Grande do Sul. The development of these petrochemical centers illustrates several interesting features of national industrial policy. The Bahia and Rio Grande complexes are explicitly designed to further regional decentralization of industrial activity away from the Center South, and will be built on new sites, albeit near well established major industrial centers. They incorporate the "tripod" concept on ownership whereby a "raw materials center" producing basic petrochemical building blocks is fully owned by Brazilian government enterprises, while the equity of downstream plants is divided between foreign private companies, Brazilian state enterprises and Brazilian private enterprises each owning one third. This system is intended to maintain Brazilian government control of the overall project while at the same time stimulating the inflow of capital and the transfer of technology from abroad. The development of Brazilian private enterprise will also be assisted by their participation in the downstream plants.

95. All three complexes are located near major Petrobras refineries. The principal raw material is ethylene -- 340,000 tons per year in Sao Paulo, 380,000 tons per year in Bahia (which is scheduled to come on stream in 1978) and between 420,000 and 470,000 in Rio Grande do Sul (which is scheduled for 1981/82). Construction of the Bahia complex is proceeding on schedule, and the installed capacity projected by the Second National Development Plan appears likely to be achieved. The economic feasibility of these projects has been carefully appraised and, because of their large size, there is no doubt that the output of these complexes will be competitive with imports.

(c) Fertilizers

96. It can be seen from the table below that there has been a substantial increase in the production of nitrogenous and phosphate fertilizers in the recent past from a total of 537,000 tons in 1974 to some 946,000 tons in 1976. The production of potassium based fertilizer is scheduled to begin in 1979. From the present perspective it appears that the targets of the Second National Development Plan for 1979 will be exceeded by some 60%. The IBRD

is participating in the financing of two major nitrogen fertilizer complexes, one based on refinery feedstock in Parana and a natural gas based facility in Sergipe, as well as a phosphate project in Minas Gerais. Detailed project appraisals have indicated that these projects will be fully competitive with imports in their respective marketing regions. Other projects of the import substitution program also are expected to be fully competitive.

Table 12: PRODUCTION OF MAJOR NUTRIENTS

(thousand metric tons)

	Actual		Projected	
	1974	1976	1979	1985
Nitrogen (% of consumption)	150 (38.6)	160 (32.8)	485 (68.3)	980 (70.0)
Phosphorous (% of consumption)	387 (42.3)	786 (68.6)	1356 (89.2)	2026 (78.5)
Potassium (% of consumption)	- (0.0)	- (0.0)	100 (11.1)	500 (29.4)

Source: IBRD estimates.

(d) Metals

97. The demand for steel has not expanded as rapidly as was envisaged in the Second National Development Plan. In large measure this is due to a lower rate of economic growth than was envisaged. Whereas the plan assumed that GDP would grow at an average of 10% per annum, actual growth during 1975 and 1976 has averaged only 6.5%. Parallel to the unexpectedly slow growth of demand, there have been shortfalls in production. Administrative and management problems have delayed the implementation of the investment program in steel and this has caused production to lag behind the targets of the Second National Development Plan.

98. Despite the fact that both supply and demand for steel are lower than the plan targets, the balance between the two is not out of line with what was projected. As a result, import substitution has not lagged as much as would have otherwise been the case. By 1979 domestic production is projected to be equal to 93% of domestic consumption even though it will amount to little more than 60% of the forecast in the Plan. By 1985 production is projected to reach 21 million tons, 100% of projected consumption. Steel from coastal plants is expected to compete successfully in export markets, given the modern technology being employed and the local availability of high grade raw materials.

Table 13: Metal Production
(thousand metric tons)

	<u>Actual</u>		<u>Second</u> <u>National</u> <u>Dev. Plan</u>	<u>Mission Estimates</u>	
	1974	1976	1979	1979	1985
Steel, rolled products (% of consumption)	5,760 (62.2)	7,286 (89.4)	17,400 <u>/a</u> (151.3)	10,700 (93.0)	21,750 (100.2)
Aluminum <u>/b</u> (% of consumption)	126 (53.5)	165 (67.7)	190 (48.8)	286 (73.5)	589 (61.7)
Copper <u>/b</u> (% of consumption)	54 (28.2)	37 (20.2)	60 (20.0)	96 (32.0)	494 (79.2)
Lead <u>/b</u> (% of consumption)	63 (69.9)	73 (92.3)	-	115 (45.8)	244 (90.7)
Zinc <u>/b</u> (% of consumption)	36 (36.1)	53 (50.1)	58 (43.9)	131 (99.2)	168 (64.6)

/a Converted from ingot basis.

/b Includes primary and secondary production.

Source: CONSIDER and mission estimates.

99. Considerable progress has been made in the production of non-ferrous metals and by 1979 the Plan forecasts for copper, aluminum, and zinc should be exceeded by ample margins. The prospective picture for 1985 is less clear, however, and the mission projections must be taken as purely indicative.

(e) Petroleum

100. Petroleum products constitute by far the largest item on Brazil's import bill. In 1976 they amounted to US\$3.6 billion or about 30% of total merchandise imports. It is understandable, therefore, that a program of import substitution should give close attention to the possibilities for achieving greater independence from foreign energy sources. The government's plans in this respect are multifaceted. On the demand side of the equation, efforts are being made to reduce the consumption of petroleum products by encouraging the growth of mass transportation and discouraging the indiscriminate use of the private automobile. From the point of view of domestic production, efforts are being made to step up petroleum production and to develop

substitutes for petroleum-based fuels (such as alcohol). ^{1/} It is in petroleum production that the Brazilian energy program is lagging most. Despite discovery of a number of promising fields in offshore areas, total production has declined steadily since 1974 at a time when consumption and imports have accelerated. In the first five months of 1977 the decline in production was 5.1% compared with 1976, thus continuing the downward trend of the past three years. The annual statistics for 1974-76 are presented in the following table together with mission projections for 1979 and 1985.

Table 14: PRODUCTION, CONSUMPTION AND IMPORTS OF CRUDE OIL

(million barrels)

Year	Production	Imports	Consumption
1974 (% of consumption)	66.2 (21.5)	241.4 (78.5)	307.6 (100.0)
1975 (% of consumption)	64.2 (20.0)	256.0 (80.0)	320.2 (100.0)
1976 (% of consumption)	61.0 (16.8)	301.5 (83.2)	362.5 (100.0)
1979 (% of consumption)	85.0 (21.3)	314.7 (78.7)	399.7 (100.0)
1985 (% of consumption)	206.7 (36.5)	360.2 (63.5)	566.9 (100.0)

Sources: Central Bank of Brazil, Secretariat of Planning, and mission estimates.

101. To stimulate production, the Government has authorized PETROBRAS to step up its exploration and development program, which has received top priority in the 1977 government investment budget. PETROBRAS is one of the few autonomous agencies of the Government to be permitted a significant increase in its investment budget. The increase is estimated at 20% in real

^{1/} Only a small proportion of electric power generation is based upon thermal production. The power sector is not, therefore, involved directly in the present efforts towards import substitution. On the other hand high priority is being given to further hydro-electric power projects and to developing a nuclear power capability so as to avert the possibility of the power sector becoming dependent upon thermal generation in the future.

terms for 1977. In 1977 PETROBRAS plans to drill a record total of 96 exploratory wells, 55 of them offshore.

102. In October 1975, the Brazilian Government announced a major policy change whereby Brazil would enter into risk contracts with foreign petroleum companies, thereby ending the monopoly of PETROBRAS in national exploration and development. This policy change could have far-reaching implications in terms of facilitating the transfer of offshore technology to Brazil. In the first instance, 60,000 km² were opened for bidding and the first contract was signed in November 1976. A total of four contracts have been signed through May 1977, with Exxon, British Petroleum, Shell, and Elf-Agip. It is unlikely that the activities of these foreign companies will result in any substantial production before the 1980s. Nevertheless, with the contracts already signed and others which are expected in the coming years, Brazil should be able to significantly increase its effective exploration and development program without sacrificing ultimate control of the overall effort.

(f) Alcohol as a Transport Fuel

103. Another major component of the program to reduce petroleum imports is the National Alcohol Program (PNA) which was established in 1975. The target of the program is to produce 4.2 million liters of alcohol by 1980, sufficient to mix with all domestically consumed gasoline in a proportion of 20% as well as to satisfy non-fuel demands. Gasoline motors can be adapted easily to this alcohol mix with only minor adjustments. At first it is planned that alcohol will be derived as a by-product of conventional sugar factories. Later, however, direct production from both sugar and manioc is envisaged.

104. Under the alcohol program some Cr\$ 9.6 billion has been allocated in 1977 to finance distillery projects. Credit is extended for 12 years and carries 17% interest (15% for projects located in the Northeast). At present rates of inflation the element of subsidy in the credit is very large indeed. As of April 1977, 112 project requests had been received by authorized financial agencies, 71 had been approved, and 31 contracted. Implementation of projects under this scheme has lagged, however, in part due to the startup problems of processing a large number of projects through the financial system.

105. The Government has drawn attention to several advantages of the alcohol program in addition to its strictly foreign exchange saving function. First, it will utilize locally developed Brazilian technologies for the direct conversion of sugar and manioc to alcohol. Second, the construction of distilleries is possible without recourse to foreign equipment. Brazilian suppliers already have the capacity to produce distillation plants using very few imported components. Third, the program would create strong linkages between industry and agriculture. The employment creation potential of the program is particularly striking. Some 240,000 new jobs would be created by fulfillment of the 1980 production target, and most of these would be rural

areas where job opportunities are urgently needed. Fourth, to the extent that manioc rather than sugarcane is used for direct conversion to alcohol, low quality lands without alternative uses can be employed. In order to produce from manioc 3.5 of the planned 4.2 billion liters of alcohol by 1980, the area presently devoted to manioc production would have to be increased by one third. Fifth, it has been determined that air pollution from the combustion of alcohol is only one tenth of that produced by gasoline combustion.

106. However, the substitution of alcohol for gasoline is questionable on grounds of cost efficiency. The average cost of imported crude petroleum c.i.f. Brazil is currently about US\$15 per barrel and refining is estimated to add a further 50 US cents per barrel. Hence the average ex-refinery cost of a barrel of petroleum derivatives including either diesel or gasoline is in the vicinity of US\$15.5 per barrel, or Cr\$ 1.36 per liter at the current official exchange rate. The cost of petroleum products derived from domestic crude will be much lower than Cr\$ 1.36 per liter. From the point of view of economic analysis, however, the cost of products derived from imported crude is the appropriate increase of marginal cost with respect to the consumption of gasoline or diesel oil in Brazil.

