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The Brazilian Economy, 1928-1980[1]

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1. Structural change, 1928-1980

Brazil was a very poor country in the late 1920's. Gross domestic product (GDP) per capita peaked in 1929 at around US$ 900 (1996 US$ dollars). This was about 17% of its level in 1980 when GDP per capita reached around US$ 5,400 (at 1996 US$ dollars). In about half a century GDP per capita increased at 3.7% yearly, one of the highest country rates on record. It was only between a quarter and a third of the Argentinian GDP per capita in 1929. In 1980 it had risen to more than 85% of the Argentinian GDP per capita. In 1929 its GDP per capita was about half that of Japan and in 1980 it was still a credible 44% of the Japanese level.

GDP per capita yearly growth rates after 1931 were always positive with the exception of the years of 1940 and 1942 due to the shocks caused by the Second World War, and 1963, which was the worst year of the 1963-1967 recession. In 1956 and 1965 GDP per capita also fell but not by more than 0.1-0.2%. GDP growth was especially rapid in 1942-1962 (7.5% yearly), 1968-1974 (10.7%) and 1975-1980 (7.0%). There is no information on regional GDP for 1930. In 1980 GDP per capita of the Southeast, the richest region, was more than 43% above the national average while GDP per capita of the poorest region was 59% below the national average.

Brazil was very sparsely occupied in 1928: with a population of about 35 million there were only slightly more than 10 inhabitants per square mile. Population was very unevenly distributed with a heavy concentration in the coast and in the Southeast and Northeast. Population increased 2.8% yearly in the half century to 1980: at increasingly higher yearly rates until the 1960's then at decreasing rates afterwards. In 1980 population was 119 million and population density had increased to almost 36 inhabitants per square mile. But density variance was still considerable: density in the North was 2.5 inhabitants per square mile while in the Southeast was around 102. The decline of the population share of the Southeast has been very low: it was 44.6% in 1920 and it was still

43.5% in 1980. The share of the Northeast in total population fell in same period from 36.7% to 29.3%.

Urbanization was massive since 1920. Data not strictly comparable indicate that the share of the population in cities with population of 20,000 and more has increased slowly to reach 16% in 1940 and then very rapidly in the 1950's and 1960's to reach 51.5% in 1980. No reliable data on life expectancy or infant mortality exist for 1930. Since 1940 improvement in GDP per capita was not reflected in similar improvement in the major social indicators. Life expectancy improved little in the 1940's and was stagnant in the 1960's: it was 42.7 years at birth in 1940 and reached 62 years in 1980. Progress in relation to literacy rates was more evenly distributed over time as it increased in the same period from 43% of the population over 10 years of age to 74.5%. International comparisons show that Brazilian indicators have been consistently well below the levels which would be predicted by estimates based on the income per capita of other developing economies.

Improvement in social indicators was unevenly distributed between different regions. The indicators for poorer regions improved less than those for the richest regions. Infant mortality in the Northeast stagnated in the 1940's while there was progress in the South and the Southeast. In 1940, infant mortality was 1.4 times higher in the Northeast than in the South. This increased to 1.54 in 1950, 1.78 in 1960 and after improving very little in 1970, reached 1.96 in 1980. Literacy rates were also high in the Northeast. In 1940 they were much lower for women than for men (38% compared to 48.2%) but converged rapidly. In 1980 they were 73.5% for women and 75.6% for men.

GDP structure changed dramatically between 1930 and 1980. The share of services in GDP fell from 52.9% to 48.9% with no clear long-term trend. The share of industrial output in GDP, however, rose continuously by 4-5 percentage points each decade, with the exception of the 1950's when the share of industrial output in GDP increased from 24.1% to 32.2%. In 1980 it reached 40.9%. The share of agricultural output fell less steadily: contraction was particularly important in the 1930's, 1950's and

1960’s with decreases around 6 or 7 percentage points per decade but it was practically constant in the 1940’s and the 1970’s. To a certain extent this reflected long-term changes in relative prices, especially of coffee and affected more the 1940’s than the 1970’s.

The textile sector combined with food processing answered for 53.7% of the aggregate value of industrial production in 1939 while the value of production of the more “modern” sectors – chemicals, metallurgical products, electrical, mechanical and transport equipment – was 16.8% of the total (and only 4.9% for the last three). By 1980 this had been radically reversed with the textile and food processing sectors answering for 20% of the total industrial sector and the five modern sectors for 52.9%.

Agriculture employed 65.9% of the economically active population in 1939. In 1979 this had been reduced to 30.2%. During the same period industrial employment rose from 11.8% to 20.6% of the active population. Most of the relative contraction of agricultural employment was compensated by the significant expansion of employment or underemployment in the services sector whose share in total employment rose from 22.3% to 50.8%. The productivity of labour engaged in manufacturing industry was 5 times the productivity in agriculture in 1939. This ratio was roughly the same in 1979. Coffee physical increased only 30% in the half century. Some of the crops for domestic consumption as beans, corn and maize as well as beef increased below the average for the sector. Rice and sugar cane output increased at double the rate of this average. Consumption of wheat increased 9-fold compared to a population increase of 3.4-fold. The share of the heavily subsidized domestic production of wheat in consumption increased from 21% to 36%.

The infrastructure in the end of the 1920’s was rather poor. The total length of roads in 1930 was 70,385 miles of which only 566 miles paved. Expansion was rapid in the early 1930’s but laggard from the mid-1930’s to the early 1950’s: 2.7% yearly increase for all roads and 2.3% for paved roads. The network was rapidly expanded afterwards. Between 1952 and 1964 it increased 5.1% yearly and 6-fold in the case of paved roads and from 1964 to 1977 it increased 7.9% yearly (4-fold for paved roads). While the road network stabilized around 1.4-1.5 million kilometers, the paved network continued to be extended in the late 1970's at a rate of more than 5% yearly.

The railroad network in 1930 of 20,185 miles was generally inefficient, with the major exception of the British-owned railway connecting the Paulista plateau to the port of Santos and very few sections of the network in the state of São Paulo. Many harbours, however, had been modernized in the 'golden decade' preceding World War I. Operation of harbours was notoriously inefficient and remained so until 1980. The peak in railroad length was reached in 1954 with a network of 23,114 miles, less than 3,000 miles longer than that of 1930. But the competitive difficulties faced by railroads, most of which had been taken over by the government in the early postwar years, were further aggravated by the emphasis on road building after the mid-1950's.

Electricity generating capacity in 1930 was of 779 MW, about 25kW/1,000 inhabitants. In 1980 it was 31,147 MW, about 350kW/1,000 inhabitants. Electricity generating capacity increased rather slowly between 1930 and 1945, at 3.7% yearly, and then rather rapidly after 1945 at yearly rates around 10% both in 1945-1964 and 1964-1980. Almost all the expansion after the beginning of the 1950's was by state-owned enterprises with foreign-owned firms restricted to distribution of electricity mostly supplied in bulk by the new state-owned companies. There were more than 200 inhabitants per telephone line in the late 1930's and this fell slowly to reach 24 by 1980. Progress was especially slow in the 1960's as foreign companies were taken over and state enterprises took a long time to re-start network expansion.

The ratio of gross fixed investment to GDP reached 13.3% of GDP in 1929, a peak in the 1920's but considerably below the suspiciously high peak of 22.5% of GDP in the pre-war boom. It fell under 7% in the trough in 1932 and hovered around 12-14% during the late 1930's. It then slowly rose to reach a new peak of 18% in the late 1950's during the Kubitschek boom years. After faltering to 13% in the early 1960's it steadily rose to the 22-24% range in the second half of the 1970's.

Exports reached a peak of US$ 473 million in 1928 of which all were agricultural commodities and 71% coffee. This was about 1.45% of total world exports compared to under 1% in the 1990’s. Brazil was by far the main supplier of coffee to the world market and this made possible some control of supply through stock building even this in the long-run undermined Brazil’s control of the market . Price inelasticity of coffee demand made this policy especially attractive. There was thus a powerful incentive to maintain the concentration of resources in coffee culture. Other significant commodity exports were sugar, cocoa, mate, tobacco, cotton rubber and hides and skins. The export structure changed relatively little until the mid-1960’s as coffee remained an important export and exports of industrial products were practically insignificant. The share of coffee in total exports fell in the late 1930’s and 1940’s to a third of total exports, but this was to a large extent due to the fall of coffee prices in relation to the prices of other commodity exports. After the Second World War this share recovered rapidly to reach more than 63% of total exports in 1950 and still more than 56% in 1960. Raw cotton exports were relatively important until the early 1950’s. Manufactured exports rose during World War II as traditional suppliers were displaced in Latin America and South Africa. But return to normalcy after the war led to their sharp fall.

The export-GDP ratio was more than 13% in the late 1920’s. This fell to under 10% in the later stages of the Second World War and to nearly 4% in the mid-1960’s evaluated in domestic currency taking into account the multiple exchange rate regime. It then started to rise slowly after 1964 to reach 8.3% in 1980. Exports of manufactures had accounted for less than 3% of total exports in 1960. Export incentives introduced after 1964 fostered a major change in export structure as manufactured products continuously increased their importance, reaching 11.2% of total exports in 1970 and 44.8% in 1980. Another important structural change was the very rapid rise in exports of soya products from 2.6% of total exports in 1980 to 11.2% in 1980. This was only slightly below the combined share of coffee and soluble coffee in 1980. Other important commodity exports in the end of the period included iron ore and, in a rather secondary position, raw sugar. Some of the expanding manufactured exports were agricultural processed products of which the most important were orange juice, processed sugar and processed beef. In 1980 coffee exports had decreased to 1.9% of total exports.

Exports in 1928 were mainly directed to the United States (45%), Germany (11.2%), France (9.2%) and a large number of smaller European economies as well as Argentina, all with market shares around 5-6% of exports. Britain had become a minor export market buying only 3.4% of Brazilian total exports. During the 1930's there was some recovery of the British share to 10% of total exports and a substantial rise in the relative importance of exports to Germany, which reached a peak of almost 20% in 1938, and to Japan. During the war the destination of export trade was diversified as non-traditional markets gained importance in both Latin America and Southern Africa. Exports to Continental Europe became insignificant and more than 50% of total exports were destined to the US. In 1950 more than half of the exports were still to the US, 5.6% to Argentina, around 10% to Britain and only 12.8% went to the future initial signatories of the Treaty of Rome. There was a gradual fall in the US share which in 1960 was below 45% as the EC-6 share rose to nearly 20% and the British and Argentinian shares hovered around 5%. In 1970 the US share had declined further to 24.5% as the EC-6 markets rose in importance – to 30%. Latin American markets absorbed 11% of the Brazilian exports (more than 60% corresponding to Argentina). Britain consolidated its position as a minor market for Brazilian exports with a share under 5%, smaller than the combined markets of other EFTA countries or the Japanese market which were roughly equivalent. As barter trade increased in the 1970's shares in total exports of traditional markets decreased: 17.4%, to the US and 23.9% to the EC (original members), and to the UK to 2.7%. Export markets in OPEP economies and in Latin America became more important.

Imports also reached a peak in 1928 of US$ 441 million. All capital goods and durable consumer goods were imported and the share of import duties in total Federal revenue excluding industrial revenue was nearly 50%. Food imports were relatively unimportant except for wheat of which there was no domestic production and luxury goods such as salted cod and wines. The economy was dependent on energy imports since domestic coal was of poor quality and no oil was found until 1939. But there was widespread use of wood as a substitute for coal and liquid fuels. The import tariff had been declining since the beginning of the century but was still relatively high: the ratio between duty collections and the value of imports in the late 1920's was above 25% and much above 30% in the early 1930's reaching a maximum of 40.2% in 1933. This ratio becomes a poor indication of protection afterwards as quantitative controls became the rule. Protection was considerably increased in the 1930's and started to be reduced rather slowly only after 1967. But this trend was reversed with the oil shock of 1973-1974 and in 1980 protection remained absolute for many products. Average tariff measured as a ratio of import duties and the value of imports was only 7.7% but imports were restrained by significant trade barriers. Average nominal protection was 99.4% but implicit nominal protection measured by direct price comparison was rather low at 22.8% for manufacturing.

Main suppliers of imports in 1928 were the United States (26.6%), Great Britain (21.5%), Germany (12.5%) and Argentina (11.5%). In the 1930's imports from Germany gained ground as the British share contracted. During World War II imports from the US rose to 60% of total exports. This declined to around a third of total imports between 1950 and 1970 as there was much diversification in the origin of imports. The US share fell to less than 18% in 1980 and the EC-6 share to 13.2% (the British share fell to 1.9% and that of all other members of EC-12 to 1.2%). After the two great oil shocks the share of oil in total import increased to more than 50% of total imports. It had been around 9% in 1970. Oil supplier countries in the Middle East and to a lesser extent in Africa and Latin America became major sources of Brazilian imports. The import GDP-ratio which was 10.5% in 1929 fell to a low of 5.4% in 1932. It increased above 10% in 1935-38 but then remained quite low in spite of increases during import booms such as the one following the Second World War. It reached minimum values of 4.3% in 1953 and 4.1% in 1964 but remained firmly below 7% for most of the 1960's and 1970's. In 1974 it reached 11.3% and in 1980 9% but this was due to the steep rise in oil prices in both periods.

Terms of trade deteriorated by more than 40% in 1928-1931 then, after a recovery, fell to less than 40% of its 1928 level in 1940. Recovery was slow during the war but then rapid as coffee prices boomed: in 1951 terms of trade were back to the 1928 peak level and 14% above it in 1954 . They remained hovering around a level 25-30% below this peak in the 1960’s and 1970’s. Capacity to import remained low in the 1930’s and during the Second World War reaching lows more than 40% below its peak in 1929. Recovery was steady after some difficulties in the early 1950’s.

In the late 1920’s a significant trade surplus was still the rule as in spite of the inflow of capital the services account was negative due to interest payments, profit remittances, freight payments, and immigrants’ remittances and there was, especially after 1927, heavy debt repayment. A positive trade balance was maintained under normal circumstances. Import booms in 1952, in the early 1970’s and the two oil shocks reversed this position but only temporarily.

Brazilian public foreign debt in 1928 was substantial at US$1,142 million. The debt-export ratio was 2.36 and debt service corresponded to almost 25% of exports. Debt ratios increased with the exchange crisis in the early 1930’s reaching 5 in 1931. The net foreign debt-export ratio was very small until the mid 1950’s as it had been reduced by the 1943 debt negotiation and there was no new private voluntary lending to Brazil before 1967. Then it started to rise with the export stagnation to reach 3 and only recede after 1964. In 1980 as Brazil’s debt had increased substantially in the 1970’s it was back to 3 and rising. Foreign reserves which were near zero in 1930-31 rose to more than twice the value of imports in 1946 but were partly unconvertible into scarce US dollars. Then they were slowly run down to reach only a quarter of imports in 1964. They recovered to reach roughly the value of yearly imports in 1974 but then fell under this threshold towards the end of the decade.

Direct foreign investment was of the same magnitude of public foreign debt by the end of the 1920’s, but of the total of more than US$1,200 million at least one third corresponded to watery French investments which were wiped out by the depression. In the end of the 1920’s most of the foreign direct investment, of which a half was British, was concentrated in public utilities and most of it in railways. US investment was in modern utilities such as electricity, manufacturing and distribution services. In 1980 the total stock of registered direct foreign investment was US$ 17.5 billion of which US$ 5 billion from the United States, US$ 5.8 billion from the Europe of the 9 (of which US$ 2.4 billion from Germany) and US$ US$ 1.7 billion from Japan. The stock of British investment was US$ 1.1 billion. In 1930 foreign banks still played an important role in Brazil holding about a quarter of total loans and discounted bills, but their importance had steeply declined since the beginning of the century with the increased importance of Banco do Brasil and other state-controlled banks. It was to decline even more: by 1945 this share was only 5.2% and 1.2% in 1964. Recovery in 1980 had been modest with their share reaching 16%.

In line with developments in many peripheral economies in the second half of the 1920's a currency board arrangement had been introduced at the end of 1926, with a *Caixa de Estabilização* [Stabilization Office] exchanging gold and foreign currency at the rate of 5 31/32 pence per *mil-réis*. But the external beginning in mid-1928 led to the establishment of foreign exchange control in 1931 and the almost permanent interference of the government in the allocation of foreign exchange through discretionary policies. This was to persist for the whole period. In 1980 after the failure of a short-lived policy of pre-announcement of nominal devaluation the government reverted to a crawling peg policy trying to keep constant the real exchange rate. Long-term comparisons of the real rate of exchange are intractable due to data shortcomings and the prevalence of controls but there was an anti-export bias for most of the period especially affecting non-traditional exports. After the 1960's it is reasonable to consider that there was a substantial increase in the remuneration of non-traditional exporters but this tended to depend on the discretionary distribution of incentives and subsidies rather than on transparent foreign exchange policies. This explains why there was no real devaluation of the domestic currency in relation to the US dollar between 1962 and 1968 and it is reasonable to speak of a change of regime.

Inflation between 1930 and 1980 was considerable. A comparison of exchange rates provides some indication of its magnitude which does not rely on the initially defective price indices: it was 8 *milréis* per US dollar in 1930 and 52.7 *cruzeiros* per US dollar in 1980. In 1942 the *milréis* had been rebaptized *cruzeiro* and in 1967-1970 a further monetary reform had removed three zeros from prices but confusingly maintaining the denomination of *cruzeiro* after a short period when the monetary unit was the *cruzeiro novo*. So devaluation of the *milréis* in relation to the US dollar was at the average rate of 19.2%. The peak of yearly inflation during this half century was in 1963-1964 when price indices approached the 100% level.

There was a sharp change in the tax structure during the period as customs duties which previously answered for 55.3 of tax revenues declined in 1980 to 10.9% . The share of income tax increased from the almost negligible 4% in 1928 to 40.2% in 1980. Excise taxation also increased (from 25.9% to 34.3% of tax revenue) and taxation on financial transactions remained stable around 14%. Internal debt as a proportion of GDP in the end of the 1920's was around 8%. This increased considerably in the 1930's but then fell continuously to 5-6% in the late 1960's as the government was unable to place loans denominated in domestic currency due to the combination of high inflation and the limits imposed by the usury law resulted in negative real interest rates. With the introduction of monetary correction the trend was reversed and the ration was hovering in the direction of 10% of GDP. Combined inflation tax and transfers played an important role in certain sub-periods during this half century. They were strongly negative in 1930-31 and became positive and high – around 6-7%-- in periods such as the mid-1930's, the Second World War and the early 1960's. Towards the end of the 1970's its contribution was again nearing 6%.

There is no set of data available which can serve as a basis for a comparison between 1930 and 1980 from the point of view of government intervention. From the mid-1940's there is (not very good) information on the share of government investment in total investment. This points out to a rising trend form less than 20% to more than 40% in most of the years between 1957 and 1964. After the military coup this share continued high but the trend was declining as the public sector started to face an important financial squeeze. In 1980 this share was below 30%.

In more qualitative terms there is a clear increase in the scope of government intervention in the half century after 1930. State-owned enterprises became dominant suppliers of goods and services, especially of basic industrial inputs and energy. There practically no private investment in the provision of public services. Government intervention became the rule in the administration of successive foreign exchange regimes. In 1980 if anything the government was increasing its interference in the process of foreign exchange allocation due to the renewed balance of payments difficulties resulting from the 1979 oil shock.

2. The Brazilian Economy, 1928-1945

Brazil was among the developing countries which first faced the unfavourable consequences on changes in the international economic conditions after mid-1928. The significant inflow of foreign capital, especially in the form of indebtedness of all three levels of government, was interrupted in the middle of the year. Monetary contraction followed as the level of foreign reserves in the *Caixa de Estabilização* started to fall. Between the end of 1928 and the end of the third quarter of 1930 the monetary base fell by 14%. Coffee price support, under the administration of the State of São Paulo since 1924, depended on the ability to raise foreign loans on a permanent basis, especially if, as was the case, coffee stocks tended to increase. A bumper crop in 1927 was followed by another in 1929. Accurate crop forecasts can be based on the flowering almost a year before the crop so that already in 1928 it could be anticipated that, barring a severe frost, the 1929 crop would be very big. The lack of foreign finance and the increase in stocks resulted in the collapse of coffee prices towards the end of 1929. These difficulties were compounded by the fall in economic activity in the United States, then in all Brazilian export markets. By the end of 1929, Santos 4 coffee prices had fallen from 11 to under 7 pence per pound. The fall would continue in 1930 and 1931 to reach a trough around 4 d/lb. The Federal government refused to bail out the ailing coffee support programme of São Paulo and stuck to the gold standard. Reserves dwindled as exports fell and the inflow of loans was again interrupted after some recovery in the first semester of 1930. There were widespread bankruptcies in agricultural activities: coffee growers could not pay their debts as prices fell much below the advances they had received from the valorization authorities in the past.

As happened in every other country in Latin America economic difficulties caused by the crisis fostered political unrest and led to changes of government, most of them through political coups. Getúlio Vargas, a politician from Rio Grande do Sul who had been defeated by the official candidate in the Presidential elections early in 1930, became head of the Provisional Government. By November he was in power but faced an extremely serious economic crisis. Foreign exchange reserves which stood at £31 million in September 1929, reached £14 million in August and had disappeared by November. Coffee prices and the foreign exchange rate were still plunging, there was a substantial fall in the level of output and a severe fiscal crisis followed foreign exchange devaluation after mid-1930.

2.1. Depression and recovery:1928-1933

An important Paulista rump had backed Vargas as a candidate and they were duly represented in government by the new Finance Minister, José Maria Whitaker. The basic stance adopted by Whitaker was to wait and see what were going to be the consequences for Brazil of the crisis in the developed economies. In spite of the continuing fall in coffee prices, public foreign debt service continued to be paid and there was no decision on a permanent basis on the foreign exchange regime. Monetary policy continued to allow the monetary base to fall even after foreign reserves had reached zero. The foreign exchange policy nominally did not involve controls, but in fact there was a succession of moratoria on foreign – and domestic -- debts and many *ad hoc* decisions basis which did not interrupt the exchange rate devaluation trend. The government resorted to unorthodox policies such as barter with Germany and the United States to face the scarcity of foreign exchange.

Government intervention in fact sustained the foreign exchange rate, avoiding full devaluation. This was in line with experience in other developing economies but in the case of Brazil there were as a more complex set of arguments to justify it. It was well known that devaluation resulted in an adverse fiscal impact as a significant share of government expenditure was indexed to the exchange rate, as for example the debt service, while revenues were not. In fact, revenues were more likely to fall with exchange devaluation: import duties still corresponded to almost 50% of total revenue and the Brazilian tariff was specific, that is defined in terms of units of domestic currency per physical unit, and only partly pegged to gold. An overvalued exchange rate made easier for economic agents indebted in foreign currency, and particularly the government, to pay their debt service. The same argument applies to profit remittances, and is especially important for those firms providing public services as their revenues were dependent on rates defined in domestic currency. If a country is a significant world supplier of a particularly commodity the world price of such commodity will be influenced by the exchange rate regime in the major supplier. A devaluation will stimulate holders of commodity stocks to dump their goods in the market with a consequent reduction in world prices denominated in foreign currency. While it is not easy to show this link empirically, contemporary literature in Brazil endorsed by well known international experts tended to accept it as valid. While in the short-term the overvalued exchange rate tended to influence favourably world coffee prices this influence was reversed in the longer-term. An overvalued exchange rate also made imports relatively cheap. How this affected final consumers depends crucially on the distribution of market power in specific markets. The more market power a domestic firm has, the more likely it is that cheap capital goods and input import prices will be transformed into higher profits. The volume of imports was of course limited, either informally, or by explicit rationing by means of discretionary controls.

The only major decision reached during this first year of economic policy-making under the Provisional government was on coffee. The government considered the alternative of either to buy the flow of new output from coffee growers, or to bail out those economic agents which had been involved in the accumulation coffee stocks in the boom period. Whitaker's opted for the bail out of the latter. During most of his year in office Whitaker kept hoping for a new foreign loan which would signal that the world financial markets were back to normal and that Brazil could use foreign loans to restore balance of payments equilibrium. It took some time to become clear that this was not to be. The blunders of Morgan, the United States Ambassador to Brazil, in convincing Washington that Vargas was not going to succeed in his bid for power, opened political space for British financial interests focused on Brazil to try to exert some influence on the course of events. Following up initial talks with Júlio Prestes, the Brazilian President-elect who would not take office because of the political coup, the Brazilian authorities were prompted by N.M. Rothschilds to invite a British expert to advise on the financial position. The British expert, Otto Niemeyer, produced a report in early July 1931 which included standard orthodox recommendations such as that Brazil should phase-out its coffee price support policies, bring its finances under control and curtail the independent foreign borrowing by states and municipalities. More notably it included complete draft statutes for a Central Bank totally independent from the government – with significant foreign influence – as well the recommendation that Brazil should return to the gold standard. To do be able to do so Brazil was to raise a sizable new loan in the London market. The abandonment of the gold standard by the United Kingdom in September 1931 put an end to optimistic views of a 'business as usual' nature and to the hopes of financial support in London. The consequences on Brazilian policy-making were immediate. Brazil decided to suspend servicing the federal debt and announced a funding loan arrangement on the federal debt – the third, following those of 1898 and 1914 – through which amortization payments were suspended and interest was paid with new bonds issued during three years.

Whitaker was substituted by Aranha, the man with the strongest political clout in the new administration after Vargas. New policies were introduced on the foreign exchange regime and coffee, issues which had been left undecided while the government had still some hope that the back to normal scenario could prevail. Marking the inauguration of an extremely long period of government intervention in the foreign exchange markets, the government decided to adopt an exchange regime which involved government monopoly in purchases and sales of foreign exchange cover. As the exchange rate was relatively overvalued, the excess demand for foreign exchange was removed by controls taking into account criteria which ordered with declining importance: official purchases, ‘essential’ imports and other exchange cover, including profit remittances, imports on a non-documentary basis and commercial arrears.

Between 1928 and 1932 imports fell by 60% in volume and exports by 16%. In dollar terms imports fell by 70% while exports were reduced by almost 50%. So that terms of trade deteriorated by almost 30% and the capacity to import by 40%. Imports were crowded out by other types of expenditure in foreign exchange as shown by the gap between the shrinkage of capacity to import and of import volume. The average mil-réis-US dollar devaluation was 8% in 1930 and 55% in 1931 so that, as domestic prices fell by 11-12% in both years, real devaluation of the mil-réis was of more than 110% in relation to the dollar. The significant expenditure-switching caused by devaluation and discretionary controls on imports had important beneficial consequences on the level of domestic output as spare industrial domestic capacity was put to use. That there was scope for such a switch tends to qualify the more extreme criticisms of the inefficiencies entailed by import-substitution which had been started by the first big spurt in the early 1890’s.

It is certainly not reasonable to construe such policies mainly as a result of conscious move in the direction of compensating the effects of the depression, as there was not much room to avoid devaluation. Based on rather shaken evidence on the tariff policy it is still less reasonable to characterize policy in the initial years of Vargas’ rule as being somehow anti-industrial. Not only the tariffs were not decreased but, more decisively, any assessment of protection in most of the period after 1930 must take into account the crucial role played by import and foreign exchange controls. Tariffs were wholly relevant only in those periods when there was no rationing of foreign exchange, a requirement which in the 1930's applies only to 1935-1937.

Other public policies, such as those related to coffee, had an important effect in maintaining the level of economic activity. With Aranha, the Federal government officially took over coffee policy from the state of São Paulo, and an embryo of what would become the *Departamento Nacional do Café* [National Coffee Department] was created. The new coffee policy would be maintained with relatively minor adjustments until 1937. It was based on the attempt to solve the massive overproduction which affected coffee. In 1933, when the policy was made permanent, 30 % of the coffee yearly crop was freed for immediate commercialization, 30 % was stocked by the *Departamento Nacional do Café* and 40% was destroyed. More than 70 million bags of coffee – equivalent to about three years of world consumption -- were destroyed, mainly between 1931 and 1938.

Government purchase of coffee stocks depended partly on sizable deficits, which reached in some years more than one third of the total cost of the coffee support program. While it is reasonable to see some Keynesianism *avant la lettre* in such policies the same could have been said of other important expenditure programmes in the *Republica Velha* financed by deficit creation: the significant construction of dams in the early 1920's comes to mind. That Vargas comes to be more often mentioned as an instinctive pre-Keynesian is perhaps to be explained by the apparent irrationality of both Keynes' 'burying of holes on the ground' and the massive destruction of coffee stocks as an important element of Brazilian coffee policy for most of the 1930's. Data on the aggregate public deficit in the 1930's tend to support the link between early recovery of the level of activity and public deficit: deficits in 1931-33 were above 12% of expenditure (40% in 1932) and after 1933 planned deficits became usual. Policies which speeded up recovery also included the *Reajustamento Econômico* [Economic

Readjustment] of 1933 which wrote off 50% of coffee agricultural debts and allowed renegotiation of residual debts with generous periods of grace.

Brazilian banks survived the crisis with the help of the Federal government. Monetary policy was accommodating during the period and a new *Caixa de Mobilização Bancária* [Monetary Mobilization Office] created in 1932. It introduced new rules on compulsory reserves and the deposit of excessive reserves in the Bank of Brazil and financed the needs of the Treasury and of the *Departamento Nacional do Café*. It supplemented the activities of the *Carteira de Redescontos* [Rediscount Office] of the Bank of Brazil which had been reactivated in 1930.

The effects of the depression on the level of economic activity in Brazil were relatively mild as by 1933 GDP was already 7.7% above its 1929 peak level and industrial output was 4.6% above the 1928 peak level. The worst years for industry had been 1930 and 1931, with output 8-9% below 1928. The trough for GDP was reached in 1931 with GDP 5.3% below its maximum in 1929. But the impact on real income was more important as the terms of trade deteriorated by almost 44% between 1928 and 1931 and recovered only 14.3% until 1933. Between 1928 and 1931 real income fell by more than 11%.

In spite of foreign exchange and import controls, important commercial arrears accumulated. The government as a monopolist in the foreign exchange market could not find enough exchange cover to pay promptly foreign suppliers of goods. Foreign firms operating in Brazil also could not make remittances to their main offices. Such accumulations were thawed by successive negotiations of mid-term loans with foreign creditors, more importantly with the United States and Britain, and especially so in 1933, 1935 and 1939.

Traditional foreign investment in the provision of public services such as railway transportation and electricity faced increased difficulties in relation to the inability to maintain the return on their investments as public prices were not adjusted to compensate the devaluation of the mil-réis. The transfer of such reduced profits also faced significant delays in the periods of more intense scarcity of foreign exchange. The result was persistent underinvestment and a falling quality in the services provided even by the best foreign concerns. Investment in manufacturing fared much better as there were no significant obstacles to pricing their output as the market would bear. Since most of the British investment was concentrated in railways, and the share of US investment in manufacturing in US total investment was increasing rapidly, this tended to be reflected in different stances on exchange control by British and US firms operating in Brazil.

While it is true that state interference in the economy substantially increased after 1930, much of it is to be explained, at least initially, less by an ideological, or even political commitment to increased state interference as part of a growth strategy, than by the drastic changes in economic conditions which resulted from the 'great depression'. This is illustrated by the introduction of foreign exchange control as a discretionary policy adopted worldwide to face balance of payments shocks after 1928. That this form of government interference had such a long life in Brazil after the 1930's was certainly more closely related to new ideas on the role of the State than the decision to introduce it in 1931. The centralization of decision-making was also partly related to these new developments. The transfer problem had become a significant aspect of Brazilian policy as the responsibility for the transfer of foreign exchange cover related to private and public payments was transferred to the foreign exchange control authorities and became clearly differentiated in relation to the ability to pay in *mil-réis*. The Federal government became interested in size of liabilities in foreign exchange accumulated by Brazilian states and municipalities and created a *Comissão de Estudos Financeiros e Econômicos dos Estados e Municípios* [Commission of State and Municipal Financial and Economic Studies]. States and municipalities had enjoyed free access to foreign borrowing without any interference from the Federal government according to the Constitution of 1891. As mentioned, the Federal government took over control of coffee policy from São Paulo and created in 1931 the *Conselho* [*Departamento* after 1933] *Nacional do Café*. The first signs of new policy on state intervention was perhaps the creation of two new ministries – Education and Labour, Industry and Commerce – after Vargas took power. New policies were also introduced to cope with sugar overproduction, including the compulsory mixing of alcohol in imported petrol. In 1933, a *Instituto do Açúcar e do Álcool* was created to manage the complex sugar output and export policies introduced since 1931. But it was only after 1933, and still more after 1937, however, that State intervention was consolidated in the case of many other sectoral policies.

