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Brazil's foreign borrowing from multilateral and governmental agencies: an overview of past experience and the present challenge*

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1. Introduction

This paper evaluates the challenge imposed on multilateral and government financial agencies by changed conditions in the international financial markets in the light of their previous experience in Brazil.

The paper is divided into three sections, besides this introduction. In the second section the role of these agencies is examined in the context of the evolution of Brazil's foreign borrowing requirements. A first subsection deals with the pre-1945 experience. The second subsection examines the post-war period defining three different phases in terms of the role of these agencies in the accommodation of balance of payments difficulties: a first period until 1955 when the collaboration of these agencies was vital to solve Brazil's balance of payments difficulties and was interrupted by political reasons; a second period until 1967 marked by the increased importance of suppliers' credits then by the use of US bilateral economic assistance and the return of the World Bank to the Brazilian scene and, finally, a third period when it was possible for Brazil to borrow in private financial markets with the consequent relative reduction in the importance of multilateral and government agencies.

In the third section the experience of some of the main financial agencies in Brazil – the U.S. Eximbank, the World Bank and the Inter-American Development Bank – is dealt with individually. Aspects related to the distribution of lending over time, relative cost of borrowing in relation to alternative sources and sectoral distribution of loans are discussed.

The final section includes a synthetic conclusion based on past experience and examines the importance of financial collaboration from there agencies for the stability of the Brazilian balance of payments in the future and, in the last instance, for the achievement of exogenously defined minimum growth targets.

2. The pattern of Brazil's foreign borrowing and the role of multilateral and government agencies over the past fifty years; an overview

2.1. The pioneer role of the U.S. Eximbank before the end of World War II

Until the Great Depression, as is well known, inflows of foreign capital into Brazil depended basically on direct foreign investment and on the increased indebtedness of Federal, State and Municipal governments through the flotation of bonds in the leading world financial markets. The contribution of multilateral or bilateral governmental agencies was, therefore, irrelevant.

The severe balance of payments difficulties created in underdeveloped countries during the thirties by the interruption of these capital flows as well as by the sharp fall in commodity prices were circumvented first by capital outflows then, after reserves had disappeared, by a combination of foreign exchange devaluation, import Controls, foreign public debt default or renegotiation, and the accumulation of financial and commercial foreign exchange arrears.

It is in the context of efforts to finance the thawing of these arrears in the mid-1930s that for the first time foreign governmental agencies became important as a source of finance for the balance of payments needs of Brazil. Indeed, the recently created Eximbank had a marginal role in discounting Brazilian notes floated in payment of arrears in 1935. In 1939, a relatively large loan of US$ 19.2 million was extended by Eximbank to the Bank of Brazil to make possible the thawing of new arrears[1].

It is, of course, very much open to question whether these operations did involve a true element of "aid" in the sense either that they would not have occurred had these governmental agencies not existed or that the financial arrangements reached with these agencies entailed substantially different conditions when compared with those obtainable in the market. In fact, many other thawing operations were concluded by Brazil and other debtor countries – with the U.S. as well as with other creditor countries such as Great Britain – without the involvement of governmental agencies such as the Eximbank. On the other hand, the holders of frozen arrears in Brazil – foreign exporters or the subsidiaries of foreign firms – were undoubtedly important beneficiaries of such arrangements: had the financing of such arrears proved to be impossible, it is unlikely that such arrears would have been entirely paid by further contraction of Brazilian imports. In the late 1930s the possible tangible advantage from the point of view of the borrowers could have been the relatively low rate of interest obtained in comparison with the likely alternative rate, which would have prevailed, had the arrangement been made through private banks. The possible "grant element", however, is bound to have been quite small as the loan was to be repaid within two years.

While Eximbank's involvement in financing US exports to Brazil had been passive and limited to the financing of commercial arrears in the 1930s it was later to become of crucial importance in the promotion and finance of development projects.