107. In estimating the cruzeiro cost of gasoline and diesel to Brazil it may be argued that the official exchange rate does not reflect adequately the "true value" of foreign exchange because of the wide range of import restrictions and export incentives which apply to trade in many areas. If use is made of a shadow price for foreign exchange 25% higher than the official exchange rate to compensate for these factors, the cost of petroleum derivatives ex-refinery would amount to Cr\$ 1.7 per liter.

108. The current cost of alcohol at the distillery is Cr\$ 3.4 per liter-- fully twice the cost of gasoline or diesel. Moreover, it appears that the present price of alcohol may be insufficient to cover long-run marginal cost and there is a proposal to increase the price to Cr\$ 5.0 per liter. Even when due consideration is given to the secondary advantages of alcohol over gasoline as a transport fuel, the cost difference between the two is large. From the present perspective, therefore, it would appear that alcohol is not competitive with gasoline or diesel as a transport fuel. Only if international petroleum prices were to rise substantially above their present levels would these be an economic case for substitution by alcohol.

(g) Wheat

109. Stimulating domestic wheat production so as to substitute for wheat imports has long been a declared objective of Brazilian agricultural policy. The rapid expansion of wheat production since 1963 to a level of 3.2 million tons in 1976 was spurred by high producer prices (always well above the price of imports) and a greatly improved credit and marketing system administered by the Bank of Brazil through wheat producers' cooperatives. Other factors behind the rise in production included improved scientific and technical

support for wheat culture, and the practice of double cropping wheat and soybeans (soybeans being sown immediately after the wheat harvest) in the main producing states of Rio Grande do Sul and Parana. Despite improvements in technology and marketing, however, the cost of domestic wheat production remains high.

110. Parallel to the large increase in production, consumption has also expanded rapidly, particularly since 1974 when the Government began subsidizing consumers as well as producers by selling wheat to the mills at well below the world price. Consumption (including for seed) is estimated at 5.4 million tons in 1976 and 6.0 million tons in 1977. Since the 1976 harvest is consumed in 1977, somewhat more than 50% of consumption this year will be wheat produced in Brazil.

111. The subsidy to the consumer reflects the low price at which wheat is sold to the mills by the government marketing agency. At the time of the last harvest in November 1976 the price of wheat to the mills was only 40% of the import price. In December 1976 the price of wheat to the mills was increased by 64% to Cr\$ 1,201 per ton and the Government declared that the consumer subsidy would be eliminated entirely in two more steps by the end of 1977. In the face of rising inflation, however, the Government has suspended any further increase in the price of wheat to the mills for the remainder of 1977. Wheat is the only major imported commodity which is subsidized to the consumer. The foreign exchange cost of this subsidy in terms of higher wheat imports is probably significant.

112. Estimates of future wheat consumption, production, and imports have been made on the assumption that the consumption subsidy is gradually phased out after 1977 while the producer subsidy is maintained at the existing level in real terms. On this basis, it is estimated that domestic production will supply about 52% of consumption in 1979 and 68% in 1985.

VI. THE SHORT-TERM OUTLOOK

The Outlook for Coffee

113. The exceptionally high level of coffee prices is the single most important event affecting the short-term outlook for Brazil. A major factor behind the rise in coffee prices was the severe frost which struck Parana causing major losses in the two subsequent coffee crops. As a result of the frost, it is estimated that production fell to 6.5 million bags in 1976 compared with 22.2 million bags in 1975 prior to the frost. ^{1/} Production may recuperate to 15 million bags in 1977, but it will take a further year or two to completely recover from the frost. There are indications that many of the lands formerly planted to coffee in frost-prone Parana have been switched to other crops. There is also evidence that the center of coffee production is moving north to Minas Gerais. The switch in cultivation patterns may delay the full recuperation of Brazilian coffee production to previous levels, but it is likely to result in a coffee crop which is much more secure from frost damage in the future.

Table 15: COFFEE SUPPLY AND DEMAND, ACTUAL 1974-76 AND PROJECTED 1977-1980

(million 60-kg bags)

Calendar Year	Opening Stock	Production	Domestic Consumption	Exports	Imports	Closing Stock
1974	27.1	28.1	7.5	13.3	-	34.4
1975	34.4	22.2	7.9	14.6	-	34.1
1976	34.1	8.5	6.5	15.6	0.7	21.2
1977	21.2	15.0	6.5	13.0	0.5	17.2
1978	17.2	22.0	7.0	15.0	0.5	17.7
1979	17.7	25.0	7.5	15.5	-	19.7
1980	19.7	27.0	8.0	17.0	-	21.7
1985	29.0	30.5	10.0	20.0	-	29.5

Source: Brazilian Coffee Institute (IBC) 1974 and 1975, and mission estimates 1976-85.

^{1/} Coffee production for the crop year 1976/77 is a matter of disagreement. The Brazilian Coffee Institute has estimated 6 million bags. The U.S. Department of Agriculture has estimated 9.5 million bags.

114. Frost damage to the Brazilian crop is not the only factor behind the present high coffee prices, however. Another contributing factor has been a reduction of supply from Africa. There was also an interruption of supply from Guatemala after an earthquake struck that country. Even when production fully recovers from recent setbacks there will be a need to rebuild stocks which have been drawn down significantly from 34 million bags prior to the frost to 21 million bags at the end of 1976. A further draw-down of stocks to 16 million bags is expected in order to maintain export volumes in 1977, despite a significant recovery in production from the very low level of the previous year. In 1978, however, production is expected to recover to a level where it will supply both domestic consumption and exports. Only in subsequent years will the process of stock replenishment begin to take place. The optimal level of stocks for the longer run is considered to be in the range of 25-30 million bags. It is likely that this level will not be attained again until the early 1980s.

115. Brazil was able to take full advantage of the high coffee prices which prevailed in 1976. The value of coffee exports (both beans and soluble together) amounted to US\$2.4 billion, thereby exceeding the previous 1973 record of US\$1.3 billion by a large margin. It appears that the record may be broken again by a large margin in 1977 because of the extraordinary escalation of prices in the first half of the year. Average prices for Brazilian coffee are projected at about US\$2 per lb for 1977 compared with US\$1.16 per lb in the previous year. Export volumes may be slightly down on 1976 despite an improvement in production. Nevertheless, the total value of coffee exports is projected at about US\$3.5 billion in 1977.

116. The latest analysis of the world coffee market by Bank staff indicates that prices may well stay above their historic levels in real terms for two or three years to come. Nevertheless, prices are projected to decline by more than one quarter from an average of US\$2 per lb for Brazilian coffee in 1977 to about US\$1.60 in 1978 so that even with some improvement in production and export volumes export revenues from coffee are projected at only US\$3.2 billion. Beyond 1978 exports of coffee are projected to stabilize for a number of years in the range of US\$2.7-2.9 billion with growing export volumes being offset by a gradually declining price. By 1980 coffee may account for no more than 14% of merchandise exports. By 1985 it is likely to have declined to well below 10%.

Prospects for 1977

117. Three years after disequilibrium was provoked by the energy crisis of 1974 the Brazilian economy is still grappling with the problems of stabilization and of adjustment to a new international economic situation. Growth during the remaining years of the 1970s will depend in large measure upon the Government's short-term stabilization strategy. The Brazilian authorities are aware that if inflation is to be brought under control and if the balance of payments is to be placed upon a sound basis in the medium term, growth must be

moderated. This will not be an easy task and will require a disciplined approach to economic management.

118. Although the major issues of economic management facing the Government have not changed fundamentally in the last two or three years, recent developments have caused the Government to reorder its policy priorities in 1977. Whereas on previous years the primary focus of policy was to bring the balance of payments into a better equilibrium, the pressures of this problem have been relieved, at least temporarily, by favorable developments in world market prices for Brazil's major export commodities--notably coffee and soybeans.

119. The average price realized for Brazilian coffee during 1977 as a whole is projected to be 70% above the corresponding price for 1976 and on this basis the value of coffee exports will reach US\$3.5 billion compared with US\$2.4 billion in 1976. Soybean prices are projected at 30% above their 1976 levels and export earnings from this source should amount to US\$2.1 billion in 1977. Furthermore, the prices of other export commodities, notably citrus products and cocoa, are also projected to rise significantly in 1977. As a result of these developments, total merchandise exports are likely to reach about US\$13.0 billion--28% higher than in 1976.

120. Government efforts to maintain imports roughly constant in nominal terms for the fourth consecutive year seems to be meeting with success. During the first four months of 1977 imports rose less than 2% above the level of the corresponding months in the preceding year. Particularly noteworthy was the low 4% increase in petroleum imports which seems to indicate a reduction in volume terms. During these first four months it appears that PETROBRAS may have been using some of the stocks which were accumulated towards the end of the previous year. Imports of petroleum during the remainder of 1977 are likely to increase because domestic production of crude oil is declining and the consumption of petroleum derivatives is still increasing at a rate of 3% per annum despite recent Government restrictive measures.

121. Wheat imports, the second most important item of foreign exchange expenditure for Brazil, were less than half of the previous year's level during the first four months of 1977. This reflects the improved domestic supply situation and much lower prices for imports. Fertilizer imports increased substantially by 35%, however, and steel imports by 49%; the latter apparently due to the late arrival of some shipments originally scheduled for 1976.

122. For 1977 as a whole merchandise imports are projected at US\$12.7 million--some 3% higher than the previous year but less than 1% above the peak import level of 1974. If the Government thus succeeds in its declared goal of maintaining imports roughly constant in nominal terms there is every prospect of a US\$200-300 million surplus on the 1977 merchandise trade account. This would imply a current account deficit of approximately US\$4.0 billion which would be a vast improvement on the US\$6.6 billion average of the past three years.

123. Data for the first five months of 1977 indicates that GDP growth is somewhat less than in 1976. Agricultural growth is boosted by the recovery of coffee and may reach 7% in 1977. Industrial growth has been cut back significantly from the 11% rate of 1976 but still is running at about 6.5%. The rate of growth of services also is expected to decline from its 1976 level to some 7.3% in 1977. As a result of these sectoral trends, overall growth is projected at 7% for 1977.

124. Inflation did not abate during the first few months of 1977. Indeed, the general price index rose at an average monthly rate of 3.7% during the first five months of the year. In June and July, however, prices increased at a much slower rate of 2% per month. Assuming that the government anti-inflationary measures continue to take effect later in the year and that there is some further tapering-off in prices, the prospects for 1977 as a whole are for a rate of inflation slightly less than that of the previous year.