2.2. The 1933-1936 boom

Brazilian economic policy from 1933 become more liberal with the fast domestic recovery in output and in tune with the improvement of international economic conditions. Emphasis on dynamism of *hacia adentro* factors in comparison with stimuli provided by world economy must not obscure fact that shifts in economic policy and in the level of domestic economic activity were dominated by the world economy. This continued to be the case in most future cyclical developments which affected the Brazilian economy with the major exception of the crisis in the early 1960's.

In 1933, the Bank of Brazil had started to abandon its single pegged rate policy and was in fact operating with three foreign exchange markets: 70% of total exchange was bought and sold at the official rate to the government, to merchandise importers and to foreign-owned public services companies with fixed charges due abroad; 20% corresponded to a 'grey' market where 50% of almost all non-coffee export bills were sold and almost all exchange was sold to companies remitting profits; and less than 10% to a 'free'market fed by non-merchandise exchange proceeds and used for residual transfers abroad. On average there was even some appreciation of the mil-réis in relation to the US dollar in 1933-34.

Substantial exchange arrears had accumulated in 1930-33 leading to widespread protests by creditors. In the United States, the intense pressure by some business interests, which counted with the sympathy of sections of the government, and in special of those advising the adoption of bilateral remedies in countries were the United States had a trade deficit, led to an official US mission to South America. The lucid report produced by

John Williams, then at Federal Reserve Board of New York, recognized the difficulties faced by primary exporting countries following the depression. He found that given the circumstances Brazilian foreign exchange policy was rational and found no evidence of discrimination against US interests. It made sense for a commodity pricemaker such as Brazil to maintain its exchange rate somewhat overvalued. This produced excessive demand for exchange cover and the need for exchange control which blocked some luxury goods produced by the United States. But this was inevitable and there was no evidence of discrimination against the United States. A further movement towards liberalization occurred in September 1934 as all non-coffee export bills as well as all exchange generated by coffee above a quite high threshold could be sold in the free market. The official market would be fed by 155 French francs per exported coffee bag and the Bank of Brazil would sell 60% of the exchange required by approved imports at the 'official' rate. The residual would be purchased in the 'free' market.

There were important balance of payments difficulties in the beginning of 1935 and a concrete risk of a Brazilian default on the foreign debt. The negotiations on commercial arrears in Washington and London made possible to avert the crisis and paved the way for further liberalization of the exchange policy. The 1935 new foreign exchange regime continued to be based on the idea that non-traditional exports should not suffer from the relatively overvalued exchange as, contrary to what was the case of coffee, in all these cases Brazil was a small supplier, and thus a price taker in world markets. The foreign exchange regime relied on blending two exchange rates pegged by the authorities with an 'official' rate more overvalued than the ´free' exchange rate. Coffee exporters were to sell 35% of their export proceeds to the Bank of Brazil at the official rate. Non-traditional exporters could sell as much as 100% of their export proceeds at the free rate. The government bought exchange at the official rate, while all other purchases were made at the free rate. The government was thus able to buy exchange cover at a cheaper rate and extract gains from the wedge between the two rates. The weighted average exchange rate against the US dollar in 1935 and 1936 was at roughly the same level as in 1932.

From the middle of 1935 there was a sharp improvement in the balance of payments and 1936 was an extremely good year from the point of view of output growth and the balance of payments. Exports increased by 17% and imports by less than 2%. But from early 1937 there were indications that the economy was overheating and the expansion of more than 40% of import value was not matched by the 9% increase in exports. These difficulties were compounded by a more liberal policy on remittances adopted by the Bank of Brazil. Terms of trade had recovered, and again in 1934 to reach about 70% of the peak 1928 level. But then they fell more: in 1936-1937 they were only at 45% of the 1928 level. But the fall in the capacity to import was of less than 30% as volumes exported rose by 30-35%. Weighted ad valorem duties suggest that the trade policy as indicated by tariff levels in the early 1930's was more protectionist than in the late 1920's. By 1936-37 the level of protection had been modestly reduced but was still roughly equivalent to that of 1928.

Brazil was deeply affected by new developments in the trade policies of the United States and Germany, two of its most important trade partners, after 1934. In the United States, commitment to liberal policies prevailed with the victory of the State Department   after a long struggle between multilateralists and bilateralists,. The United States had been pressing for concessions from Brazil even before approval of the 1934 Reciprocal Trade Act. Negotiations led to a new trade agreement in 1935 which considerably reduced the Brazilian tariff level. There had been, however, considerable tariff padding in 1934 as Brazil pre-emptively increased its tariff levels. On a straight import revenue reduction basis, reciprocal concessions were equivalent, but while exports to the US were mainly of commodities which did not displace domestic producers, this was not the case of imports into Brazil as concessions were concentrated on manufactured goods such as transport equipment, parts, chemicals, cement and durable goods. After strong resistance, especially in São Paulo, the agreement was ratified in 1936. In spite of the steep rise in manufactured imports there is no evidence of important damage to domestic industry whose output increased at a very high rate in 1936 and at almost 4% in 1937, in spite of stagnation in agriculture and its impact on the food-processing industry.

In 1934, Germany had adopted Finance Minister Schacht's New Plan which served as a basis for the negotiation of compensation agreements with many of its trade partners. There was never a formal agreement, given the opposition of the United States because of the resulting subsidization, trade diversion and discrimination, but bilateral trade expanded based on a more informal understanding between the Bank of Brazil and the Reichsbank. All proceeds of German purchases in Brazil were paid into a Bank of Brazil account which could only be used to purchase German goods. Trade patterns in 1934-1938 were deeply affected by such developments as the aggregate German share of the Brazilian market (corrected for the overvaluation of compensation marks) rose from 12% to 20% of total imports. The US share of Brazilian imports increased from 21.2% to 25.5%, while the British share fell from 19.4% to 10.9%. German goods displaced traditional imports from the United States, but the US aggregate share did not fall since US goods displaced traditional British manufactured exports. The German share of the export market also increased substantially from 7.4% to 15.9% total exports, a result of the importance of coffee and cotton purchases. Cotton exports were also the main explanation of the expansion of exports to Britain in the 1930's. The fall in the US share of Brazilian exports resulted also from the fall in coffee prices in relation to all other export prices. It was an automatic consequence of the long-term cyclical behaviour of coffee prices. Cotton exports (uncorrected for compensation marks overvaluation) increased from 4% to 18% of total exports between 1928 and 1938, while coffee exports decreased from 71% to 45%.

The attraction of compensation trade with Germany was sufficiently strong to justify a continuous ambiguity in Brazilian foreign economic policy as the United States applied pressure to block the arrangement. The expansion of cotton exports provided an outlet for the substantial increase in Brazilian domestic production, but the fact that Brazil was indirectly profiting from the price umbrella provided by the United States cotton support programme acted as a further irritant to the United States in its quest to end with the compensation trade. Quite diversified Brazilian regional export interests, mainly in the Northeast and the South, were able to find outlets to their output of primary commodities which would have been otherwise very difficult to sell. The level of imports was similarly higher than it would have been without a compensation trade deal. The German proposal to include the supply of armaments in the Brazilian purchase programme was a shrewd move as it automatically enlisted the support of the armed forces for the continuity of the arrangement. The standard argument used by the United States government on the inefficiency of compensation agreements was really not very relevant when there was massive idle productive capacity such as in the 1930's.

The United States policy towards Brazil in relation to compensation trade as well as in other issues such as the foreign debt was to avoid the use of strong arm methods in spite of the considerable United States leverage Brazil due to its structural trade deficit in the Brazilian trade. This is explained partly by its overall commitment to multilateralism after 1934, which prevented the use of pressure as the British did in Argentina, and also by the increasingly central role that Brazil had in United States strategical thinking on South America as a form of containment of Argentina. Policy-making in Brazil enjoyed degrees of freedom which did not exist in Argentina, and Brazilian policies reflected this difference.

In 1934, the three-year time limit established by the 1931 Funding Loan expired. Sir Otto Niemeyer, returning from a trip to Argentine where he had acted as an adviser to Argentina on the future Central Bank, made a stopover in Rio and left with Aranha a note in which the essential features of a new arrangement on the foreign debt were defined. These new ideas tried to accommodate the creditors'dissatisfaction with the lack of cash payments resulting from the funding loan and also Brazil's reluctance to agree with the rapid rise of outstanding foreign debt without any relief. In what became known as the Aranha scheme, all foreign loans to all levels of government were graded in categories according to the quality of their guarantees. The higher a given loan was classified, the higher the proportion of amortization and interest paid in relation to contractual terms. Payments were in some cases to rise slightly over the four years of the agreement. The gap between contractual interest payments and actual interest payments corresponded to debt relief. Total service was equivalent to about one-third of contractual service, of course, with a much higher proportion of interest payments.

Direct foreign investment from Britain and the United States had contracted by more than 10% in both cases between 1930 and 1936. In the case of US investment it started to recover in the late 1930's. GDP growth between 1933 and 1936 was at 8% yearly. Industrial output increased at 13.4% yearly and agricultural output at 4.2% in spite of a very bad crop in 1935. This outstanding industrial performance was partly due to the extremely good performance of the textile industry whose output increased 16.8% yearly in this period. Textile production corresponded to about 20-25% of total industrial value added. Given that import substitution was complete in food processing, which corresponded to about 35%, it could not grow much above agricultural output. Output of the chemical industry, which was less than a fifth of the textile industry in the early 1930's, increased even more spectacularly at 23.8% yearly. 'New' sectors such as cement, tyres and steel products also had very high rates of growth but their relative importance in total industrial value added was rather limited. According to census data from 1919 to 1939 the import-domestic supply ratio, using current prices, decreased only from 25% to 20%. But the change in relative prices, with imports becoming much more expensive in relation to domestic prices, hids the sharp advance of import substitution. Using 1939 prices this is nothing short of spectacular as the imports-total supply ratio fell from 46.6% to 19.7%.

While there was a substantial increase in the share of industry in GDP in the 1930's this was roughly similar to that which had occurred in the 1910's. No evidence can be found which could justify emphasis on 'endogenous accumulation' as an explanation of industrial growth from the early 1930's. There was a sharp fall in investment, with imports of capital goods for industry back at a level 80-90% their 1928 peak only by the late 1930's. There was no significant domestic capital goods sector at best before the end of the 1950's, especially if the production of capital goods for manufacturing industry is considered. The industrial boom in the 1930's was mainly based on the use of installed capacity in traditional branches of industry, and especially of textiles. Between 1931 and 1936 cotton production expanded 25% yearly due to the shift from coffee production in the South and the inducement of new markets in Germany and Britain. All other major agricultural activities lost share in agricultural output with the exception of cocoa and beef production. Subsistence agriculture, however, was still generally growing much faster than population.

The normative presence of the State in the economic field increased markedly after 1934. An extremely influential *Conselho Federal de Comércio Exterior* [Federal Foreign Trade Council] was created. Its influence went much beyond trade matters and covered all issues related to economic development such as for instance the integrated steel mill project which was to become a government priority in the late 1930's and early 1940's. Other so-called 'defense' institutes started to take shape, but mainly at the state rather than national level. They covered cocoa and tobacco in Bahia, and rice and beef in Rio Grande do Sul. In 1936 the Federal government was spending in real terms 92% more per unit of GDP than in 1928, if payments of the foreign debt service are excluded. Much, but not all, of it had been directed to the Army which, together with the Ministry of Finance (excluding foreign debt service), was the department with the highest rate of expenditure increase in the period. The structure of Federal revenue had started to change slowly after the recession as the shares of both the consumption and income taxes started to rise in detriment of import duties. But in 1937 import duties still just exceeded the joint revenue related to the major domestic taxes: consumption tax (21.7% of total Federal tax revenue), income tax (7.6%) and the stamp tax (7.7%).

2.3. Recession and the war economy:1937-1945

When Vargas delivered his *autogolpe* in November 1937 there had been a clear deterioration of the economic situation which had been so favourable since he had become Brazil's constitutional president in 1934. To the overheating of the domestic economy was added the fall in the level of activity in the United States which badly affected Brazilian exports. Balance of payments difficulties became once again all important. In his address to the nation to explain the *Estado Novo*, Vargas defined what was a clear reversal of the previously liberal economic policies covering policies on the foreign exchange regime, the foreign debt and coffee. The new foreign exchange policy was a return to that of 1931-1933, based on a government foreign exchange monopoly with an unified overvalued exchange rate and import controls. The new unified rate was roughly equivalent to the previous ‘free’rate but was almost 50% devalued in relation to the previous official rate. It is interesting, however, to notice that, contrary to what could be expected, import controls did not result in an import structure which favoured ‘essential’ goods in 1938.

Vargas also announced that payment of the foreign debt service would be suspended as the government had decided that there were more essential commitments related to economic development and re-equipment of the armed forces. Outcry, especially in London, was substantial but the reaction in Washington was subdued. There was growing concern in the US Administration, and more especially in the Treasury, among the advisers of Secretary Morgenthau, about the situation of key regional or subregional economies such as Brazil and China. For the first time, in spite of the opposition of the more conservative State Department, it is possible to detect a policy of fostering economic development of some of the larger developing economies as part of a package to gain or sustain political preeminence in targeted economies.

Brazil was to abandon some of its former coffee policies drastically reducing export taxes and limiting stock destruction. In spite of established views which would predict a fall in coffee export proceeds coffee export proceeds increased after this change. It was the contraction of other exports which affected the balance of payments position. Overall terms of trade collapsed further in 1938-1941, reaching an average of only 42% of the 1928 peak, with a minimum, in 1940, below 40% of that level. Capacity to import was sustained, and even slightly increased by the sharp increase in exported volumes which in 1939 reached a peak of 66% above 1928. During the war, terms of trade improved about 20%, especially after 1942, and capacity to import rose slowly to reach in 1945 a level still 18% below 1928.

With the deterioration of the international political situation Brazilian enthusiasm in holding compensation marks, which could remain blocked in Berlin for the duration of a possible war, cooled down considerably. Indeed 1938 was the last year of important compensation trade with Germany. The path was opened for a *rapprochement* with the United States and indirectly with Britain. A Brazilian mission, headed by Oswaldo Aranha, the influential foreign minister, visited Washington in March, 1939, allegedly to negotiate commercial arrears finance. Its main achievement was, however, to commit Brazil, in spite of much criticism by the military, to a reversal of its foreign exchange and foreign debt policies.

After Aranha's return the government announced a new foreign exchange policy which had some of the features of the 1935-1937 policy and would remain in place for the duration of the war. There were three exchange rates, progressively more devalued in relation to the US dollar: an 'official' rate, a 'free'rate and a 'free-special' rate. The new 'official' rate was revalued more than 5% in relation to the 1938 single rate. In the other extreme, the 'free-special' rate was 24% above the 'official' rate. Thirty per cent of export proceeds were to be sold to the government at the official rate. All imports were to be paid at the 'free'rate and the financial remittances at the 'free-special' rate. In spite of the dearth of exchange cover which was to last until 1942, Brazil honoured Aranha's commitment that the foreign debt would be serviced and a new foreign debt agreement for four years was signed in June 1940. Payments were to be at 50% of Aranha's last year so that annual payments were £4 million, equivalent to about a sixth of the service established contractually.

Brazilian export markets in Central Europe were closed for the duration of the war as the British blockade became binding. The war conditions also changed the structure of import demand in favour of inputs required by the war effort. After the fall of France most Western European markets were also lost. Brazilian exports to non-traditional markets, in many instances also of non-traditional goods, became relatively significant. South Africa and many Latin American markets became important absorbing textile and other manufactured exports in the wake of the contraction of exports from developed economies. The fall in demand for coffee and the consequent weakening of prices following the beginning of the war led the United States to agree to the Inter-American Coffee Agreement with the aim of supporting coffee prices. This had the explicit objective of avoiding an economic collapse throughout Latin America and which would make possible its political exploitation by Germany.

Brazil and the United States signed a great number of supply agreements which reached a peak with the Washington agreements of 1942. These agreements generally defined prices and quantities of goods to be exported to the United States, and tough initially rather unrealistic, since there was limited knowledge of the actual Brazilian capacity to supply, came to cover a large number of commodities, some of which had not been exported before: coffee, cocoa, Brazil nuts, many types of ore, industrial diamonds, mica, quartz, rubber, cotton linters, burlap, castor beans. Specific agreements also regulated shipping as the lack of ships was an import additional constraint on foreign trade. It was not enough to make sure that goods were supplied, they had to be carried and German submarine warfare put shipping under heavy strain. In some cases, such as natural rubber which was extremely scarce since the producing regions in Asia had been lost to Japan, price incentives were complemented by other agreements which unsuccessfully tried to stimulate supply directly by improving sanitary conditions and food availability in the producing regions.

Very early in the war the British government had recognized that for many commodities and in many countries its bargaining power would be enhanced by the lack of alternative buyers. It signed a number of payments agreements including one with Brazil. One of the objectives of these agreements was to make impossible the creation of a parallel market for sterling. An essential provision consequently was that sterling generated by exports to Great Britain would have to deposited in specific accounts and could be used only to pay for British imports and other commitments in sterling such as foreign debt service. Since export controls were imposed such balances were bound to increase in the long run.

After initial difficulties the British authorities made important purchases in Brazil, concentrated in beef and cotton. With the war, the demand for beef had increased, and Brazil, which had been unsuccessfully trying to export to Britain in the 1930's, sold considerable quantities until 1942. But it had thereafter to curtail exports due to adverse climatic conditions and domestic competitive demands. For the first time Brazil was aware of the classical Argentinian problem of competition between domestic consumption and exports of staples. Cotton exports rose dramatically as, following a policy suggested by John Maynard Keynes, the British government accumulated strategic stocks in Brazil to meet the boom in cotton textile exports which was expected to occur after the war.

It has been suggested that the war period was particularly favourable to exporters as export prices rose faster than domestic prices. This was indeed the case but only until 1942, when export prices had increased more than 28% in relation to the general price index since 1939 (and coffee prices almost 46%). The evolution of relative prices is not, however, sufficient to show that exporters were favoured by the war. The share of exports to GDP fell almost continuously from 11.8% in 1939 to 9.5% in 1945. The share of both coffee exports and other agricultural exports also fell. It was only in the case of manufactured exports that the share increased significantly from 2.8% in 1939 to reach a peak of 5.7% in 1942. But even these were falling rapidly in the latter period of the war.

With the displacement of other suppliers of manufactured goods by a combination of economic blockade and, as in the case of Great Britain, export controls, Brazil became since quite early in the war almost entirely dependent on the United States' ability and willingness to supply and also to assure transportation priority. There is some evidence that Brazil was badly treated in comparison with Argentina in relation to supply by the Allies, a result of the relatively strong bargaining position of Argentina in relation to Britain. Scarcity of imports was of paramount importance to explain the performance of specific branches of industry. Some, such as transport equipment, were assemblers which depended almost entirely on imports of parts and components, and ceased production for the duration. But others thrived as the competition of imports was removed. Joint import control by Brazilian and United States authorities in fact used, at least until 1944, evidence on the ability to produce locally as an important criterion to define import priorities.

The United States government political commitment in 1940 to finance and supply the equipment required by the Volta Redonda steel mill gains particular relevance, given the overwhelming supply difficulties. In should be seen in the same light as the coffee price support commitment entered in the Inter American Coffee Agreement and marks the peak of United States in cajoling Brazil. Suggestions that Brazil was able to exploit competition between the United States and Germany to supply the steel mill fail to take into due account the insurmountable difficulties faced by cargo movements without formal previous British approval through the emission of navicerts. The efficiency of British blockade had been underlined by the *Siqueira Campos* incident, when a cargo of artillery equipment purchased for the Brazilian Army in Germany before the war was intercepted by the British, and only released after much pressure by the United States. As the war progressed Brazil became an important recipient of Lend-Lease aid, some US$ 332 million, which was partly used to equip the divisions which went to fight in the Italian theater in 1944.

During the war there was a reversal of the relative price trend which had favoured import substitution after the depression since the exchange rate was maintained constant and domestic inflation was much higher than world inflation. But relative prices were rather irrelevant to explain the level of imports as these were essentially supply-constrained. It was after the war that the imbalances related to foreign exchange appreciation would become relevant to explain the behaviour of imports and exports.

Exchange scarcity and continued recession persisted until 1942 as it took a relatively long period for the economy to adjust to the demand shocks. But as supply adjusted to the new war demands, exports started to recover in nominal values. Imports, however, increased much more slowly so that foreign reserves which had been reduced to US$ 65 million in 1940 increased rapidly to reach US$ 270 million in 1942 and US$ 682 million by the end of 1945. But a substantial share of these reserves did not correspond to command over future imports as their use was restricted in various ways as would become clear after the war. After 1942, with the capacity of import slowly rising, Brazil was in the position of many peripheral economies which had substantial foreign exchange and gold reserves but no goods to buy in the world markets. This was a marked contrast with the earlier war period when there was international supply but Brazil had no exchange cover available to increase its severely constrained imports.

The year of 1942, however, marked an economic turning point in Brazil for other reasons besides the improvement in the balance of payments. From the point of view of growth it was the last year of the difficult period of adjustment since 1937. Between 1936 and 1942 the GDP yearly growth rate was only 2.1%, but from 1942 to 1945 it increased to 6.4% in spite of mediocre growth in 1945. 1942 was the beginning of a long period of monotonic growth of GDP until the crisis in the early 1960's. Agricultural output had practically stagnated in 1936-1942 growing at an yearly rate of less than 0.3%. It is true that the 1942 output was rather badly affected by weather conditions, but the agricultural performance was consistently mediocre over this period and, in fact would continue to be so until 1945. From 1942 to 1945, agricultural output rose only 2.4% yearly even after a long sequence of poor crops in the previous period. This growth record is almost entirely due to the contraction in output of traditional export crops. There was a much better performance of crops for domestic food consumption and, almost until the end of the war, of raw material crops, especially cotton. Cattle raising also expanded rapidly until 1942, but stagnated afterwards. In 1939/41 productivity by hectare was generally higher in São Paulo than in other regions both in food and industrial crops such as cotton with the major exception of sugar cane.

Industry had a much better performance than agriculture in the transition period, with output expanding at 3.8% in 1936-42. But there is a clear difference between the period before the war, when growth was 6.1% yearly, and the 1939-42 period, when output increased only 1.6% yearly. In the last years of the war the industrial boom which was to last until the early 1960's started, with output increasing 9.9% yearly. It is important to note that the textile industry had a better performance the overall industry until 1942 and it was only in the final year of the war that its performance was worse than that of industry as a whole. It was after 1942 that less traditional branches of industry, such as chemical products, started to increase output very rapidly.

Public expenditure per unit of GDP excluding the debt service had continued to increase in the late 1930’s. In 1939 it was 110% above the 1928 level. But it declined during the war and in 1945 was about 8% below the 1939 level, corrected both for inflation and GDP growth. The government faced difficulties to raise revenues so that there was a clear deterioration in the public accounts: the Federal government deficit which had corresponded in 1939 to 11.4% of expenditure rose to 24.5% in 1942. With the war there was a sharp rise in the importance of domestic taxes such as consumption and income tax while import duties collapsed. Between 1937 and 1942 income tax increased more than 4-fold and consumption tax almost doubled while import duties fell by more than 40%. With increased inflation rates, the government was unable to borrow as it was bound by the constraints imposed by the usury law. The only possibility was to engage in compulsory ‘borrowing’ through the placement of ‘obrigações de guerra’ [war obligations]. This expansionary public expenditure policy compounded the difficulties faced with the increasing imbalance reflected in the soaring balance of trade. Rationing, the other basic instrument to cope with excessive demand successfully used in Britain and, to a much lesser extent, in the United States, had only a significant impact on the consumption of specific products such as beef, but it could not solve the severe excess demand problem. Other much less important instruments to control demand such as fiscal schemes to stimulate expenditure deferment were also used. Inflation after 1941 as measured by GDP’s implicit deflator was, however, quite high, remaining between 15-20% yearly.

Is difficult to see an alternative to inflationary adjustment given the constraints to the adoption of a more conservative fiscal stance. An exchange rate revaluation would not have its peacetime consequence of increasing imports as these were supply-constrained. On the other hand, the acceleration of inflation resulted in an increasing erosion of profit margins of exporters and a revaluation would further decrease their profits. It was impossible to increase export prices in foreign currency, given the widespread use of official procurement prices. Official purchases were a high proportion of Brazil's total exports. Credit expanded at 20% yearly after 1942 and lax monetary policies sanctioned the macroeconomic structural imbalance. A monetary 'reform' in 1942 did little besides changing the name of the national currency from *mil-réis* to *cruzeiro*. A regulation partly tying domestic monetary expansion to gold reserves meant, given the fast accumulation of gold reserves thereafter, that there were no effective legal limits for monetary expansion.

The accumulation of foreign reserves led to the negotiation of a permanent foreign debt settlement in 1943 which marked the final adjustment in a long cycle of foreign indebtedness which had started back in the early 1820's with the independence loans. Bondholders were offered two options. One option maintained the original bonds but with a substantial reduction of contractual interest rates. The other option was based in the partial substitution of original bonds by new Federal 3.75% bonds. Original rates of interest varied between 4% and 8%. The residual unconverted bonds would be redeemed with a substantial discount – on average of 71% – in relation to nominal value. The principle that better secured loans carried better conditions, already established in the 1934 and 1940 temporary agreements, continued to apply but was somewhat watered down in response to pressure by the United States to improve the terms offered to dollar bonds. The agreement was equivalent to a reduction of 50% of the outstanding foreign debt of £220 million. There was bitter disappointment in London with the agreement, but much less so in the United States. British protests that their interests had been sacrificed 'in the interests of Pan-Americanism' were more a reflection of a lack of appreciation, in London, of the structural long-term fragility of the Brazilian balance of payments than a reasonable assessment of the terms of the permanent settlement.

The combined consequences of new legislation on water and mining resources as well as the new promulgated constitution of the *Estado Novo* on foreign direct investment flows could have been very unfavourable as the new legislation was rather restrictive.

That this was not be so was due to the considerable distance in certain cases between potential policies implied by the new legislation and the much more flexible policies actually adopted. The water and mining codes, by restricting the entry of foreign firms, may have affected future flows of foreign investment. But the initial commitments to limit the role of foreign capital in banks, insurance and ‘essential industries’ were downgraded in practice. The ‘essential industries’ pledge was a dead letter. Government interference in the insurance sector was stepped up with the creation on a *Instituto de Resseguros do Brasil* with a government monopoly of reinsurance business as well as by imposing limitations to the right of establishment of new foreign insurers in the Brazilian market. Foreign banks which already operated in Brazil obtained waivers to continue operations in Brazil in spite of the 1937 Constitution. These waivers were distributed on a discretionary piece-meal basis. This new legislation, while partly superseded by a new Constitution in 1946, in fact paved the way for the effective closing down of the Brazilian banking market to new entrants and also for constraints on the form of operation of the established foreign banks which would last until the late 1980’s. The fast fall in importance of foreign banks which had started well before the 1930’s continued in the 1930’s and early 1940’s as the share of foreign banks in total banking assets fell from 25.4% in 1929 to 17.8% in 1939 and 5.2% in 1945. The contraction in the 1930’s is at least partly related to the decreased importance of trade and foreign payments in relation to GDP which affected foreign banks more significantly than Brazilian banks. The role of the Bank of Brazil was strengthened as the Federal government banker, the executive arm in the administration of exchange and import controls and also as a lender to industry and agriculture through its newly created *Carteira de Crédito Agrícola e Industrial* [Agricultural and Industrial Credit Office]. This was especially true during the war as real loans per unit of GDP increased by 69% and the Bank of Brazil’s share of total loans increased from 14.8% to 24.8%. The sharp fall in the importance of foreign banks during the war was partly due to the intervention on German and Italian banks after Brazil entered the war in 1942.

The total nominal amount of British and United States investment remained roughly constant between 1930 and the end of the war, but the US share rose from a quarter to about half the total of slightly more than US$ 660 million. British direct investment continued to contract during the war as it had done in the 1930's. This was due partly due to sales to other foreign investors, partly to modest purchases by the Brazilian government of assets of British railway companies. The stock of investment by United States firms, which had remained stable between 1940 and 1943, rose in the later period of the war, especially in the manufacturing sector.

After 1937 there was a wholesale creation or upgrading of many sectoral 'defense' institutes as well as the consolidation of already existing government normative institutions. New national institutes regulated the production and foreign trade of hierba mate, pine and salt. Less formalized structures were created to deal with fruit, fisheries and manioc. Institutes of a regional scope, such as the one regulating rice, were upgraded. But besides increasing very substantially the normative role of the State, policies in the early 1940's resulted with some time lag in the government becoming a significant producer of steel , iron ore and oil. Government involvement in the production of steel started with the creation of *Companhia Siderúrgica Nacional* to operate the Volta Redonda steel mill, which had been made possible by the window of opportunity in United States-Brazil relations in 1940. The Brazilian government had hoped that US Steel, which had been involved in the mill's feasibility studies, would be interested in investing in Brazil. It was only after these hopes had been disappointed that the government decided to create a state enterprise to run the mill.

Companhia Vale do Rio Doce, an iron ore mining concern which would become another important symbol of the successful involvement of government in the production of goods, was the direct result of a British procurement policy which sought to make sure that alternative sources of low-phosphorous iron ore could be found. This opened the way, in 1942, for an agreement through which the British government settled the outstanding interests in the Itabira iron ore concession, which had been for many decades a bone of contention with the government of Minas Gerais, and the United States advanced a loan to upgrade the railway from Itabira to Vitória. The Brazilian government commitment to supply iron ore to Britain was unfulfilled during the war, but *Vale do Rio*

Doce was to become a world leader in iron ore production after the 1970's. The idea of a government design to play a key role as a producer of goods is not warranted by the history of the foundation of these major state enterprises in the early 1940's. The embryos of other, much less successful state enterprises, such as the *Companhia Nacional de Álcalis* and the *Fábrica Nacional de Motores*, were also established in the early 1940's.

Towards the end of the 1930's oil was discovered in Bahia and a *Conselho Nacional do Petróleo* [National Oil Council] was created to regulate all aspects of the oil industry. Legislation passed in the 1930's stipulated that exploration concessions could only be given to Brazilian firms with Brazilian stockholders and that deposits of gas and oil were owned by the Federal government. The lack of imported coal due to shipping and supply constraints acted as a powerful stimulus to increase the production of domestic coal, especially in Santa Catarina and Rio Grande do Sul. Brazilian coal was, however, a poor substitute of imported coal given its high ash and sulfur content.

With the *Estado Novo* coup, control of the states by the Federal government was further tightened. A *Departamento de Administração do Serviço Público* [Civil Service Administration Department] had total control not only of the process of modernization of the Federal civil service, but also of the budgetary process at the Federal and state levels. After the coup, the *Conselho Federal de Comércio Exterior* was considerably strengthened as the main decision-making forum as political pressures which could not be exerted in Parliament started to find a way of expression through some of the counselors with sectoral specific interests. A *Conselho Técnico de Economia e Finanças* [Economic and Financial Technical Council] within the Ministry of Finance mainly took over issues related to finance and taxation. After Brazil entered the war a *Coordenação da Mobilização Econômica* [Economic Mobilization Coordination] was created to cope with the mobilization of economic resources for the war effort. To a certain extent the consolidation of some of the 'defense' institutes was enhanced by the proliferation of quantitative controls during wartime.

With the approach of the end of the war there was much debate about the nature of the policies which would best protect national interests in peace time. By far the most important interchange was between Eugenio Gudin, a conservative engineer turned economist who worked for several British-controlled utilities, and Roberto Simonsen, a government contractor and representative of foreign banks in the 1920's who in the 1930s and 1940's became an industrialist and the most influential mouthpiece of industrial interests from São Paulo. Controversy centered on protection and the role of the State. Gudin contended that after the war good economic performance would depend both on reducing the interference of the State in the economy and on the opening up of the Brazilian market which was excessively protected against imports. Simonsen considered vital the role of the State as a promoter of economic development and also that domestic industry should have the benefit of a high tariff. While Gudin was clearly victorious from an intellectual point of view, since some of his opponent's economic concepts were primitive, or plainly wrong, it was Simonsen's programme which contained the basic elements of post-war policies.

A government-controlled social security system was established after *the Estado Novo*. It was based on a large number of *institutos de previdência,* which generally had started operations as private concerns before absorption in the public security system. These *institutos* were initially cash-flushed as contributions were collected and total payments were only slowly increasing. Most of the available resources were squandered in asset donations, especially through the financing of housing through contracts which had were not inflation-proof. This source of rent-extraction, which was extremely regressive, became more evident with the substantial acceleration of inflation in the late war period.