In the late 1930s the idea that it was in the best economic and political interests of the U.S. to foster the economic development of such countries as China and Brazil started to gain ground in the U.S. Administration especially in the Treasury under the influence of Harry D. White. In 1939, indeed, Secretary Morgenthau had been forced to withdraw his *overtures* concerning development assistance loans to Brazil yielding to the combined pressure of the State Department and Eximbank during the negotiations of foreign exchange arrears. In 1940, however, Treasury support was instrumental in guaranteeing US support through Eximbank loans – initially of US$ 20 million later

[1] See Avey (1953), United States Senate (1954) and Feiberg (1982), chapter 1.

increased to US$ 45 million – to the newly created government-controlled Companhia Siderúrgica Nacional to finance the purchase of US equipment for the first integrated Brazilian Steel mill. The mill's feasibility study had been conducted by US Steel which – much to the disappointment of Vargas – had shown no interest in direct involvement in the project. The U.S. government decision to finance the project through Eximbank and to supply scarce equipment during the war had of course much to do with the US policy of supporting Brazil to block German/Italian political influence in the early war years and then to weaken Argentina's position of relative pre-eminence in Latin America[2].

Still during the war other loans were provided by Eximbank (see Appendix A) which were to prove to have important implications in the longer run especially in the case of a loan to Cia. Vale do Rio Doce which was to become the world's leading iron ore exporter. Stimulated by the British, who feared the loss of traditional iron ore sources, the U.S. government through Eximbank financed the beginning of the modernization of the Vitoria a Minas railroad as well as of the Itabira mining operations previously owned by the British. Brazilian iron ore supply commitments remained unfulfilled during the war and it took a long period to loans were to continue to be important to make this possible in the immediate post-war period.

2.2. From the end of World War II to the onset of the LDC debt crisis

The post-war years witnessed the creation of multilateral development banks – of which, as far as Brazil is concerned, the World Bank and the International Development Bank are today, by far, the more relevant ones – the progressive reconstruction of International private capital markets and a marked acceleration in the growth of Brazil's foreign debt, as can be seen in Table B.1 (see Appendix B).

Being a large and diversified industrializing economy, with an extremely concentrated personal income distribution, a tradition of active government intervention in economic policy-making, and politically able to live with a combination of relatively high rates of inflation and economic growth, Brazil's post-war development was not significantly constrained by savings, and the growth of external borrowing can be largely explained by the evolution of foreign exchange needs. This point has been convincingly made by empirical work done in the framework of two-gap models in the mid-sixties[3], and is certainly valid also for the larger part of the past twenty years of explosive growth of the Brazilian foreign exchange gap and borrowing from commercial banks[4]. Indeed, as Table B.2 shows, the contribution of foreign lending to total savings remained relatively small even during the

[2] See Abreu (1984), chapter IX and Avey (1953), p. 43.
[3] Chenery & Strout (1966) and Baer & Kerstenetzky (1966).
[4] See Tables B.1 and B.3.

past decade of slower economic growth and accelerating foreign indebtedness.

The way in which Brazil's foreign exchange gap was financed varied widely since the war, affecting the distribution of the debt among different types of lending institutions and, thus, the relative importance of the contribution made by multilateral banks and government agencies[5]. The basic reasons for these changes in the relative weight of different types of creditor institutions in the flow of foreign capital to Brazil are twofold. On the one hand, there is the speed and amplitude of recurrent external shocks, more violent disequilibria demanding relatively greater resort to shorter-term compensatory operations, usually provided by a limited set of institutions. On the other hand, and more important in a longer perspective, these shifts reflect a combination of the changing financial requirements which accompanied Brazil's great structural transformation with the continuous institutional change affecting the forms in which long-term International finance was made available to developing countries since the war. A review of the main "phases" of Brazil's post war development, with special reference to the evolution of her external financing needs, will help to illustrate this point.