VII. THE LONGER-TERM PERSPECTIVE

Population Trends and Manpower Resources

125. Brazil's 1977 population of 116 million is estimated to be growing at about 2.8% per annum. It is difficult to predict accurately changes in the rate of population growth because much depends upon development in social attitudes and upon government policy with respect to population planning. The rate of demographic growth has declined significantly during the past twenty-five years, however, and could continue declining in the future to about 2.4% by the year 2000. On that basis it is projected that the population will have reached some 210 million by the turn of the century. This projection is consistent with a continued decline in both the crude birth rate and the crude death rate. It is also consistent with an increase in the average life expectancy at both from an estimated 64 years at present to 71 years by the year 2000.

126. Even if the growth rates of urban and rural population follow the projected national trend and decline from their 1960-70 levels, rural-urban migration is likely to continue to lead to a relatively rapid rate of urbanization. Urban population growth was estimated at an annual rate of 4.4% in the 1970s. This annual rate may decline to 4%, however, in the period 1980-90. Concomitantly, the share in total population of the urban population in centers with 20,000 inhabitants or more is likely to increase from 40% in 1970 to 48% in 1980 and 54% in 1990. Current projections of the distribution of the urban population indicate that the metropolitan areas of Rio de Janeiro and Sao Paulo could account for 37% of the urban total by 1990, with a further 21% in seven regional metropolitan areas (Belem, Fortaleza, Recife, Salvador, Belo Horizonte, Curitiba and Porto Alegre). Cities whose present population exceeds 250,000 are projected to contain an estimated 68% of the total urban population in 1990 or approximately 58 million. The urgent need to formulate a coherent urban development strategy is underscored by the fact that the total urban population in centers of 20,000 or more is likely to grow by 47 million in the period 1970-90. Of this increment, 32 million may be concentrated in cities currently with 250,000 inhabitants or more.

127. The provision of basic social services such as education and housing and provision of sufficient employment for a population of 200 million or more over the next 25 years will not be easy and will require careful planning. The creation of employment opportunities in urban areas will require particular attention. Although the overall average annual growth in urban population is projected at 4%, it is expected that the economically active population will expand as a proportion of the total so that the demand for employment is likely to grow at a rate closer to 5% per annum. In order to cater to this demand, the growth of job opportunities would have to be even greater than in the first half of the 1970s. This could only be accomplished within a context of high and sustained economic growth.

128. Between 1970-75, a 9.4% averaged annual rate of economic growth was accompanied by rapid expansion of employment opportunities (3.7% annually), such that by the end of the period the supply of skilled manpower could hardly meet demand. Overall industrial employment increased at an annual rate of 5.5%. In commerce and services, the annual growth rate was 4.9%. Agricultural employment tended to stagnate, growing at an annual rate of only 1.6% and throughout the period there was a marked shift of labor out of agriculture and rapid urbanization. Although average economic growth has slowed in the two-year period 1975-76 and is likely to be more moderate for the next several years, the prospects in the medium and long run are favorable. However, while the absolute number of new entrants to the labor force over the next decade will be adequate to meet demand, their low skill level will place increasingly serious constraints on economic growth. The formal education system has been expanding rapidly and at present reaches 86% of the school age group (7-14 years), but some 80% of adults have not completed primary education and illiteracy rates are high at 36% of the total labor force (50-60% in agriculture). In order to avoid the possibility that growth may be held back by bottlenecks in the supply of skilled manpower, it will be necessary for the government to strengthen the system of vocational training as well as the system of general education.

Growth

129. In keeping with the recognized need for growth to be moderated in order for inflation to be brought under control and for the balance of payments to be placed upon a sound long-term footing, it is projected that growth after 1977 will be kept down to an average of 6.3% for the following three years. One of the principal tasks of economic management during this three-year period through 1980 will be to forestall the recurrence of a significant deficit on the merchandise trade account once coffee prices fall back from the very high levels of 1977. Only within the context of moderate growth will it be possible to hold back pressures to build up imports. If import requirements can be kept within reasonable bounds in this manner, and if the volume of exports can be expanded at 12% per annum in real terms, then there is every prospect of a surplus on the merchandise trade account of some US\$800 million by 1980. The current account deficit is projected to rise, however, from the low level of 1977 to a peak of some US\$4.9 billion in 1979. This reflects a lower trade surplus on the one hand and rising service payments on the other hand. It should be noted, however, that the current account deficit is not expected to return to the levels prevailing in the recent past.

130. In the longer run there is every indication that Brazil has the potential to sustain high levels of growth similar to those of the past provided the present difficulties can be overcome and provided sound economic policies are consistently pursued. Today more than at any time in the past, moreover, Brazil is well placed to deploy its extensive resources in pursuit of its development objectives. It now has a broadly based and relatively sophisticated industrial sector as well as a dynamic agriculture. There are large mineral and land resources still untapped and yet the basic infrastructure is sufficiently well developed to permit quite rapid exploitation of

Table 16: NATIONAL INCOME ACCOUNTS, ACTUAL 1973-76 AND PROJECTED 1977-85 ^{a/}

(Billions of 1973 Cr\$)

	Actual				Projected				
	1973	1974	1975	1976	1977	1978	1979	1980	1985
NATIONAL INCOME ACCOUNTS									
(1973 Prices and Exchange Rates)									
Gross Domestic Product	477.2	522.9	544.8	592.3	633.9	672.4	713.3	760.7	1,156.9
Terms of Trade Adjustment	-	-4.8	-11.0	-8.6	-4.8	-10.1	-13.9	-16.8	-24.8
Gross Domestic Income	477.2	518.1	533.8	583.7	629.1	662.3	699.3	743.9	1,132.0
Imports	46.4	59.8	53.3	50.5	49.6	51.8	54.0	56.4	86.9
Exports	40.4	38.6	44.7	44.8	48.8	56.6	62.3	69.2	113.4
Exports (As Capacity to Import)	40.4	33.8	33.8	36.2	44.0	46.4	48.4	52.4	88.6
Resource Gap	6.0	26.0	19.6	14.3	5.6	5.4	5.6	4.0	-1.7
Consumption	376.9	409.7	427.8	466.8	493.7	517.6	544.0	573.9	854.0
Investment	106.2	134.4	125.6	131.2	141.0	150.0	160.9	173.9	276.4
Resources Available	483.2	544.1	553.4	598.0	634.7	667.6	705.0	747.8	1,130.4
Net Factor Income ^{b/}	4.5	4.6	7.8	10.0	10.7	11.5	11.8	12.4	13.3
Gross National Savings	95.9	103.8	98.3	106.9	124.7	133.2	143.5	157.5	264.7
SELECTED INDICATORS									
Real GDP Growth Rate (%)	11.4	9.6	4.2	8.7	7.0	6.1	6.1	6.6	9.1
Average National Savings Ratio (%)	20.3	20.0	18.3	18.4	20.0	20.2	20.5	21.1	23.2
ICOR	1.8	2.4	5.7	2.8	3.4	3.6	3.6	3.3	2.6
Import Elasticity	1.5	0.3	-0.3	-0.1	-0.2	0.7	0.7	0.7	1.2

^{a/} Details may not sum to totals because of rounding.

^{b/} Includes net current transfers.

Source: Getulio Vargas Foundation and mission estimates.

these latent assets. Most important of all, human and management resources have developed significantly in the recent past and institutions in both the public and private sector have demonstrated an ability to tackle development issues effectively. On the basis of these considerations, it is projected that Brazil may return to a growth path of some 9% annually in the 1980s.

Exports

131. Although the coffee boom brought temporary relief to Brazil's balance of payments at an opportune moment, the effort needed to establish a longer term viability in the balance of payments is nonetheless substantial. The latest Bank staff projections of commodity prices based on an analysis of world wide market conditions indicates that the longer term outlook is quite favorable for a number of Brazil's major export commodities, notably sugar, soybeans, soybean products, maize, and iron ore.

132. Looking first at agricultural exports other than coffee, it is clear that Brazil has the ability to continue a rapid rate of expansion in soybeans and soybean meal. The rate of increase in area planted to soybeans has fallen somewhat in the past two years, but it should accelerate again in 1978 given the high 1977 prices for both soybeans and soybean meal which are expected to continue to prevail and indeed increase for the foreseeable future. The volume of soybean exports is projected to grow at 4% in 1977, 10% per year in the period 1978-80, and then at a more moderate 8% per year from 1981 through 1985. Soybean meal exports should grow even more rapidly-- 5% in 1977 and then an average of 13% per year from 1978-85 as soybean crushing capacity is expanded and large amounts of new land come into production in the Center West region. By 1985 these two products alone should account for some US\$8.8 billion, or just over 20% of total projected exports. 1/

133. Soybean oil, which is considered a semi-manufactured product, is also expected to contribute substantially to the growth of exports. The rate of increase in export of soybean oil will be somewhat less than its joint product soybean meal (an average of 11.4% in volume terms) over the period 1977-85 given the heavy demand for cooking oil in the Brazilian market. By 1985 soybean oil should account for an additional 2.2% of total export value, bringing the aggregate contribution of soybeans and soybean products to US\$9.7 billion. Because of the prominence of this product within Brazil's total export structure, any significant reduction in the projected rapid rise in soybean production could significantly affect overall export performance.

134. Sugar, long a staple of the Brazilian export bill, did not perform well in 1975 and 1976 because a combination of unfavorable weather and market conditions held back exports. In 1977 sugar exports should recover sharply as production increases despite continued low international prices. A steady

1/ All projections in the report incorporate a provision for general world inflation. It is assumed that prices will rise by about 7.5% a year on average during the remainder of the seventies and by some 7% a year thereafter. By 1985, therefore, the general price level will have risen by a total of 73%.