Under the *Estado Novo,* new social legislation considerably extended the rights of workers. Minimum labour standards were established, special legislation protected the rights of children, pregnant women, and special groups of workers. A minimum wage legislation was introduced. In 1942 a consolidation of labour laws much in the same lines of its Italian matrix was enacted. An important part of government's labour policies was a deep public involvement in the strengthening of trade unions. Political control of trade unions by the Federal government played a major role in assuring support for Vargas' regime, especially under the *Estado Novo*.

In the late 1930's Brazil continued to be a very poor country. Agriculture employed 65.9% of the economically active population. Average life expectancy at birth in the late 1930's was still 42.7 years -- with extremes of 33.5 years in the state of Rio Grande do Norte and 52.0 in Rio Grande do Sul. Infant mortality levels were similar to those in Britain at the turn of the century: 158.3 deaths per thousand live births, with extremes in the same states. Somewhat surprisingly the coffee states, including São Paulo, had indicators very near the average. The literacy rate of the population of ten years and more was 43% in 1940 (38% for women).

United States policy towards Brazil changed very substantially if the period before 1942 is compared to the last years of the war. In 1940, important concessions were made in relation to coffee prices and supplies, finance and transportation related to the Volta Redonda project. But this initially generous United States policy became less so, especially after the United States had been granted authorization to build a string of war bases in Northeast Brazil so that air supply of North Africa became possible. In the later period of the war, frictions started to appear between Brazil and the United States, exactly on coffee prices, which had been so generously supported by the United Sates before 1942, but had then been frozen. Since Brazilian costs of production increased with domestic inflation and the exchange rate was kept constant as the war proceeded the profit margins of coffee growers were severely reduced. The United States resisted to a price readjustment in US dollars because this would have implications on their domestic price control. Only in the end of 1945 the United States relented and allowed a price increase compensated by a temporary subsidy.

Similarly, for a long period the United States, because of supply and shipping scarcity, had condoned and even promoted a policy of import substitution in Brazil. But Brazil introduced rationing of imports independently of the United States authorities in

1944. This was an attempt to save exchange cover to purchase essential imports as the supply of non-essential imports in the world markets tended to be normalized earlier than that of essential imports such as capital goods and industrial inputs. This was met by an outcry from the United States authorities making quite clear that they were prepared to claim that this was in breach of the 1935 Brazil-United States trade agreement and led to a reversal of Brazilian policy. In the political field such changes led to the collapse of United States support for Vargas, whose dictatorship had been thought in the past to be 'more acceptable than others', and were crowned by a very intrusive stance by the United States on domestic affairs in 1944-45.

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The striking feature of the Brazilian economy during the first Vargas period was its ability to recover quite rapidly from the consequences of the 'great depression'. To the conventional expenditure-switching policies related to a massive devaluation of the *mil-réis* must be added the reinforcing effects of exchange and import controls. It was of crucial importance that there was a considerable existing industrial capacity already installed so that recovery could take place led by an extremely good industrial performance after 1932. The favourable consequences of the demand-switching policies were reinforced by the expansionary nature of fiscal policy, and particularly of coffee support policies.

But the important role of previously installed capacity in explaining the timing and strength of recovery underlines the limits of structural change which occurred in the 1930's. It was to the great extent the good performance of traditional wage goods sector which explained the growth performance in the period. This was still the case in the first half of the 1940's and it was only in peacetime that the structure of industrial production started to change significantly. Poor agricultural performance affected mainly the export sector so it is not evident that there was any structural gap between the increase in food production and in population.

The structural characteristics of Brazilian trade, and more specifically the trade surplus with the United States, increased Brazil's bargaining power in the 1930's as, especially after the United States commitment to multilateralism after 1934, there was a marked unwillingness by the United States to use its commercial leverage to constrain Brazil to adopt specific policies which would favour US interests. Brazil exploited this advantage in relation to many aspects of its policies. Perhaps the most important was the ambiguity of its stance on compensation trade with Germany. The expansion of bilateral trade had many concrete advantages for Brazil as exportable surpluses could be sold in exchange for scarce imports.

The concentration of trade with the United States during the war and the contraction of European trade, with the exception of exports to the United Kingdom, marked a totally new situation, if contrasted to the 1930's, and even more to the 1920's. To the enhanced importance of the United States as a trade partner must be added the role of the US government as the sole supplier of foreign finance to Brazil after 1939. US influence in post-war Brazil would be paramount as the European economies, and particularly Britain, had lost most of their importance as markets for Brazilian exports, suppliers of Brazilian imports and source of capital. The selling out of British firms in Brazil which had started during the war would be accelerated after 1945.

There was much of a snowball effect in the position concerning the Brazilian foreign debt contracted during the Old Republic. Full service payments had been made only in eight years in the whole 1898-1930 period and Brazil had used to the full extent its access to foreign financial markets during the two borrowing 'windows of opportunity' in 1905-12 and 1925-28. It was an achievement to reach a permanent agreement with creditors in 1943, even if this was eased by the artificial accumulation of reserves which resulted from the constraints on imports. Some of the harmful consequences of pre-1930 excessive borrowing were of a long-term nature and affected policies in the 1930's and 1940's.

The 1930-45 period was of important innovation in the field of rent-seeking. In the recent past, under the Old Republic, this had been mainly related to the policies of coffee support which assured that economic agents involved in coffee production enjoyed a higher and more stable level of income than would have been the case if such policies did not exist. A high tariff wall also benefited domestic industry, but this particular rent-seeking mode was less harmful than would appear at first sight, as coffee producers could shift at least part of their input cost increases to coffee consumers abroad. With the involvement of the authorities in the purchase and distribution of scarce foreign exchange cover at prices lower than those that would have prevailed without government intervention, a new modality of rent appropriation was inaugurated, as there was a benefit for those who had access to relatively cheap foreign exchange. The government also learned very rapidly that it could use the foreign exchange control to generate domestic resources. It was just a question of skimming exchange cover in excess of government payments in foreign currency. The economics of the foreign exchange wedge between export and import rates became a vital aspect of economic policy in Brazil at least until the mid-1960's.

The proliferation of normative sectoral agencies, many of them with ample regulatory mandate, created two important sources of inefficiency. The scope for the distribution of sinecures was considerably broadened by the increased role of the State. There were also new possibilities of rent extraction, as sectoral rationing of output or foreign trade became the rule, and price market allocation was weakened. But it is important to stress that the basic stance of the Vargas regime on State involvement in the production of goods was more restrained than the mere increase in the number and size of new state enterprises would indicate. In many instances the government opted for public ownership because there was no interest by the private sector. Criticism of the inefficiencies of state ownership should also not obscure the fact that in some cases, especially before 1945, there was no alternative to public ownership.

Macroeconomic policy, which had been under reasonable control for most of Vargas' first period, deteriorated considerably in the last years of the war. This was to a certain extent unavoidable, given the policy constraints under which the government operated. But there were, in any case, imbalances inherited by democratic post-war governments which were particularly harmful. First, and foremost, a high rate of inflation. This meant that a new instrument had appeared in the rent-seeking game after a long period of relatively low inflation since the 1890’s. In a market for government loans effectively regulated by the usury law, which limited the nominal interest rate to 12%, it was very attractive to borrow or to enter into long-term financial obligations. Access to inherently subsidized credit came to compete with other more established rent-extracting modalities. The second element of this unfortunate inheritance was a grotesquely overvalued exchange rate: to put it back at the 1939 real level in relation to the United States dollar would have required a devaluation in 1945 (domestic/foreign currency) of more than 60%. So that even a government with stabilization very high in its priority list would be reluctant to face the need of both to redress the serious imbalance in public accounts, and to correct a major exchange rate misalignment.

3. The Brazilian Economy, 1945-1964

The great depression followed by the Second War placed the Brazilian economy continuously under severe constraints. Industrial capacity and the infrastructure were under strain as difficulties were faced in relation to the access to resources to finance the maintenance of existing capacity and capital goods imports. This was due at first to balance of payments restrictions, then, during the war, to supply and transportation constraints. There was a dearth of capital goods after many lean years. There was also a clear expectation that United States financial support would be forthcoming as Brazil had provided to the US air bases in Brazil which had been a vital link to supply Africa and Brazilian troops had seen action in Italy.

The deposition of Vargas had led to the victory of General Dutra, a mainstream conservative candidate, without great political divergences with Vargas whom he had served as a rather pro-German Minister of War. In the economic field the lack of continuity was more marked as a group of liberally inclined civil servants occupied key positions in the Federal government. The emphasis of the new administration unwritten economic programme was placed on the need to invest in the infrastructure with the help of the United States and to control inflation, which had accelerated significantly since 1942. The most influential explanation for the acceleration of inflation was advanced by Gudin, the doyen of the critics of Vargas' policies. The public finance imbalance and the constraints on imports were singled out as important factors to explain the high rates of inflation. But Gudin also believed, and this "structural"explanation was certainly overemphasised at the time, that an important source of inflationary pressure was the imbalance between investments in the expansion of productive capacity of capital goods and those directed to the production of wage goods. This criticism of Vargas' industrial policies, and especially of the Volta Redonda project, was quickly endorsed by the government but does not seem to fit well with the data available on industrial structural trends. While the composition of investment may have had a marginal impact on the inflation rate its acceleration seems to be closely related to the government inability to mop up demand through a combination of rationing and the sale of government bonds. With the new government the embryo of a central bank was created in the form of a *Superintendência da Moeda e do Crédito*-SUMOC [Superintendence of Money and Credit] linked to the Bank of Brazil.

3.1. The quest for re-equipment: 1946-1955

The emphasis on stabilisation led to the government falling on the trap of overvaluation. The exchange rate, which should have been devalued from an average of around Cr$18.50/US$ dollar to some Cr$30/US$ if the objective was to maintain the 1939 real exchange rate level, was maintained at roughly the same level in nominal terms when legal parity was declared to the International Monetary Fund. There are indications that this decision reflected an unwarranted optimism amongst liberal economists, and made explicit by Eugênio Gudin, about favourable structural changes which had affected the Brazilian balance of payments. So during about one year and a half a highly overvalued rate was adopted and the Brazilian exchange regime was liberalised with the removal of controls.

Imports increased 84% in 1946 and then again more than 72% in 1947 to reach US$1,012 million. Import prices increased more than 32% in the period. Although the level of foreign exchange and gold reserves had increased to reach US$ 730 million by the end of 1946 about 37 % of the total reserves were inconvertible, of which US$ 240 million in sterling. Brazil's trade with the dollar area was heavily in deficit so that the small dollar reserves were rapidly eroded. In 1947 the share of US goods in total imports reached 61.3%, its peak level in the 1940's. By mid-1947 dollar reserves had disappeared, but gold reserves were still substantial, so that the government faced the choice of converting part of the gold reserves, devaluing the cruzeiro or maintaining an overvalued rate with the introduction of import and foreign exchange controls. With an eye in the stabilisation targets this latter course was adopted and from mid-1947 Brazil's foreign exchange regime was similar to the former regimes of 1931-1933 and 1937-1939 with the same political economy implications. It is frequently overlooked that it was part of government policy to maintain untouched the level of gold reserves at US$ 342 million, equivalent to four months of imports at the 1947 level. However reluctantly Brazil had finally entered the age of dollar shortage.

It is part of ill-informed nearly unanimous historical judgement that the Dutra administration irresponsibly squandered Brazil's foreign reserves. Curiously enough these claims are rarely accompanied by any condemnation of foreign exchange overvaluation and no mention is made of the substantial size of gold reserves after 1947. A closer look at the figures also points out to the fact that there was not such a drastic change in the structure of imports in 1946 if compared to the past, especially if pent-up demand is duly taken into account: the share of imports of consumer goods in total imports rose from 16.9% in 1938 to 21.7% in 1946. However, to Brazilians used to extreme scarcity of foreign exchange since the early 1930's the much higher level of imports after 1945 and the availability of foreign consumer goods seemed slightly indecent. It is indeed difficult to overestimate the strength of the anti-import sentiment fostered by foreign exchange scarcity years after 1930. It is thus full of irony that the re-adoption of import substitution policies was a direct result of the crucial position of stabilisation in the priorities of ‘liberal’ policy-makers in the immediate post-war period. Import controls stimulated the import substitution of non-essential products, since the main rationing criterion was to favour essential imports so that imports of luxury goods tended to be relatively more affected than imports of capital goods or inputs. The share of consumer goods imports was reduced and that corresponding to capital goods increased. After the introduction of import controls there was a modest reduction of total imports not exceeding 10% until 1950. More importantly, there was a sharp substitution of imports originating in the dollar area by imports from non-dollar areas so that the deficit in the balance of payments with the dollar area was reversed. The fall of almost 12% in the price of imports also helped the government to regain control of the external accounts.

There is no study on the extent to which access to cheap imports enhanced the profits of importers of domestic manufacturers or were passed through to consumers. The relative prices of agricultural and industrial goods rose increased rapidly by more than 40% between 1945 and 1948 and then hovered around the same level until the early 1960’s. It is likely that more market power in certain branches of industry ended up by being reflected in the rise of relative prices of such goods in relation to those produced in more competitive sectors which were forced to transfer lower input costs to consumers .

Since the nominal level of the exchange rate remained constant from 1939 to 1952 inflation tended to erode the profit margins of exporters when export prices did not rise sharply as was the case of coffee. The long cycle which affected coffee prices was in the upswing after 1947 as world demand recovered and supply was constrained. Average coffee prices (Santos 4) increased from 22.6 US cents in 1948 to 27.4 in 1949 and 49.5 cents in 1950. It then remained between 49.5 and 53.8 cents in 1951-1953, before reaching 78.8 cents in 1954. The share of coffee exports in total exports which had reached a level under or around a third in 1940-1945 rose rapidly to reach more than 70% in 1952-1953. What had been considered export diversification had been indeed mostly a change in the relative prices between coffee and other Brazilian exports. Once coffee prices recovered, dependence on coffee exports was again evident. Since the United

States was the main coffee market for Brazil the US market absorbed a growing share of Brazilian total exports: in 1950 this reached 54.3%, only lower than that of 1941, when almost all other leading traditional markets were closed to Brazilian exports.

Brazilian foreign exchange policy based on overvaluation contributed to strengthen coffee prices at least in the short term. Exports of products included in official procurement programmes during the war such as quartz, castor beans, diamonds, carnauba wax and processed beef collapsed after 1945. The same happened to exports which had benefited from the interruption of exports by traditional suppliers, such as cotton textiles and rubber products. In contrast with the decline in such non-traditional exports which was due to sudden changes in world demand, commodity exports other than coffee suffered with overvaluation. Such exports, of which cotton is the best example towards the end of the 1940’s, became ‘gravosas’, that is production costs exceeded possible revenue levels given world commodity prices and the fixed exchange rate. The government had to resort to earmarked ‘operations’ [‘operações vinculadas’] to ease pressure from producers, especially those of cotton. Through these expedients the government would serve as a broker between those exporters seeking better terms for their exports and importers who were prepared to pay more per unit of foreign currency to import goods which were not considered to be essential by the import control authorities. While the macroeconomic relevance of the scale of corruption in the allocation of foreign exchange cover tends to be exaggerated by some analysts it is obvious that government rationing through import controls and brokering in earmarked ‘operations’ created opportunities for corrupt practices in government.

Criticisms of the unfavourable effects of the overvalued exchange rate on exports need to be put into perspective since in many European markets for some time after the war export sales did not necessarily contribute to increase the capacity to import as currencies were inconvertible and exports were in many cases constrained by stiff export controls in most European markets.

Perhaps the best example of such asymmetries is the accumulation of sterling balances in Britain. From the end of the war in Europe to the beginning of 1947 Brazil continued to supply Britain under the terms of the Anglo-Brazilian payments agreement of 1940 which made sterling accumulated in London unconvertible. So sterling balances increased from £40 million in V-E day to about £65 million by mid-1947. Neves da Fontoura, the Foreign Minister, made a visit to Britain in 1946 to seek British permission to use and misleadingly reported that the British were likely to agree that the balances would be used to buy ships and other capital goods for which there was pent-up demand in Brazil. It was a corollary of the agreement between Britain and the United States on British post-war finance that Britain refused to pay these debts out of current scarce export capacity. In spite of much British pressure Brazil refused to scale down its balances. As a preliminary to the failed British return to convertibility in mid-1947 the sterling balance holders were told that pre-convertibility balances would be frozen and only thawed in exchange for a comprehensive programme of sale of British assets involving mainly the railways. This took a long time and in fact there was some release of blocked sterling as an inducement for certain railway purchases of whose the most important were those of the very efficient San Paolo Railway and the rather inefficient Leopoldina. The remaining balances were used in a sudden redemption of Brazilian foreign debt in 1950 during a scare about a possible unilateral scale down of balances by Britain. While British direct investment was reduced by at least US$ 165 million between 1938 and 1950 there was a rapid expansion of US investment which increased from US$ 323 million in 1946 to US$ 644 million in 1950 of which US$ 284 million in manufacturing industry, US$ 112 million in oil distribution, US$ 138 million in utilities and US$ 110 million in other investments. While investments in utilities were practically stagnant, other investments had increased more than 2.5 fold in these four years. Comparison with balance of payments data suggest that more than US$ 200 million of the increase in 1946-1950 corresponded to new capital and the rest to reinvestment. Data on foreign investment other than British or from the US for the 1940's are notoriously defective and the semi-official estimates for direct investment in consequence somewhat inflated: it is hard to believe that in 1945 these investments made up half the capital stock of foreign capital.

The overvalued exchange rate resulted in a disincentive to new direct foreign investment implied as purchases of domestic goods and services would be relatively more expensive. There was also an inducement to maximise profit remittances. But the handicaps seem to have been compensated by potentially significant rent-seeking extraction in relation to both access to rationed imports of capital goods and inputs and exertion of market power in a market where protection against imports was made absolute by the prohibitions enacted by exchange control authorities.

Inflationary pressures were enhanced in 1946 by the significant impact of a pay rise to civil servants agreed by Gastão Vidigal, Dutra's first finance minister. This added more fuel to the impact of a significant rise in import prices so that inflation measured by the cost of living in 1946 remained above 16%, at the same level of 1945. With Correa e Castro as a new finance minister in late 1946, stabilisation returned to the top of the priority list and public expenditure was tightly controlled so that for the first time since the Old Republic there was a small fiscal surplus at the Federal level in 1947. In contrast, the deficit at the state level, especially in São Paulo and the Federal District, was very substantial, corresponding to 10-15% of their expenditures. This proved to be impossible to control, in spite of some progress in 1948, and did not fall below 4.5% of total expenditure. Banking credit which had been reduced by 10% in 1946 remained roughly constant in 1947-1949. Inflation measured by the GDP deflator started to decrease in 1947 but the consumer price yearly rate (Rio de Janeiro) peaked at 21.9% in 1947, as there was a sharp fall in agricultural output, before falling to 3-4% yearly in 1948-1949.

Following the political cycle which would doom many future stabilisation efforts, the emphasis of government policy on stabilisation lost all appeal as the elections of October 1950 became closer. By mid-1949 Correa e Castro was substituted by Guilherme da Silveira, a textile industrialist who favoured easy credit and fiscal policies. Increased public expenditure both by the Federal government and by the states in 1949-1950 reflected such a shift in policy. By 1950, the Federal deficit had reached almost 20% of the expenditures and was about twice the size of the aggregate deficit at state level.

Lobbies in favour of looser policies were extremely powerful, including those seeking credit from the Bank of Brazil to profit from the industrial boom and populist politicians seeking to build up their political fiefs in the rapidly expanding urban areas. In 1950, real credit increased in real terms by more than 20% only then exceeding its 1945 level. Thus in 1945-1950 real credit per unit of GDP was reduced by 25% in spite of the reversal of policy in the last eighteen months of Dutra's government. Difficulties were compounded by the bad crop of 1950, so that inflation measured by consumer prices in Rio de Janeiro started to accelerate again in 1950 reaching more than 9%.

Perhaps the most important failure of the Dutra administration was its inability to engage in a significant effort to overhaul the ailing existing infrastructure and expand capacity. Many Brazilian ships had been sunk during the war. Foreign exchange scarcity and supply constraints as well as low profits by utilities in 1930's and early 1940's not only made new investment impossible but also explained the deterioration of existing capacity in railways, electricity, telephones and railroads, owned either by the government or foreign concerns. Brazil had hoped that good behaviour during the war was going to be repaid with economic aid. But in 1946 it had already become clear that Brazil could no count on any special help from the United States. It was explicit US policy that the inflow of capital into Brazil should basically depend on Brazil's capacity to attract private direct investment rather than on any direct involvement by the US government. Limited finance was extended through some Export and Import Bank loans mainly to state enterprises to buy ships and also railway and electric equipment. The International Bank for Reconstruction extended a substantial loan to the Canadian-owned Brazilian Traction group which supplied electricity to Rio de Janeiro and São Paulo. Approved loans to Brazil added up to 11% of total International Bank loans in 1947-1950. But there was no Brazilian version of a Marshall Plan as expected by the government.

Efforts by the Brazilian government to plan the modernisation of infrastructure were embodied in the SALTE plan, whose name derived from the initials of the sectoral targets considered to be most important: health, food, transportation and energy. Salte also means an imperative ‘jump’in Portuguese. It is not unreasonable to think that the first two ‘sectors’ were included due to a mixture of political convenience, as the social aspect had to be addressed, with the need for particular letters to give to the plan what was considered to be an attractive name which could mobilise political support for the government’s programme of infrastructure construction. There were no comparable policies proposed for health and food supply. But the government’s efforts were to be of no avail, a crucial weakness of the Dutra government, to some extent shared by its successors, being its inability to assure political support in Congress. The SALTE plan was only approved by Congress in the last year of Dutra’s term of office only to be abandoned by the new administration in 1951.

Progress in the improvement of social indicators in the 1940’s was modest. In 1950 the infant mortality rate was still 144.7 per thousand live births (199 in Rio Grande do Norte and 99 in Rio Grande do Sul. Reduction of the shortcomings of infant mortality rates in relation to benchmark values of 10 deaths per thousand live births was of only around 10% in the decade. The literacy rate in 1950 was only 48.4% (44.2% for women). Improvement of literacy rates in relation to the benchmark of 100% progressed also at the low rate of 10% for the whole decade.

Political obstacles also made it impossible to approve new tax legislation proposed by the government, so that adjustment had to rely relatively more on expenditure control than would have been the case if the tax reform had been approved. Federal revenue depended essentially on the consumption and income taxes as import duties continued to lose importance due to the impact of inflation on the specific tariff. By 1950 the share of the consumption tax in total revenue was 34.4%, but the share of income tax was rapidly approaching it, to reach 30%.

The direct US government co-operation to solve the problems raised by the finance of economic development projects in Brazil was restricted to the efforts, in 1948, of a *Comissão Técnica Mista Brasil-Estados Unidos* [Joint Brazil-United States Technical Commission], generally known as the Abbink 1948 mission. Its report was marked by a deep pessimism about the prospects of Brazilian export prices which proved to be entirely misplaced at least in the mid-term. The emphasis was on the need to attract foreign capital and to assure that domestic savings were directed away from overinvestment in real estate. A few days before the Abbink report was presented Brazilian hopes had been raised by the reorientation in US policy entailed by point IV of the speech of President Truman in his inauguration which emphasised the importance of making US technical knowledge available to developing economies. There was finally hope of US government involvement in the long list of delayed infrastructural projects in Brazil. A *Comissão Mista Brasil-Estados Unidos para o Desenvolvimento Econômico* [Joint Brazil-United States Economic Development Commission] was formed in the end of 1950 with the task of defining projects which could be submitted either to the Export and Import Bank or the International Bank for Reconstruction .

Although the previous government's institutional creative *furore* was brought under relative control, some new agencies were created and government involvement was increased in several sectors. In an indirect recognition of the difficulties related to the operation of foreign-owned electricity suppliers the Federal government decided to get involved in the production of hydro-electricity in the Northeast with the project of Paulo Afonso and the creation *of Companhia Hidroelétrica do São Francisco (CHESF)* [São Francisco Hydroeletric Company]. The other important decision concerning energy matters taken by the Dutra administration was related to oil refining. The debate on public ownership of the different segments of the oil industry had become increasingly partisan since oil had been found by the government in 1939. Pressure by the big international oil companies for a share of the Brazilian prospective oil production and refining had been mounting. The government allowed a couple of small projects owned by Brazilian firms to go ahead while no overall decision was reached on the role of the government and private capital in all segments of the oil industry.

The importance of regional imbalances was recognised by the creation of the first regional development agencies, the *Comissão do Vale do São Francisco* [São Francisco Valley Commission] and the *Superintendência do Plano de Valorização Econômica da*

Amazônia [Superintendency of the Plan for the Economic Valorization of the Amazon Region]. A *Conselho Nacional de Pesquisas* [National Research Council] was created by Dutra in the closing month of his term of office. Its inspiration was centred more on the wish of the military to foster Brazil's knowledge of the possibilities opened by nuclear power than on a diagnosis that research would have to play a significantly more important role as a stimulus to economic development than in the past.

Vargas came out of his self-imposed isolation, in spite of being a senator, to win the 1950 elections. His alleged true electoral manifesto was to be a combination of policies first in the style of Campos Salles, and then of Rodrigues Alves. In the Brazilian political folklore, Campos Salles had given political backing to Joaquim Murtinho in 1898-1902 to put the Republican finances in order after the turmoil in the 1890's and Rodrigues Alves had undertaken a vast post-stabilisation programme of public works. In fact Alves also placed stabilization at the top of his list of priorities. But already in the selection of his economic team Vargas was unable to clearly choose stabilisation as the initial main objective.. The rather orthodox policies adopted by Horácio Lafer in the Ministry of Finance, which generated Federal budget surpluses 0.9% and 0.6% of the GDP in 1951 and 1952, have to be contrasted by the extremely expansionary credit policies adopted by Ricardo Jafet in the Bank of Brazil. The potential for friction between the Ministry of Finance and the Bank of Brazil would be a recurrent theme in the history of failed stabilisation attempts during the Third republic. Jafet had been the man in charge of the financing of Vargas' election and was not known for his endorsement of orthodox economic policies: Bank of Brazil credit to the private sector in nominal terms increased 66% in 1951 and 40% in 1952. Total banking credit in real terms increased by 13.7% and 8.7% in these years. Other developments put the government under pressure. The 1951 crop for domestic consumption was a not a success. Import US dollar prices increased almost 30% in 1951 and 8% more in 1952. The lack of Federal control on overspending by the state of São Paulo continued to be another major obstacle to the implementation of a coherent stabilisation programme. Between 1951 and 1952 the deficit by States and municipalities increased from 0.5% to 1.5% of GDP. The cost of living rate rose 17.3%. The high rate of increase in agricultural output in 1952 was mainly due to an important increase in cotton production but inflation measured by the GDP deflator remained relatively low in spite of a still worse crop for domestic consumption. In 1953 pressures on the exchange rate which eventually led to an overhaul of the regime adopted since 1947 led, in spite of a recovery in food production, to an acceleration of inflation with the cost of living yearly increases in 1953-1956 varying roughly between 14% and 23%.

The institutional arrangement between SUMOC, the Treasury, and the Bank of Brazil acting as a central bank was extremely peculiar and was repeatedly used to assure that there was no restriction to the growth of operations by the Bank of Brazil. SUMOC fixed the rediscount rate and the rates of compulsory deposit of commercial banks besides other functions related to the foreign exchange policy , the registration of foreign investment and the supervision of the banking system operations. It had a council which acted as the normative body in matters related to money, credit and foreign exchange. The Bank of Brazil operated the *Carteira de Redescontos-CARED* [Rediscount Office] and the *Caixa de Mobilização Bancária-CAMOB* [Banking Mobilisation Office] so as to provide liquidity or to act as a lender of last resort. The Treasury had the legal authorisation to issue money and amortise it through a *Caixa de Amortização* [Amortisation Office] . But it could not put it in circulation which was an attribution of *CARED.*

When in need of cash the Bank of Brazil would rediscount commercial papers with *CARED* which would require a loan from the Treasury. When the commercial papers matured the Bank would return the cash to *CARED* which would be return it to the Treasury for incineration by the *Caixa de Amortização*. There had been since 1942 a theoretical limitation of short term indebtedness of *CARED* with the Treasury which could not exceed 25% of foreign reserves. But it was not binding as a long-term limitation as each time *CARED* exceeded the limit there a law was passed by Congress which determined that money in circulation should be ‘taken over’ by the Treasury with all debits of *CARED*, Bank of Brazil and the Treasury being cancelled out. A second carefully preserved loophole in the relation of the Bank of Brazil with the monetary authorities before 1964 was that being a commercial bank it also held the compulsory deposits of the other commercial banks with the monetary authorities. Since the Bank of Brazil made no distinction between his functions as a central bank and as a commercial bank part of the banking system reserves served as a basis for its own increased loans and advances.

Once again the stabilisation priority would be the main explanation for decisions which crucially affected the country's balance of payments. From the first year of Vargas'government in 1951 it was decided that an increased supply of imports was a required ingredient of a successful stabilisation programme. This resulted in a significant liberalisation of import controls, with a big increase in the import licenses issued. It was this change of policy, rather than the Korean boom, that was at the root of the foreign exchange crisis which marked the early 1950's. With the nominal exchange rate still at the 1946 level, imports of around US$ 1,700 million in 1951-1952 were more than 80% higher than in 1950, a substantial rise even if prices had increased 40%. The US share of the Brazilian market, which had been steadily declining, recovered to levels above 40% in the early 1950's. Exports continued to increase in 1951: they were 30% higher than in 1950, reaching US$ 1,771 million, but fell to barely more than US$ 1.4 billion in 1952. The traditional trade surplus almost disappeared in 1951 and was transformed into a trade deficit of almost US$ 300 million in 1952. Such an import boom led to the accumulation of commercial arrears of US$ 541 million at the end of 1952, with the Federal government very reluctant about using the gold reserves to pay for imports. The position was made even more serious due to the time lag between the issue of licenses and actual imports as it became clear that there had been an overshooting and too many licenses had been issued.

The Brazilian government sought financial accommodation in the United States to finance the thawing of these commercial arrears. The timing was unfortunate since the Republican victory in November 1952 had resulted in the weakening in the position of Eximbank in its fight with the World Bank for the Brazilian turf. In a speech in the end of 1951 Vargas had sharply criticised the practice of allowing the registration of unmerited profits by foreign corporations as foreign reinvestment which could be used as an additional basis to remit future profits. This declaration, is seen by some as a typical ruse by Vargas, trying to use his future return to good behaviour as a negotiating chip in the negotiations to extract a loan from the United States. It naturally raised strong protests abroad, including from the World Bank which had been trying since the end of the 1940's to avoid the erosion of its leverage in Brazil by restricting Eximbank activities to short or mid-term loans. The temporary rise in World Bank influence meant that Brazil, after adjustments in its foreign exchange regime was able to obtain a US$ 300 million loan from Eximbank to be repaid in three years and with no grace period. With the Republican victory there was also a reversal of US policy on project finance in developing countries with the abandonment of Trumans's Point IV policy. It became clear that no additional US official finance would be available for projects selected by the *Comissão Mista Brasil-Estados Unidos*. The commercial arrears bailout in any case made it unlikely that the US would enter into additional financial commitments in Brazil. Total US loans for approved CMBEU projects amounted to US$ 186 million only. The comprehensive overhaul of the infrastructure would have to be once again postponed. Brazil's total foreign debt which had been slowly reduced from US$ 698 million by the end of 1945 to US$ 559 million by the end of 1950 rose to US$ 1,317 million by the end of 1954. But the debt-export ratio was still very low: it reached a minimum of 0.32 by the end of 1951 and increased to 0.85 by the end of 1954.

The deterioration in the external accounts led to a reform of the exchange regime in early 1953. Law 1807 also met partially the sharp criticisms to the old policy raised in the United States. The new foreign exchange regime was a next of kin of that of 1935-1937. Two exchange rates were pegged by the government: one more devalued was the free rate, the other was the official rate. Exporters of coffee, cotton and cocoa would be paid the official rate. Other exporters, at the discretion of the authorities, would sell compulsorily 15%, 30% or 50% of export proceeds at the official rate. Almost all financial transactions used the free rate as well all non-essential imports which amounted to about a third of total imports. Other purchases of foreign exchange were to be made at the official rate. The registration of unremitted profits as reinvestment was duly allowed.

Ricardo Jafet, who not only had undermined the stabilisation effort by adopting expansionary credit policies in the Bank of Brazil, but had also supported Vargas' unfortunate line on reinvestment of foreign capital, was sacked in the beginning of 1953 in the wake of scandals involving the 'operações vinculadas'. This came too late as stabilisation seemed doomed even before the impact of devaluation. Exports had not reacted to incentives provided in the new foreign exchange regime. In the first half of 1953 there were indications of lack of control with increased expenditure to cope with the effects of the dry season in the Northeast, to bail out state banks, to pay a civil service wage increase and to proceed with the public works programme. Vargas faced political defeat in the city of São Paulo elections and political agitation led to a massive strike in March in São Paulo. Lafer was substituted in mid-1953 by Oswaldo Aranha.