Phase I: 1946-1955

Economic policy in early post-war Brazil was dominated by concern about inefficiencies arising from "infrastructural inadequacies" created by lagging expansion of energy and transportation facilities in the presence of extensive industrial growth, an inheritance of the foreign exchange starved thirties and wartime supply shortages. With the progressive normalization of equipment supplies following the return to peace, the binding constraint in overcoming these infrastructural bottlenecks would be the capacity to import. In spite of high hopes for a buoyant balance of payments position after the war, which influenced a short-lived move towards greater trade and payments liberalization at an overvalued exchange rate in 1946, Brazil was soon forced to reimpose import and exchange Controls from mid-1947 to stem rapid losses of convertible reserves due to a sharp rise of private sector dollar payments abroad. In the absence of organized world capital markets, the Brazilian government carne to have no alternative but to rely on U.S. government help – either directly or through its overwhelming influence in the recently created World Bank – to finance the badly needed improvements in the electricity and transport networks.

There had been hopes in Brazil, after the technical assistance activities which resulted in the Abbink Report[6], that the U.S. would became engaged in a sustained economic assistance effort which would benefit underdeveloped countries on the same lines of the contemporary Marshall Plan. Hopes

[5] See Table B.3.
[6] U.S. Department of State (1949).

increased with Truman's announcement of Point Four in 1949. In the following year, a Joint Brazil-U.S. Economic Commission was created to select projects to be financed with the help of the Eximbank and the World Bank and a letter of intent to that effect was signed by the two governments and the banks' presidents in late 1951[7].

However, as the Joint Commission sat down to work on technical details of the investment program, Brazil faced a new and severe balance of payments crisis caused mainly by the relaxation of import Controls prompted by fears of shortages of strategic materials during the Korean War. The explosive growth of the current account deficit drained reserves and, during 1952, the deficit was mainly "financed" by the accumulation of a very large amount of commercial arrears[8].

As it had done in former occasions in early 1953 the Eximbank stepped in to provide for the thawing of US$ 300 million of arrears owed to American suppliers[9]. This time, however, the Eximbank's action would provoke the wrath of IBRD's chairman Black – then deeply involved in a campaign to press the incoming Eisenhower administration to curb the relative independence enjoyed by Eximbank[10] – as it was correctly seen as weakening World Bank's leverage to impose ideal norms of economic policy such as greater trade and payments liberalization as a condition for granting financial accommodation[11].

The IBRD's *volte face* on the Brazilian infrastructural investment program was made easier by the clear military turn taken by the priorities of U.S. "aid" effort with Eisenhower, leading eventually to the abandonment of the program. The World Bank's record in lending to Brazil in the immediate post-war years would thus remain quite poor. By mid-1952, it had lent US$ 142.5 million to Brazil but no less than US$ 90 million to the Canadian-owned Brazilian Traction. Moreover, but for a couple of loans to Brazilian electricity companies in 1958, it would take over ten years for the Bank to resume lending to Brazil[12].

In the years following the 1952 crisis, the balance of payments showed no substantial improvement and because of the need to resort to stabilization loans until 1955 Brazil emerged from this period with a larger debt and a much greater concentration in shorter maturities[13].

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[7] A fuller account of the negotiations leading to this agreement in principle to finance the Joint Commission's infrastructural projects is to be found in Besserman (1985), on which the following paragraphs are also heavily based.
[8] See Table B.3.
[9] The operations made by the Brazilian government at the time also involved a short term loan of US$158 million from a British bank.
[10] On this see also Mason and Asher (1973), pp. 496.
[11] *Idem*, pp. 197 and 660-61. It should be noted, however, that although World Bank officials disapproved of several aspects of Brazilian policy – such as unbalanced budgets, expansionary credit policies and overvalued exchange rates considered as the source of recurrent balance of payments problems, as well as the formation exploration – the Bank "never clearly specified what particular action by the Brazilian government would elicit what response from the Bank", Mason and Asher (1973), pp. 661-62.
[12] A complete list of World Bank loans to Brazil up to December 1984 can be found in World Bank (1984).
[13] See Table B.3. of the US$ 1,317 million debt outstanding at the end of 1956, not less than US$ 614 million represented debt incurred as compensatory balance of payments loans of which 97% was scheduled for repayment within five years.