Table 17: MERCHANDISE EXPORTS, ACTUAL 1976 AND PROJECTED 1980, 1985

(million US dollars)

				Annual Percent Growth		Percent Composition		
	1976	1980	1985	1977-80	1981-85	1976	1980	1985
Coffee	<u>2,398</u>	<u>2,736</u>	<u>2,969</u>	<u>3.4</u>	<u>1.7</u>	<u>23.7</u>	<u>14.5</u>	<u>6.9</u>
Other Agriculture	<u>3,029</u>	<u>6,315</u>	<u>14,782</u>	<u>20.2</u>	<u>18.5</u>	<u>29.9</u>	<u>33.4</u>	<u>34.3</u>
Sugar	307	888	1,940	30.4	16.9	3.0	4.7	4.5
Soybeans	787	1,515	3,897	17.8	20.8	7.8	8.0	9.0
Soymeal	795	1,614	4,879	19.4	24.8	7.8	8.5	11.3
Cotton	7	106	239	97.3	17.7	0.1	0.6	0.6
Tobacco	161	252	429	11.9	11.3	1.6	1.3	1.0
Rice	12	40	62	35.1	9.2	0.1	0.2	0.1
Wool	45	70	111	11.7	9.7	0.4	0.4	0.3
Corn	165	569	1,288	36.3	17.8	1.6	3.0	3.0
Cacao	219	282	302	6.7	1.4	2.2	1.5	0.7
Other	531	979	1,635	16.5	10.8	5.2	5.2	3.8
Minerals	<u>1,085</u>	<u>2,433</u>	<u>5,941</u>	<u>22.4</u>	<u>19.5</u>	<u>10.7</u>	<u>12.9</u>	<u>13.8</u>
Iron Ore	996	2,213	5,654	22.1	20.6	9.8	11.7	13.1
Other	89	220	287	25.4	5.5	0.9	1.2	0.7
<u>Semi-processed</u>	<u>789</u>	<u>1,269</u>	<u>2,753</u>	<u>12.6</u>	<u>16.8</u>	<u>7.8</u>	<u>6.7</u>	<u>6.4</u>
Soybean Oil	175	340	956	18.1	23.0	1.7	1.8	2.2
Other	614	929	1,796	10.9	14.1	6.1	4.9	4.2
Manufactured	<u>2,449</u>	<u>5,574</u>	<u>15,723</u>	<u>22.8</u>	<u>23.1</u>	<u>24.2</u>	<u>29.5</u>	<u>36.5</u>
Other Exports	<u>381</u>	<u>595</u>	<u>930</u>	<u>11.8</u>	<u>9.4</u>	<u>3.8</u>	<u>3.1</u>	<u>2.2</u>
T O T A L	<u>10,130</u>	<u>18,922</u>	<u>43,099</u>	<u>16.9</u>	<u>17.9</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Central Bank of Brazil and mission projections.

expansion of 6% per year in volume is projected for the period 1978-85 and prices are expected to improve throughout the period at a rate faster than international inflation as a whole. This would give sugar exports a value of about US\$1.9 billion, or some 4.5% of total exports in 1985.

135. Cocoa is another traditional product for which increasing export volumes are projected once results begin to show from a major new planting program which relies on improved hybrid clones and a greater use of modern inputs such as fertilizer, insecticides, and fungicides. Annual increases in cocoa production should be on the order of 8.6% per year over the period 1978-85, despite a projected gradual decline from the record 1977 prices. Nevertheless, after a 16.5% increase in the volume of cocoa bean exports forecast for 1977, exports of cocoa beans are projected to grow at only 4% per year for the remainder of the period. In 1985 cocoa bean exports should reach US\$300 million, less than the record of almost US\$350 million forecast for 1977. The remainder of the increased output will be processed further into cocoa butter, cocoa liquor, and cocoa paste which show up in the category of semi-manufactured exports. Several large new cocoa bean processing plants are beginning to come into production already in Brazil and others are planned for construction over the next few years.

136. Maize exports are expected to jump to some 2.5 million metric tons in 1977, an 82% improvement over 1976, and then to continue to increase at 10% per year through 1985 with steadily improving international prices. This performance could repeat on a smaller scale the impressive growth of soybeans over the past decade, with exports reaching almost US\$1.3 billion by 1985. The achievement of these targets will depend upon further improvements in transportation and storage facilities and the maintenance of a competitive exchange rate, however.

137. Among the less important agricultural commodities, the volume of tobacco exports is projected to grow at 4% and beef at 2%. The relatively low rate of increase projected for beef exports is due to heavy domestic demand and continued sanitary restrictions on exports of fresh, chilled, and frozen beef to the U.S. and Europe. There is expected to be a sharp increase in rice exports in 1977 to 400,000 tons reflecting the export of surplus rice below cost. A fall back to 50,000 tons in 1978 is expected and thereafter growth of rice exports is projected at 2% in the long run. Wool exports are expected to grow at 2.5%, and other agricultural exports at 3.5% per annum. This would bring the total of agricultural exports other than coffee, soybeans, and soybean meal to US\$6 billion or 14% of the total value of goods exported in 1985.

138. Iron ore exports are projected to increase at a rate averaging some 11% per year over the period 1977-85 as a number of new mines come into production and older ones are expanded. Prices are expected to improve slowly in the first years, then more rapidly in the 1980s. The value of iron ore exports will reach the projected US\$950 million in 1977 only if exports in the last 8 months of the year pick up markedly, but in the medium term, as world steel production increases, the value of iron ore exports should amount to US\$2.2 billion in 1980 and US\$5.7 billion in 1985 with a volume of 108 and 173 million tons, respectively.

139. Manganese exports are expected to recover from their depressed 1976 level in 1977 as the industrialized countries begin to expand industrial production and prices continue to rise. By 1985, however, the volume of manganese exports is projected at only 46% above that of 1975, and on that basis the value of exports in that year is estimated at about US\$220 million. The value of all mineral exports in 1985 should be on the order of US\$6 billion, or 14% of total merchandise exports.

140. Semi-manufactured exports other than soybean oil are projected to grow at 7.5% per year in volume throughout the period 1977-85. This category includes a number of processed agricultural commodities such as cocoa butter, prepared hides and skins, and crude castor and peanut oils. The total value of these exports should reach nearly US\$2 billion in 1985 amounting, together with soybean oil, to a total of close to US\$3 billion for all semi-manufactured products. This is 6.4% of projected exports of goods in that year.

141. Despite the quite favorable outlook for Brazil's principal export commodities, manufactured exports must play a key role in financing the future growth of Brazil. As far as manufactured products are concerned, price competitiveness is an important consideration in international markets. Providing that manufactured exports do not have to contend with the problem of an overvalued cruzeiro, there is every prospect that they can grow once again as rapidly as they have done in the past. Balance-of-payments projections have been based on the assumption that manufactured exports can be expanded at a sustained 15% per annum in real terms during the coming decade. On this assumption they would amount to some US\$16 billion by 1985 and would constitute 36% of merchandise exports compared with 27% in 1975. It must be stressed that Brazil's growth prospects hinge quite critically upon the performance of manufactured exports. If the average annual real expansion of manufactured exports were to be significantly less than 15%, it would take much longer for the balance of payments to be set on a sound basis and the prospects for a resumption of high growth would be much poorer.

Import Requirements

142. Over the course of the next decade the main determinants of imports will be the pace and overall composition of growth, the evolution of import prices and the success achieved by the Government in its several programs of import substitution. The programs of import substitution have been reviewed earlier in this report, and it appears that substantial progress is being made in many fields. With regard to the two most important categories of imports, however, there are still major imponderables. In the case of petroleum the future dependence of Brazil upon external sources of supply hinges critically upon the success of the exploration effort which is now being mounted in off-shore areas. In the case of wheat the crucial issue is whether domestic production can be maintained and increased in the long run without a continuation of the present high levels of subsidy.

Table 18: MERCHANDISE IMPORTS, ACTUAL 1976, AND PROJECTED 1980, 1985

(million US dollars)

	1976	1980	1985	Annual Average Increase		Percent Composition		
				1977-80	1981-85	1976	1980	1985
<u>Consumer Goods</u>	<u>1,510</u>	<u>2,035</u>	<u>4,228</u>	<u>7.7</u>	<u>15.8</u>	<u>12.3</u>	<u>11.2</u>	<u>11.1</u>
Durables	518	850	1,774	13.2	15.8	4.2	4.7	4.7
Non-durables	992	1,185	2,454	4.5	15.7	8.1	6.5	6.4
<u>Petroleum and Derivates</u>	<u>3,585</u>	<u>5,250</u>	<u>8,254</u>	<u>10.0</u>	<u>9.5</u>	<u>29.2</u>	<u>28.9</u>	<u>21.6</u>
<u>Intermediate Goods</u>	<u>3,664</u>	<u>5,024</u>	<u>11,029</u>	<u>8.2</u>	<u>17.0</u>	<u>29.8</u>	<u>27.7</u>	<u>28.8</u>
Fertilizers	202	192	694	-1.2	29.3	1.6	1.0	1.8
Metals	1,079	1,376	3,142	6.3	18.0	8.8	7.6	8.2
Chemicals	1,364	2,066	4,958	11.0	16.1	11.1	11.4	11.4
Other	1,019	1,390	2,835	8.0	15.3	8.3	7.7	7.4
<u>Capital Goods</u>	<u>3,517</u>	<u>5,840</u>	<u>14,733</u>	<u>13.5</u>	<u>20.3</u>	<u>28.6</u>	<u>32.2</u>	<u>38.5</u>
<u>T O T A L</u>	<u>12,277</u>	<u>18,151</u>	<u>38,242</u>	<u>10.3</u>	<u>16.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Central Bank of Brazil and mission projections.

143. Notwithstanding these reservations, it is projected that the program of import substitution will be sufficiently successful to prevent imports rising as a percentage of GDP in the longer run. Imports are expected to decline slightly from the present estimated level of 7.8% of GDP and then to average about 7.4% over the period 1981-85. In this respect the high growth projected for the 1980s may differ in structure from growth during the period 1967-73 when imports increased markedly with respect to GDP.

144. The composition of merchandise imports is expected to change significantly in the next several years. It can be seen from Table 18 that capital goods imports are expected to rise as a proportion of total merchandise imports from 29% in 1976 to 32% in 1980 and further to 39% in 1985. In the first half of the 1980s the value of capital goods imports is expected to increase at a rapid annual rate averaging 20% a year. It may seem curious that capital goods should figure so prominently in the future import requirements of Brazil despite a major effort towards import substitution precisely in this field. The explanation lies in that most of the import substitution programs are very capital goods intensive. This applies equally to the capital goods import substitution program itself. During the coming years, therefore, there will be an increasing need to import sophisticated capital equipment despite the anticipated growth in Brazil's own capital goods industry.

145. Intermediate goods are expected to maintain their share of the total import bill by and large over the next decade. Consumer goods and petroleum, on the other hand, are projected to constitute a diminishing proportion of total imports. As was previously observed, however, the future needs for imported petroleum are difficult to judge and may be the weakest link in these projections.

Capital Requirements and Debt Servicing

146. As a result of the unexpected turnabout in the trade account, and the probability of an exceptional improvement in the current account deficit from US\$6 billion in 1976 to about US\$4 billion in 1977, the capital requirements of Brazil in 1977 are projected to be much less than in previous years. Adding amortization to the current account deficit, it is estimated that gross capital requirements for 1977 will amount to US\$7.3 billion compared with an average of US\$9 billion in the three preceding years. Direct foreign investment is expected to provide about US\$1 billion of these requirements--similar to the level of the previous year. Medium- and long-term loans from multinational and bilateral sources and from suppliers are projected to disburse a further US\$2.5 billion. The remaining US\$3.7 billion would constitute Brazil's gross needs for financial credits in 1977.