Aranha proceeded to change once again the foreign exchange regime. New rules allowed the sale in the free market of 50% of the proceeds of all exports with the exception of coffee. Minimum export prices were established and export proceeds beyond these thresholds could be entirely sold in the free market. But in spite of lip service concerning the control of the public deficit the government continued without instruments to raise additional resources.

Aranha's more permanent reform of the exchange regime tried to remove at the same time the constraints imposed by the balance of payments and by public finance. Instrução 70 of SUMOC of October 1953 introduced a system of 'ágios e bonificações', taking as reference the official rate of Cr$ 18.32/$US dollar declared to the International Monetary Fund. Coffee exports would receive an extra payment, a 'bonificação' of Cr$ 5.00/US$ dollar; non-coffee exports would receive Cr$ 10.00/$US dollar. A new paper, 'promessa de venda de câmbio' [promise to sell foreign exchange] , was created. These were to be auctioned and gave the right to the purchaser to buy foreign exchange. There were five different categories of auctions for imports, classified according to "essentiality". The authorities distributed discretionary foreign exchange as between different import category auction. About 80% of total allocated exchange was reserved to categories I to III and only 3% to category V of luxury goods. Certain special imports such as newsprint and wheat paid only the official rate. Oil imports as well government or state enterprise imports paid a surtax on the official rate. The result was that on average, for instance in 1953, the cost of imports per unit of foreign exchange varied between Cr$ 18.82 and 78.90. Category V rate was 2.5 times the category I rate. The system acted as a substitute for tariffs as the Brazilian specific tariff schedule had been badly eroded by inflation. A 'free' rate applied to financial transactions.

The government could use the wedge between the average import rate and the average export rate as a fiscal instrument. But this was too little to cope with increased expenditure, especially transfers to the State of São Paulo. The deficit of states and municipalities fell only very slowly after 1953 to reach 0.9% in 1954. In spite of Jafet's replacement in the Bank of Brazil loans by the bank increased 36% in 1953. In 1953 the income tax had become the main Federal tax (32.6% of total revenue), marginally more important than the consumption tax (30.2%). By the end of 1953 all the fundamentals concerning fiscal , monetary and credit policies pointed to the failure of stabilisation. To this must be added the inflationary consequences of the rise in import prices caused by Instrução 70 which were in addition to those related to Law 1807. Inflation rates in 1954 were above 20% measured by the cost of living index.

Exports recovered very modestly in 1953 and 1954 in answer to changes in foreign exchange policy. They reached a peak of US$ 1,771 million in 1951 and then fell to around US$ 1.4-1.5 billion until 1957. There was a very substantial additional increase in coffee prices from a level of around 55-56 US$ cents per pound in the first semester of 1953 to 62 cents in the end of the year rising to almost US$ 1.00 in June 1954. This was due to a frost in Paraná and difficulties in competitive suppliers. A political campaign in the US led to a contraction in consumption while the Brazilian government established minimum export prices. In the final months of Vargas' government export volumes were very low. In the middle of August the government finally decided to improve the conditions applying to the purchase of coffee export proceeds by allowing 20% of these proceeds to be sold at the much more devalued 'free' rate. Prices eased and there was some recovery in export volumes but they remained much below normal levels. The value of imports fell in 1953 to US$ 1.1 billion, recovered in 1954 to US$ 1.4 billion but this was the only year in the 1953-1964 period when it was not roughly between US$ 1.1 and US$ 1.3 billion. There was, however, a fall in import prices 1953-1954 of about 10% and a further fall of almost 15% until 1960. The decline in the US position as a major supplier to Brazil continued but it was still the major supplier in mid-1950's holding around a third of the market. The bad performance of exports is the main explanation for the permanent constraint on imports which would be one the most import obstacles faced by policy-makers in Brazil during the 1950's.

Difficulties faced by Aranha in the second quarter of 1954 were compounded by Vargas decision to double the minimum wage which added up to inflationary pressures even if it is considered that a substantial rise was required only to maintain the previous real wage peak in real terms. In 1952 the minimum wage had been increased 212% after a long period without adjustment since 1944 which led to a real fall of almost 55%. The increase was proposed by Goulart, the Labour minister, and adopted by the President in spite of strong opposition by Aranha. Typically, Vargas fired Goulart in sacrifice to his critics.

There was a new wave of creation of governmental, or government-controlled, institutions during Vargas' second government of which, retrospectively, the most important were *Banco Nacional do Desenvolvimento Econômico-BNDE* [National Economic Development Bank] and *Petróleo Brasileiro-Petrobrás* [Brazilian Oil]. *BNDE* was created in 1952 as a financial counterpart to the Comissão Mista Brasil-Estados Unidos. It was thus at the origin essentially a public-owned bank concerned with infrastructural projects. Later in the 1950's it became an important source of finance for projects which aimed at the import substitution of basic inputs. Petrobrás was vested with a far-reaching government monopoly which covered all aspects of oil production and processing. Only in distribution activities there was scope for the continued operations of the big foreign firms. Debate on the nature of government intervention in the oil industry was marked by strong political mobilisation, particularly in the armed forces which were split by the issue. While victory of the *'o petróleo é nosso'* [oil is ours] campaign has become emblematic of a strategy based on state-controlled institution it is a matter for the record that, strangely enough, the comprehensive monopoly approved by Congress was a result of an initiative by the opposition to Vargas. Legislation initially proposed by the government provided for a less comprehensive span of monopoly activities. Taken jointly with the evidence on the establishment of *Companhia Siderúrgica Nacional* and *Companhia Vale do Rio Doce* the circumstances surrounding the foundation of *Petrobras* suggest a much less comprehensive effort by Vargas to build up public ownership in strategic sectors than is frequently taken for granted. The Federal government institutional building included the establishment of a *Fundo Federal de Eletrificação* [Federal Electrification Fund] and the creation of the embryo of a holding to control federal-owned electricity companies, *Centrais Elétricas Brasileiras-Eletrobrás* [Brazilian Electric Power Stations], which would activated after 1961 when it would have control over the big Federal-owned electricity generation companies, of which only *CHESF* was operating in the early 1950's. The government also established a *Comissão Executiva do Plano do Carvão Nacional* [Executive Commission of the National Coal Plan] to cope with the problems raised by the absorption of low-quality coal produced in the South mainly through the construction of coal-burning thermoelectrical plants.

Vargas' suicide and its succession by the centre-right vice-president, Café Filho, created the conditions for a return of the 1945 'liberals' to economic policy-making. But the political conditions required for a serious attempt at stabilisation did not exist as Gudin, the new Finance Minister and leading conservative economist, would discover after only seven months in office. Interest rates were increased. And credit was squeezed by a steep increase in the compulsory deposits of banks in *SUMOC*. In 1954-1955 real banking credit remained 7-8% below its recent peak in 1952-1953. Budget expenditures were to be cut by 36%. Gudin's position was undermined by his difficulties to obtain political backing for expenditure cuts and also by Paulista objections to the low level of the export bonus ['bonificação'] paid to coffee growers which only slightly higher than that under the exchange regime inherited from Aranha .

It was possible, however, to renegotiate a big loan with private banks in the United States to extend the maturing repayment period of credits for commercial arrears which had been obtained under Vargas. This operation was guaranteed by US$ 300 million of reserves in gold, reversing a policy which had been adopted since 1947 on the role of gold reserves. In relation to still another aspect of foreign economic policy, Gudin was unwittingly responsible for an economic policy instrument which would be of vital importance for the rest of the 1950's as an incentive to foreign capital inflows and the deepening of import substitution to reach more sophisticated branches of industry, in particular transportation equipment. This was SUMOC's instruction 113, which allowed imports of capital goods without exchange cover as direct foreign investment. Since foreign investment entered at the 'free' rate and exchange cover for imported capital goods had to be purchased at the category 3 auction there was a subsidy to foreign investment equivalent to the difference between the category 3 rate and the 'free' rate. Different views on the distributive impact of instruction 113 to a large extent reflect the comparison of such rates in different moments in time and consequently different relative levels of the 'free'and category 3 exchange rates.

A political deal between Jânio Quadros, the maverick governor of São Paulo, and Café Filho involving the substitution of the president of the Banco do Brasil led to Gudin's substitution by Whitaker, who returned to the Ministry of Finance after 25 years, once again representing the Paulista interests and especially those of coffee. Whitaker reversed Gudin's contractionary policies concerning credit and expenditure. His priority was to reform the multiple exchange rate system which was considered to hurt export interests and particularly those of coffee growers. Whitaker and Roberto Campos, superintendent of BNDE, following IMF advice, thought that Brazil should accept lower international coffee prices and increase market share and that the multiple exchange rate should be abandoned in favour of a single rate. There were pre-conditions to fulfil concerning consolidation of short-term foreign debt, a standby arrangement to avoid excessive fluctuation of the new rate and adjustment of the tariff schedule to cope with the removal of multiple import rates. A new tariff schedule would solve one of the problems raised by unification of the rates but IMF support would be essential to raise finance abroad. A report, written by Edward Bernstein, an IMF official, considered several alternatives for the new exchange regime. The Brazilian final draft proposed a regime based on a single floating exchange rate. There would be a transitional regime affecting coffee as the exchange rate applied to coffee would converge to the single rate in a time span of two years ending the so-called *'confisco cambial'*[foreign exchange exaction]. Opposition in the ministry as well by presidential candidates led to Whitaker's fall even before the political collapse of the attempted coup by the 'liberals' in November 1955 and the successful 'democratic' countercoup which assured that the President elect, Juscelino Kubitscheck, would take office in early 1956.

The difficulties faced by Gudin and Whitaker underline the kind of constraints faced by 'liberal economists' in the formulation and implementation of a truly liberal programme. Even Gudin, who rapidly exited from the Ministry of Finance due to its lack of 'political realism' found it difficult to condemn the inherited multiple exchange regime due to its fiscal implications. Whitaker's nominal commitment to liberalism was essentially marred by his political backing which made it impossible to consider policies which would unfavourably affect coffee interests.

The growth record in the 1945-1955 period was impressive, with GDP expanding at 7.1%. The record under Dutra was slightly better than in the first half of the 1950's with the economy growing at 7.6% yearly, in spite of the recession in 1947 when the yearly rate fell to 2.4%. In the two worse years under Vargas, 1951 and 1953, in spite of the difficulties concerning stabilisation, GDP increased at almost 5% yearly. However, population growth, which in the 1940's was at 2.4% a year compared to 1.5% in 1920-1940, increased to 3.0% in the 1950's. So the improved GDP growth record was rather less satisfactory on a per capita basis.

Industrial output (manufacturing industry after 1947) increased at 9.8% yearly in 1945-1955, more rapidly under Dutra because of the very significant growth in 1946 as part of the recovery immediately after the war. In contrast agricultural output growth was slow at 3.9% and more so under Dutra when it increased at the rate of 2.7% only. But the performance of subsistence agriculture in 1945-1950 was good with the output of rice and beef increasing at more than 8% yearly and corn and beans at more than 4%. But in spite of this, and in contrast with the 1930's, there was no significant contraction of the share of agriculture in GDP as agricultural relative prices rose in relation to industrial products. Employment in agriculture as a share of the active population fell from 65.9% in 1939 to 57.8% in 1949. The share of industry rose from 20.8% to 24.1% mostly at the expense of services. Industrial output structures in 1939 and 1949 were not radically different as the share of the textile sector in total value of production decreased only 2 percentage points to reach 18.7%.But the relative contraction of most other sectors producing wage goods was substantial. Sectors producing industrial inputs, such as steel and iron products, as well as consumer durables and to a lesser extent capital goods, gained some ground. There is evidence, however, that structural change accelerated in the first half of the 1950s as import substitution spread to the production of most consumer durable goods. In 1949, the textile industry was still almost three times the size of the metallurgical industry. The textile sector combined with food processing answered for more than half the aggregate value of production compared to 56.8% in 1939 and 62.5% in 1919. The value of production of more modern sectors – electrical, mechanical and transport equipment – was 5.3% of the total in 1949 compared to 4.2% in 1939 and 1.3% in 1919. The productivity of labour engaged in manufacturing industry as of the census of 1949 fell to 4.7 times the productivity in agriculture compared to 5 times in 1939. The ratio of imports in total supply of industrial products, which reached a trough of 11.2% in 1942-1943, rose to a peak to 18-20% with the import boom in 1951-1952, and then started to fall rapidly: in 1955 it was already below 10%.

3.2. The golden years: 1956-1962

President Kubitschek had an initial choice between a stabilisation programme inspired by Edward Bernstein of the IMF and promoted by his more orthodox supporters such as Lucas Lopes and Roberto Campos. But it was politically expedient to stick to an overtly expansionary policy with J.M. Alkmin as a Finance Minister. However, the year of 1956 was for most purposes a transitional year as the government concentrated in drawing its plans. But the imbalances in public accounts increased significantly as the Treasury's cash deficit increased from 13.6% of expenditures in 1955 (around 1% of GDP) to 32.2% (around 2.6% of GDP) and GDP growth was only 2.9% as there was a significant crop failure. Inflation remained above 20% as measured by the cost of living in Rio.

The cornerstone of the President's economic programme was the *Programa de Metas* [Target Programme] which would allow the Brazilian economy to grow fifty years during the five years of his term of office [*50 anos em cinco*]. This was to cope both with the business of overhauling the infrastructure, left unfinished by Dutra and Vargas, and with the deepening of import substitution to cover the remaining consumer durables, mainly motor cars, and industrial inputs. Also important, both as a drain in public resources, and as a project to mobilise political support, was the building of Brasília, with its implied national integration emphasis crowning a long of process of not very elaborated criticism of the concentration of expenditure and political power in the coastline in detriment of the hinterland.

Formulation of the Plan, heavily inspired in the previous work of the *CMBEU*, as well as on studies undertaken by the United Nations Economic Commission for Latin America, was the result of work by the *Conselho de Desenvolvimento* [Development Council], a new agency directly under the President. The Conselho orchestrated a large number of *grupos executivos* [executive groups] in charge of specific targets. There was no global macroeconomic framework coherent with physical targets mostly related to the infrastructure or to the industrial sector. There was also no attempt to define how the projects were going to be financed. Details started to be defined in the third year of the plan's implementation. Nor was there any special consideration of inter-industry implications of the planned increase in capacity. Major infrastructural targets referred to expansion between 1955 and 1960 of the road network (construction of 13,000 Km of roads and paving of 5,800 Km, compared to existing 460,000 Km and 3,100 Km, respectively) as also of railroads (construction of 3,100 Km, compared to the existing 37,000 Km). New industries producing rolling stock and ships were to be established.

Energy targets covered increases in electricity generating capacity (from 3.2 MW to 5.2 MW), oil production (from 6,000 barrels to 100,000 barrels/day), oil refining (from 130,000 to 300,000 barrels/day) and coal production (from 2.1 to 3.1 million tons).

Government plans concerning the infrastructure were based on the recognition that the old model of energy utilities controlling power generation, transmission and distribution had been exhausted as exchange rate fluctuations had enormously increased the friction between such companies and the government and led to underinvestment. This explains the expansion of public involvement in the generation and transmission of electricity partly based on expertise accumulated by CEMIG, the rather efficient electricity company owned by the state of Minas Gerais. On the other hand, there was also the implicit recognition that the State would be unable to efficiently run the railway system so that at the planning stage, and even more during implementation of the *Programa de Metas,* it was apparent that the government had opted for the significant expansion and improvement of the road network in detriment of a serious overhauling of the railway system. In fact, most of the government efforts concerning the railways was centred on the transformation of locomotives to oil burning sin spite of the unfavourable effects on its plans to increase the production of high-ash high- sulphur domestic coal. There was also complementarity between plans related to the expansion of the road infrastructure and the target to produce domestically trucks and light commercial vehicles. The road versus rail competition which had become evident in the second half of the 1920's was going to be decisively won by the road in the second half of the 1950's.

Planned increased production of inputs included steel production (1.2 million to 2.3 million tons of steel), cement production (3.6 million to 5.0 million tons), chemical products, non-ferrous metals and cellulose. Iron ore output mainly for export was to be expanded. An automotive industry was to be established which would produce in 1960 170,000 vehicles with a crudely defined index of nationalisation by weight set at 95% for motor cars and 90% for trucks and vans. Industrial subsectors producing capital goods (heavy electrical equipment, machine tools, boilers and other heavy equipment) were singled out to be supported. Agriculture was covered rather incompletely by targets for tractors, fertilisers and wheat production. There was some nominal reference to education but again more as the lip service to make the plan politically more palatable.

State investment was to play a crucial role in the plan, especially in the targets related to infrastructure and the production of industrial inputs. There was a further expansion in the role of the State as a producer of goods with an increase in the number and importance of state enterprises. The share of government and government enterprises rose from around 25% of total investment before 1956 to a third in 1956-1960. The construction of two new integrated steel *mills Usinas Siderúrgicas de Minas Gerais-Usiminas* Minas Gerais Steel Mills and *Companhia Siderúrgica Paulista-Cosipa* [Paulista Steel Mills] was started. *Petrobrás* was in charge of the targets related to oil production and refining, given the legal state monopoly. It also increased its fleet of tankers. There was significant public investment in the construction of new state-owned hydroelectric plants in the Southeast. *Vale do Rio Doce* was to continue its expansion to become a major world producer of iron ore. *Companhia Nacional de Álcalis* would become an important producer of soda ash.

Interest of the private sector, and especially of direct foreign investment, was raised by the concession of comprehensive incentives which covered special fiscal treatment, credit subsidies -- mostly related to loans extended by BNDE --, and import duty exemptions. Since inflation remained most of the time above 12% and the usury law continued to be applied to obtain public credit was equivalent to obtain a stream of subsidies in the future. Private banks would not be involved in credit operations which were not short-term and were able to circumvent legal restraints by expedients such as fictitious administrative costs or by tying loan concession to the holding of deposits to compensate them for the negative real rates of interests implied by legislation in an environment marked by significant inflation. Implicit subsidies related to non-indexed Bank of Brazil loans are estimated to have varied in the 1956-1961 period between a low of 35% of the Treasury deficit in 1957 to a peak of 151% of the Treasury deficit in 1959. Bank of Brazil credit corresponded over the 1952-1961 period to between 48% and 53% of total credit with a slow declining trend after 1959. Credit by BNDE in the 1950's peaked in 1958 when it was equivalent to about 4% of total banking credit. BNDE played an additional crucial role which was to guarantee foreign loans contracted abroad by Brazilian enterprises totaling US$ 890 million.

By far the most important instrument used by the government to attract foreign capital was Instrução 113 of SUMOC. After an initial period under the multiple exchange rate regime when the 'free' rate (applied to financial flows) was higher (cruzeiro/US dollar) than that applied to category 3 imports (capital goods) the position was reversed and the free rate remained in 1955-1957 below that of category 3 imports. There was thus a subsidy for capital entering the country in the form of equipment under Instrução 113 if compared to the alternative of entering as a financial flow and then competing for foreign exchange cover in the exchange auctions. After 1957 subsidy was to be assured by the free rate remaining below the 'general' import exchange rate. Exports reached a peak in 1951 and afterwards began a long process of decline. The peak of 1951 would only be exceeded in 1968. The use of other instruments to generate foreign exchange such as merchandise imports without foreign exchange cover under the terms of Instrução 113 was thus crucial to make possible high investment, and hopefully, high growth. About 75% of the foreign investment inflow into Brazil in 1956-1960 was under the regime of Instrução 113. Seen from the angle of imports no less than 70% of capital goods imports in the period were made under the same regime.

Another important factor of attraction of foreign investment was the Brazilian high tariff. The new tariff law 1957 had transformed the Brazilian schedule based on specific duties which had been almost completely eroded by inflation into a schedule based on *ad valorem* duties which could reach 150%. Government policy, by restricting right of establishment assured that a sufficiently low number of entrant foreign firms had sufficient market power to extract big profits behind the high import tariff wall. On the other hand, in the mid 1950's there was interest to expand productive capacity abroad, especially among European motor car manufacturers.

Under Kubitschek there was no attempt to modernise public administration machinery. This was a corollary of the ‘fifty years in five’ motto combined with a consensus that bureaucratic foot dragging should not be allowed to interfere with the *Programa de Metas*’s implementation. Typically, the existing machinery was circumvented mostly by the creation of transitional institutional arrangements. These took the form of *grupos executivos* [executive groups] created *ad hoc* to oversee the sectoral implementation of the *Programa de Metas*. But state enterprises also played an important role in the process of side stepping the traditional obstacles to “efficient”government. The conventional public administration machinery was left aside to continue in its long term declining trend portrayed by the mutually self-reinforcing combination of low levels of pay and low levels of efficiency.

The *Programa de Metas* certainly marked a deepening in the process of import substitution which became important in branches of industry unaffected until then such as the automotive industry and many segments of the production of industrial inputs, and to a lesser extent, of capital goods. But, given the scope for foreign direct investment, it is a tribute to Kubitschek’s political acumen that he managed to see that his image of an economic nationalist prevailed in the Brazilian political folklore. A reasonable explanation for his achievement is perhaps the emphasis placed in the Brasília project as a symbol of a new sense of nationhood more representative of the Brazilian hinterland realities away from the relatively cosmopolitan coastal regions. His image as a nationalist was also enhanced by the fact that in the public mind the President when faced with a choice repeatedly opted for ‘development’ instead of ‘stabilisation’. The yearly net inflow of direct foreign investment including reinvestment rose from less than US$ 60 million yearly on average in 1947-1954 to almost US$ 140 million in 1955-1961.

While it is generally accepted that stabilisation objectives had a very low priority under Kubitschek the favourable evaluation of other aspects of his administration especially in the political field tends to obscure how bad was the macroeconomic management between 1956 and 1961 and the extent to which, aggravated by Quadros’ political irresponsibility in 1961 it contributed to the economic turmoil which was an essential element to explain the military coup of 1964. If the traditional Brazilian paradigm of the *'homem cordial'*, who in all circumstances feels it difficult to say no, which is ruled by the heart, can be transposed to policy-making, Kubitschek, with his utter disregard for macroeconomic constraints, fitted it extremely well. It would certainly be an exaggeration to consider his behaviour as strategic, though his lack of enthusiasm for electing a successor of his own party was well known. Kubitschek was simply applying at the Federal level the populist recipe which had been extremely successful in his mayorship of Belo Horizonte and when he was governor of Minas Gerais. From a macroeconomic point of view Kubitschek's vengeance was that he left to Quadros an inheritance even worse than the one that he had received in 1956.

Inflation in 1956 measured by consumer prices was at about the same level of 1954-1955. In 1957 it declined to 15% and on average remained at the same level in 1958. But yearly data hide important monthly fluctuations. In 1956 monthly inflation rates were maintained below 2% and in 1957 after some instability consumer prices fell in some months almost 2% due to the very good crop. But in early 1958 inflation accelerated once again to reach 2.6% in May. Inflationary pressures originated in the continued imbalance of public accounts as the government deficit mounted to 26% of total expenditure in 1956 and 40% in 1957, boosted by the building of Brasília, the new capital, by the chronic deficit of government-owned transportation concerns and by purchases of surplus coffee output. These latter amounted in the second half of the 1950's to three times the direct cost -- estimated at 2-3% of GDP -- of building Brasília. Coffee purchases absorbed more resources than those generated by the wedge between the average exchange rates for the sale and the purchase of foreign exchange which was a feature of the multiple exchange rate regimes in force during the period. Transfers to government-owned transportation concerns fluctuated between 10% and 25% of the aggregate deficit in 1956-1960. On the revenue side from the mid-1950's growth of consumption and stamp tax revenues started to outpace income tax growth. The 1957 reform also meant that import duties became relevant again. By 1961 Federal revenue was made up of taxes on consumption (38.8%), income (26.5%), import and stamp duties (both 11.3%). Both the consumption tax and the tax on sales, which had displaced export taxes as the main source of revenue for the states, were value added taxes but taxes on the value of transactions with all the resulting distortions due to cascading. The tax burden increased from 15% in 1947-1950 to 16.3% in 1950-1955 and 19% in 1956-1960. Inflation total transfers (including inflation tax effects on the public and the banks) rose to around 4% of GDP in the mid-1950’s.

The deterioration of macroeconomic conditions led to still another stabilisation attempt. Lucas Lopes and Roberto Campos with a delay of two and half years seemed to have their chance to implement a stabilisation programme: a one-year *Programa de Estabilização Monetária* [Programme of Monetary Stabilisation] was to be implemented as a first step in the road to stabilisation. But Kubitschek resisted to abandon his cherished expenditure plans and his half-hearted launching of the stabilisation programme was an indication that it was doomed to fail. The plan’s core was familiar: credit control and expenditures cuts, especially of transfers to public-owned railways and shipping companies. There was some progress in relation to the public deficit which was halved in 1958 to 20% of total expenditure. But banking system loans to the private sector, including the Bank of Brazil, fell only modestly due to the pressure of coffee growers squeezed by the coffee crisis. In spite of much criticism of the Bank of Brazil as responsible for undermining of the programme its loans fell almost 16% in 1959 in real terms. The second half of the 1950’s were marked by the continued fall of real credit per unit of GDP which decreased a further 23% between 1956 and 1960.

Under Lopes the monthly inflation rate measured by the wholesale price index remained above 2% until May 1959 and was above 5% in some of the months of the Summer of 1959. Ironically, in July, when the inflation rate reached its lowest rate since the beginning of 1958, Lopes was substituted by Paes de Almeida, the former president of the Bank of Brazil. The emphasis on development prevailed. Public deficits increased again, reaching 25-26% of total expenditure in 1959-1960. The yearly inflation rate for 1959 of nearly 40% was probably a record since the early 1890’s.

Protracted negotiations with the International Monetary Fund came to nothing as the Lopes-Campos group lost influence. The Fund was apparently prepared to accept the Brazilian proposals on monetary and fiscal policies but deemed unsatisfactory changes in tariff and exchange rate policies. It was announced that Brazil had broken off relations with the Fund. Brazil, of course, remained a member of the Fund and rather than a ‘ruptura com o Fundo’[break with the Fund] there was something rather less spectacular: a break down of negotiations with the Fund. The myth of the ‘ruptura com o Fundo’ and its astute political exploitation by Kubitschek enhanced his reputation as a nationalist who had the courage to defy the IMF and served as an at least partial explanation of the bad macroeconomic performance in 1956-1961 as resulting from foreign constraints. It was stressed, but not very convincingly, that there had been a serious intention to stabilise, but the political price asked by the IMF was too high. Probably the price asked was too high, but was there a serious intention to stabilise?

Structural theories of inflation were popular in Latin America in the 1950’s and early 1960’s. Alternative versions included from the more trivial structural imbalance version, generally with agriculture in the role of the laggard sector, which related higher inflation to growth above a balanced growth rate, to more complex interpretations which related inflation acceleration to sectoral terms of trade. Brazilian versions of such interpretations included a stress in the market power of intermediaries in the commercialisation of foodstuffs for which there is some, but not overwhelming, empirical basis in the late 1950’s and early 1960’s.

The exchange regime created by Instrução 70 in 1953 was simplified in 1957. The introduction of an *ad valorem* tariff schedule made it possible to reduce the number of multiple import exchange rates which had been created mainly as a substitute for such a tariff. The former five import categories were reduced to two: a general category to include raw materials, capital goods and products for which there was not ‘sufficient supply’. Imports of other goods were to be paid using the ‘special’ category exchange rate which of course made them more expensive. A third category of imports, oil, newsprint, fertilisers and ‘equipment for priority projects’ were to be paid at the ‘câmbio de custo'[cost of exchange rate] which could not be below the weighted average export rate. Auctions for the two import categories as well as the four export bounty categories were maintained but in later years non-traditional exports were increasingly paid at the free 'rate'. A newly created *Conselho de Política Aduaneira* [Customs Policy Council] with wide discretionary powers to classify imports in different categories as well as to partially waive duties or block imports using the 'similarity criterion' which blocked imports of products which could be produced domestically. One third of Brazilian imports still originated in the United States but some European suppliers, especially Germany, had been gaining ground in the 1950's.

Exports fell steadily during Kubitschek's government. In 1958-1960 they reached US$ 1.2-1.3 billion compared to more than US$ 1.7 billion in 1951. In spite of the advance of industrialisation Brazil remained very much an exporter of commodities and mainly of coffee. Coffee exports which in the early 1950's where 60-70% of total exports maintained their importance in the middle of the decade and fell only slightly below 60% in 1960. The US market still absorbed around 45% of total exports and Europe under 30%. Coffee prices by the end of 1955 were back to their levels of the beginning of 1953. In 1957 they started to decline again as the well-known long-term coffee price cycle unfolded. In 1959-1961 coffee export prices were roughly two thirds of 1955-1957 prices due to a collapse in the second half of 1958. Coffee scarcity in the early 1950's stimulated substantial expansion of supply both in Brazil and elsewhere so that in the second half of the 1950's Brazil was once again facing problems of coffee overproduction.

Over Kubitschek's term of office the foreign debt increased by 64% to reach US$ 2,372 million by the end of 1960 so that the gross debt-export ratio deteriorated from 1.02 by the end of 1955 to 1.87 by the end of 1960, as exports were roughly stagnant. In the window of opportunity created by the hope of sustained adoption of a stabilisation programme there was an interruption of the World Bank abstinence from lending to Brazil as US$ 98 million of loans were provided to the electricity sector in Brazil. In the later years of the Kubitscheck period the government repeatedly resorted to high cost US dollar-cruzeiro swap operations guaranteed by the gold reserves through which the government raised foreign exchange cover in the short term and accepted the devaluation risk.

Levels of social indicators were still very low in 1960: average infant mortality was 118.1 per thousand 1,000 live births (198.2 in Rio Grande do Norte and 68.6 in Rio Grande do Sul) and the aggregate literacy was 60.6% (57.3% among women). But they had improved substantially more in the 1950's than in the 1940's: at a rate 2.2 times higher for infant mortality and 2.5 times higher in the case of literacy. But improvement was much slower in the poorer than in the richer regions: reduction in infant mortality in the South region in the 1950's was 2.1 faster – in terms of percentage of the gap (in relation to targets) reduced in the decade – than in the Northeast.

The ratio between productivity of labour in manufacturing industry increased substantially in relation to productivity in agriculture to reach 7.5 times as recorded by the 1949 census. Industrial employment increased 3% yearly in the 1950's while the industrial output increased 9.2%. In fact industrial employment increased marginally less in the 1950's than in the 1940's. Only a small part of the very substantial increase in industrial productivity is estimated to have had origin in changes in the structure of occupation. Agricultural employment increased 1.8% yearly and agricultural labour productivity increased by 30% in the decade. In the 1950's the share of agricultural employment in total active population fell only modestly from 57.8% to 54%. The acceleration of the rate of population growth meant that there were going to be in the future increasing strains to absorb the cohorts of labourers seeking employment and the services sector would tend to absorb such manpower surpluses. In contrast with the second half of the 1940's, minimum wage policy in the 1950's was relevant, as there was some attempt to keep constant its real value which reached a peak in 1959. In a rather innocuous effort to contain some of the undesirable consequences of higher inflation the Federal government tried to control basic food prices in the 1950's and early 1960's through the *Comissão Federal de Abastecimento e Preços*-COFAP (Federal Commission of Supply and Prices). Different modalities of rent control were also adopted in the 1950's.

In the late 1950's there were efforts for the first time by the Federal government to consider in a more systematic way policies related to the removal concerning the inequalities between different Brazilian regions. The recognition of such inequalities stretched long before 1930. The drought in the late 1870's had an important role in expelling population from the Northeast to other regions such as the Amazon. An important public works programme had been undertaken under Epitácio Pessoa in the early 1920's to build up reservoirs in the Northeast. Both the São Francisco and the Amazon valleys had public agencies nominally in charge of promoting their development since the 1940's. An obsolete and ineffective *Departamento Nacional de Obras contra as Secas* [National Anti-Drought Department] had failed to make substantial progress in alleviating the effects of periodical droughts in the Northeast. Under President Kubitschek efforts were concentrated on the study of regional inequalities and formulation of policies to revert such trends. A *Grupo de Trabalho para o Desenvolvimento do Nordeste (GTDN)* [Working Group for the Development of the Northeast] was created. Its conclusions suggested two lines to cope with the economic problems in the Northeast. The first, which was to remain a dead letter, was to adopt policies which would foster the transformation of land use both in the humid and semi-arid zones, and the dislocation of the region's agricultural frontier. The second was to raise the productivity of labour employed in the humid region by creating industrial jobs. Following these recommendations a *Superintendência de Desenvolvimento do Nordeste (Sudene)* [Superintendency of Development of the Northeast] was created in 1959 and massive fiscal incentives were directed to finance the migration of investments to the region but this occurred mostly after 1964.