Moreover, the combination of import Controls and overvalued exchange rates maintained since the late forties had induced a process of rapid import substitution in several lines of 'non-essential' consumer goods. This had not only aggravated the infrastructural bottlenecks, as turned the import structure extremely rigid, making increasingly plausible the launching of a programmed effort of substitution of intermediate and some capital goods imports on purely balance of payments grounds.

Phase II: 1956-1967

These two aims – expansion of infrastructural Services and the planned vertical integration of Brazilian industrial structure – would become the basis of President Kubitschek's Targets Plan, carried out between 1957 and 1960.

Apparently, the plan had no pre-conceived financing scheme to provide for the foreign exchange requirements of the programmed investments. *A fortiori*, however, one can see that those were covered by a sizeable increase in private loans[14], the bulk of which consisted of suppliers' credits receiving government guarantees and directed to finance the official investment program.

Brazil's heavy reliance on suppliers' credits to finance the capital goods requirements of the Targets Plan reflected both the increasing availability of this kind of finance – as after the reconstruction of the industrial countries of Western Europe and Japan their governments actively began to promote equipment exports by granting credit facilities and guarantees – as well as the fact that the concession of these credits was governed by market considerations and did not carry the strings and policy prescriptions usually attached to official loans. As noticed by a World Bank study:

> "It should be observed that the inclination of certain debtor countries to authorize ready recourse to suppliers' credits was heavily influenced by the fact that other sources of International finance were practically inaccessible to them. This was basically a consequence of their inflationary financial policies, which made it impossible for them to borrow in large amounts from International financial institutions, and even from individual foreign governments or private financial institutions. Thus, whenever in these countries top priority was attached to investments regarded as important to the pursuit of development for which recourse to foreign resources was necessary, suppliers' credits proved to be one of the few sources of foreign financing, if not the only one"[15].

In the case of Brazil this was certainly true. Access to the World Bank – which had been cut in 1953 and just reopened for a while in 1958 – would again be strained during the Targets Plan. The launching of the latter's large investment program coincided with the most severe over-production

On this, see Donnelly (1970), p. 102.

[14] See Table B.3. Foreign direct investment flows, a large part of which helped financing industrial investments outside the Plan's priorities, chiefly in the automobile industry.

[15] IBRD (1967), p. 16, quoted by Donnelly (1973), pp. 117-18.

crisis faced by world coffee markets since the thirties and the active price support policy carried by the Brazilian government had an additional strong expansionary effect on domestic demand. So, although financing the direct foreign exchange requirements of the plan would not prove difficult, Brazil faced increasing balance of payments difficulties from 1958. Accordingly, negotiations were started with the IMF for a large US$ 300 million loan but, in mid-1959, the Brazilian government could not accept the conditions attached by the Fund and withdrew[16]. This, of course, also meant renewed exclusion from IBRD's window to which Brazil had regained access a year before.

From 1959 to 1963, in spite of the maintenance of large autonomous capital inflows until 1961, the balance of payments situation remained critical both on account of large current account deficits and rising amortization payments[17]. Indeed, the last years of the Kubitschek administration witnessed a steady deterioration of the foreign debt amortization profile because of the relatively short maturities of suppliers' credits and, especially the increasing reliance on short-term swap loans as a form of compensatory finance[18]. The following years would see the return of rescheduling exercises coupled with attempts to implement orthodox stabilization programs.

The first attempt at restoring external equilibrium was made by Kubitschek's successor and fierce critic Jânio Quadros. It was based on implementing a recessive fiscal-monetary mix and a considerable move towards exchange liberalization devised in consultation with the IMF and the U.S. government, counting with strong financial backing from creditor governments both in the form of AID program loans and PL-480 credits from the U.S., and official refinancing of a large part of the suppliers' credits granted by Western Europe and Japan[19]. However, Quadros' resignation a few months after taking office, renewed current account pressures in 1962, and lack of financial support from Western governments to President Goulart's belated stabilization attempt in 1963 led to a deep balance of payments crisis, stagflation and the military take-over of 1964.