147. The modest merchandise trade surplus anticipated for 1977 rests upon exceptionally favorable commodity prices. In the following two or three years, when coffee prices retreat from current levels, vigorous efforts will be necessary to expand export volumes across the board in order to avert a renewed deficit on the trade account. The balance-of-payments projections in Table II of the Statistical Appendix are based on quite optimistic assumptions with regard to export growth. Nevertheless, it appears that the merchandise trade account will show only a small surplus during the remaining

Table 19: EXTERNAL CAPITAL REQUIREMENTS AND FINANCING, ACTUAL 1970-76 AND PROJECTED 1977-85

(million US dollars)

	Actual		Projected	
	Average 1970-73	Average 1974-76	Average 1977-80	Average 1981-85
<u>Trade Balance</u>	<u>-87</u>	<u>-3,445</u>	<u>363</u>	<u>3,145</u>
Merchandise Exports	3,958	8,917	15,698	31,810
Merchandise Imports	4,045	12,362	15,333	28,665
Services Balance	<u>-1,192</u>	<u>-3,188</u>	<u>-4,901</u>	<u>-7,469</u>
(Interest Payments)	(-352)	(-1,738)	(-3,069)	(-4,538)
Net Transfers	17	2	10	10
<u>Current Account Balance</u>	<u>-1,262</u>	<u>-6,632</u>	<u>-4,528</u>	<u>-4,313</u>
Amortization	-1,293	-2,304	-4,591	-7,398
<u>Gross Capital Requirements</u>	<u>2,555</u>	<u>8,936</u>	<u>9,119</u>	<u>11,711</u>
Financing				
Direct Foreign Investment	390	931	1,218	1,953
Medium-and Long-Term Loans <u>a/</u>	992	2,083	2,999	5,503
Financial Credits	2,278	5,231	4,902	5,148
Other Capital (Net)	318	756	-	-
Reserve Change (- increase)	-1,423	-65	-	-892
<u>Memorandum Items</u>	<u>1973</u>	<u>1976</u>	<u>1980</u>	<u>1985</u>
External Debt Outstanding	12,571	25,985	39,227	55,490
(Financial Credits)	(7,848)	(18,194)	(25,238)	(28,160)
(Medium-and Long-Term Loans) <u>a/</u>	(4,723)	(7,791)	(13,989)	(27,330)
Net Debt Service Ratio	33.1	43.3	43.2	28.4

a/ Multilateral, Bilateral, Suppliers' credits, etc.

Source: Central Bank and mission projections.

years of the decade even if growth is kept to 6% per annum. Factor service payments are projected to increase quite steeply as a result of the heavy external borrowing (both public and private) that has been contracted in recent years. Consequently, the current account deficit is projected to widen after 1977 to rather more than US\$4.9 billion in 1979 before beginning to narrow in 1980. In order to finance continued high current account deficits without excessive resort to external borrowing on hard terms, it will be necessary to exercise very careful management of the economy during the remaining years of the decade. Of particular importance in this respect will be a tight control of aggregate demand such as will prevent growth getting out of line with the balance-of-payments constraint.

148. Amortization payments on external debt are projected to rise quite steeply to about US\$5 billion annually during the remaining years of the decade as a result of heavy borrowing in the middle seventies. Adding to these amortization requirements an expected US\$4.7 billion current account deficit per annum indicates that gross capital requirements are likely to be about US\$9.7 billion annually during the next three years. Although, in nominal terms, these requirements are similar in magnitude to Brazil's financial needs in the years immediately following the 1974 energy crisis, they constitute a much smaller need in real terms--especially when viewed within the context of a larger and stronger economic structure. About US\$1.3 billion annually is projected by way of net direct foreign investment during this period in the late seventies. International agencies, bilateral lenders and suppliers may disburse some US\$3.2 billion a year. The remaining US\$5.2 billion annually may be sought in the form of financial credits. These projections should be regarded as purely indicative, however, since the composition of future capital inflows will depend upon the state of the international capital market and upon government policies.

149. Provided the current account can be brought under control by 1980, it should be possible to increase growth in subsequent years to about 9% per annum along the lines indicated in the summary projections of Table 16. If growth were to be increased in this manner, however, it would have to be accompanied by continued efforts to expand exports at a rapid pace with the objective of closing the resource gap by 1985. This would require a sustained overall growth in exports of between 10% and 11% per annum in real terms. If this target were to be achieved, the current account deficit on the balance of payments could begin to decline in 1980 to about US\$4.0 billion by 1985 even under the assumption of a higher rate of GDP growth.

150. Amortization payments are projected to increase substantially further in the 1980s as a result of borrowing in previous years and may reach US\$8.5 billion by 1985. In the context of a rapid and sustained increase in exports the high level of amortization payments need not constitute an unreasonable burden for Brazil. Indeed, the net debt service ratio for total debt, both public and private is projected to decline to 28% by 1985. The public debt service ratio would be about 16%. This is not out of line with the projected ratio for other countries at a similar level of development.

151. In the mid 1980s Brazil's gross capital requirements are estimated at about US\$12-13 billion a year. Of this amount US\$4 billion represents the projected current account deficit and US\$8.5 billion the amortization on existing debt. A further allowance of about US\$1.5 billion is made for the need to increase foreign exchange reserves commensurately with the rising level of import requirements. The high nominal level of gross financial requirements must be assessed within the context of a Brazilian economy which by 1985 is projected to be 80% bigger than its 1977 counterpart in real terms. Furthermore, the projection incorporates an assumption that world-wide inflation will erode the value of the dollar to only 57% of its present value by 1985. It is clear, therefore, that the real dependence of Brazil upon external capital financing in the mid 1980s is likely to be significantly less than at present.

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Table I: SECTORAL GROWTH OF GDP, 1951-76

(percent)

	Agriculture	Industry	Services	GDP
Average 1951-60	4.4	8.9	6.9	6.8
Average 1961-70	4.4	7.0	6.0	6.0
Average 1968-73	5.4	12.9	10.3	10.2
Annual Growth Rate				
1965	13.8	-4.7	1.3	2.7
1966	-3.1	11.7	5.8	5.1
1967	5.7	3.0	5.8	4.8
1968	1.4	15.5	8.9	9.3
1969	6.0	10.8	9.0	9.0
1970	5.6	11.1	9.8	9.5
1971	11.4	11.2	11.3	11.3
1972	4.5	13.8	10.0	10.4
1973	3.5	15.0	11.6	11.4
1974	8.5	8.2	10.8	9.6
1975	3.4	4.2	4.4	4.2
1976	4.2	10.9	8.8	8.8

Source: Getulio Vargas Foundation (FGV).

Table II: BALANCE OF PAYMENTS 1973-80 AND 1985 ^{a/}

(million US dollars)

	Actual				Projected				
	1973	1974	1975	1976	1977	1978	1979	1980	1985
Merchandise Trade Balance	7	-4,690	-3,499	-2,147	245	273	165	770	4,657
Exports	6,199	7,951	8,670	10,130	12,936	14,613	16,319	18,922	43,099
Imports	-6,192	-12,641	-12,169	-12,277	12,690	14,340	16,154	18,151	38,242
Services Balance	-1,732	-2,433	-3,213	-3,919	-4,188	-4,689	-5,122	-5,605	-8,894
Non-factor Services (net)	-998	-1,517	-1,478	-1,631	-1,564	-1,638	-1,739	-1,814	-3,175
Factor Services (net)	-734	-916	-1,735	-2,288	-2,624	-3,051	-3,383	-3,791	-5,719
(Interest Payments)	(-840)	(-1,370)	(-1,828)	(-2,039)	(-2,564)	(-2,938)	(-3,215)	(-3,560)	(-5,209)
(Interest Receipts)	(326)	(718)	(365)	(281)	(405)	(405)	(405)	(405)	(570)
(Other)	(-220)	(-264)	(-272)	(-530)	(-465)	(-518)	(-573)	(-636)	(-1,080)
Transfers (net)	27	1	-	4	10	10	10	10	10
Current Account Balance	-1,688	-7,122	-6,712	-6,062	-3,933	-4,407	-4,948	-4,825	-4,028
Direct Foreign Invest. ^{b/}	940	887	895	1,010	1,050	1,100	1,265	1,455	2,340
Medium & Long-term Loans									
Gross Disbursement	1,409	1,956	2,212	2,080	2,514	2,874	3,123	3,484	7,275
Amortization	-620	-739	-1,072	-1,208	-1,280	-1,311	-1,526	-1,680	-4,039
Net Disbursements	789	1,217	1,140	872	1,234	1,563	1,597	1,804	3,236
Financial Credits									
Gross Disbursements	3,146	5,103	4,515	6,076	3,728	4,715	5,697	5,471	4,662
Amortization	-1,052	-1,181	-1,048	-1,664	-2,079	-2,972	-3,611	-3,905	-4,504
Net Disbursements	2,094	3,922	3,467	4,412	1,649	1,743	2,086	1,566	158
Short-term Capital and Capital n.e.i. (net)	424	143	164	1,961	-	-	-	-	-
Reserve Change (-increase)	-2,559	953	1,046	-2,193	-	-	-	-	-1,706

^{a/} Details may not sum to totals because of rounding.

^{b/} Net of Brazilian investments abroad.

Source: Central Bank of Brazil and mission projections.