It has become customary to claim that the *Programa de Metas* was successfully implemented in 1957-1961. But success has to be qualified even if account is not taken of its heavy macroeconomic cost. It is certainly relevant to stress that the Brazilian economy went through a period of vary rapid growth and that this was explained to a large extent by the investments planned under the plan. But the comparison of sectoral targets and achievements point out to a clear division between targets which were seriously pursued and those which were not. There was an unqualified failure in meeting targets concerning wheat, coal, railway construction and oil refining. The most successful effort was in relation to road building whose target was exceeded by 38% and electric power generation projects which met 82% of their target. The fulfillment of many targets concerning the production of steel, cement, oil and cars and trucks remained between 60 and 76% of initial plans.

But these shortcomings are put in perspective by the outstanding growth record of the period. GDP increased on average by 8.1% yearly between 1955 and 1960. 1956 was quite a bad year as GDP increased only 2.9%, the worst performance on record since 1947. If the plan period of 1957-1961 is taken into account GDP growth was of 9.3% yearly. The Programa de Metas raised gross fixed capital formation as a proportion of GDP from around 14.5-15% in 1956-1957 to peak levels of 17% in 1958 and 18% and 1959. The extremely high rates of GDP growth suggest that increased capacity utilisation probably played a relevant role as a source of growth in the late 1950's. Between 1956 and 1961 industrial output increased at 11.4% yearly. This was of course concentrated in the branches of industry directly or indirectly most affected by the *Programa de Metas*: transport equipment (42% yearly rate of output growth), electrical and communications equipment (24.1%) and rubber products (16.4%). But even traditional sectors such as textiles had a good performance with output expanding at more than 10% yearly. Estimates of the relative importance of sources of industrial growth indicate that about a third of industrial growth between 1949 and 1962 was related to a fall in the import coefficient rather than demand or export growth. This very good industrial performance tends to hide the fact that agricultural performance was very creditable with output increasing at 5.8% yearly. Food production for domestic consumption (beef, milk, manioc, corn, beans and rice) more than kept pace with population growth.

3. 3. Crisis in the early 1960s

It is essential to put into perspective the achievements of Kubitschek to consider the long-term effects of policies adopted during his term of office. His successor, Jânio Quadros rightly stressed how unfavourable was the inherited macro-economic position: high inflation, fiscal imbalance and prospective balance of payments crisis with eroded reserves. His main objective became inflationary control and this was to be achieved through policies which removed constraints related to the public deficit and the balance of payments. Steps were taken to unify the exchange rate: the former ‘general category’ imports were transferred to the so-called free market. The ‘câmbio de custo’, which applied to imports deemed essential such as wheat, fuels and newsprint, was devalued 100% (cruzeiro/US$ dollar rate) and transferred to the free market. But auctions for the ‘special category’, that is non-essential imports, continued to take place. A new system of sale of foreign exchange to cover imports was introduced. This was based on the compulsory purchase of import bills made at the same time exchange cover was bought by importers of the same amount in cruzeiros of bills which would mature in 150 days. Already in the end of the Kubitschek period some exporters were paid in Bank of Brazil paper rather than in cash but this was discontinued by the end of 1961. In certain periods between 1962 and 1964 the importer could decide between purchasing Bank of Brazil paper earning 6% yearly for four months or make non-interest deposits for larger amounts. Part of coffee export proceeds continued to be retained and other exporters could sell export proceeds in the free market.

The reform meant the end of possibility of using the ‘ágios e bonificações’ account to generate resources in domestic currency. Suggestions that this is at the root of disequilibrium of government accounts and consequently of inflation seem to be displaced. The net result of such accounts had not been always substantial in the past and the fall in their importance had been counterbalanced by other ways to raise revenue such as sales of import bills or compulsory import deposits. Balance of payments equilibrium required the re-schedule of foreign debt service payments which were heavily concentrated in the short-term: more than 60% in the four years following 1960. Foreign debt service increased very fast since 1955, rising from 13% of exports to 43.6% in

1960. The service of loans totalling US$ 1.1 billion, of which 80% in the United States, was rescheduled in 1961. This was Quadros'main achievement.

The political crisis which followed Quadros' sudden resignation in August 1961 increased uncertainty about future developments which could unfavourably affect the economy. It was feared that Goulart, the Vice-President who according to constitution was to succeed Quadros, would only add to the trend towards increasing lack of control which had become marked since the demise of the 'Programa de Estabilização Monetária' of 1958-1959. Since his experience as Vargas' Labour Minister in 1954 Goulart had been elected Vice-President both in 1955 and 1960 with strong support of the trade unions. These fears were not totally allayed by the compromise which introduced a parliamentary regime and curtailed presidential powers.

The composition of the first cabinet revealed an attempt by Goulart to enter into a composition with the conservatives. The choice of Neves as Prime Minister and, especially, Moreira Salles, a politically influential banker in the centre of the political spectrum, as Finance Minister, suggest a continuity of the endeavour to regain control over the economy. Neves' program was, however, mainly rhetorical and full of inconsistencies. The government was going to seek to revert the massive monetary expansion which had resulted from the political crisis in mid-1961 and to maintain monetary supply stable. Public deficit was to be financed on an undefined 'non-inflationary' basis. Lip-service was paid to many reforms, including a fiscal reform which was to generate resources which would make possible to increase fixed gross capital formation from 14% to 23.75% of GDP in five years. A realist foreign exchange policy was to be adopted based on a single exchange rate but quantitative import limits in the 'special category'were to be maintained. Goulart, in spite of opposition by his cabinet, entered into a personal commitment to reform the constitutional principle that acquisition of land for land reform purposes should be on a cash basis only.

The economic record in 1961 was not that unfavourable: inflation remained roughly stable at around 30% a year (cost of living Rio de Janeiro) and GDP increased

8.6% with industrial output growing 11% and agriculture 7.6%. But there was a sharp fall in gross capital formation to 13.1% of GDP, the lowest level since 1950. the foreign debt increased by US$ 0.5 billion to US $ 2,835 million at the end of the year in the wake of the negotiations on rescheduled payments. This corresponded to a gross debt-export ratio of 2.0. Reserves increased by US$ 307 million as exports recovered by about 10% but still remained much below their 1951 peak.

Coffee exports in the Goulart years still answered for 50-53% of total exports. The United States still absorbed 40% of Brazilian exports but was being rapidly substituted by Europe. In early 1960 the Treaty of Montevideo had been signed establishing the Latin American Free Trade Association which included most South American economies and Mexico. The total elimination of trade barriers was to be achieved in twelve years by means of yearly negotiations which would reduce by at least 8% the weighted average duties applicable to third countries in favour of LAFTA members. After a promising start in 1962 and 1963 negotiations the process came to a halt. In September 1962 a first international coffee agreement including the United States was signed in an effort to cope with the coffee glut in the market. Coffee stocks rose from 5.6 million bags in 1956 to 40.3 million by the end of 1960 and 51.7 million by the end of 1963. A big program of coffee tree eradication was introduced reducing the number of coffee trees in Brazil by almost 40% in 1962-67.

Import-related remittances had been discouraged by thinly disguised devaluation such as the increase to 150% of the import value of the compulsory purchase of import bills which had to be held for 150 days without earning interest with the inflation around 30% a year. Financial operations required purchases equivalent to 50% of the remittance to be held for 180 days. In early 1962 these measures were temporarily reversed as the percentage of required purchases was to be progressively reduced by 10 points monthly.

The marked deterioration of relations with the United States had political reasons since the shifts implied by Quadros new policies and , especially, after Brazil had abstained from the vote to expel Cuba from the Organization of American States. Brazil-

United States relations were further strained by impending legislation, reminiscent of Vargas'much criticised speech in the end of 1951, that would set a 10% limit on yearly remittances by foreign firms and that reinvestment could not serve as a basis for computation of profits which could be remitted. And also by the cancellation of mining rights of the Hanna Corporation and the condonation by the Federal government of Governor Brizola's expropriation of *Companhia Telefônica Nacional* [National Telephone Company], a subsidiary of the International Telephone and Telegraph which operated in Rio Grande do Sul. This expropriation followed a previous wave of expropriations in 1959, also by Brizola, of the *Companhia de Energia Elétrica Rio-Grandense* [Electrical Energy Company of Rio Grande], a subsidiary of the American Foreign Power Company, and of other ITT assets. The yearly net inflow of new direct investment was sharply reduced to less than a third of its level in the second half of the 1950's but reinvestments were significantly higher as investments matured.

It is not surprising that foreign debt growth slowed down after the renegotiations of 1961: it increased less than 9% until the end of 1963. This reflected the increasing difficulties of raising foreign loans as the government's became progressively more nationalist and hostile to foreign investment. The United States official loans which were extended under the Alliance for Progress programme were mainly directed to states where governors were political opponents of the President. Inter-American Development Bank's loans totaling US$ 133 million in 1961-1963 provided some relief. The debt-ratio of 2.47 was high but still very distant from the 4.0-5.0 range typical of the great depression or of the early 1980s.

Goulart's visit to the United States in April 1962 to reassure the US government on foreign investment and the foreign debt was not a success. It was clear that there was a progressive deepening of the fiscal crisis. The public deficit increased from 26.1% of total expenditure in 1960 to 29% in 1961 and then to 33-34% in 1962-1963. The tax burden fell to 18.2% in 1961-1963 and seignoriage increased from 4% to 7-9% of GDP. Most of the pressure on the level of expenditures was related to the massive deficits of public-owned enterprises such as the railways and shipping companies: *Rede Ferroviária*

Federal [Federal Railways Network], *Lloyd Brasileiro* [Brazilian Lloyd] and *Cia. de Navegação Costeira* [Coastline Navigation Company]. In May 1962 the lack of fiscal and monetary control became evident and added to political difficulties centring on structural reforms and foreign policy. Neves, very much a man of the centre, resigned and an aborted further attempt to counter deterioration in the control of macro-economic policy was made when the name of Santiago Dantas was considered for Prime Minister. In spite of being more often associated with the more radical leanings of Goulart's administration because of his support of a foreign policy more independent in relation to the United States, he was firmly committed to a policy of ordering government priorities, expenditure cuts and monetary restraint. His inability to win congressional approval as Prime Minister underlined the costs of the political stalemate.

After a further attempt to obtain congressional support for special powers for his chosen Prime Minister, Brochado da Rocha, Goulart invested all his political resources in recovering presidential bargaining power with the repeal of the parliamentary regime. But after this attempt the political basis of the coalition in government was eroded as shown by the substitution of Moreira Salles by Dantas. Strengthening of the parties supporting Goulart in the elections in October 1962 was followed by a massive victory of a return to a presidential regime in early 1963 amid further acceleration of inflation to reach 5-7% a month and continued slowing down of growth. In 1962 financial system real credit stagnated. The yearly inflation rate in 1962 rose to a level near 50% whatever way it is measured. Additional inflationary pressures were related by the approval in the end of 1962 of new legislation on the '13th' wage, an additional monthly wage to be paid to all workers at the end of the year.

GDP growth fell to 6.6%, the lowest rate since 1956. But manufacturing industry output which had played a central role in the growth process since 1942, and especially under Kubitcheck, still increased 8.1%. Agricultural output increased by 5.5% even if coffee production fell in physical terms. The good agricultural record since the mid-1950's tended to undermine the core of the case for land reform as the growth of food production was not being outpaced by population growth. Data on fixed capital formation point out to a recovery to 15.5% of GDP in 1962 which is not unlikely to have resulted from defective national accounts statistics as most sectoral data point out to a sharp fall in investment after 1961.

The fall in exports and in capital inflows together with the modest rise in imports, maintained pressure on the balance of payments But there is no evidence of severe distortions in the foreign exchange regime. There was a reduction in the compulsory purchases of import bills and the cruzeiro devaluation was similar to the rate of domestic inflation. It would be wrong to put too much emphasis on the foreign exchange policy to explain the balance of payments difficulties: the effective exchange rate in 1962 was at practically the same level of that of 1964 and, according to the World Bank, very near its peak (most devalued) level between the early 1960's and the late 1970's. It was in 1963 that it became overvalued but not much beyond the level typical of the second half of the 1960's.

Following the government's victory in reversing the parliamentary constitutional amendment of 1961 in a referendum in early 1963 a last ditch attempt was made to revert the acceleration of inflation. Celso Furtado, who had added to his reputation as an author on the Brazilian economy the work developed at the GTDN and at Sudene, supervised the elaboration of a *Plano Trienal* [Triennial Plan] was to serve as a guideline for policy placing strong emphasis, in spite of the heterodox views held by Furtado in the past, on the control of inflation and singled out excessive demand entailed by the excessive level of public expenditure. The aim of the stabilisation programme was to reduce inflation to 25% in 1963 and 10% in 1965. Potential public deficit was to be reduced by 60%. Nominal limits of credit expansion for the private sector were set at 35% when the equivalent yearly inflation rate was 60%. An International Monetary Fund mission visited Brazil early in the year.

The plan allowed for 'corrective' inflation as there was need to adjust some administered prices, following subsidy cuts mainly affecting fuel and wheat. In January urban transportation prices were increased. Prices of fuel and wheat were increased by

100% and 70 %, respectively. Monthly inflation rates in the first two months of 1963 reached 20% and 11%. This may have been partly the result of price adjustment of those fearing a price freeze.

There is evidence of considerable overshooting in the implementation of credit limits: the real volume of credit fell 30% in the first semester of 1963. This certainly helped to fuel the choir of criticisms initially raised by many of Goulart's allies in the extreme left. The *Plano Trienal* was criticised as a capitulation of the government to conditions established by the International Monetary Fund. To the political troubles aggravated by overshooting must be added the consequences of Dantas' failure in his visit to Washington to negotiate another reschedule of the foreign debt. In spite of Brazilian concessions concerning the expropriation of the AMFORP utilities, only US$ 84 million of the US$ 398 million of loans obtained by Dantas was to be immediately available and even then US$ 30 million were to compensate ITT. Political decisions in May irreversibly undermined the stabilisation objectives as the civil service pay rise was set at 60%, and not the 40% agreed with the IMF. The minimum wage was increased by 56.25%. Wheat and fuel subsidies were reintroduced.

From mid-1963 economic policy was beyond the control of Federal authorities. A ministerial reform substituted Dantas and scraped the Planning Ministry. Goulart tried to appease widespread criticism of his government among the 'classes produtoras' by choosing a conservative Paulista, Carvalho Pinto, as the new Finance minister. But the reaction of the more radical wing of his political supporters was strident as it had been in their denunciation of the *Plano Trienal*. Administrative instability resulted from the fragmentation of political resources originating in the frontal clash between populism and its opponents, and a broad conservative coalition rapidly gained adherents. Campos' decision to ask for substitution as the Brazilian Ambassador in Washington heralded the end of the period of guarded co-operation between Goulart and conservative leaders which could assure him of some support outside his power basis in the trade unions and the left wing parties. The lack of control on public expenditure deepened after the middle of the year. Monthly inflation rates rapidly returned and exceeded the levels reached before the *Plano Trienal*. The balance of payments position deteriorated further in spite of some recovery of exports as coffee prices increased 60% . Required purchases of import bills were substantially increased, especially in the second semester of 1963, reflecting growing uncertainty. On a year to year basis the real exchange rate appreciated almost 14% in 1963.

Goulart's obvious lack of a credible economic programme is best exemplified by his appointment of an obscure *gaucho* politician as a substitute of Carvalho Pinto in the end of 1963. Goulart also finally approved the law on remittances of profits by foreign firms. The demand for structural reforms, on the other hand, gained political weight although there was an almost total absence of explicit economic evaluation of their costs and benefits. Attention was centred on the proposed take over of private oil refineries whose establishment preceded the creation of Petrobrás, which can hardly be considered a structural reform, and, quite generically, on land reform. Political troubles with the military and agitation around the structural reforms fed the conspiracy against the government which had initially been restricted to certain groups defeated in their intent to deliver a coup in the crisis of 1961 and had gained strength after the 1962 elections. The military coup which followed on the 1st of April had considerable political support from most political parties as well as from landowners, industrialists, and the middle class.

In the whole 1942-1962 period GDP per capita only decreased in 1956, and even so very marginally. In 1963 GDP growth was only 0.6% as a fall of 0.2% in industrial output coincided with agricultural output growth of only 1%. Recession hit hardest exactly in those sectors which had led the previous boom. Output fell by 10.7% in transport equipment and 3.8% in electrical equipment industries. It fell modestly even in the wage goods sectors. There was a fall in the rate of growth of food production in the early 1960's in comparison with the second half of the 1950's. But it still remained above population growth in the case of most products with the exception of beef and corn.

In per capita terms GDP contracted 2.3% in 1963. It is difficult to overstate the political significance of such a break of an extremely good continuous growth record.

The reasons which explain such a decline in growth were the subject of intense controversy. The whole picture is confused by the fact that national accounts data indicate a hefty rise in investment even in 1963. According to such data, fixed capital formation in 1963, at 17% of GDP, had been only exceeded since 1947 in golden year of 1959. Data on sectoral data fail to pick up this reversal in the new trend lower investment ratios first shown in 1961. Possible explanations could include the inability of the Federal government to impose rational cuts in its investment programs so that fixed proportional cuts affected similarly all projects whatever their initial marginal efficiency of capital. Large investments did not necessarily mean a similarly large expansion of productive capacity given the postponement entailed by cuts in available resources. An alternative less convincing reason, at least for this period, is that import substitution deepening tended to increase the cost of inputs and capital goods so that investment became relatively more expensive.

Explanations of a structural nature underline the importance of the exhaustion of import substitution as a process able to assure high growth of manufacturing industrial output. Given that the initial size of plants installed in answer to incentives under Kubitschek exceeded the capacity of Brazilian markets to absorb their output it was to be expected that the first wave of investments could not be sustained. The deepening of import-substitution moreover meant that as new sectors were affected the relevant marginal capital-output ratio increased and contributed to reduce growth potential. Another line of structural reasoning stressed the lack of compatibility between the newly structure of supply and effective demand related to the heavily concentrated income distribution. This latter explanation was disposed of by the very high rates of growth achieved during the boom period after 1967 based on a dramatic expansion of credit for consumer durable purchases.

Alternative explanations stress the impact of the extremely contractionary short-term macroeconomic policy adopted in the first few months of 1963 on the level of industrial output as well of investment. There is no doubt that liquidity tightening in early 1963 strongly affected the performance of sectors producing durable consumer goods.

But the link between the squeeze under the *Plano Trienal* and the fall in investment, which is any case rather difficult to measure, given the misleading information supplied by national accounts data, fails to take into account the expected lags between fall in output and fall in investment. Based on the available evidence it seems reasonable to explain the fall in the level of activity as resulting from the combination of both structural and short-term or mid-term policies.

* * *

The economic record in the Third Republic was dominated by the achievement of fast and sustained growth of GDP. Industry substantially increased its importance in output by displacing agriculture, especially in the 1950's. The extreme disparities between productivity in industry and the other sectors of the economy increased, as the expansion of industrial output was not matched by the creation of a sufficiently large number of industrial jobs. But the performance of the food-producing agricultural sector was far from mediocre in the 1950's and even the early 1960's. There were also important changes in the structure of industrial output itself as there was much more rapid expansion of sectors producing durable consumer goods and industrial inputs, and to a lesser extent, capital goods than of those wage good sectors which had led industrial output growth in the 1930's and in the 1940's. There is more continuity between Dutra, Vargas to a lesser extent, Café Filho, and Kubitschek periods than usually admitted. Growth was faster and import substitution affected increasingly more sophisticated branches of industry but the trend was there.

Modernisation of the productive structure notwithstanding Brazil remained an exporter of commodities and mostly of coffee. Export diversification had no place in the government's agenda. In fact one of the most impressive features of economic policy in the second half of the 1950's is the continued importance of expenditures to support coffee prices. The coffee wedge between average import and export exchange rates may have existed to extract income from coffee growers but a sizeable part of this was returned through transfers to the coffee sector, either purchasing surplus stocks or providing a stimulus to the destruction of older, less productive, coffee trees.

What made possible to achieve and sustain this path of high growth was the combination of an initially stabilisation-induced overvaluation of the exchange with import control, assuring absolute protection essential to foster import substitution, followed by the expedient of using the multiple exchange regime to provide powerful subsidies to attract foreign capital to the Brazilian market. The government also used generously other subsidies such as subsidised credit and fiscal rebates of various kinds to implement its industrial policy. An additional crucial feature of the policy was that the Brazilian market would remain for all purposes closed so that the output of foreign firms would not face competition from imports. There was a vicious circle in action. The balance of payments constraints stimulated the adoption of policies based on the heavy subsidisation of domestic production which depended crucially on closing up the market. Domestic production was not competitive in international markets so exports tended to depend exclusively on commodities. Evaluation of such policies crucially depend on the time span which is used as reference. If evaluation is restricted to period when import-substitution took place the assessment tends to be favourable as the growth record tends to dominate the picture.

But in a long term perspective such industrialisation spurts had a cost which was that generally they were not accompanied by sound macroeconomic policy. While this was already evident in the later period of the Dutra administration, and even more of the Vargas administration, it became particularly clear under Kubitschek and reached a climax under Goulart. Growth was faster until 1961 but partly because of a sharp deterioration in the accepted standards of sustainable macroeconomic policy. Political calculation became an extremely short-sighted exercise when applied to the economic field. The concept that the economic inheritance which was left to the successor should be at least reasonable carried no weight. The repeated failure of stabilisation efforts, generally implemented in the first half of terms of office, resulted more from the persistent fiscal imbalances and the lack of agreement to put their redressing high in the political priority list than on structural sources such as stagnant food supply or sectoral market power.

Rent-seeking which had been concentrated in coffee and tariff policies during the Old Republic had been diversified in the 1930’s to cover opportunities opened by the operation of multiple exchange rate regimes. In the last years of World War II relatively high inflation combined with the usury law enhanced the importance of public credit, particularly long-term credit, as a powerful instrument to extract resources from the State. All these rent-extraction mechanisms were preserved from the late 1940’s to the early 1960’s with the multiple exchange rate regimes offering new implicit subsidy opportunities as exemplified by the advantages favouring foreign direct investment through SUMOC’s *Instrução 113*. During part of the period the role played by the high tariff in providing an umbrella for domestic producers to generate high profits, or to be very inefficient, or both, was played entirely by the exchange rate system as the specific tariff was eroded by inflation until the schedule became based on *ad valorem* duties in 1957. The discretionary power in the distribution of incentives tended to be exerted in a less centralised way that had been the case in the past as there was strong private sector representation in the sectorally organised *grupos executivos*.

By the second half peak of the 1950’s distortions were affecting resource allocation in extremely complex forms. It is to be doubted whether the government had a very precise idea of the joint impact of so many instruments used at the same time. The foreign exchange wedge between average import and export exchange rates was at work. Special provisions favoured foreign investment. A high tariff still prevailed with the government strengthening its *de jure* and *de facto* grasp on the right of establishment of foreign firms in the Brazilian market. Not only in some cases such as banking and insurance the government could and would block the entry of new players, by denying subsidies to more than a certain number of previously selected the firms, the government could make unprofitable the entry of new competitors into the market. The activities of many public-owned suppliers of public services depended on massive subsidisation. The coffee sector was also being subsidised directly and indirectly to counter the effects of the collapse of coffee prices. The fiscal burden became impossible to bear: there were too many sectors demanding and obtaining resources from the State. The inability to choose between conflictive targets was to be become increasingly a feature which determined economic policy under the Third Republic. In last couple of years this shortcoming entirely dominated the economic and political scene.

The campaign for structural reforms singled out land reform as requiring the special attention of the government. But this was perhaps a too limited view of the limitations of growth policies adopted until then. Very rapid growth had only been accompanied by rather slow improvement in the living conditions of the poor everywhere. The position of social indicators improved in the government's list of priorities does not seem to have improved, but, of course, faster growth meant relatively more rapid improvement of such indicators in the 1950's than had been the case in the past. Even with high growth employment opportunities increased much too slowly. Increased population growth together with employment trends in the 1950's indicated the problems ahead when growth slackened.

While the government became somewhat belatedly aware of the problems entailed by the uneven regional distribution of the benefits of growth this trend resulted partly from its own investment strategy. It is difficult to exaggerate the importance of decisions during Kubitschek's term of office to define the characteristics of the future economic structure of the Brazilian economy and consequently the type of problems it would face in the future. In a planning effort that was not known for internal consistency there was a clear concentration of inducements for the creation of an important automotive sector and in complementary investments in enhancing of road infrastructure and oil refining capacity. Expansion of the output of transport equipment was initially presented as essentially an effort to substitute imports of trucks and commercial and commercial vehicles but the seeds of an economy whose performance would depend on the diffusion of consumer durables, and especially of motor cars, were clearly there.

4.The Brazilian economy:1964-1980

The early 1960's were marked by the end of the long economic boom which had started in 1943 and by the acceleration of inflation which reached rates approaching 100% yearly. This deterioration in economic performance is a vital element in the explanation of the almost permanent political crisis under Goulart and the successful mobilization of political support for the 1964 military coup.

4.1 Stabilization and reform: 1964-1967

The core of economic strategy under Castello Branco was monetary stabilization. But the central role played by stabilization targets in the short- to mid-term still allowed room for a major effort in designing and implementing a vast programme of economic reforms. This effort took advantage of the removal of many political constraints faced under the Third Republic: trade unions were put under intervention, congressmen lost their mandates, political opposition was sharply curtailed with many losing their political rights. A new Ministry of Planning, headed by Roberto Campos, played the crucial role in the stabilization and economic reform efforts under Castello Branco with support from the Ministry of Finance, headed by Octávio Bulhões. It was a return to power of the group of civil servants which had been repeatedly defeated in their attempts to counter what they saw as the economic policies of populism during the Third Republic and now had the opportunity to implement their ideas with support of the military.

A *Programa de Ação Econômica do Governo* [Government Program of Economic Action] was prepared during 1964 under the co-ordination of Campos. It included a mixture of objectives some of which seem to have been justified basically by political expedience. With the benefit of hindsight the important objectives were those related to economic growth, progressive reduction of inflation and equilibrium of the balance of payments. More akin to a lip-service category were the reduction of sectoral and regional disparities – this was supposed to deal with the land ownership issue – and also the expansion in employment. A wide range of policies would be used to make sure that these objectives were attained: financial policies – including public deficit reduction, tax, banking and public investment policies –, international economic policies, such as those on the foreign exchange, foreign debt and foreign investment, and policies which were baptized as of social productivity. This euphemism referred to policies which assured at the same time that workers benefited from development and allowed the 'synchronization' of anti-inflationary policies. The official explanation for the Brazilian inflation was far from orthodox. Some comments on cost inflation notwithstanding, the Brazilian inflation was deemed to result from an inconsistent distributive policy which involved disequilibrium between government expenditure and revenue and a lack of compatibility between the propensity to consume which resulted from the wage policy and the propensity to invest which resulted from credit policies. Inflation was essentially a problem of excessive demand originating in public deficits, permissive expansion of credit and wage settlements above productivity trends. Lax monetary policies only helped to propagate such inflationary pressures. Targets for monetary expansion in 1964-1966 were of 70%, 30% and 15% which implied inflation rates of 25% in 1965 and 10% in 1966. These were not attained but the stabilization results were impressive. The Campos-Bulhões stabilization programme would mark the first successful stabilization effort since the restrictive policies of Joaquim Murtinho during the government of Campos Salles in 1898-1902. Criticism of the *PAEG* was of course muzzled and the little that was made public at the time was very much restricted from the point of view of Brazilian businessmen. Besides complaints about the impact of credit restriction on the level of activity the points singled out for criticism were mainly related to issues such as liberalization of the Brazilian market to foreign competition and the planned reduction in the role of the government.

In 1964 the inflation rate reached its peak in the 1960's with wholesale prices increasing on average 91.8%. Yearly inflation rates fell to less than 66% in 1965 and 41.3% in 1966. In 1967 the inflation rate as measured by consumer prices in Rio de Janeiro was down to 30.4%. While there should be no doubt that the stabilization policies between 1965 and 1967 were at times less gradual than the policies adopted after March 1967, when the stabilization effort became explicitly constrained by growth objectives, the evidence makes it difficult to classify the stabilization policies under Castello Branco as shock policies.

Persistence of inflation in 1964 reflected the impact of 'corrective' inflation, that is the cumulative impact of foreign exchange devaluation, pay increase for public servants, increase in the minimum wage and in public prices as part of an effort to correct relative prices. The government adopted from the beginning a fiscal stance which led to the monotonic fall in the deficit: from 3.8% of GDP in 1963 to 2.9% in 1964, 1.4% in 1965 and 0.9% in 1966. Revenue increased due to increased rates of duty, new taxes and improvement in tax collection. An emergency tax reform in 1964 raised excise and stamp tax duties, as well as duties on fuel products, and advanced income tax collection to a pay as you go basis. While new legislation allowed the correction of the value of assets to take account of inflation some income tax had to be paid on this revaluation. A Constitutional amendment in the end of 1965 transformed both the Federal excise tax (*imposto de consumo*) and the state sales tax *(imposto sobre vendas e consignações*) into the value added-based taxes renamed Federal *imposto sobre produtos industrializados* and state *imposto sobre circulação de mercadorias*, avoiding the previous cascading effect. New taxes were created or overhauled: on services (*imposto sobre serviços*), electricity (*imposto único sobre energia elétrica*), minerals (*imposto único sobre minerais*) and fuels *(imposto único sobre combustíveis e lubrificantes*).

The tax burden increased from 18% in 1963 to 24.1% in 1966. There was a modest decline in the importance of income tax in total tax revenue. Revenue policy was also flexible as shown by the temporary reduction in June 1965 of tax on motor cars, household electric appliances and textiles to face the fall in industrial output. Seignorage declined but remained in the 3-4% of GDP range in 1965-1967.

Government efforts to control expenditure were especially targeted to reduce the substantial deficits in the operation by public enterprises of railway, shipping and postal services. Indeed, rehabilitation of the postal services over the long-term was emblematic of the successful side of the effort to modernize the public sector. This was perhaps the most spectacular demonstration of the virtues of efficient state intervention as the postal services were rescued from utter demoralization to become rather efficient and one of the most prestigious institutions in the eyes of the Brazilian public. In spite of the contraction in total expenditure public investment including Federal state enterprises seems to have increased in 1965 and fallen modestly in 1966 so that most of the expenditure cuts affected current expenses. Tight limits were imposed on the capacity of Congress to create expenditure. Expenditure by states and municipalities were brought under centralized "co-ordination" with the explicit objective of avoiding competition between them when seeking to attract investments. Not only the deficit declined but it was increasingly financed by sales of government paper which was, after some compulsory initial sales, voluntarily purchased by investors. The introduction of monetary correction opened the way for the separation of the real return of financial placements from nominal returns which included a purely inflationary element and for the indexation of debts to price indices. The usury law had been finally circumvented. By 1966 all government deficit was financed by the sale of government paper.

Credit policies were flexible, being adjusted according to the level of activity. During 1964 they were restrictive at least until the second quarter of 1965, and extremely so in the end of 1964, then until the first quarter of 1966 there was a substantial rise in credit to the private sector which reached a peak by the end of 1965. Countercyclical policies included the provision of subsidized credit through *Caixa Econômica* to finance motor car sales. Then another credit squeeze took place which marked the end of the first quarter of 1967, that is the end of the first military government. Monetary policy followed the same upturns and downturns of credit policy. The downturns in industrial activity in 1965 and 1967 resulted from the contraction of credit and monetary policies. The upturn of 1966 followed the relaxation of such squeeze in the second semester of 1965. There was a clear increasing trend of real credit after a long period of contraction in the 1950's and in the early 1960's. In 1964 real total credit fell 10% but then it increased continuously: 8.2% in 1965, 10.7% in 1966 and even more after 1967.

From 1965 the official wage policy was extended to all levels of public administration as well as to the private sector. The bargaining power of trade unions was seriously undermined as political repression mounted and their right to strike was a dead letter. A standard formula to compute wage readjustments was compulsorily adopted. It aimed at recovering the real wage level of the 24 months prior to the date of readjustment and allowed for an 'inflationary residual' to take future inflation into account. Given the importance of such 'residual' in the formation of inflationary expectations it is not surprising that it was always underestimated. The real minimum wage fell 7% both in 1965 and 1966 and a little less in 1967. It is not totally clear to what extent the average real wage followed the minimum real wage in its fall but there is some evidence that there was a fall in the real average wage between 1964 and 1967. In 1964-1967 the government concentrated the flexibility of its policies on adjustments of the credit and monetary policies, and to a much lesser extent, the fiscal policies. The wage policy designed in 1964 was applied without any adjustment.