Table III: MERCHANDISE EXPORTS, 1973-80 AND 1985 /a

(Values in US\$ million, Volume in '000 tons, Unit Price US\$/Ton)

	Actual					Projected	
	1973	1974	1975	1976	1977	1978	1985
Coffee (inc. soluble)	1,344	280	934	2,398	3,492	3,192	2,736
Value	1,344	988	934	2,398	3,492	3,192	2,736
Volume (Million 60 kg bag)	19.8	12.0	14.6	15.6	13.0	15.0	17.0
Unit Price (US\$/60 kg bag)	67.4	82	64	154	269	213	161
Unit Price (US cents/lb.)	31	(62)	(48)	(116)	(203)	(161)	(122)
Other Agriculture	2,490	3,415	3,481	3,029	3,948	4,562	6,315
Sugar	559	1,322	1,100	307	420	582	888
Value	2,820	2,237	1,731	1,168	2,001	2,107	2,382
Volume	198	361	635	263	210	275	373
Soybeans	494	586	685	787	976	1,116	1,515
Value	1,786	2,730	3,333	3,639	3,699	4,179	5,057
Volume	277	215	205	216	279	267	300
Soy Meal and Cake	423	303	466	795	910	1,106	1,311
Value	1,582	2,031	3,134	4,367	3,806	4,376	5,400
Volume	287	149	149	182	239	253	294
Cotton	218	91	98	7	39	78	106
Value	283	83	107	6	30	65	71
Volume	771	1,093	942	1,248	1,306	1,205	1,350
Cacao	89	210	220	219	349	273	282
Value	83	130	177	129	150	156	168
Volume	1,069	1,617	1,248	1,698	2,323	1,750	1,673
Corn	3	139	151	165	320	397	485
Value	41	1,409	1,148	1,372	2,501	2,752	3,026
Volume	77	125	131	120	128	144	161
Wool	45	44	46	45	49	55	62
Value	18	18	28	17	17	17	18
Volume	2,541	2,433	1,681	2,670	2,884	3,174	3,455
Tobacco	58	99	142	161	180	202	226
Value	64	91	98	110	115	114	119
Volume	919	1,082	1,446	1,591	1,713	1,847	1,985
Other (Value Only)	600	621	573	543	705	753	876
Minerals	400	641	1,022	1,085	1,082	1,644	2,014
Iron Ore	363	571	921	996	990	1,477	1,810
Value	45.0	59.4	72.5	67.1	39.7	84.9	95.9
Volume (Million Tons)	8.1	9.6	12.7	14.8	15.9	17.4	18.9
Manganese Ore	19	50	81	66	96	119	154
Value	788	1,493	1,558	1,072	1,471	1,772	1,856
Volume	23.9	33.3	51.8	61.6	64.8	74.0	81.1
Other (Value Only)	18	20	20	23	36	48	66
Semi-processed	476	634	665	789	969	1,014	1,269
Soybean Oil	24	2	152	175	258	276	340
Value	61	2	263	453	500	570	677
Volume	388	830	579	386	515	480	502
Other (Value Only)	452	632	493	615	711	740	824
Manufactured	1,328	2,086	2,379	2,449	2,948	3,664	4,534
Other	161	195	209	381	497	537	595
Total	6,199	7,951	8,670	10,130	12,936	14,613	18,922
							43,099

/a Details may not sum to totals and products because of rounding.

Source: Central Bank of Brazil and mission projections.

Table IV: MERCHANDISE IMPORTS, 1973-80 AND 1985 ^{1/}

(million US dollars)

	Actual				Projected				
	1973	1974	1975	1976	1977	1978	1979	1980	1985
<u>Consumer Goods</u>	<u>1,104</u>	<u>1,598</u>	<u>1,358</u>	<u>1,510</u>	<u>1,385</u>	<u>1,571</u>	<u>1,765</u>	<u>2,036</u>	<u>4,228</u>
Cereals	350	486	373	532	315	358	377	422	667
Other Nondurables	396	612	458	460	482	546	635	763	1,787
Durables	358	500	527	518	587	667	753	850	1,774
<u>Petroleum and Derivates</u>	<u>711</u>	<u>2,840</u>	<u>2,838</u>	<u>3,585</u>	<u>3,853</u>	<u>4,304</u>	<u>4,757</u>	<u>5,250</u>	<u>8,254</u>
Crude Petroleum	606	2,558	2,674	3,460	3,712	4,149	4,586	5,061	7,875
Derivates	105	282	164	125	140	155	171	189	379
<u>Intermediate Goods</u>	<u>2,235</u>	<u>5,084</u>	<u>4,061</u>	<u>3,664</u>	<u>3,855</u>	<u>4,281</u>	<u>4,724</u>	<u>5,024</u>	<u>11,029</u>
Fertilizers	139	405	304	202	185	222	191	192	694
Steel	493	1,536	1,263	610	531	514	553	661	1,122
Copper	164	329	182	219	322	478	522	442	535
Aluminium	51	131	100	100	110	139	146	49	864
Zinc	41	76	44	38	44	32	58	13	150
Other Metals	75	128	122	111	134	162	186	211	471
Paper	135	295	200	197	164	111	119	127	142
Rubber and Plastics	159	422	252	300	340	382	429	484	1,020
Chemicals	718	1,283	1,135	1,364	1,453	1,631	1,831	2,066	4,358
Other	260	479	439	522	572	610	689	779	1,673
<u>Capital Goods</u>	<u>2,142</u>	<u>3,119</u>	<u>3,932</u>	<u>3,517</u>	<u>3,596</u>	<u>4,184</u>	<u>4,908</u>	<u>5,840</u>	<u>14,733</u>
Machinery and Equipment	1,708	2,484	3,238	2,911	2,977	3,466	4,065	4,842	12,265
Transport Material	434	635	694	606	619	718	843	998	2,468
<u>TOTAL (FOB)</u>	<u>6,192</u>	<u>12,641</u>	<u>12,169</u>	<u>12,277</u>	<u>12,690</u>	<u>14,340</u>	<u>16,154</u>	<u>18,151</u>	<u>38,242</u>

^{1/} Details may not sum to totals because of rounding.

Source: Central Bank of Brazil and mission projections.

Table v: NOMINAL EXCHANGE RATE TRENDS, 1970 - JUNE 1977

	Exchange Rate Changes Since 1970				Average Market Rate	
	Buying Rate	Selling Rate	Number of Days	Percent Change	Year	Rate
February 4, 1970	4.380	4.410	54	1.27		
March 30, 1970	4.460	4.490	49	1.83	1965	1.751
May 18, 1970	4.530	4.560	53	1.57	1966	2.173
July 10, 1970	4.590	4.620	14	1.32	1967	2.559
July 24, 1970	4.620	4.650	56	0.65	1968	3.184
September 18, 1970	4.690	4.720	47	1.52	1969	4.026
November 4, 1970	4.780	4.810	14	1.92	1970	4.494
November 18, 1970	4.830	4.860	34	1.05	1971	5.304
December 22, 1970	4.920	4.950	49	1.86	1972	5.960
February 9, 1971	5.000	5.030	41	1.63	1973	6.128
March 22, 1971	5.080	5.110	42	1.60	1974	6.843
May 3, 1971	5.160	5.195	39	1.57	1975	8.204
June 11, 1971	5.250	5.285	55	1.74	1976	10.786
August 5, 1971	5.370	5.405	39	2.29	1975	
September 13, 1971	5.470	5.505	58	1.86	Jan.	7.550
November 10, 1971	5.600	5.635	79	2.38	Feb.	7.620
January 28, 1972	5.750	5.785	48	2.67	March	7.735
March 16, 1972	5.810	5.845	53	1.04	April	7.845
May 8, 1972	5.880	5.915	67	1.20	May	7.975
July 14, 1972	5.930	5.965	53	0.85	June	8.070
September 5, 1972	5.990	6.025	42	1.01	July	8.130
October 17, 1972	6.060	6.095	36	1.17	Aug.	8.360
November 22, 1972	6.130	6.165	23	1.15	Sept.	8.520
December 15, 1972	6.180	6.215	61	0.82	Oct.	8.670
February 14, 1973	5.995	6.030	69	-2.99	Nov.	8.900
April 24, 1973	6.060	6.100	76	1.08	Dec.	9.070
July 9, 1973	6.090	6.130	73	0.49		
September 20, 1973	6.120	6.160	85	0.49	1976	
December 14, 1973	6.180	6.220	48	0.98	Jan.	9.245
January 31, 1974	6.300	6.340	20	1.94	Feb.	9.420
February 20, 1974	6.445	6.485	55	1.82	March	9.935
April 16, 1974	6.515	6.555	50	1.56	April	10.365
June 5, 1974	6.640	6.680	20	1.92	May	10.550
June 25, 1974	6.775	6.815	14	2.03	June	10.800
July 9, 1974	6.845	6.885	37	1.03	July	10.955
August 15, 1974	6.980	7.020	34	1.97	Aug.	11.170
September 18, 1974	7.090	7.130	40	1.58	Sept.	11.370
October 28, 1974	7.180	7.220	22	1.27	Oct.	11.830
November 19, 1974	7.285	7.325	31	1.46	Nov.	11.801
December 20, 1974	7.395	7.435	39	1.51	Dec.	11.985
January 28, 1975	7.510	7.550	23	1.55		
February 20, 1975	7.580	7.620	27	0.93	1977	
March 19, 1975	7.695	7.735	23	1.52	Jan.	12.392
April 11, 1975	7.805	7.845	33	1.43	Feb.	12.646
May 14, 1975	7.925	7.975	43	1.54	Mar.	12.933
June 26, 1975	8.020	8.070	12	1.20	April	13.280
July 8, 1975	8.080	8.130	28	0.75	May	13.628
August 5, 1975	8.235	8.285	20	1.92	June	13.930
August 25, 1975	8.310	8.360	29	0.91		
September 23, 1975	8.470	8.520	34	1.92		
October 27, 1975	8.620	8.670	16	1.77		
November 12, 1975	8.725	8.775	13	1.22		
November 25, 1975	8.850	8.900	21	1.43		
December 16, 1975	9.020	9.070	36	1.92		
January 21, 1976	9.195	9.245	27	1.94		
February 17, 1976	9.370	9.420	21	1.90		
March 8, 1976	9.550	9.600	21	1.92		
March 30, 1976	9.885	9.935	14	3.51		
April 13, 1976	10.220	10.270	17	3.39		
April 30, 1976	10.315	10.365	24	0.93		
May 24, 1976	10.500	10.550	15	1.79		
June 8, 1976	10.600	10.650	15	0.95		
June 23, 1976	10.790	10.800	30	1.23		
July 23, 1976	10.885	10.955	26	1.44		
August 10, 1976	11.100	11.170	23	1.97		
September 10, 1976	11.300	11.370	32	1.80		
October 12, 1976	11.590	11.620	16	2.21		
October 28, 1976	11.760	11.830	28	1.82		
November 25, 1976	11.985	12.055	26	1.91		
December 21, 1976	12.275	12.345	27	2.42		
January 17, 1977	12.520	12.590	30	2.00		
February 16, 1977	12.800	12.870	21	2.24		
March 9, 1977	12.980	13.050	26	1.41		
April 4, 1977	13.295	13.365	29	2.43		
May 3, 1977	13.630	13.700	27	2.52		
May 30, 1977	13.930	14.000	29	2.20		
June 28, 1977	14.280	14.350	23	2.51		

Sources: Central Bank (buying and selling rates).
IFS (average market rate).

Table VI: EXTERNAL DEBT AND DEBT SERVICING CAPACITY, ACTUAL 1975-76 AND PROJECTED 1977-85

(million US dollars)

	ACTUAL		PROJECTED				
	1975	1976	1977	1978	1979	1980	1985
Total External Debt Outstanding	<u>21,171</u>	<u>25,985</u>	<u>28,868</u>	<u>32,175</u>	<u>35,857</u>	<u>39,227</u>	<u>55,490</u>
Financial Credits	14,561	18,194	19,843	21,586	23,672	25,238	28,160
Other Medium-and Long-Term Loans	6,610	7,791	9,025	10,588	12,185	13,989	27,330
(Percent Financial Credits)	(68.8)	(70.0)	(68.7)	(67.1)	(66.0)	(64.3)	(50.7)
Total Debt Service (Net)	<u>3,583</u>	<u>4,630</u>	<u>5,518</u>	<u>6,816</u>	<u>7,948</u>	<u>8,741</u>	<u>13,182</u>
Amortization Payments	2,120	2,872	3,359	4,283	5,137	5,586	8,543
Interest Payments	1,828	2,039	2,564	2,938	3,215	3,560	5,209
Interest Receipts	365	281	405	405	405	405	370
Reserve Level (as of Dec. 31)	<u>4,552</u>	<u>6,745</u>	<u>6,745</u>	<u>6,745</u>	<u>6,745</u>	<u>6,745</u>	<u>11,202</u>
MEMORANDUM ITEMS							
Percent Annual Increases							
Exports (Including NFS)	9.3	16.4	26.1	13.8	12.4	16.4	18.7
Debt Service (Gross)	20.0	25.2	20.6	21.9	15.7	9.5	4.4
Debt Outstanding	23.3	22.7	11.1	11.4	11.4	9.4	6.5
Ratios							
Debt Service Ratio (Net)	38.7	43.3	40.6	44.1	45.7	43.2	28.4
Debt Service Ratio (Gross)	42.7	45.6	43.6	46.7	48.1	45.2	29.6
Debt Service/GDP	3.2	3.6	3.5	3.8	3.9	3.8	2.7
Debt Outstanding/GDP	17.2	19.1	18.5	18.0	17.6	16.8	11.2
Debt Service/Reserve Level	78.7	68.6	81.8	101.1	117.8	129.6	117.7

Source: Central Bank of Brazil and mission projections.

Table VII: EXTERNAL DEBT OUTSTANDING AND DISBURSED
as of December 31, 1976

(million US dollars)

	Public & Publicly Guaranteed	Private Non- Guaranteed	Total Debt Outstanding & Disbursed	% Public
International Agencies	<u>1,835.4</u>	<u>157.9</u>	<u>1,993.3</u>	<u>92.1</u>
IBRD	1,287.0	-	1,287.0	100.0
IDB	545.9	-	545.9	100.0
IFC	2.5	157.9	160.4	-
Official Bilateral Agencies	<u>2,416.3</u>	<u>339.9</u>	<u>2,756.2</u>	<u>87.7</u>
USAID - Program Loans	585.8	-	585.8	100.0
USAID - Project Loans	534.7	-	534.7	100.0
PL 480	86.8	-	86.8	100.0
Canadian Wheat Board	274.0	-	274.0	100.0
EXIM - US	598.3	218.8	817.1	73.2
EXIM - Japan	148.5	-	148.5	100.0
KFW	186.8	114.4	301.2	62.0
OPIC	-	6.7	6.7	-
Suppliers' Credits	<u>1,699.7</u>	<u>714.2</u>	<u>2,413.9</u>	<u>70.4</u>
Financial Credits	<u>8,340.6</u>	<u>9,853.4</u>	<u>18,194.0</u>	<u>45.8</u>
Resolution 63	1,563.4	3,152.0	4,715.4	33.2
Instruction 289	-	40.9	40.9	-
Law 4131	6,777.2	6,660.5	13,437.7	50.4
Bonds	<u>288.7</u>	<u>-</u>	<u>288.7</u>	<u>100.0</u>
Compensatory Loans	<u>106.2</u>	<u>-</u>	<u>106.2</u>	<u>100.0</u>
US Government	106.2	-	106.2	100.0
Other	<u>159.8</u>	<u>67.9</u>	<u>227.7</u>	<u>70.1</u>
Total Debt	<u>14,852.1</u>	<u>11,133.3</u>	<u>25,985.4</u>	<u>57.2</u>

Source: Central Bank of Brazil.

Table VIII: FEDERAL GOVERNMENT REVENUES^{a/}, 1972-76
(million cruzeiros)

	1972	1973	1974	1975	1976
Total Revenue	<u>37,738</u>	<u>52,863</u>	<u>76,810</u>	<u>95,446</u>	<u>166,220</u>
Tax revenue	<u>37,147</u>	<u>49,533</u>	<u>73,886</u>	<u>94,923</u>	<u>159,288</u>
Taxes on net income and profits	<u>11,237</u>	<u>14,532</u>	<u>22,817</u>	<u>29,497</u>	<u>45,534</u>
Business income tax ^{b/}	4,686	6,225	10,041	13,677	20,633
Treasury Account	(3,129)	(4,050)	(6,466)	(8,547)	(12,763)
PIN/PROTERRA ^{c/}	(1,557)	(2,175)	(3,575)	(5,130)	(7,591)
Personal income tax ^{d/}	1,807	1,449	2,499	1,348	-623
Withholding	4,744	6,858	10,277	14,472	25,803
Payroll taxes	259	395	515	946	1,510
Education tax	259	395	515	789	1,271
Labor union tax ^{e/}	-	-	-	157	239
Taxes on goods and services	<u>22,340</u>	<u>30,340</u>	<u>42,492</u>	<u>53,595</u>	<u>95,799</u>
General sales tax	14,632	19,126	27,891	34,464	49,663
Manufacturers' sales tax	14,626	19,116	27,875	34,433	49,613
Tobacco	(4,280)	(5,981)	(8,161)	(11,550)	(17,665)
Other	(10,346)	(13,135)	(19,714)	(22,883)	(31,948)
Value added tax ^{f/}	6	10	16	31	50
Selective excises on goods	<u>5,850</u>	<u>7,263</u>	<u>9,256</u>	<u>11,723</u>	<u>28,957</u>
Petroleum products	4,514	5,508	6,823	8,192	23,482
Electricity	1,119	1,454	1,969	2,742	4,188
Minerals	217	301	464	789	1,287
Selective excises on services	<u>1,490</u>	<u>2,234</u>	<u>3,069</u>	<u>4,337</u>	<u>12,330</u>
Financial transactions	1,328	2,019	2,784	3,947	6,899
Road transport	95	121	173	238	620
Airports	67	94	112	152	163
Public utilities ^{g/}	-	-	-	-	3,720
Telecommunications surcharges	-	-	-	-	928 ^{h/}
Taxes on use of goods or property	<u>361</u>	<u>1,699</u>	<u>2,262</u>	<u>3,053</u>	<u>4,822</u>
Motor vehicle tax ^{i/}	361	1,699	2,262	3,053	4,822
Other	7	18	14	18	27
Taxes on international trade	<u>3,311</u>	<u>4,266</u>	<u>8,062</u>	<u>10,885</u>	<u>16,445</u>
Import duties	2,779	3,727	6,790	9,512	14,871
Port taxes	532	539	1,272	1,373	1,574
Nontax revenue and unclassified	<u>591</u>	<u>3,330</u>	<u>2,924</u>	<u>523</u>	<u>6,932</u>
Memorandum item					
Total revenue in Budget Accounts ^{j/}	<u>38,688</u>	<u>52,466</u>	<u>75,660</u>	<u>100,586</u>	<u>172,351</u>

a/ Cash transactions registered in the Federal Treasury account with the Bank of Brazil. A number of extra budgetary taxes have gradually been incorporated into this account, as indicated in footnotes. This reduces somewhat the comparability of data over time.

b/ Covers both corporations and other forms of business enterprise.

c/ Public investment programs for the less developed regions, which receive a direct allocation of funds earmarked from the revenue of the business income tax.

d/ Net of refunds for overwithholding and stock market incentive rebates (Decree Law 157). With the increase in withholding tax rates, refunds started in 1976 to exceed payments on personal income tax returns.

e/ Incorporated to Treasury account in late 1975.

f/ State value-added tax collected by Federal Government in Territories.

g/ Miscellaneous retail taxes on electricity, gas, water, sewerage and telephone services; tax on lottery tickets; tax on water transport; and a few other miscellaneous levies; all earmarked for the Social Security System. Incorporated to the Treasury account in 1976. Beginning in 1977, these taxes will be replaced by a 6% tax on gasoline.

h/ Incorporated to the budget beginning in 1975. However, the revenue started to be registered in the Treasury account at the Bank of Brazil in Oct. 1976, under "unclassified revenue."

i/ Prior to 1973, only 40 percent of the revenue from this tax was channelled through the Treasury account. The collecting agents are the state governments.

j/ Current revenue as registered in the budget accounts maintained by the Finance Ministry's General Accounting Office. Discrepancies with the cash revenues registered in the Treasury account are attributable to differences in both timing and coverage. The scope of the budget accounts, as well as that of the cash accounts, has been gradually increased to include a number of extra budgetary taxes, thus also reducing the comparability of the figures over time.

Source: Central Bank of Brazil.

Table IX: FEDERAL GOVERNMENT EXPENDITURE, 1972-76
(million cruzeiros)

	1972	1973	1974	1975	1976
<u>Total Budgetary Expenditure</u>	<u>38,198</u>	<u>50,767</u>	<u>71,750</u>	<u>103,838</u>	<u>168,181</u>
Earmarked revenue transfers	12,925	18,077	25,582	33,616	68,964
General revenue sharing	(2,881)	(3,777)	(5,631)	(7,057)	(12,258)
Other	(10,044)	(14,300)	(19,951)	(26,559)	(56,706)
Personnel outlays	13,202	17,958	22,513	32,725	55,714
Other consumption and transfer expenditure	9,819	11,684	19,248	29,528	29,074 ^{a/}
Direct fixed investment	1,234	1,692	2,751	3,933	4,877 ^{a/}
Financial investment	1,018	1,356	1,656	4,036	9,552
<u>Cash adjustment ^{b/}</u>	<u>56</u>	<u>1,801</u>	<u>1,188</u>	<u>-8,465</u>	<u>-2,384</u>
<u>Total cash expenditure</u>	<u>38,254</u>	<u>52,568</u>	<u>72,928</u>	<u>95,373</u>	<u>165,797</u>

^{a/} Estimated.

^{b/} Reconciles the cash and budget totals and reflects the differences in timing and coverage between the two sets of accounts.

Sources: Total budgetary expenditure and personnel outlays from the Federal Government budget accounts prepared by the Ministry of Finance.

Total cash expenditure and earmarked revenue transfers from the cash accounts prepared by the Central Bank of Brazil.