Seen from the 1990's, the retrospect of the Castello Branco administration from the point of view of growth was less unsatisfactory than contemporary comments suggested. The very good performance in 1943-1962 perhaps contributed to inflate growth expectations at the time. Or perhaps the declining growth performance of the Brazilian in recent years has contributed to reduce expectations and introduce a complacent bias. The economy roughly stagnated on a GDP per capita basis in 1964-1965. In 1964, another bad crop was compensated by a reasonable industrial performance – with industry growing 5% – so that GDP increased 3.4%. In 1965, in spite of an extremely good crop, with output rising 12.1%, GDP increased only 2.2% as there was a serious industrial recession with output falling 4.7%. Even with a disastrous crop in 1966, GDP increased 6.7%, reflecting a 11.7% rise in industrial output. The industrial recovery of 1966 was reversed in 1967 with another tightening of credit and monetary policies, but GDP growth remained reasonable at 4.2%. In fact 1965 was to be the last year marked by a contraction in GDP per capita before the long period of stagnation which started in the early 1980's.

Balance of payments constraints which had been important under Goulart were rapidly removed after March 1964. This was due to a combination of factors affecting both the current and the capital account. An important element of many criticisms of pre-1964 government policies was the excessive emphasis on the domestic market and particularly the lack of incentives to increase and diversify exports. The multiple foreign exchange regime for industrial goods which still persisted, although much simplified, was slowly substituted by a system nominally based on a single exchange rate nearly ten years after this had been controversially proposed by Edward Bernstein, of the International Monetary Fund, to President Café Filho. But coffee exports were still taxed by a variable contribution quota of 53-57% in 1964-1967. In 1964 on average the effective exchange rate was depreciated 16.3% in relation to 1963, but very little in relation to 1962. It was further devalued on average by 2.5% in 1965. After 1965, however, there was a substantial appreciation of real exchange rate which was in 1967 back to its 1963 level.

The single foreign exchange rate was still based on a pegged rate. After a series of devaluations in 1964 and until a new crawling peg exchange regime was introduced in August 1968 devaluations were few and far between, generally only once a year. With the inflation rate slowly falling to a level still around 40% in 1967, the fluctuations in the level of the real exchange rate created important distorsions as the rational behaviour of sellers and buyers of foreign exchange created significant leads and lags affecting decisions concerning sales and purchases of foreign exchange.

Much emphasis was placed on the promotion of exports. Reforms made possible to export without paying indirect taxes such as the consumption tax (renamed tax on industrial products) or the tax collected by the states on the circulation of goods (formerly sales and consignment tax). Some export incentives, such as income tax rebates, which were illegal according to General Agreement on Tariffs and Trade’s rules, started to be introduced, but it was only after 1967, under Costa e Silva, the second president under the military regime, that discretionary export incentives became really important. Export taxes still used by some states were abolished. A drawback regime which allowed imports of inputs with exemption of duties was created and bureaucratic requirements were reduced.

By 1965 prior import deposits and financial import surcharges had disappeared. The number of goods classified as special category imports was reduced and more exchange cover was allotted to such imports.. A liberalizing import tariff reform was introduced at the very end of the Castello Branco period and the special category of imports was abolished. Average protection for manufactures was reduced from 99% to 48%. But these numbers are badly affected by tariff redundancy so they may exaggerate the extent of liberalization. The timing of the tariff reform was perhaps an indication of a weaker commitment to opening up the Brazilian market to foreign goods as opposed to other policies which also targeted an increase in the country's 'outwardness'.

Export performance was good in 1964-1965, with export values growing at 7.3% yearly. It was helped by an increase in export prices in 1964 of 18.5%. By 1966 exports had almost reached their previous peak of 1951. This performance is better explained by vent for surplus, that is by the inducement to export provoked by the availability of idle capacity, than by any substantial and sustained improvement in price incentives. Exports fell in 1967 and then started to increase very rapidly again in the wake of the international boom and the sharp increase in export subsidies. Exports of manufactures in the narrow definition (*Nomenclatura Brasileira de Mercadorias* classes 5 to 8) increased from 2.7% of total exports on average in 1961-1963 (US$ 36 million) to 6.2% in 1965-1966. Imports fell dramatically in 1964-1965 to a value similar to that of 1950 and about 30% below the roughly constant values of 1961-1963. The sizeable trade surpluses of 1964-1967 made possible to deal with pending foreign short-term liabilities and also provided room for liberalizing reforms in trade and foreign exchange policies. But they also became a source of pressure for monetization requiring monetary policy compensatory policies.

Developments in the capital account were also favourable. A significant improvement in the relations with the IMF, the World Bank and the USAID followed the fall of Goulart. About a third of the foreign debt was due in 1964 so a new rescheduling of foreign debt service was negotiated by August 1964 with US and European banks rolling over 70% of service falling due in 1964-1965. New loans started to flow after 1964, especially from USAID. Between 1964 and 1967 Brazil was the fourth recipient of USAID funds after India, Pakistan and South Vietnam. There was a clear policy of attracting direct foreign investment. The constraints to reinvestment of profits and the limit of 10% of profit remittances by foreign firms which had been imposed under Goulart were revoked in August 1964. An agreement to guarantee investments was signed with the United States in February 1965 assuring fair compensation to US citizens in case of expropriation of their assets. Instruction 289 of SUMOC allowed financial operations between foreign firms and their subsidiaries in Brazil to finance circulating capital. This was later modified to cover also borrowing by Brazilian firms. But the recovery of autonomous capital flows took a long time: direct investment flows returned to late 1950's levels only in 1969 and only in 1968 loans and credits exceeded their 1961 level.

A pillar of the reform of the financial system involved the creation in the end of 1964 of a Central Bank replacing SUMOC, which marked the beginning of a long process of transition towards a clear definition of attributions between the Bank of Brazil, the Treasury and the Central Bank. The main difficulty was the hybrid role of the Bank of Brazil as the government's banker and as the most important commercial bank. A monetary budget (*orçamento monetário*) was created as a consolidated balance sheet of the monetary authorities and the Federal-owned commercial banks. In principle it should impose ceilings on Bank of Brazil credits. But a loophole continued to exist as a Bank of Brazil account with the Central Bank which should be settled on a weekly basis was allowed to remain unpaid. By 1966 the balance of Bank of Brazil's debt in this account was equivalent to 5.7% of the monetary base.

Monetary correction, building up on previous legislation, was introduced quite early and, as mentioned, was essential to public deficit finance as the government could again sell Federal financial paper in the market. The possibility of price indexation to cope with inflation served initially as a powerful instrument to correct some of the distortions created by persistent inflation since at least the middle of the Second World War. It made possible to abolish rent controls, reduced losses in tax collection, allowed firms to adopt inflation-proof accounting methods, reduced the scope for illusory profits generated by inflation, was closely linked to the fast growth of savings accounts and to the creation of a housing financing system from scratch. It took a long time to perceive that the widespread use of indexation rules created inflationary inertia. Monetary correction after being lauded as panacea in the 1960’s came to be recognized as one the major factors to explain persistent high inflation in the 1980’s and early 1990’s.

A law of capital market reform was approved in mid-1965 profoundly reshaping the private financial sector. Its basic objective was to expand the supply of long-term funds. So while short-term credit was to be provided by commercial banks, medium-term credit would be offered by newly created financial houses (*financeiras*) and investment banks and long-term funding by public offer of shares and debentures in the stock exchanges.

Financeiras had increased very rapidly in terms of amount of loans, mainly for consumer durable purchases, in relation to commercial banks. Being almost non existent in 1959 their end of year balance of loans was around 8-9% that of the commercial banks in 1962-1963 but reached more than 31% in 1965-1966. In 1967 as a result of the creation of investment banks there was a contraction but in 1968 this was more than 40%. Their main source of funds were ‘bills of exchange’, which were accepted by *financeiras* and sold to clients. Investment banks which had been thought as a Brazilian version of British merchant banks to be heavily involved in underwriting operations, and able to build up technical capacity to offer technical advice on long-term funding to firms, ended up by trying to compete with *financeiras* and never were a success.

A new housing financial system was created. No mortgage market existed in Brazil given the application of the usury law. In the 1930’s and 1940’s social security institutions had given away a sizeable part of their assets as a result of mortgages without inflation-indexed clauses. Building had been also adversely affected by rent control. The *Sistema Financeiro da Habitação* [National Housing System] while initially concerned with popular housing was re-oriented to cope with the market for middle class housing. Resources were raised through inflation-indexed savings accounts and deposits of the new unemployment insurance fund. Loans were to be also inflation-indexed. The share of the Bank of Brazil in total financial system outstanding loans fell from 42-43% in 1964 to 30-31% in 1965-1966 and 23.4% in 1967. Although the shares of other public financial intermediaries such as BNDE-Finame and *Banco Nacional da Habitação*-BNH (National Housing Bank) rose – to 4.7% and 2.3%, respectively – there was clearly an important reduction in public credit between 1963 and 1967.

Military rule clearly marked a reversal of the decentralisation trend established by the 1946 Constitution as decision-making was centralised. But government machinery had deteriorated even more since Kubitschek days. Improvement in the decision-making process and implementation of economic policy depended on its overhaul. This was initially done piecemeal then was consolidated in several ways: the number of state enterprises was much increased and administrative flexibility was improved by Decree Law 200 which allowed a much increased scope for the activities of government foundations. There was a build-up of the new government machinery including planning institutions ironically as a result of pressure by USAID. The influence of the military was much increased in most institutions: the massive presence of retired officers became a standard feature of Brazilian state-owned enterprises.

The brand of liberalism which prevailed after the military coup was rather peculiar even in 1964-1967. Indeed, one of the most important elements of continuity in relation to the Third Republic was the continued strategic role of the State both in normative functions and also in the direct provision of goods and services. The share of state investment in total investment remained high but accurate numbers are not available. In 1965 government investment including government enterprises had risen to 46.4% of total investment compared to 37.5% in 1961-1963. It can be argued that since so much had to be invested in the dilapidated infrastructure, especially in electricity and telecommunications, and since there was no possible interest from foreign investors, the government had no alternative but to take the lead. And it is true that much was done to cut the costs and improve the notoriously bad services provided by public-owned railways and shipping companies. But the argument is less persuasive in the case of non-infrastructural sectors going from shipping to steel and insurance. In spite of much self-congratulation the work of reformers was timid. Perhaps the provision of credit is one of the few activities in which a contraction in the importance of state institutions can be shown. The significant reduction in the Bank of Brazil's share of total outstanding loans was not compensated by the very fast growth of credit provided by BNDE and the housing financial system. The share of credit provided by the state, which had increased slightly in 1964, fell from 46.3% to 30.4% in 1967.

The period marked the beginning of a new wave in the proliferation of state enterprises of which *Eletrobras*, which became active as the government's electricity holding, and the new telecommunications state-owned *Empresa Brasileira de Telecomunicações*-Embratel [Brazilian Telecommunication Enterprise], were the most important. Export policy was to be co-ordinated by a *Conselho Nacional de Comércio Exterior*-Concex [National Council for Foreign Trade] but this was very ineffectual until 1967.

Pre-1964 legislation on job security was peculiarly lacking in flexibility as job stability was assured after 10 years with the same employer. To fire a stable worker after 10 years involved an elaborate legal process and a heavy penalty. It became a generalised practice to fire workers before they completed the 10-year period so as to avoid the high costs of firing. On the other hand, if a stable worker retired while in a stable job he would be treated exactly as any other worker. New legislation aimed at introducing more flexibility in the labour market created a *Fundo de Garantia de Tempo de Serviço* [literally Length of Service Guarantee Fund]: monthly deposits were made in an earmarked account whose funds could only be released in case the worker was fired, married, died or decided to establish his own business. An additional payment corresponding to 10% of the total outstanding fund was to be paid by the employer in case the loss of his job resulted from the employer's initiative. Typically, while there was in principle the possibility of choosing between the old and the new systems in practice it was impossible to choose the old system.

The programme of reforms was impressive but since there were very weak political constraints limiting the efforts of reformers criticism must be less condescending than when dealing during normal periods when political obstacles frequently undermine the good intention of reformers. The implemented programme of reforms was not comprehensive enough. In spite of lip-service in favour of a reduction in the extent of direct state intervention and the end of discretionary policies based on the whims of state bureaucracy what was seen was the extension both of the role of the state and of the scope for the discretionary distribution of benefits. To open up the economy was understood as primarily reversing the former anti-export bias and adopting policies to attract direct foreign investment. Since such investment had been traditionally attracted by the high profits made possible by high protection against imports there was an internal contradiction in the project to internationalise the economy. While there were important developments concerning protection, such as the abolition of special category of imports and prior deposits, the commitment to reduce import tariffs did not occupy a very high position in the government's reform list and its timing showed it

Perhaps even more serious, the social aspect was almost completely neglected by the reform programme. Land reform, which had emerged perhaps not entirely reasonably, as a major issue in the Goulart years, did not receive a serious treatment. The rather toothless Land Statute (Law 4505 of November 30, 1964) was barely more than a declaration of intentions on the need to raise agricultural productivity. It does not seem extreme to speak of utter failure. While it is difficult to pinpoint the 1964-1967 period from the point of view of progress of social indicators the 1960's as a whole were marked by a significant slowing down of the speed of improvement as will be seen in the next section of this paper.

Little progress was made in 1964-1967 in relation to the avowed policy objective to reduce the share of revenue which was earmarked for specific uses. In fact the government made use of policies to foster development based on tax expenditures which had been inherited from the pre-1964 period, especially those related to regional development in the Northeast. This paved the way for the wholesale adoption of such policies after March 1967 in a firm commitment to a strategy based on state intervention aiming to direct the private sector. Regional policies in any case failed to dampen the sharp regional disparities as tax expenditures basically fostered the transfer of capital intensive projects to less efficient locations and were not able to create a significant number of well paid jobs. In the twilight of the Castello Branco government the notorious *Zona Franca de Manaus* (Manaus Free Zone) was created, allegedly as part of an effort to develop the Amazon region.

Between 1963 and 1967 educational policies resulted in a much faster rate of expansion of the university and secondary school student population than in the number of students in primary education (more than 70% compared to 26%). This anticipated the boom in university students which would mark the decade starting in 1967.

4.2 Years of high growth: 1967-1974

Castello Branco’s substitution by Costa e Silva in March 1967 had important consequences on economic policies. The emphasis on inflation control was replaced by the more popular stress on the importance of a return to a high growth path. The new Minister of Finance, Delfim Netto, proposed a radically different interpretation for the causes of persistent inflation. It was not caused by excess demand -- thus having to be faced by credit and public expenditure controls as well as a wage squeeze -- but rather by cost pressures. These originated in the increased cost of credit due to its scarcity and on the increased costs entailed by lower rates of capacity utilization induced by slow growth. More credit would reduce financial costs. More rapid growth would allow economies of scale to be fully reaped and unit costs reduced. Price controls which had been non-compulsory under Campos-Bulhões became compulsory and had an important role in the process of slowly reducing inflation.

The relatively modest growth of GDP of 4.2% in 1967 still reflected the squeeze on credit imposed towards the end of 1966 as industrial output increased only 2.2%. About 50% of the public deficit was still financed by the monetary authorities but towards the end of the year the new policies started to be effective. Real credit which had increased 8-10% yearly in 1965-1966 expanded 40.4% in 1967. Between 1967 and 1973 total real credit increased at 31.9% yearly while the share of credit advanced by the monetary sector in total credit shrank from 74.3% to half of total credit.

Although real interest rates were generally positive, the government induced the concentration of credit in agriculture and export activities through direct interest rate controls and differentiated rules on compulsory deposits in the Central Bank . In addition, credit to such sectors or activities was advanced by official banks. Negative real interest rates for agriculture credit were in the region of 6% yearly. The government also actively promoted banking mergers in an attempt to foster increased efficiency and reduced banking spreads. Efforts to enhance the role of stock exchanges in the process of raising long-term capital were marred by the burst of a speculative bubble in 1971 and the consequent loss of confidence by the public. Fiscal incentives to purchasers of stocks became an important element of government policy in a long-term bail-out operation which, once again, disguised a substantial transfer of resources from the public sector to the banking system.

Another indication of the changed stance on monetary policy was that the negative balance of the *conta de movimento* of the Bank of Brazil with the Central Bank increased from 5.7% of the monetary base in 1966 to 13.1% in 1967 and 21% in 1968. There was a large increase in the importance of the non-monetary financial system: BNDE, *Caixa Econômica Federal*, *Banco Nacional da Habitação*, financing societies. But the share of the Bank of Brazil in total loans fell from 25.3% in 1967 to 19% in 1973. While the ratio of monetary assets to GDP increased from 30% in the mid-1960's to 50% in the 1970's, the same ratio for non-monetary assets increased from 7% in 1967 to 25% in 1973. The increase in non-monetary financial assets resulted from the expansion in holdings of traditional instruments such as *letras de câmbio* and new ones such as savings accounts and government debt. These latter, which were negligible in 1964, corresponded in 1970 to 15% of the total financial assets and 17.7% in 1973 evenly divided between *Obrigações Reajustáveis do Tesouro Nacional*-ORTN (Readjustable National Treasury Obligations) and *Letras do Tesouro Nacional*-LTN (National Treasury Bills). These were the papers used to undertake open market operations. ORTNs were long-term paper with interest rates fixed *ex ante* but they exchanged hands together with a 30-day repurchase letter which made them liquid in the short-term. LTNs were short-term with *ex post* interest being paid.

A new tax on financial operations [*Imposto sobre Operações Financeiras*] was created by the 1967 Constitution which partly substituted the old stamp tax [*imposto de selo*]. The tax burden increased modestly to reach 24.7% of GDP on average in 1970-1973 (16.6% net of transfers and subsidies). Seignorage slowly declined and stayed a little above 2% of GDP in 1969-1973.

Revenue was eroded by tax expenditure and import duty draw back schemes as well as by less conventional fiscal instruments. There was widespread use of tax exemptions affecting mainly import duties and excise taxes. Specific industrial projects were selected for preferential treatment by a *Conselho de Investimento Industrial*-CDI (Industrial Development Council). A significant program of export promotion, *Comissão para Concessão de Benefícios Fiscais e Programas Especiais de Exportação*-BEFIEX [Special Program of Fiscal Incentives for Exports], was created in 1972, based on the concession of import tax rebates depending on export-performance. Income tax rebates were directed to a number of regional and sectoral programmes. The list increased rapidly: SUDAM (for the Amazon region), SUDENE (Northeast), *Instituto Brasileiro de Desenvolvimento Florestal* (IBDF) (reforestation), SUDEPE (fisheries), EMBRATUR (tourism), the state of Espírito Santo, *Banco do Nordeste do Brasil* [Northeast of Brazil Bank], *Banco da Amazonia*, *Programa de Integração Nacional* [National Integration

Programme], PROTERRA [land distribution], EMBRAER (aeronautical industry), stock funds, MOBRAL (adult education). So many priorities means, of course, no real priority. The economic return of such a diversion of public funds was to a large extent negligible.

Deficit reduction resulted from further cuts in current expenditure at all levels of government. Expenses with the payroll of Federal civil servants fell from 32% of total expenditures in 1963-1964 to 24.6% in 1966 and 18% in the early 1970's. Transfers to public-owned transport operators were roughly halved as a share of total expenditure between 1963-1964 and the early 1970's. The share of states and municipalities in the main Federal taxes was reduced from 20% to 10% in the end of 1968 and a special fund of 2% of such revenues to cope with the demands of the poorest states and municipalities was created. After 1968 the decreasing deficit was totally financed by public debt paper. Public sector net savings more than covered gross public sector investment. But these favourable developments must be qualified by the growing importance of the Bank of Brazil debt with the Central Bank registered in the *conta de movimento*.

The favourable balance of payments results and the fast expansion of credit targeted to exports and the agricultural sector led to an expansion of the monetary base. To the traditional instruments of monetary policy such as administration of compulsory reserve requirements and rediscount were now added open market operations. The rate of inflation fell slowly and irregularly until 1973 with increases in 1971 and 1973. Official statistics indicated an yearly inflation rate around 15% in 1973 in spite of stagnation in agriculture, but there were indications that official rather than actual prices had been used to compute the indices. In 1974 new estimates of the cost of living index in Rio de Janeiro indicated an increase of 26.6% rather than of 13.7%, as originally claimed. So the government did not fulfil its inflationary target of 10% by the end of the Médici term of office (1969-1974), but with all the targets concerning economic growth so comfortably beaten it would perhaps seem ungenerous to unduly stress this shortcoming if it was not for the attempt to fiddle with the price indices.

By the end of 1968 the government extended indexation to the foreign exchange rate by adopting a crawling peg policy: the administered exchange rate was to be adjusted frequently to reflect domestic inflation in relation to inflation abroad and the government would try to maintain a relative stability of the real exchange rate. The average nominal devaluation until 1973 was of less than 2% each one or two months. But the real appreciation of about 15% which had accumulated since 1965 was not reversed until 1973-1974. Given the multiplicity of export and import subsidies it is important to qualify any assessment of the advantages of an unified exchange rate compared to a system of multiple exchange rates. In fact the *de facto* multiple exchange rate system which took root in the late 1960's would seem to be as discretionary as, say, the *de jure* 1953-1957 multiple exchange rate regime.

A change of regime involving foreign economic policy can be detected in 1967-1968 as the emphasis on export promotion which had started in 1965 was stressed. By mid-1968 exports were offered more than the conventional stimuli of Federal indirect tax rebates, of many state tax rebates, of input import duty reduction related to drawback schemes and also an income tax rebate scheme which was GATT-illegal . An additional GATT-illegal system of tax subsidies was introduced based on export performance: exporters would qualify for tax rebates on their non-export business. In the early 1970's subsidies to exports of manufactures were in the region of 20-25% of their value. Subsidies related to the export promotion regime tended to match the effects of the relative overvaluation of the domestic currency implicit in the foreign exchange policy since 1968. But the distortions involved by discretionary sectoral distribution were severe as sectors which were privileged by the system were exactly those with less export potential.

The value of exports increased 3.3 fold in 1968-1973, at an yearly rate of 26.9%. Export volumes increased at 13.3% yearly, considerably above the 9.4% yearly expansion of world imports. The Brazilian share of world exports increased from 0.87% to 1.18%, reversing the declining trend since the early 1950's. The distribution of market shares changed significantly during the second half of the 1960's. By 1973, the US market, which had absorbed half Brazilian exports in the early 1950s, had shrunk to under 20% of Brazilian total exports, whereas the share of exports to Europe of the 12 increased roughly from 30% to 40%. The share of exports to non-US and non-European destinations also increased: those to Japan almost trebled to 6.9% and to Latin America increased from 7% to 11%.

Exports of manufactures narrowly defined (NBM 5-8) increased to 6.2% of total exports on average in 1965-1966 and in a broader definition this share was 10.8% in 1968 and increased very rapidly to reach 23% in 1973. If semi-manufactured exports are included the total rises to 32.4% in this latter year. The aggregate manufactured export ratio in relation to total output increased from 2.6% in 1967 to 6.9% in 1974. Such ratios in the mid-1970's typically exceeded 10% for leather products and 20% for food products. In the early 1970's developing country markets, and especially Latin America, were already very important for exports of transport equipment and capital goods, while developed economies absorbed most of the food, textile and footwear exports. Exports of soya and soya products became increasingly important. By 1973 they reached 15% of total exports compared to 2.4% in 1967. The share of coffee exports which in 1967 was still 42.6% fell to 20.1% in 1973. In the late 1960's, in contrast with the 1964-1967 period, the good performance of Brazilian exports tended to be explained relatively more by the growth of world demand than by increased competitiveness of Brazilian goods. For manufactures, however, increased competitiveness, including export incentives, tended to be more important. The share of foreign-controlled firms in the exports of manufactures rose from a third to a half.

There was an increased current account deficit in 1968 as the significant trade surplus which had occurred in 1964-1967 was practically wiped out with the recovery of imports. In the end of the year there was a partial reversal of the 1967 trade liberalization with an upward revision of import tariffs. Products formerly included in the special category had tariffs increased by 100 percentage points. There was an increase in the level of minimum prices used for customs valuation purposes. The average tariff on manufactured products was increased to 66% compared to 48% in April 1967. Since there was redundancy in the tariff these numbers tend to exaggerate the increase in protection. Discretionary duty exemptions or reductions were, however, common, as part of projects approved by CDI or BEFIEX. Effective protection measures corrected for foreign exchange distortions suggest levels of 45-47% both in 1967 and in 1973. Given the widespread exemptions, however, the ratio between import duties actually collected and the value of imports decreased from 13% in 1969 to less than 8% in 1974. Imports grew faster than exports after 1969 and there were trade deficits in 1971 and 1972 of 11.7% and 8.2% of import values respectively. Import volumes between 1968 and 1972 increased more than 20% every year with the exception of 1969. There was negative import substitution as manufactured import ratios in total supply increased. The aggregate ratio of imports in total supply increased from 7.1% in 1967 to 11.9% in 1974. It exceeded 10% for metallurgy and paper, 20% for chemicals and electrical equipment, and 30% for machinery. Oil imports increased substantially as domestic oil production practically stagnated from 1967-1968 to 1972-1973. It is difficult to characterize an unqualified opening up of the economy after 1967. Increased outwardness may be detected in the treatment of foreign investment and the export promotion. But the latter was based on discretionary and non-transparent decisions. And, most important of all, the level of protection of the domestic market remained relatively high.

The flows of private capital took a long time to recover. There was a lag between the measures which created an improved environment for the operation of foreign capital and a recovery in the flows of direct investment which increased significantly only after 1969 attracted by the industrial boom. The stock of foreign direct investment increased according to Central Bank data from US$ 1.6 billion to US$ 4.6 billion between 1967 and 1973. These are most probably substantial underestimates of actual stocks. Almost 80% of the stock in 1973 was in manufacturing industry. The main foreign investors were from the United States (37.5%), Germany (11.4%), Canada (7.9%), Switzerland (7.8%), United Kingdom (7.1%), Japan (7%) and France (4.5%). There was an increased number of joint ventures as it became government policy to foster the so called tripod model of co-operation between state-owned enterprises, Brazilian private capital and foreign firms. The systems of export and import subsidies coupled with the persistently high levels of protection against imports explain the attraction of the Brazilian market. It also explains the continuously important role of multinational firms in the lobby against trade liberalization.

There was a significant increase in the net debt from US$ 3.2 billion at the end of 1966 to US$ 6.2 billion at the end of 1973. As exports increased rapidly the net debt-export ratio fell rapidly from 2.45 to 1.0 but the foreign debt service continued to be excessively concentrated in the mid-term. The debt service-export ratio reached almost 40% in 1972 and about 35% in 1973. Successive surpluses in the balance of payments led to the accumulation of reserves which reached US$ 6.4 billion in 1973, equivalent to about a year of imports. In 1967 they had stood at US 421 million, roughly four months of (very low) imports. The net resource gap, the difference between domestic expenditure and output, was not large: 0.8% of GDP in 1967-1973 and 1.2% in 1970-1973. There several alternative instruments to raise finance abroad. Firms could obtain loans directly from banks or suppliers abroad. Banks in Brazil could also after 1967 (Central Bank Resolution 63) borrow in the long term in the international market and place shorter term loans in Brazil. Instruction 289, discontinued in 1972, was mainly used to raise short term capital. The share of private banks in total foreign debt in 1973 was around two thirds. The share of credits from official agencies in the total debt decreased rapidly from around one third of total foreign debt in 1967 to a fifth in 1973.

After 1967 it became increasingly clear that strategy was drawing away from the 1964-1967 already incomplete and faltering liberal paradigm. The government failed to address in a sustained fashion the problems raised by the traditional wholesale adoption of discretionary economic measures. There was a revamping of the policy instruments but no sustained effort to change the rent-seeking tradition in an essential way. There was no abandonment of the pick the winner policies which had marked the past but rather the belief by new policy-makers that they were better at the game of picking winners than their predecessors. These beliefs proved to be groundless. Government policy was increasingly to depend on the dissemination of systems of incentive based on the use of discretionary instruments which favoured specific sectors or projects in detriment of others. These, in spite of the occasional, but increasingly rare, lip-service to the virtues of the market, cannot be seen as more than a refurbished system of organized rent-extraction to systematically benefit sectors selected on the basis of their political leverage. By 1967 government planning efforts were still stressing the weaknesses of the private sector and blaming it on the 'excessive pressure'exerted by the public sector. By 1970 it had become explicit government policy that economic development depended on a close alliance between government and the private sector and this trend was deemed by the government to be in tune with dominant international trends as shown by the growing influence of government in some of the developed economies through the expansion of public investment and of the scope of regulatory activities.

Available data make it rather difficult to show unambiguously an increase in the public sector and the consequent crowding out of the private sector, even if public investment in all levels of government corresponded to more than half of gross total investment. State-owned enterprises were able to finance out of their revenues more than 50% of their investment needs. The increased influence of the state, however, is much underestimated by judgements based on data on the share of the state. The 'tripod model', joint ventures between public enterprises and private firms, foreign and domestic, became the rule in the expansion of targeted sectors such as petrochemicals. Public ownership was the rule in the modernization of the infrastructure. Perhaps the most successful effort was the expansion of telecommunications networks under the umbrella of the holding *Telecomunicações Brasileiras S.A*-Telebrás [Brazilian Telecommunications]. But one should beware of unqualified assertions. Belief in the virtues of state intervention led to extremely awkward institutional arrangements not the least because of the unwarranted scope for military influence both in the direct administration and in state-owned enterprises. The distortions caused by such trends can be perhaps exemplified by the institutions related to air transportation as the Air Ministry maintained a firm grip on all segments of the industry, including airports, civilian traffic control and regulation of civilian air transportation services. The intelligence services, which played a prominent role in political repression, especially after the 1968 coup within the coup, had a very close link with the agencies in charge of telecommunications services and much influence in decisions related to attempts to create industrial capability to substitute imports of equipment.

Increased centralization of the decision-making process made the new system particularly vulnerable as no effective checks and balances mechanisms were in place. Projects which proved to be blunders started to become numerous and substantial: the Trans-Amazon highway, many of the regional or regional integration programs, land and colonization policies. Political decisions which would ripen into new even bigger failures further ahead, such as the nuclear programme, were taken during these years. It does not improve these failures the fact that they would be dwarfed by those in the second half of the 1970's and the appalling 1980's.

The growth record until 1973, after an initial difficult year in 1967, was spectacular. GDP increased on average 11.2% yearly in 1968-1973 led by industrial growth at 13.3% yearly. Even agricultural output increased at 4.5% yearly. While much of this acceleration was made initially possible by the use of idle capacity there was a significant increase in gross investment as a share of GDP. This had been 16.2% in 1967 but increased to 20.4% in 1973. The limited data available on the infrastructure show some, but not spectacular, improvement period concerning telephones and roads. But the paved road network and the electricity generating capacity were roughly doubled during these years.

With GDP growing at 14% in 1973, after six years of growth above 9% yearly, and import volumes growing more than 35%, there were clear signs that the economy was overheating in tune with the world economy. Import prices increased by 21.7% already in 1973 but this was exceeded by export prices which increased more than 35%.

The share of industry in GDP which in 1967 was similar to that of 1960 started to increase again to reach almost 40% in 1973. In spite of the concentration of resources in agriculture its share of GDP was only maintained at about 12% in 1973. Industrial output growth of 14.7% yearly in 1968-1973 was led by consumer durable (23.8% yearly) and capital goods (20.5%) production. The production of intermediate products and non-durable consumer goods increased at yearly rates of 15.3% and 11.9% respectively. State enterprises increased their dominance in their traditional sectors such as steel and oil refining and had an important role in the new investments in the petrochemical industry. The share of domestic firms in total assets in manufacturing industry increased from 53% to 58% in the 1966-1972 period. But this was due to the share of state-controlled firms increasing from 17% to 30% of such assets. Consumer durables, whose sales were mainly financed by the fast expansion of consumer credit, led the boom. Success in these years contradicted interpretations which had stressed the difficulties posed by the inconsistencies between the structure of supply and the restraints on demand created by the income concentration process.