Direct fixed investment and financial investment from the Public Sector accounts prepared by the Getulio Vargas Foundation, except in 1976. Financial investment for 1976 was taken from the budget accounts, and direct fixed investment was estimated. Other consumption and transfer expenditure is obtained as a residual.

**Table X: FEDERAL GOVERNMENT REVENUE EARMARKING, 1972-76
BY TYPE OF REVENUE AND AGENCY DESTINATION**

(million cruzeiros)

	1972	1973	1974	1975	1976
Total Earmarked Revenues	12,925	18,077	25,582	33,616	68,964
Income tax	2,707	3,658	5,861	8,054	12,903
PIN/PROTERRA programs	1,557	2,175	3,575	5,130	7,591
State and local governments (General revenue sharing fund)	1,150	1,483	2,286	2,924	5,312
Manufacturer's sales tax	1,731	2,294	3,345	4,133	6,946
State and local governments (General revenue sharing fund)	1,731	2,294	3,345	4,133	6,946
Tax on petroleum products ^{a/}	4,514	5,508	6,824	8,192	23,397
Ministries	228	334	491	861	5,969
Planning (National Development Fund)	(-)	-	-	(476)	(5,200)
Aviation	(219)	(268)	(409)	(370)	(743)
Mines and Energy	(9)	(66)	(82)	(15)	(26)
Autonomous agencies	1,815	2,215	2,784	2,901	5,359
DNER (Highway Department)	(1,711)	(2,088)	(2,559)	(2,805)	(4,930)
DNPM (Minerals Department)	(59)	(72)	(157)	(96)	(169)
CNEN (Nuclear Energy Commission)	(45)	(55)	(68)	-	-
FNDU (Urban Development Fund)	-	-	-	-	(260)
Public enterprises	722	826	956	1,258	2,988
PETROBRAS	(361)	(386)	(478)	(518)	(910)
RFFSA	(361)	(440)	(478)	(592)	(1,040)
NUCLEBRAS	-	-	-	(148)	(260)
EBTU (Urban Transport)	-	-	-	-	(778)
State and local governments	1,749	2,133	2,593	3,172	9,081
Electricity tax	1,113	1,446	1,960	2,728	4,168
Ministries	11	43	59	133	367
Planning (National Development Fund)	(-)	(-)	(-)	(109)	(334)
Mines and Energy	(11)	(43)	(59)	(24)	(33)
Autonomous agencies: DNAEE (Energy Department)	22	29	39	74	100
Public enterprises: ELETROBRAS	412	506	686	884	1,200
State and local governments	668	868	1,176	1,637	2,501
Minerals tax	211	286	464	781	1,287
Ministries: Planning (National Development Fund)	-	-	-	7	26
Autonomous agencies: DNPM (Minerals Department)	21	29	46	71	103
State and local governments	190	257	418	703	1,158
Motor vehicle tax ^{b/}	361	1,699	2,262	3,053	4,822
Autonomous agencies: DNER (Highway Department)	361	706	905	1,221	786
Public enterprises: EBTU (Urban Transport)	-	-	-	-	1,143
State and local governments ^{c/}	-	993	1,357	1,832	2,893
Tax on road transport	95	121	173	238	620
Ministries: Planning (National Development Fund)	-	-	-	-	496
Autonomous agencies: DNER (Highway Department)	95	121	173	238	124
Other taxes	2,193	3,065	4,693	6,437	14,821
Tax on Financial Transactions: BNDE and Central Bank	1,328	2,019	2,784	3,947	6,899
Telecommunications surcharges (TELEBRAS) ^{d/}	-	-	-	-	928
Port tax: DNPVN (Port Department)	532	539	1,268	1,373	1,574
Airport tax: Ministry of Aviation	67	94	112	152	163
Education payroll tax: Ministry of Education	259	395	515	789	1,271
Labor union tax: Ministry of Labor ^{e/}	-	-	-	157	239
Public utility taxes: Ministry of Social Security ^{f/}	-	-	-	-	3,720
Telecommunications tax: Ministry of Commerce	4	13	8	12	18
Lighthouse tax (Ministry of the Navy)	3	5	6	7	9

^{a/} Including surcharge for public transport.

^{b/} Including surcharge on passenger cars.

^{c/} Not included in budget until 1973.

^{d/} Not registered in Treasury account until October 1976.

^{e/} Incorporated to Treasury account in 1975.

^{f/} Incorporated to Treasury account in 1976.

Source: Central Bank of Brazil.

Table XI: FEDERAL GOVERNMENT REVENUE EARMARKING, ^{a/} 1972-76
BY SECTOR END USE

(percent)

	1972	1973	1974	1975	1976
<u>Total Revenue</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Earmarked	<u>34.2</u>	<u>34.2</u>	<u>33.3</u>	<u>35.2</u>	<u>41.5</u>
General revenue sharing ^{b/}	7.6	7.2	7.3	7.4	7.4
Development finance ^{c/}	3.5	3.8	3.6	4.1	4.1
Regional development ^{d/}	4.1	4.1	4.7	5.4	4.6
Urban development ^{e/}	-	-	-	-	1.3
Transport	13.6	13.9	12.8	12.3	12.8
Road	(10.4)	(11.4)	(9.9)	(9.7)	(10.7)
Rail	(1.0)	(0.8)	(0.6)	(0.6)	(0.6)
Other	(2.2)	(1.7)	(2.3)	(2.0)	(1.5)
Telecommunications	0.5 ^{f/}
Energy	4.0	3.7	3.4	3.4	3.0
Mineral resources	0.7	0.7	0.8	1.0	0.9
Education	0.7	0.8	0.7	0.8	0.8
Welfare ^{g/}	-	-	-	0.2	2.4
National Development Fund	-	-	-	0.6	3.7
Unearmarked	<u>65.8</u>	<u>65.8</u>	<u>66.7</u>	<u>64.8</u>	<u>58.5</u>

^{a/} Cash revenues.

^{b/} Income and sales tax revenue earmarked for state and local governments. These transfers are also partly tied to specific programs, principally in the social sectors.

^{c/} Tax on financial transactions transferred to BNDE.

^{d/} Business income tax earmarked for PIN and PROTERRA. These programs involve mostly rural development and agricultural credit, but have an important road investment component.

^{e/} Including funds earmarked for the Brazilian Urban Transport Enterprise (EBTU).

^{f/} Including 80 percent of the Telecommunications surcharges. However, these only started to go through the Treasury account in late 1976.

^{g/} Labor union tax for unemployment assistance (not registered in Treasury account until late 1975) and public utility taxes levied for the Social Security System (incorporated to Treasury account in 1976).

Source: Statistical Appendix Table X.

Table XII: SELECTED PRICE INDEXES, ANNUAL 1965 - 1976 AND MONTHLY JANUARY 1975 - JUNE 1977

(1965-67 = 100)

	General Price index (domestic)	Wholesale price index (domestic)			Rio de Janeiro cost-of- living	General Price index (domestic)	Percent change over previous period			
		Total	Construction materials	Foodstuff			Total	Construction materials	Foodstuff	Rio de Janeiro cost-of- living
1965	72	72	71	68	70	56.8	53.6	62.5	47.1	65.9
1966	100	101	98	103	100	37.9	41.1	38.5	50.6	41.3
1967	128	128	131	129	130	28.4	26.7	33.8	25.2	30.5
1968	159	157	177	150	159	24.2	22.7	35.1	16.3	22.3
1969	192	187	210	185	194	20.8	19.1	18.6	23.3	22.0
1970	230	223	247	228	238	19.8	19.2	17.6	23.2	22.7
1971	277	271	283	293	286	20.4	21.5	14.6	28.5	20.2
1972	324	319	340	352	333	17.0	17.7	20.1	20.1	16.4
1973	373	368	413	406	375	15.1	15.4	21.5	15.3	12.6
1974	480	475	554	520	479	28.7	29.1	34.1	28.1	27.7
1975	613	607	687	668	618	27.7	27.8	24.0	28.5	29.0
1976	866	852	956	986	877	41.3	40.4	39.2	47.6	41.9
1975 January	546	541	632	593	547	2.4	2.1	2.8	2.1	2.8
February	558	554	644	605	558	2.2	2.4	1.9	2.0	2.0
March	567	560	652	611	568	1.4	1.1	1.2	1.0	1.8
April	577	569	656	616	580	1.7	1.6	0.6	0.8	2.1
May	589	580	676	624	592	2.0	1.9	3.0	1.3	2.1
June	602	595	684	641	605	2.3	2.6	1.2	2.7	2.2
July	615	607	691	658	620	2.1	2.0	1.0	2.6	2.5
August	632	624	696	698	641	3.7	2.8	0.7	6.1	3.4
September	647	640	714	723	655	2.2	2.6	2.6	3.6	2.2
October	661	657	719	733	668	2.3	2.7	0.7	1.4	2.0
November	676	671	736	745	683	2.1	2.1	2.4	1.6	2.2
December	690	686	745	772	698	2.3	2.2	1.2	3.6	2.2
1976 January	712	704	780	784	727	3.2	2.6	4.7	1.6	4.2
February	741	730	794	822	765	4.1	3.7	1.8	4.9	5.2
March	769	757	824	867	789	3.7	3.7	3.8	5.5	3.1
April	797	784	856	905	817	3.7	3.6	3.9	4.3	3.6
May	825	807	901	936	846	3.5	2.9	5.3	3.4	3.4
June	847	825	928	952	869	2.7	2.2	3.0	1.7	2.7
July	879	861	957	993	890	3.8	4.3	3.1	4.3	2.4
August	915	902	1,041	1,049	914	4.1	4.8	8.8	5.6	2.7
September	946	934	1,076	1,093	942	3.4	3.5	3.3	4.2	3.1
October	969	955	1,091	1,123	966	2.4	2.2	1.4	2.8	2.6
November	987	971	1,101	1,145	984	1.9	1.7	0.9	2.0	1.9
December	1,010	994	1,120	1,159	1,011	2.3	2.4	1.7	1.2	2.7
1977 January	1,047	1,024	1,161	1,193	1,062	3.7	3.0	3.7	2.9	5.0
February	1,081	1,053	1,189	1,217	1,096	3.2	2.8	2.4	2.0	3.2
March	1,125	1,098	1,211	1,308	1,142	4.1	4.3	1.9	7.5	4.2
April	1,171	1,146	1,243	1,382	1,180	4.1	4.4	2.6	5.7	3.3
May	1,213	1,184	1,287	1,415	1,221	3.6	3.3	3.5	2.4	3.5
June	1,237	1,203	1,317	1,434	1,253	2.0	1.6	2.3	1.3	2.6

Source: Getulio Vargas Foundation.