There was a marked change in the structure of agricultural output with the increased importance of soya products and orange juice and a consequent reduction of the relative importance of some of the traditional commodities such as coffee and also of crops for domestic consumption such as beans. Soya beans production increased seven fold between 1967 and 1973 to reach 5 million tons. There was a great increase in mechanization and also in the use of fertilizers. Production of heavy wheel tractors increased 9-fold and apparent consumption of fertilizers 3-fold between 1967 and 1973. One of the most important examples of successful public policies was the development by *Empresa Brasileira de Pesquisa Agropecuária-Embrapa* [Brazilian Agricultural and Livestock Research Enterprise] of many seed variants adapted to Brazilian conditions. Much of the increased agricultural output was in the *cerrado*, mainly in Minas Gerais and Goiás, whose excessive soil acidity had until then prevented agricultural exploitation. Soil correction effectively opened these regions as part of the agricultural frontier in the 1970's. An important consequence of the soya revolution was the development of a significant poultry industry whose products would be increasingly exported. The fall in the relative prices of products in the poultry chain made possible the diffusion of their consumption amongst the poor segments of the population with consequent improvement of their diet. This partially compensated for the effects of the wage squeeze until 1967 and the persistently low level of earnings of the very poor.

In 1968 the framework introduced by Campos-Bulhões to compute wage adjustments was changed: underestimation of the ‘inflationary residual’ would be corrected for the 12 months before the wage settlement so that the wage squeeze due to recurrent overestimation of the rate of reduction of inflation would be corrected. Evidence on real wages suggests that real wages in 1974 were at the same level of 1964 for most unskilled occupations. Real wage increases had tended to benefit skilled workers and, most of all, those occupying managerial positions. In 1970 a Programa de Integração Social was created, trying to meet the constitutional requirement concerning the participation of the labour force in profit sharing. Yearly interest could be withdrawn but the principal was subject to rules similar to those of the FGTS.

There was an acute awareness on the part of policy-makers of the advantages of a high growth performance. It made possible progress by all sectors of activity and all the population in spite of the unequal performance of specific sectors of the economy or the impact of growth on different segments of the society. This is exemplified by what happened to income distribution. Much of the contemporary criticism of government policies concentrated on income distribution and on the acknowledged government strategy of ‘making the cake increase before sharing it’. Most of the so-called income distribution debate in fact hinged on different ways to look at the empirical evidence rather than on conflicting evidence. Pro-government analysts tended to stress that the incomes of all deciles of the income distribution had increased from 1960 and 1970, especially the miserable or the very poor, in the two lowest deciles, and the upper layers of the middle class and the rich, in the three upper deciles of the distribution. There was no controversy about the fact that the measures of income concentration deteriorated during the 1960’s and the early 1970’s and this was stressed by those who opposed the military regime. The share of the 5% richest in total income increased from 28.3% in 1960 to 34.1% in 1970 and 39.8% in 1972 while the share of the poorest 50% went down from 17.4% to 14.9% and 11.3%.

On the other hand, the record on job creation was rather good as employment between 1968 and 1973 increased at 4.3%, much above the increase in population over

15 years of age of 3.0%. The evolution of social indicators in the 1960's, however, is the worst on record: infant mortality remained practically at the same level in 1970 as it was in 1960: 116.9 compared to 118.1 per thousand live births. The indicators in fact worsened for most of the richer states. The share of the population covered by the public social security system increased rapidly: it was 7.4% of total population in 1963, reached 9.6% in 1970 and continued to rise rapidly. From the early 1970's social security and public medical assistance were extended to the rural population through Funrural.

The aggregate literacy rate improved by 15.2% of its gap to reach 66.6% (64.4% for women) in 1970. Literacy rates for women continued to improve faster than those for men. Mean years of education in the 1960's improved slowly from 2.2 to 2.8 years in 1970 compared to 6.2 years for Argentina and 3.6 in Bolivia. There was an attempt to target illiteracy through a specific programme administered by *Movimento Brasileiro de Alfabetização-Mobral* [Brazilian Movement against Illiteracy] to cope with adult illiteracy but only with moderate success. There was an explosion in higher education as the number of students increased in 1968-1974 from 278,000 to 897,000. Much of this expansion, however, was concentrated in private universities and of quite low quality.

Under Costa e Silva (1967-1969) the main instrument to promote regional development continued to be fiscal incentives targeted to the Northeast. The industrialization promoted in the Northeast was not able to create a large number of industrial jobs as had also occurred in the industrial boom of the 1950's in the Southeast. After 1969, and especially after the 1970 drought, regional development strategy was increasingly based in the attraction of surplus population in the Northeast to the Amazon region. A *Programa de Integração Nacional-PIN* (National Integration Programme) was launched to assure that investments were channeled for irrigation projects and for export corridors in the Northeast as well as for new roads in the Amazon region, including the TransAmazon highway. The failure of such efforts spoiled an otherwise good record concerning infrastructural projects.

4.3 Oil shocks, adjustment and stagnation: 1974-1980

The destabilizing consequences of the overheating of 1973 were compounded by the balance of payments 'shock' of 1974 as the price of oil increased four-fold and Brazil produced only 20% of its oil consumption. Petrobrás, the state-owned oil monopoly, in the late 1960's and early 1970's adopted a policy of increasing its share in the distribution segment of the market for fuel products and was involved in the establishment of a number of new projects based on the 'tripod'strategy of co-operation between the state, national private firms and foreign capital. This strategy was based on geological evidence that the discovery of significant inland oil fields was unlikely. In spite of much politically-based controversy since the late 1950's on the accuracy of such predictions and unwarranted aspersions on the neutrality of foreign geological expert advice this proved to be correct. To increase domestic oil production would turn out to be a slow process and all new output would come from deep sea exploration made economically feasible by increased oil prices.

It is easy to exaggerate the importance of the balance of the balance of payments difficulties. Import dollar prices increased by 50.5% in 1974 but dollar export prices increased 25.3% so terms of trade deteriorated by 16.7%. But terms of trade had improved significantly in 1973, so that in relation to 1972 the fall was of 7.5%. There was a further small fall in 1975 but a sharp increase in 1976 brought them slightly above the 1972 level. Sharp ups and downs in 1976-1977 left them only 2.5% below the 1972 mark. Perhaps more damaging than the fall in terms of trade was the relatively laggard behaviour of export volume. It increased 6% yearly between 1973 and 1979, only slightly above the expansion of world imports at 5% yearly. The value of exports increased 16.2% yearly in this period but prices increased almost 10% yearly. In 1980, however, there was a spike in the value of exports whose growth of 32.1% reflected mostly an increase of export volume as prices rose only 5.9%. Export volume stagnated in three years (1974, 1976 and 1977) of President Geisel's five-year term of office which had started in March 1974 and the ratio of exports to GDP, which had increased slowly from 6.9% in 1965 to 7.5-7.6% in 1973-1974, stagnated around 6.7-7.4% until 1980. By 1979, Brazil's share of world exports had declined to 1% and it recovered only slightly to

1.07% in 1980. The share of manufactured exports in total exports rose from 23.1% to 44-45% in 1979-1980. Industrialized products exports rose from 32.4% to 56% of the total and the ratio of manufactured exports to manufactured output increased by 2.2 percentage points to reach 9.1% in 1979. By 1979, the share of coffee in total exports had fallen to 27.2% including soluble coffee.

There was a substantial increase in the market share of exports to other Latin American economies from 9% to 16% between 1973 and the end of the 1970's mainly displacing European markets. The increase in the shares of the Middle East and Africa was modest. But for manufactured exports the shares for all destinations in developing economies and the Middle East increased considerably: in Latin America from 25 to 30% and in the Middle East and Africa almost doubling to reach 8% and 13%. In these latter cases this was to a large extent the result of countertrade deals involving the exchange of oil imports for manufactured exports. Increased market shares for manufactures were mainly at the expense of the US and Europe which both ended the decade purchasing 21-23% of Brazilian manufactured exports.

Export subsidies were increased from typically 20-25% of FOB value in 1969-1975 to 32.5% in 1976 and 34-38% in 1977-1979. Of these, BEFIEX export performance-based import duty exemptions rose to reach 5% of FOB value in 1979 and 8% in 1980. By 1980 BEFIEX exports accounted for a fifth of Brazilian total exports. In 1980, after Brazil signed the GATT Subsidies Code under considerable pressure by the United States, tax credits linked to export performance (*créditos prêmio*) started to be discontinued. Export taxes affected a growing number of products with the objective of either assuring a reduction in the volatility of domestic prices or stimulating the further processing of exports using, for instance, cotton, leather and soya beans as inputs.

Import repression was very substantial. In the five-year period ending in 1974 import volumes had increased on average 23.8% yearly. Import volumes stagnated in the next six years until 1980 in spite of GDP growth of 6.8% yearly: the implied reduction in the import-GDP ratio was of almost a third, reaching its pre-1972 level. The ratio between manufactured imports and total supply fell from 11.9% in 1974 to 6.8% at the end of the decade. Import to GDP ratio fell from 11,3% in 1974 to 6.6% in 1977-78 and again after a recovery in 1979.

The maximum tariff rate was raised by surcharges from 100% to 205% in 1974 and the list of products included in the surcharge list and tariffs on inputs were increased in 1975. In 1974 luxury goods imports had to be paid on sight and in 1975 6-month interest-free advance deposits had to be made when current inflation was in the region of 30% yearly. But import duty concessions continued to be significant. Imports by state-owned enterprises and under state monopoly such as wheat corresponded to 40% of total imports and were subject to annual ceilings and the Law of Similars was continuously applied to favour the purchase of goods produced domestically. Some luxury goods had their imports *de facto* prohibited in 1976 and the list was expanded in 1978. The effective rate of protection fell somewhat from 47% in 1973 to 43.6% in 1980-1981 but it increased for both capital and intermediate goods (rates of 59.6% and 42%, respectively). The ratio between import duties and the value of imports rose in the 1960's to reach a peak of 14.6% in 1966 then fell almost continuously to under 8% in the late 1970's.

Arguably, awareness that the economy was facing extremely serious balance of payments constraints spread only slowly. Simonsen, the new Finance Minister, initially proposed contractionist policies mainly because of the intensity of inflationary pressures and the loss of control over monetary policy. But the government was far from monolithic in relation to the emphasis on inflation control. There were clear inconsistencies between the objectives of economic policy and the explicit growth targets of 10% a year included in the *II Plano Nacional de Desenvolvimento* [National Development Plan]. The plan was marked by views which unduly reflected hopes that the recent period of spectacular growth could be extended. Unwarranted optimism was reflected in the often repeated and much derided dictum that Brazil was 'an island of prosperity' amidst world economic turmoil. Perhaps nobody expected that the tail would wag the dog but there was much optimism on the feasibility of continuing to wag the tail. Even discounting the more sanguine views on the priority of growth it is clear that the government had decided for a gradual adjustment to the shock. This was based on a shaky arithmetic of the foreign debt as it was supposed that dollar real interest rates would remain negative or low. That this assumption was not prudent would become bitterly clear towards the end of the decade.

Artificial price controls were removed in the beginning of 1974 and this led to an acceleration of monthly inflation to almost 4% in contrast with the average of less than 1.5% in the previous six years. Monetary correction criteria were made less dependent on discretionary decisions by its indexation to the wholesale prices index. Monetary policy in 1974 as a whole ended by being accommodating as high powered money was expanded 32.9%, in spite of the significant loss of reserves. Means of payments contraction says little about liquidity due to the sharp changes in the nature of money demand in the direction of indexed government paper. Monetary policy, given that interest rates were set by the government, depended on credit control. But the government traditionally had little control over Bank of Brazil credit policies. Bank of Brazil loans and Central Bank transfers in 1974 rose by above 75% and almost 90%, respectively. Real interest rates became negative as nominal rates were at the same level of 1972, while yearly inflation rose from 15% to 35%. After October 1974, additional inflationary pressures were to result from the new wage policy since, although it was still based on the principle of holding constant the average (12 month) real wage, there was a new provision on compensation for past underestimation of future inflation rates.

There was a sharp short-term fall in the level of industrial output . This led to an outcry by the ‘classes produtoras’, which, coupled with the good electoral performance of the opposition in the elections of November 1974, led to a reversal of the emphasis on the control of inflation through contractionist policies. In spite of the lack of monetary control in 1975 there was a monetary contraction in beginning of the year due to loss of reserves with the fall in the growth of exports and the public’s increased preference away from sight deposits. The government adopted a wavering policy as it initially tried to break the expectations of rising inflation, then ended up by losing nerve and bailing out financial institutions facing liquidity problems. Through a compensatory rediscount policy, the Central Bank would, depending on the extent of monetary contraction, lend to commercial banks at 6% a year and no monetary correction.

Given the government obvious political clout the fact that it caved in is a demonstration of a clearly asymmetric behaviour when dealing with real or alleged menaces to price stability depending whether they originated in the working class or among entrepreneurs. The government's parochial vision of the implications of the world recession is undeniable. The growth target of the Second National Development Plan (PND II) of 1974 of 10% yearly was only slowly and grudgingly admitted to lack in realism. The views of those who underlined the political advantages of a continued emphasis on growth prevailed over those advocating demand control. The rationalization of this choice by General Geisel more than twenty years after the events seems unconvincing: "Brazil [in contrast with the developed economies] could not stand a recession." Indeed, Brazil after 1980 was to "stand a recession" for more than fifteen years.

In spite of lip-service pointing out to a restrictive monetary policy there was in fact a monetary expansion in 1975 and restrictions were more of a fiscal nature. There was a sustained effort to increase the importance of income tax in tax revenue so that by the end of the decade it had become the most important form of taxation with a share of 40.2% compared to 30.4% for IPI (now computed on a value-added basis), 14.7% for the financial transactions tax and 10.9% for import duties. GDP growth decreased to 5.2% and export growth, mainly due to price effects, fell from almost 30% in 1974 to less than 10% in 1975. In 1976, with the persistence of high inflation there was a second, more successful attempt to stabilize, and once again the government promised monetary austerity. But once again there was a lack of coherence in economic policy. It is true that interest rates were finally freed from control and the government recovered some of the more traditional instruments to monetary policy and that there was some attempt to put Bank of Brazil credits under control but there was a significant real expansion of credit to the private sector. An unfavourable development was to try to interfere with inflation through contraction of public prices charged by the state-owned companies.

By early 1977 those government circles more committed to a growth strategy were in a rather self-congratulatory mood stressing that Brazil had avoided to main consequences of the world recession through an expansion of exports and self-sufficiency in basic inputs. Macroeconomic policies in the two last Geisel years were dominated by the attempt to reverse demand policy and repression of public prices. Real rates of interest became positive. The fall in the monetary base-GDP ratio was a consequence of financial innovation and acceleration of inflation as there was a progressive substitution of monetary base by public debt. The fall in the rate of inflation to slightly less than 40% was mainly due to a bumper crop which increased agricultural output by more than 12%. There was, however, a modest rise of the inflation rate in 1978, partly explained by a bad crop. This also adversely affected the trade balance as food imports rose.

After 1974 as a result of the government's strategy there was a rapid rise in foreign indebtedness with an increased share of public debt in total foreign debt. The rationale for increasing the debt was based on the explicit priority for high growth and on the ruling negative real interest rates given the accommodating macroeconomic policies adopted by the United States. There was a snowball effect: increasing interest payments rose from US$ 0.5 billion in 1974, to US$ 2.7 billion in 1978 and US$ 4.2 billion in 1979. There was a clear underestimation of debt requirements: in 1975 it was planned that foreign debt at the end of 1979 should be US$ 35 billion in contrast with the actual US$ 49 billion. Admittedly this included a year of post-second oil shock balance of payments, equivalent to US$ 6.4 billion of increased indebtedness in 1979. The share of foreign savings in total savings rose from 5-10% in the early 1970's to more than 20% in 1979-1980. Interest payments on the foreign debt soared from US$ 0.5 billion in 1974 to 02.7 billion in 1978.

Reversal of the trade imbalance following the oil shock which had reached US$ 4.7 billion in 1974 had been obtained in 1977. Increased indebtedness also allowed a rise in foreign reserves after an initial fall. In 1974-1975 reserves which were above US$ 6 billion in 1973 fell by almost US$ 2 billion. There was a modest increase in both 1976 and 1977 and a very big one, of more than US$ 4 billion, in 1978 to around US$ 12 billion when imports reached US$ 13.7 billion. Gross debt-export ratios rose from 2 in 1973 to 3.6 in 1978 but even then policy-makers are in the record as considering that the inheritance which was left was fair: a high level of foreign reserves, inflation around 40% a year and the economy growing at 6% a year.

The second significant external shock of the 1970's struck the economy in late 1978. Oil prices rose from US$ 12/barrel in late 1978 to US$30/barrel in early 1980. There was a sharp rise in international interest rates due to stringent macroeconomic policies in the US, in sharp contrast with the mid-1970's. Simonsen, the new Finance Minister, was concerned with the fiscal disequilibrium and advocated a policy of retrenchment. But in May 1979 agricultural minimum prices were increased in by 70% compared to the yearly rate of inflation of 40% in a demonstration of the political clout of Delfim Netto, who had returned to government as Minister of Agriculture. Delfim was an opponent of the emphasis on economic contraction on which was based Simonsen's strategy to face the second oil shock. Unable to win the political fight against Delfim and the other spending ministers Simonsen resigned in August 1979. Delfim's initial economic strategy was partly a repetition of the successful recipes of 1967-1973 based on the view which stressed cost pressures as an important explanation for high inflation. But it included a significant if rudimentary inertial element as there was an effort to reverse inflationary expectations by ending indexation and pre-fixing inflation and exchange rate adjustment for one year ahead. Massive agricultural inducements to agriculture would assure a super crop and a drop in the inflation rate after an initial increase. Maximum interest rate levels were set in an attempt to reduce financial costs and consequently inflationary pressures. In the end of 1979 there was a 'corrective' maxidevaluation of 30% of the cruzeiro to make sure that exports would expand adequately. A new wage policy was introduced in October 1979 including features such as the indexation for wages under three minimum wages based on inflation in the previous semester plus 10%. For wages between three and ten minimum wages indexation would be based on actual inflation but for wages above ten minimum wages a coefficient of reduction of 0.8 was to be applied at the margin. In 1980 the reducing ratios applied to higher wages were further lowered.

But the attempt to maintain expansionary policies failed to convince the markets. Foreign loans dried up during 1980 and foreign reserves fell heavily. Policies based on interest rate and foreign exchange pre-indexation had been abandoned towards the end of 1980. In the meantime inflation had accelerated to reach a plateau corresponding to a rate of around 100% yearly. From September 1980 economic strategy would change radically as the stress would shift to the control of domestic absorption mainly by means of restrictive monetary policies. Interest rates increased and the level of economic activity started to fall after GDP growth of more than 9% in 1980. The Brazilian economy entered into a long period marked by high inflation and stagnation.

GDP growth rates during the Geisel government were lower than those during the "miracle"years but still quite high. Investment to GDP ratios were maintained in the 23-27% of GDP range. Average yearly GDP growth between 1973 and 1980 was 7.1%. Both industrial and agricultural increased below the average at 6.8% and 4.8% a year respectively. Industrial employment which had increased at the extremely high rate of 9% a year during the boom of 1967-1973 still increased 4% yearly, marginally above the growth of the economically active population.

The strategy based on the concentration of investments in ISI projects producing industrial inputs and capital goods resulted in increased shares of the sectors such as metallurgy, mechanical engineering and electric equipment in total industrial output. The weight of government and state-owned enterprises investment in total investment increased from 32% in 1970-74 to 47.3% in 1975-80. New sector such as petrochemicals were targeted for expansion and there were significant investments in infrastructure. Of particular interest was the continued expansion of the telecommunications sector and the removal of long standing bottlenecks. Much effort and considerable resources were also spent in the development of scientific and technological capability with some success. Such achievements were highly praised by many analysts which seem, partly because of the benefits of hindsight, overenthusiastic. indeed, some of the more extreme analyses of the period emphasized the importance of extending the seven “miracle” years by another six years so that a long period of steady growth would create the “external economies” which would allow Brazil to enter into “the family of the developed economies”.

An intricate panoply of incentives was used to foster industrial development involving barriers to entry, high protection, fiscal rebates and heavily subsidized credit. There was a high degree of governmental intervention but not very good co-ordination: priorities were defined by government councils such as the *Conselho de Desenvolvimento Econômico* and the *Conselho de Desenvolvimento Industrial* helped by sectoral councils for steel, shipbuilding, telecommunications equipment and mining. Fiscal incentives were also granted by regional agencies such as *Sudene* (Northeast), *Sudam* (Amazon region) and *Suframa* (Manaus Free Zone).

The lavish use of official credit to finance industrial projects was mainly through BNDE, the national development bank.. A number of new agencies were created to play specialized roles in the administration of this elaborate pick-the-winner system: *Insumos Básicos SA-Fibase* [Basic Inputs], *Empresa Brasileira de Indústria Mecânica-Embramec* [Mechanical Industry Brazilian Enterprise], *Agência Especial de Financiamento Industrial-Finame* [Special Agency for Industrial Financing], *Investimentos Brasileiros SA-Ibrasa* [Brazilian Investments]. The gift element entailed by such official loans became very substantial in the long term as after 1974 monetary correction was capped at 20% a year and inflation accelerated: for these contracts the average gift element up to 1987 had been no less than 75% of total disbursements.

Other agencies played important roles in this extended web for the distribution of incentives. The *Conselho de Política Aduaneira-CPA*, was in charge of establishing the level of tariffs and non-tariff barriers affecting imports. The *Carteira de Comércio Exterior-Cacex* [Foreign Trade Department] was in charge of the implementation of import controls and of decisions on “national similarity” which if recognized could mean absolute protection for the domestic producer. The *Conselho Interministerial de Preços-CIP* [Interministerial Price Council] had a decisive role in matters related to price control.

The *Brasil Grande* strategy included a not insignificant number of bad projects some of which were grotesquely overambitious. These included such notorious white elephants as the *Ferrovia do Aço* and the *Açominas* steel mill. But it is the nuclear programme which must be treated as a paradigm of the overextension of this strategy at the project level. The programme was initially rationalized by the advantages of creating a political alternative to the up to then close relation with the US in a moment the U.S. government was taking awkward stances concerning the bad Brazilian government record in relation to human rights. According to the agreement 8 nuclear power plants were to be installed with a total capacity of 10000 MW and Germany would transfer the technology required for uranium enrichment. The beginning of operation of the first 1300 MW nuclear-powered power station planned under the agreement would be almost exactly a quarter of a century after the signature of the nuclear agreement with the Federal Republic of Germany. In the meantime at least US$ 7.5 billion had been spent, at least three times the initial budget. Completion a second power station is said to depend on expenditure of a further US$ 3 billion. It was never recognized that Brazil faced a fuel crisis rather than an energy crisis and that the substitution of oil by electricity was bound to be slow even if the right policies were adopted. Indeed, energy policy as a whole proved to be one of the most incompetent aspects of policy-making between 1973 and the second oil shock. Subsidized consumption of fuel oil at the end of the period was 3.6% higher than in the beginning; diesel consumption was more than 14% higher. Domestic oil production remained stagnant as it took time to develop off-shore production. Efforts to enhance energy conservation and the development of alternative sources of energy were feeble. In 1978 the government decided to buy the Brazilian Light and Power group which had been operating in Brazil since the beginning of the century thus ending a long period of involvement of direct foreign investment in the provision of public services.

Given the sharp contraction in the import content of GDP import substitution had again some importance as a source of growth of output, especially for capital and intermediate products. Its importance was negligible for consumer goods and demand expansion answered for all categories of use for at least 75% of growth. For the first time export expansion "explained" around 10% of growth in the output of capital and intermediate goods. But as the non-oil import-GDP ratio reached once again levels below 5% towards the end of the decade the importance of import substitution as a source of growth was nearly exhausted. The deepening of ISI had high costs in terms of growth as the share of capital goods imports in total expenditures on machinery and equipment fell. Investment costs rose as protection of the domestic production of capital goods increased and consequently the price of capital goods. There is also evidence of increasing construction costs. This was compounded by the gap between the quality of domestically-produced capital goods and of imports as they were less likely to reflect state of the art technology even if considered to be for most purposes equivalent to imported substitutes.

In spite of the rather unsatisfactory levels of social indicators in 1980, the performance in reducing shortcomings in the 1970's was much better than in the 1960's and even than in the 1950's. The literacy rate gap was reduced by 23.7% and the infant mortality gap by 27.1%. By 1980, the overall literacy rate had increased to 74.5% (73.5% for women) and the national infant mortality rate reduced to 87.9 per thousand live births (extreme values of 151.3 in Paraíba and 48.5 in Rio Grande do Sul). In practically all regions infant mortality rates were higher in urban areas than in rural areas. Income inequality continued to increase. The share of the two lowest deciles of the distribution remained constant at 3.21% of total income between 1970 and 1980. But the share of the highest decile increased from 46.47% to 47.89%. In 1980 the three upper deciles received no less than 73.13% of total income. There was a sharp expansion in the share of population covered by the public social security. The share of covered urban population which had doubled in the 1960's doubled again in the 1970's and the number of pensions paid doubled during the Geisel government.

Literacy rates for those 10 years of age and more increased in the 1970's from 66.6% to 74.5% and the pace of improvement accelerated in relation to the previous decade. Progress in education was slow. In the 1970's the rate of improvement to cover the gap in relation to the benchmark of 12 years of educational stock more than doubled but the level of 3.6 mean years for all levels of education in 1980 was very low even if compared to poorer countries such as Bolivia (5.1 mean years). Bolivia's performance in covering the gap in the 1970's was also significantly better than that of Brazil for the same period. The expansion of the stock of human capital continued to be much slower for primary education than for secondary education and still more so in relation to tertiary education. But most of the expansion in university education continued to be the private sector and low quality.

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Much was achieved between 1964 and 1967 in terms of structural reform. Many institutional arrangements were overhauled and reforms removed important obstacles to growth. Even if the distributive impact of macroeconomic policies was perverse stabilization goals were pursued with determination and considerably more flexibility than allowed by criticisms at the time. But high rates of output growth obtained in Brazil for a relatively extended period after 1967 did not provide the correct incentives for any major reassessment of the economic strategy or a deepening of the 1964-1967 reforms. It was as if a high growth steady state path had somehow been attained. It is impossible to detect any sustained effort to put in place a system of incentives which was not based on *ad hoc* decisions. In this sense the "miracle" years were a continuation rather than a marked break with the rent-seeking traditions of the past. Post-1967 pseudo modernization perpetuated in modified formats many of the distortions of the pre-1964 regime. With the benefit of hindsight, failure was especially costly in the long-term, due to the lack of commitment to a fast improvement of educational standards, the persistent use of discretionary policies and the consequent lack of a reform of the State geared to a less centralized decision-making process, and the failure to create an entrepreneurial tradition less closely related to the extraction of favours from the State.

The role of the State remained crucial: a highly restrictive normative framework remained in place and the supply of goods and services by state-controlled concerns continued to be the rule. Private investment to a large extent was directed by the liberal use of ad hoc incentives. New rent-seeking instruments became important: mainly heavily subsidized credit and fiscal rebates and credits. The acceleration of inflation increased the scope for the introduction of pick-the-winner policies in relation to monetary correction.

Aversion to incur the political costs of facing the consequences of corrective policies was the main mark of the decision-making process, especially towards the end of the period. The military regime especially after 1967 has shown a clear lack of stomach to counter the wishes of the "classes produtoras", in sharp contrast with the brutal handling of the labour unions and the political opposition to the regime. This explains why a serious stabilization effort after 1973 was postponed and why when it was finally implemented it was only in a half-hearted way. A mixture of lack of political courage, complacency with vested interests favouring expansion at "whatever cost" and wrong judgement on the continued use of strategies which had worked well in the past were also to explain the short expansionary experiment after August 1979. The least resistance scenario dominated the scene. This also explains the reluctance to introduce adequate sectoral policies as illustrated by energy policies which resulted in an increased consumption of most oil products per unit of GDP. It culminated in the nuclear blunder.

There was no laissez faire strain to speak of after 1967. The Brazilian economy remained to a large extent insulated from the world economy from the point of view of competition of imports with domestic production. Vested interests favouring protection were powerful. Multinational firms were strong defenders of high protection given the high profits which could be generated by their Brazilian operations protected by a high tariff wall. The autarkic illusion increased the cost of investment and reduced the competitiveness of Brazilian goods. The crisis of the strategy based on inward-looking policies and state intervention which became obvious in the early 1980's was to a large extent the crisis of a strategy which took shape in the 1930's and 1940's. Rent-seeking activities which had been growth-enhancing become growth-hindering. The reversal of economic strategy was delayed by the mistaken belief that high growth necessarily required the standard interventionist policies which had worked so well in the past. But the inertia generated by the political economy of vested interests also was to constrain reform to proceed at a very slow pace.

In spite of improvement in relation to the extremely poor performance in the 1960's social policies failed to reverse the trends towards a still more unequal income distribution and social indicators remained below the standards reached by countries with a similar GDP per capita level. Similarly, improvement in improving educational standards while faster than in the past were in fact slow if the gap in relation to international standards is taken as a measuring rod.

5. Bibliographical essay

This essay on sources builds up on the bibliographical essays on the Brazilian economy included in volume XI: Brazil: Economy, c.1870-1930 (28) and on Brazil, 1930-c.1990 (43). It is divided in four parts: the first includes references to general works' and the three following cover the 1928-1945, 1945-1964 and 1964-1980 subperiods. A chapter on the 1980-1994 period will also include a bibliographical essay.

5.1 General

Marcelo de Paiva Abreu (ed.), *A Ordem do Progresso: Cem anos de política econômica republicana* (Rio de Janeiro, 1990) has become a standard source on Brazilian Republican economic history until 1989 with special emphasis on economic policy. Other general works include Werner Baer, *The Brazilian Economy. Growth and Development*, 4th edition, Westport, Praeger, 1995, Donald E. Syvrud, *Foundations of Brazilian Economic Growth* (Stanford, Cal., 1974) and Luiz Carlos Bresser Pereira, *Development and Crisis in Brazil, 1930-1983* (Boulder, Colo., 1984). Raymond W. Goldsmith, *Brasil, 1850-1984: Desenvolvimento financeiro sob um século de inflação* (São Paulo, 1986) is marred by some daring use of data. For instance, its use of foreign trade data denominated in domestic currency in the 1950's leads to the wrong conclusion that Brazil had trade deficits for most of the period when exactly the opposite was the case. For an analysis of Brazilian long-term growth see Albert Fishlow, 'Brazilian Development in Long Term Perspective', *American Economic Review* 70(2), 1980.

Israel Beloch and Alzira Alves de Abreu (eds.), *Dicionário histórico-bibliográfico brasileiro, 1930-1983*, 4 vols. (Rio de Janeiro, 1984) is extremely useful as a source of information on institutions and policy-makers. Some of the subject entries are also of interest. T. Skidmore, *Politics in Brazil, 1930-1964. An Experiment in Democracy*, (London, 1967) and *The Politics of Military Rule in Brazil, 1964-1985* (New York, 1988) are books mainly on Brazilian politics with factual asides on economic issues.

Economic data for this period as a whole are to be found in Brasil. Secretaria de Planejamento e Coordenação da Presidência da República. Fundação Instituto Brasileiro de Geografia e Estatística, *Estatísticas Históricas do Brasil. Séries Econômicas, Demográficas e Sociais de 1550 a 1988*, second edition (Rio de Janeiro, 1990). It should complemented by *Anuário Estatístico do Brasil*, whose yearly publication was re-started in 1936 and by *Brasil em Números*, an irregular publication also by Instituto Brasileiro de Geografia e Estatística. The series of presidential *Mensagem* is of variable quality and especially important during the Third Republic. In odd years such as 1949, Ministério da Fazenda, *Relatório* (Rio de Janeiro, 1951) is an extremely useful source. Additional historical series can be found in Marcelo Abreu and Dorte Verner, *Long-term Brazilian economic growth. 1930-1994* (Paris, 1997).

5.2 1928-1945

The benchmark treatment of the period is Celso Furtado, *Formação Econômica do Brasil* (Rio de Janeiro, 1959); Eng. trans. *The Economic Growth of Brazil* (Berkeley, 1963), a permanent source of hypotheses to be tested. A source which provides more detailed information is Annibal Villela and Wilson Suzigan, *Política do governo e crescimento da economia brasileira, 1889-1945* (Rio de Janeiro, 1973), Eng. trans. *Government Policy and Economic Growth in Brazil, 1889-1945* (Rio de Janeiro, 1977). A more recent and comprehensive treatment can be found in Marcelo de Paiva Abreu, 'Crise, crescimento e modernização autoritária: 1930-1945' in Marcelo de Paiva Abreu (ed.), *A Ordem do Progresso: Cem anos de política econômica republicana* (Rio de Janeiro, 1990).

The speeches by Vargas between 1930 and 1945 are included in *A Nova Política do Brasil*, 11 vols. (Rio de Janeiro, 1938-45). His diaries (Rio de Janeiro, 1995) are rather disappointing. There is some interest in Stanley Hilton, *Oswaldo Aranha: uma biografia* (Rio de Janeiro, 1994). Some of the books by Hélio Silva in the series Ciclo de Vargas include interesting primary materials on economic issues. The same applies to Edgar Carone, *A Segunda República* (1930-1937) (São Paulo, 1974) and the unfortunately titled *A Terceira República (1937-1945)* (São Paulo, 1976).

On coffee, the outstanding source for the 1930's is John Wilkinson Foster Rowe, *Special Memorandum no. 35. Studies in the Artificial Control of Raw Materials. Brazilian Coffee*, London and Cambridge Economic Service, London, 1932. Antônio Delfim Netto, *O problema do café no Brasil*, São Paulo, 1959 is still valuable and Edmar Bacha, 'Política Brasileira do Café: uma Avaliação Centenária' in Edmar Bacha and Robert Greenhill, *150 anos de café: Marcellino Martins & E. Johnston* (Rio de Janeiro, [1992?]), includes useful additional material. Carlos Manuel Peláez, 'O Acordo Interamericano do Café e o café brasileiro durante a II Guerra Mundial' and 'Análise econômica do programa brasileiro de sustentação do café, 1906-1945: teoria, política e medição', both in Carlos Manuel Peláez (ed.), *Ensaios sobre café e desenvolvimento econômico* (Rio de Janeiro, 1973), are good sources for details on coffee policies. See Eugênio Gudin, *Câmbio e café*. (Rio de Janeiro, 1933) and John H. Williams, 'American foreign exchange problems in Brazil, Argentine, Chile and Uruguay, 1934', reprinted in *Foreign Relations of the United States 1934. The American Republics vol. IV* (Washington D.C., 1951), pp. 390-422, for interesting comments on the links between coffee prices and foreign exchange policies. See also Eliana Cardoso,'The Great Depression and Commodity-exporting LDCs: The Case of Brazil', *Journal of Political Economy*, 89(6), December, 1981. Verena Stolcke, *Coffee Planters, Workers and Wives: Class Conflict and Gender Relations in São Paulo Plantations, 1850-1980* (New York,

1988) is relevant especially on social aspects of the coffee industry until the 1970's. See Robert H. Bates, *Open Economy Politics. The Political Economy of the World Coffee Trade* (Princeton, N.J., 1997) for long-term competition in the world coffee market

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Planejamento Econômico e Social, *A controvérsia do planejamento na economia brasileira: coletânea da polêmica Simonsen x Gudin* (Rio de Janeiro, 1978) on the Gudin-Simonsen controversy.

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On foreign economic relations see a number of works by Marcelo de Paiva Abreu: *O Brasil e a Economia Mundial*, cited above; 'Argentina and Brazil during the 1930s: the impact of British and American international economic policies', in R. Thorp (ed.), *Latin America in the 1930s. The role of the periphery in world crisis* (London, 1984); 'Anglo-Brazilian economic relations and the consolidation of American preeminence in Brazil: 1930-1945' in Christopher Abel and Colin Lewis (eds.), *Latin America, Economic Imperialism and the State* (London, 1985). For contrasting views, see Gerson Moura, *Autonomia na dependência: A política externa brasileira de 1935 a 1942* (Rio de Janeiro, 1980) and Roberto Gambini, *O duplo jôgo de Getúlio Vargas: influência* *americana e alemã no Estado Novo* (São Paulo, 1977). See also Stanley Hilton, *Brazil and the Great Powers, 1930-1939: The Politics of Trade Rivalry,* (Austin, Tex,, 1978).

On commercial policy and industrialization see Warren Dean, *The Industrialization of São Paulo, 1880-1945*, (Austin, Tex., 1969); Boris Fausto, A Revolução de 1930: Historiografia e história (São Paulo, 1970); Affonso B. de Mello, *Política commercial do Brasil*. (Rio de Janeiro, 1933); Abreu, *O Brasil e a Economia Mundial*, cited above, chaps. 3 and 5. On import substitution industrialization see Roberto Simonsen, *Evolução industrial do Brasil e outros estudos* (São Paulo, 1973); Furtado, *Formação*, cited above; João M. C. de Mello, *O Capitalismo Tardio* (São Paulo, 1982); Albert Fishlow, 'Origins and consequences', cited above. For a careful reconstruction of a reliable series of capital goods imports see Wilson Suzigan, *Indústria brasileira: origem e desenvolvimento* (São Paulo, 1986). On the links between coffee and industry see also Sérgio Silva, *Expansão cafeeira e origens da indústria no Brasil* (São Paulo, 1976). For a long-term view on the relation between market power in the coffee markets and high tariffs see Marcelo de P. Abreu and Afonso S. Bevilaqua, 'Brazil as an export economy, 1880-1930' in E. Cardenas, J.A. Ocampo and R. Thorp, *An Economic History of Twentieth-Century Latin America. Volume I: The Export Age* (Basingstoke, 2000).

On agriculture generally see Tamás Szmerecsányi, 'O desenvolvimento da produção agropecuária (1930-1970)'in Boris Fausto (ed.), *História geral da civilização brasileira, III: O Brasil republicano, 4. Economia e cultura (1930-1964)* (São Paulo, 1984) and essays 2 and 3 of Antônio B. de Castro, *Sete ensaios sobre a economia brasileira*, vol. I (Rio de Janeiro, 1969). On sugar see Tamás Szmrecsanyi, 'Growth and Crisis of the Brazilian Sugar Industry, 1914-39' in B. Albert and A. Graves (eds.) *The world sugar economy in war and depression, 1914-40* (London, 1988).

On industry see chapter 4 of Wilson Suzigan, *Indústria brasileira: origem e desenvolvimento* (São Paulo, 1986). On the steel industry see Werner Baer, *The Development of the Brazilian Steel Industry* (Nashville, Tenn., 1969). See also Carlos Manuel Peláez, *História da industrialização brasileira* (Rio de Janeiro, 1972). Geraldo

Mendes Barros, *Guilherme Guinle 1882-1960. Ensaio Biográfico* (Rio de Janeiro, 1982) is rather interesting on the role of Guinle in the building of Volta Redonda. Stanley Stein, *The Brazilian Cotton Manufacture* (Cambridge, Mass., 1957) is a brilliant monograph on the textile industry. See also Stephen H. Haber, 'Business Enterprise and the Great Depression in Brazil: a Study of Profits and Losses in Textile Manufacturing', *Business History Review*, 66 (2), 1992.

State-building and institutional developments have been treated by Luciano Martins, *Pouvoir et développement économique: formation et évolution des structures politiques au Brésil* (Paris, 1976) and Maria do Carmo C. de Souza, *Estado e partidos políticos no Brasil (1930 a 1964)* (São Paulo, 1976). United States Tariff Commission, *Economic controls*, cited above, is useful for detailed information on regulatory agencies. See also Eli Diniz, *Empresário, estado e capitalismo no Brasil, 1930-1945* (Rio de Janeiro, 1978), John D. Wirth, *The Politics of Brazilian Development, 1930-1954* (Stanford, Calif., 1970); Stanley Hilton, 'Military influence on Brazilian economic policy, 1930-1945', *HAHR*, 53/1 (1973) and 'Vargas and Brazilian economic development, 1930-45: A reappraisal of his attitudes towards industry and planning', *Journal of Economic History*, 35/4 (1975); Sônia Draibe, *Rumos e metamorfoses: Estado e industrialização no Brasil, 1930-1960* (Rio de Janeiro, 1985); P. D. Fonseca, *Vargas: O capitalismo em construção* (São Paulo, 1987). The two latter also cover the second Vargas period in the early 1950's.

Regional issues have been covered by Antônio B. de Castro in essays 4 and 6 of *Sete ensaios sobre a economia brasileira*, vol. II (Rio de Janeiro, 1971), David Denslow, 'A origem da desigualdade regional no Brasil', *Estudos Econômicos* (1973) and Wilson Cano, *Raízes da concentração industrial em São Paulo*, second edition, (São Paulo, 1981). There is also a useful triad of books on three important Brazilian states covering the 1930's until the Estado Novo: John D.Wirth, *Minas Gerais in the Brazilian Federation, 1889-1937* (Stanford, Calif.,1977); Joseph L. Love, *Rio Grande do Sul in the*

Brazilian Federation, 1889-1937 (Stanford, Calif.,1980); and Robert M. Levine, *Pernambuco in the Brazilian Federation, 1889-1937* (Stanford, Calif.,1978)

Economic data for this period are to be found in Brasil. Secretaria de Planejamento e Coordenação da Presidência da República. Fundação Instituto Brasileiro de Geografia e Estatística, *Estatísticas Históricas do Brasil. Séries Econômicas, Demográficas e Sociais de 1550 a 1988*, second edition (Rio de Janeiro, 1990). It should complemented by *Anuário Estatístico do Brasil*, whose generally yearly publication was re-started in 1936 and by *Brasil em Números*, an irregular publication also by IBGE. A defunct and very useful publication of Ministério da Fazenda. Serviço de Estatísticas Econômicas e Financeiras do Tesouro Nacional is *Quadros Estatísticos* 1928-1935 [1930-1937, 1932-1939, 1936-1945] (Rio de Janeiro, 1936-1947) For data on the level of activity and on gross domestic product deflator and other prices see Cláudio Haddad, *Crescimento do produto real brasileiro, 1900-1947* (Rio de Janeiro, 1978) and the slight revisions in 'Crescimento econômico no Brasil, 1900-76' in P. Neuhaus (ed.), Economia Brasileira: uma visão histórica (Rio de Janeiro, 1980).

5.3 1945-1964

On economic policy during the Dutra administration see: Albert Fishlow, 'Origins and consequences of import substitution in Brazil', in Luis Eugenio DiMarco (ed.), *International Economics and Development Essays in Honor of Raul Prebish* (New York, 1972) and also his unpublished mimeo, 'Foreign Trade Regimes and Economic Development: Brazil', [University of California at Berkeley?], [1975?]; Pedro S. Malan, Regis Bonelli, Marcelo de P. Abreu e José Eduardo de C. Pereira, *Política econômica externa e industrialização no Brasil (1939/52)* (Rio de Janeiro, 1977); D. Huddle, 'Balanço de Pagamentos e Controle de Câmbio no Brasil. Diretrizes Políticas e História', in F. Versiani and J.R.Mendonça de Barros (eds.), *Formação Econômica do Brasil: A experiência da industrialização* (Rio de Janeiro, 1977). S.B. Vianna, 'Política Econômica Externa e Industrializacão: 1946-1951' in Abreu (ed.), *Ordem* is a useful summary of economic policy under Dutra. Raúl Prebisch, *The Economic Development of Latin America and its Principal Problems*, (Lake Sucess, N.Y., 1950) was important as a part of the background for the economic debate in the 1950s. Roberto Campos, *A Lanterna na Popa, Memórias*, 2nd Revised Edition (Rio de Janeiro, 1994) is the most interesting if not always accurate autobiography by a civil servant concerned with economic affairs mostly in the 1950's and 1960's.

From the late 1940's Brazilian or US government documents stressing economic planning and/or monetary stabilization became frequent. The first such an US document was the Abbink report published as *Report of the Joint Brazil-United States Technical Commission* (Washington, 1949). For the translation into Portuguese and some critical remarks see O.G. de Bulhões, *À Margem de um Relatório* (Rio de Janeiro, 1950). For the Salte Plan see mimeo versions of *The Salte Plan: Alimentation Sector*, 5 volumes ([Rio de Janeiro], [1948); *The Salte Plan: Health Dector* ([Rio de Janeiro], [1948); *The Salte Plan: Transport Sector* ([Rio de Janeiro], [1948); and *The Salte Plan: Message, Bill, Financial Scheme and Report of the Inter-Party Committe* ([Rio de Janeiro], [1948). See also Presidência da República. *Plano Salte. Relatório apresentado pelo Administrador Geral ao Excelentíssimo Senhor Presidente da República, sobre as operações do Plano Salte de 1949 a 1951*[and *1952*] (Rio de Janeiro, 1953 and 1954). See also Rômulo de Almeida, 'Experiência Brasileira de Planejamento, Orientação e Controle da Economia', *Estudos Econômicos*, 1/2, 1950.

The essential source for the second Vargas period is Sérgio Besserman Vianna, *Política Econômica no Segundo Governo Vargas (1951-1954)* (Rio de Janeiro, 1987). A shorter treatment centered on economic policy is S.B. Vianna, 'Duas Tentativas de Estabilização: 1951-1955' in Abreu (ed.), *Ordem*. See also Celso Lafer (ed.) Horácio Lafer, Discursos Parlamentares (Brasília, 1988); Oswaldo Aranha, *Política Econômica e Financeira* (Rio de Janeiro, 1954); M.C.S. d'Araújo, *O Segundo Governo Vargas, 1951-1954. Democracia, Partidos e Crise Política*, Rio de Janeiro, Zahar, 1982, and C. Lessa and J.L. Fiori., 'Relendo a política econômica: as falácias do nascimento popular do segundo Vargas', *Texto para discussão* nº 30, Instituto de Economia Industrial, UFRJ, Rio de Janeiro, 1983.

On the multiple exchange regimes see A. Kafka, ‘The Brazilian Exchange Auction System’, *Review of Economics and Statistics,* 38 (3), 1956; Eugênio Gudin, ‘Multiple Exchange Rates: the Brazilian Experience’, *Economia Internazionale* 9 (3), 1956; A. S. Rio e H.C. Gomes, ‘Sistema Cambial: Bonificações e Ágios’ in Versiani e Barros (eds.), *Formação*; M.H. Simonsen, *Os Controles de Preços na Economia Brasileira* (Rio de Janeiro, 1961); A. Fishlow, unpublished mimeo, ‘Foreign Trade Regimes and Economic Development: Brazil’, [University of California at Berkeley?], [1975?]; L. Gordon and E.L. Grommers, *United States Manufacturing Investment in Brazil, 1946-1960* (Cambridge, Mass., 1962).

On economic development plans see United States. Foreign Operations Administrattion. Institute of Inter-American Affairs. *Report of the Joint Brazil-United States Economic Development Commission* (Washington, D.C., [1954]) and *Brazilian Technical Studies* (Washington D.C., 1955). M. Lima, *Petróleo, Energia Elétrica, Siderurgia e a Luta pela Emancipação* (Rio de Janeiro, 1975) is a useful treatment of the influence of one of the more radical economic advisers of Vargas. For oil policy see Mário Victor, *A Batalha do Petróleo Brasileiro* (Rio de Janeiro, 1970). Vargas’s speeches were published in *O Governo Trabalhista no Brasil,* 4 volumes (Rio de Janeiro, 1952-1969).

On economic policy during the Café Filho few months in government see the sixth part of José M. Whitaker, *O Milagre de Minha Vida* (São Paulo, 1978). The best scholarly treatment is D.M. Pinho Netto, ‘O Interregno Café Filho’ in Abreu (ed.), *Ordem*, a summary of ‘Política Econômica no Interregno Café Filho’ (unpublished M.Sc. dissertation, Pontifical Catholic University, Rio de Janeiro, 1986).

The most important economic planning document under Kubitschek is Presidência da República. Conselho de Desenvolvimento, Programa de Metas, 3 volumes (Rio de Janeiro, 1958). Grupo Misto BNDE-CEPAL, *Análise e Projeções do Desenvolvimento Econômico* (Rio de Janeiro, 1957) was an extremely influential work. For the failed stabilization effort of 1958-9 see Ministério da Fazenda, *Programa de*

Estabilização Monetária para o Período de Setembro de 1958 a Dezembro de 1959 (Rio de Janeiro, 1959). On the Plano de metas see Celso Lafer, ‘The Planning process and the political system of Brazil: A study of Kubitschek’s target plan’ (unpublished Ph.D. thesis, Cornell University, 1970) and ‘O Planejamento no Brasil: Observação sobre o Plano de Metas’ in B.M. Lafer (ed.), *Planejamento no Brasil* (São Paulo, 1970).

For economic policy during the Kubitschek years see [Carlos Lessa], ‘Fifteen years of economic policy in Brazil’, *Economic Bulletin of Latin America* , 9/2, 1964; A.C. Sochaczewski, ‘Financial and economic development of Brazil, 1952-1968’ (Unpublished Ph.D. thesis, University of London, 1980); L. Orenstein e A.C. Sochaczewski, ‘Democracia com Desenvolvimento: 1956-1961’ in Abreu (ed.), *Ordem*; Maria Antonieta Leopoldi, ‘Crescendo em Meio à Incerteza: a Política Econômica do Governo JK (1956-1960)’ in Angela de Castro Gomes (ed.), *O Brasil de JK* (Rio de Janeiro, 1991) and M. de P. Abreu, ‘1944-1973: Crescimento Rápido e Limites do Modelo Autárquico’ in B. Lamounier, D.D. Carneiro e M. de P. Abreu, *50 Anos de Brasil. 50 Anos de Fundação Getúlio Vargas* (Rio de Janeiro, 1994). For the ‘homem cordial’ concept initially proposed by Ribeiro do Couto see the outstanding chapter 5 of Sérgio Buarque de Holanda, *Raízes do Brasil* (São Paulo, 1936). Lopes, L., *Memórias do Desenvolvimento* (Rio de Janeiro, 1992) and Autran Dourado, *Gaiola Aberta* (Rio de Janeiro, 2000) are essential to understand the ambiguities of Kubitschek.

For the sequence of economic programmes in the 1961-1963 period see Clemente Mariani Bittencourt, *A Situação Financeira do País e a Instrução no. 204. Exposição do Ministro da Fazenda Dr. ... Bittencourt à Câmara dos Deputados* (Rio de Janeiro, 1961); Conselho de Ministros, *Programa de Governo. Bases. Análise da Situaçäo Econômica e Social do Brasil* (Brasília, 1961); Presidência da República. *Plano Trienal de Desenvolvimento Econômico e Social. 1963-1965* (Rio de Janeiro, 1963).

The best recent treatment of the crisis in the early 1960s is Mário M.C. Mesquita,‘1961-1964: A Política Econômica sob Quadros e Goulart’, Master’s dissertation, Pontifical Catholic University of Rio de Janeiro, Departament of Economics,

1992. The best earlier treatment was by John R. Wells: ‘Growth and Fluctuations in the Brazilian Manufacturing Sector during the 1960s and Early 1970s’ (Unpublished Ph.D. thesis, Cambridge University, 1977). M. de P. Abreu, ‘Estagnação, Inflação e Ruptura: 1961-1964’ in Abreu (ed.), *Ordem* is a useful summary. See also André L.Resende, ‘A Política Brasileira de Estabilização: 1963-68’, *Pesquisa e Planejamento Econômico*, 12/3 (1982); Roberto Macedo, ‘Plano Trienal de Desenvolvimento Econômico e Social’ in Lafer (ed.), *Planejamento*; N.H. Leff, ‘Import Constraints and Development: Causes of the Recent Decline of Brazilian Economic Growth’, *Review of Economics and Statistics,* 49 (4), 1967. and J.Serra, ‘Ciclos e Mudanças Estruturais na Economia Brasileira do Pós-Guerra’, in L.G.M. Belluzzo and R.Coutinho (eds.), *Desenvolvimento Capitalista no Brasil. Ensaios sobre a Crise*, (São Paulo, 1981). For contemporary criticisms of the Plano Trienal see M.Alves e P.Singer, *Análise do Plano Trienal* (Rio de Janeiro, 1968). For a flavour of the rather primitive views on the role of foreign capital in the early 1960’s see Sérgio Magalhães, Francisco Mangabeira, Roland Corbisier, Barbosa Lima Sobrinho and Aristóteles Moura, *A questão da remessa de lucros* ([Rio de Janeiro], 1962). See for the alternative view Roberto Campos, *Economia, Planejamento e Nacionalismo* (Rio de Janeiro, 1963). The autobiography of Celso Furtado, although rather guarded in the analysis of crucial moments of his public life, is useful especially in relation to the late 1950’s and early 1960’s: *Obra autobigráfica…* (São Paulo, 1997).

On debates concerning inflation in the 1950’s and early 1960’s see Roberto de Oliveira Campos, ‘Two views of inflation in Latin America’ and D. Felix, ‘An alternative view of the ‘monetarist-structuralist’controversy’, both in A.O. Hirschman (ed.), *Latin American Issues: Essays and comments* (New York, 1961); Inácio Rangel, A *Inflação Brasileira* (Rio de Janeiro, 1963) and Francisco Lopes, ‘Teoria e Política da Inflação Brasileira: uma Revisão Crítica da Literatura’ in João Sayad (ed.), *Resenhas de Economia Brasileira* (São Paulo, 1979). See also Mário Henrique Simonsen, *A Experiência Inflacionária no Brasil* (Rio de Janeiro, 1964). Leif Christoffersen, ‘Taxas de Juros e a Estrutura de um Sistema de Bancos Comerciais em Condições Inflacionárias: o Caso do Brasil’, *Revista Brasileira de Economia,* 23(2), 1969 is an interesting treatment of the banking sector. On the different schools of economic thought underlying alternative economic strategies see

Ricardo Bielschowsky, *Pensamento Econômico Brasileiro: O ciclo ideológico do desenvolvimentismo* (Rio de Janeiro, 1988). On ideological aspects of "desenvolvimentismo" see Miriam Limoeiro Cardoso, *Ideologia do desenvolvimento, Brasil: JK-JQ* (Rio de Janeiro, 1978)

On foreign economic relations see Pedro Sampaio Malan, 'Relações econômicas internacionais do Brasil (1945-1964)' in Boris Fausto (ed.), *História geral da civilização brasileira, III: O Brasil republicano, 4. Economia e cultura (1930-1964)* (São Paulo, 1984). On early Latin American Integration and its problems see Sidney Dell, *A Latin American Common Market?* (London, 1966). Gordon and Grommers, *United States Manufacturing Investment in Brazil* is very useful on the role of foreign investment. See also W. Fritsch and G. Franco, *Foreign Direct Investment in Brazil: Its Impact on Industrial Reconstructing* (Paris, 1991). On the World Bank see E.S. Mason and R.E. Asher, *The World Bank since Bretton Woods* (Washington, D.C., 1973). See also on the role of multilateral and governmental agencies Marcelo de Paiva Abreu and Winston Fritsch, 'Brazil's Foreign Borrowing from Multilateral and Governmental Agencies: An Overview of Past Experience and the Present Challenge' in Werner Baer and John F. Due (eds.), *Brazil and the Ivory Coast: The Impact of International Lending, Investment and Aid* (Greewich, Conn., 1987).

On agriculture 1945-1964 see Tamás Szmerecsányi, 'O desenvolvimento da produção agropecuária (1930-1970)' and Gordon W. Smith, 'Brazilian Agricultural Policy, 1950-1967'in Howard S. Ellis (ed), *The Economy of Brazil* (Berkeleley, Cal., 1969). On coffee see Celso Lafer, *O convênio do café de 1976* (São Paulo, 1979); Edmar Bacha, *Os mitos de uma década* (Rio de Janeiro, 1976) and Instituto Brasileiro do Café, Curso de Economia Cafeeira, 2 volumes (Rio de Janeiro, 1962), especially the contribution of Antonio Delfim Netto.

On industry see, besides the material on foreign exchange regimes, [Maria da Conceição Tavares], 'Growth and decline of the process of import substitution in Brazil', *Economic Bulletin for Latin America*, 9/1, 1964; Arthur Candal, 'A Industrialização Brasileira. Diagnóstico e Perspectivas' in Versiani e Barros (eds.), *Formação*; Nathaniel Leff, *The Brazilian Capital Goods Industry, 1929-1964*

On state-building and institutional developments see Judith Tendler, *Electric Power in Brazil: Entrepreneurship in the Public Sector*, (Cambridge, Mass., 1968); Raimar Richers, Claude Machline, Ary Bouzan, Ary R. Carvalho and Haroldo Bariani, *O Impacto da Açäo do Governo sobre as Empresas Brasileiras* (São Paulo, 1963) and Américo O. de Werneck, 'As Atividades Empresariais do Governo Federal no Brasil', *Revista Brasileira de Economia*, 23 (3), 1969.

On regional imbalances see Presidência da República. Conselho de desenvolvimento. Grupo de Trabalho para o Desenvolvimento do Nordeste, *Uma Política de Desenvolvimento para o Brasil* (Rio de Janeiro, 1959) and Presidência da República. Superintendência do Desenvolvimento do Nordeste, *Primeiro Plano Diretor de Desenvolvimento do Nordeste* (Recife, 1960).

For economic data on the 1945-1964 period: Superintendência da Moeda e do Crédito, *Boletim* and *Relatório*; Banco do Brasil, *Relatório*; Banco Nacional do Desenvolvimento Econômico (BNDE), *Exposiçäo sobre o Programa de Reaparelhamento Econômico*; Conselho Nacional de Economia, *Exposição Geral da Situaçäo Econômica do Brasil*, especially for the early 1960's, as well as *Revista do Conselho Nacional de Economia*; and *Conjuntura Econômica*. For the Kubitschek years see Conselho do Desenvolvimento, *Relatório*.

5.4 1964-1980

Thomas Skidmore, *The Politics of Military Rule in Brazil 1964-85* is useful to keep political developments in this period in mind. The official PAEG text is in Ministério do Planejamento e Coordenação Econômica. *Programa de Ação Econômica do Governo, 1964-1966*, Rio de Janeiro, 1966. For a contemporary criticism of the plan see Antonio

Dias Leite, *Caminhos do Desenvolvimento: Contribuição para um Projeto Brasileiro* (Rio de Janeiro, 1966). For analyses of its policies and implications see Celso Martone, ‘Análise do Plano de Ação Econômica do Governo (PAEG) (1964-1966)’ in Lafer, *Planejamento*; Andrá Lara Resende, ‘A Política Brasileira de Estabilização 1963/68’, *Pesquisa e Planejamento Econômico*, 12(2), 1982; Pedro Bodin de Moraes, ‘O Programa de Estabilizaçäo de 1964: balizamento de preços com restriçöes ao crédito’, *Revista Brasileira de Economia*, 41 (2), 1987.

Structural reforms mostly introduced during the Castello Branco period are considered in the self serving but very useful book by Mário Henrique Simonsen and Roberto de Oliveira Campos, *A Nova Economia Brasileira* (Rio de Janeiro, 1979). See also Ministério do Planejamento e Coordenação Econômica. Escritório de Pesquisa Econômica Aplicada, *O Mercado Brasileiro de Capitais* (Rio de Janeiro, 1965). Personal views by main protagonists are presented in Campos, *A Lanterna na Popa* and Octavio Gouvêa de Bulhões, *Depoimento* (Rio de Janeiro, 1990). Useful for data on this period is Escritório CEPAL/ILPES no Brasil. ‘A Evolução Recente da Economia Brasileira’. (Rio de Janeiro, 1968), mimeo.

For the shift in anti-inflationary policies Antonio Delfim Netto, ‘1967/1968 Política Econômica e Financeira do Governo’ (São Paulo, 1968), mimeo, ‘Análise do Comportamento Recente da Economia Brasileira: Diagnóstico’, (São Paulo, 1967), mimeo. For an earlier inflationary view of Antonio Delfim Netto see Antonio Delfim Netto, Affonso Celso Pastore, Pedro Cipollari e Eduardo Pereira de Carvalho, Alguns Aspectos da Inflação Brasileira (São Paulo, 1965).

The main critic of post-1964 economic policy in the 1960’s and early 1970’s was Celso Furtado. In a series of books in the 1960’s and early 1970’s he advanced rather pessimist views on the growth possibilities for the Brazilian economy: *Um Projeto para o Brasil* (Rio de Janeiro, 1968), *Análise do Modelo Brasileiro* (Rio de Janeiro, 1972), and *A Hegemonia dos Estados Unidos e o Subdesenvolvimento da América Latina* (Rio de Janeiro, 1973). See for alternative approaches Albert Fishlow, ‘Some reflections on post-

1964 Brazilian economic policy' in Alfred Stepan (ed.), *Authoritarian Brazil. Origin, Policies, and Future* (New Haven, Conn., 1973) and Edmar Bacha, *Os Mitos de uma Década. Ensaios de economia brasileira* (Rio de Janeiro, 1976). For a *volte face* see Mário Henrique Simonsen, *Inflação: Gradualismo x Tratamento de Choque* (Rio de Janeiro, 1970). For a comprehensive review of economic policy in the "miracle" period see Luiz.A.Correa do Lago, 'A Retomada do Crescimento e as Distorções do "Milagre": 1967-1973 in Abreu (ed.), *Ordem*.

There was boom of official government publications concerning economic planning during the "miracle"years. The documents of a general nature were: Ministério do Planejamento e Coordenação Geral. *Diretrizes de Governo. Programa Estratégico de Desenvolvimento* (Rio de Janeiro, 1967); Ministério do Planejamento e Coordenação Geral. *Programa Estratégico de Desenvolvimento, 1968-1970. Estratégia de Desenvolvimento e Estrutura Geral* (Rio de Janeiro, 1968); Presidência da República. *Metas e Bases para a Ação de Governo* (Brasília, 1970); and República Federativa do Brasil, *I Plano Nacional de Desenvolvimento (PND), 1972-1974* (Brasília, 1971). These were crowned in 1974 by the *II Plano Nacional de Desenvolvimento (PND), 1975-1979* (Brasília, 1974). In 1967 many volumes of a long-term *Plano Decenal de Desenvolvimento Econômico e Social* came to light covering every aspect of the Brazilian economy. Many of the volumes include useful background material. Mário Henrique Simonsen, *Brasil 2001*, (Rio de Janeiro, 1969) and *Brasil 2002* (Rio de Janeiro, 1972) are two rather *ufanistas* but useful collections of essays which reflect the optimism of the "miracle years".

For the defence of policies adopted under Geisel see Geisel 's own reactions in Maria Celina D'Araujo and Celso Castro, *Ernesto Geisel* (Rio de Janeiro, 1997), and a series of writings by João Paulo dos Reis Velloso: parts 3 and 4 of *O último trem para Paris (*Rio de Janeiro, 1986); 'Simonsen no Governo', *Jornal do Brasil*, 16 February 1997 and 'Construindo Geisel', *Insight Inteligência* 2(7), 1999. For the growth achievements under Geisel see the official view in IPEA, *Brasil: 14 Anos de Revolução* (Brasília, 1977) and the very enthusiastic Antônio Barros de Castro and Francisco Pires de Souza, *A* *economia brasileira em marcha forçada* (Rio de Janeiro, 1985). See also Jorge Chami Batista, *Debt and Adjustment Policies in Brazil* (Boulder, Co., 1992). For critical views see the writings of Dionísio Dias Carneiro: 'Introdução: Dificuldades no Reajuste do Modelo' in D.D.Carneiro (ed.), *Brasil: Dilemas de Política Econômica*, (Rio de Janeiro, 1977); 'Crise e Esperança: 1974-1980' in Abreu (ed.), *Ordem* and '1974-94: os desafios da estabilização postergada' in B. Lamounier, D.D. Carneiro and M. de P. Abreu, *50 Anos de Brasil. 50 Anos de Fundação Getulio Vargas*, (Rio de Janeiro, 1994). See also the *Jornal do Brasil* supplement 'Simonsen: O Mago da Economia', 3 March 1996 for Simonsen's views on his stand in the 1970's. See also Albert Fishlow, 'A tale of two presidents; The political economy of crisis management'; Edmar Bacha, 'Choques externos e perspectivas de crescimento: O caso do Brasil, 1973-1979'. *Pesquisa e Planejamento Econômico* 14/3, 1984 and 'Issues and Evidence on Recent Brazilian Economic Growth', *World Development* 5 (1/2), 1977; Edmar Bacha and Pedro Malan, 'Brazil's debt: From the miracle to the Fund' in Alfred Stepan (ed.), *Democratizing Brazil: Problems of Transition and Consolidation* (New York, 1989); Pedro Malan and Regis Bonelli, 'The Brazilian Economy in the Seventies: Old and New Developments', *World Development*, 5/1 and 2, 1977; Regis Bonelli and Pedro Malan, 'Os Limites do Possível: Notas sobre Balanço de Pagamentos e Indústria nos Anos 70', *Pesquisa e Planejamento Econômico*, 6 (2), 1976; Albert Fishlow, 'A economia política do ajustamento brasileiro aos choques do petróleo: Uma nota sobre o período 1974-84', *Pesquisa e Planejamento Econômico*, 16/3, 1986. On financial scandals in the 1970's and early 1980's see José Carlos de Assis, *A Chave do Tesouro: anatomia dos escândalos financeiros. Brasil 1974-1983* (Säo Paulo, 1983).

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