The military government successfully carried out an orthodox adjustment program, again with strong U.S. financial backing, specially through AID loans, and was greatly helped by the conclusion of a new rescheduling agreement on publicly guaranteed loans with The Hague Club in the second half of 1964, with U.S. government participation.

The IBRD did not refund Brazil's obligations due to it. However, by re-starting to lend to Brazil in 1965 with 5 to 6.5 years' grace periods primarily for projects in which a relatively large part of equipment and construction work could be supplied by domestic firms, and allowing that "withdrawals from the Loan Account in respect to expenditures in the currency of the Guarantor of

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[16] On this see, for instance, Malan (1984), pp. 90 ff.
[17] See Table B.3.
[18] During 1959 and 1960 swap loans to the tune of US$ 240 million were contracted by the federal government. Donnelly (1973), p. 108.
[19] See Bitterman (1973), pp. 122 ff. for details.

for goods produced in (including services supplied from) the territories of the Guarantor shall be in dollars or such other currencies as the Bank shall from time to time reasonably select"[20], the World Bank played an important role in helping the stabilization efforts of the newly established authoritarian regime. This was indeed true of every official aid agency and, as noticed by Diaz-Alejandro, between 1964 and 1967 Brazil ranked only behind India, Pakistan and South Vietnam as a recipient of net aid flows[21].

Phase III: 1968-1982

The fifteen years before the onset of the present debt crisis witnessed the longer boom in statistically documented Brazilian economic history. The dizzying growth rates obtaining until 1973 were followed by more modest expansion after the first oil shock – but still impressive by International standards – as can be seen in Table A.1.

The basic reason why Brazil was able to sustain these extremely high growth rates without having to face a balance of payments adjustment crisis for such a long span was the amazing increase in the availability of long-term finance from the second half of the sixties, which allowed the smooth financing of a yawning foreign exchange gap[22].

Lending by multilateral and government agencies during this period, especially the World Bank and the IBD, certainly gave an important contribution to this impressive achievement. Total gross capital inflows from these institutions, which had averaged US$ 38.0 million in the years between 1947 and 1955 and US$ 156.9 million between 1956 and 1967, rose to not less than US$ 812.9 million between 1968 and 1982. Brazil's debt towards them grew 14.0% in real terms during Phase III, as compared with 9.2% in Phase I and 6.2% in Phase II. A detailed analysis of World Bank and IDB lending during this period is presented in Section 3, below.

This great absolute increase in multilateral and government agencies' lending was, however, accompanied by an equally large fall in their relative importance as suppliers of Brazil's foreign capital requirements, due to the concurrent massive increase in her borrowing in Eurocurrency markets, mainly in the form of floating-interest rate cash loans from commercial banks. As a proportion of total external loans and credits, lending by multilateral and government agencies fell from an average of 57.3% in 1964-67, 14.4% in 1971-74 and 8-1% in 1978-81.

As in the first growth cum debt cycle of 1956-62, the rapid increase in foreign debt and its changing composition in favour of private creditors since the end of the sixties (see Table B.2) can

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[20] See Loan Agreement between IBRD and Centrais Elétricas de Furnas, 1965 (Loan 403 BR), quoted *in* Bitterman (1973), p. 125.
[21] Diaz-Alejandro (1971), p. 443.
[22] See Table B.3.

be explained with reference both to the increased demand for credit – a by-product of domestic expansionary policies – as well as to institutional developments in International capital markets affecting the availability of private finance to Third World borrowers.

The late sixties witnessed, in fact, a clear departure from the orthodox adjustment program launched in 1964-65 towards outright expansionary demand management and a host of policy measures aimed at diverting part of the domestic demand for credit towards international capital markets[23]. Expansionary policies were maintained after the first oil shock, as Brazil opted for a strategy of long term structural adjustment through a new wave of large import substitution projects.

The greatly increased foreign exchange gap (see Table B.3) appearing as a consequence of the high growth rates obtaining since 1968 could be matched both before and after the first oil shock by an increasing stream of cash loans owing to peculiar developments in the Eurodollar markets, *viz*, excess liquidity and growing interbank competition from the end of the sixties, which allowed developing countries to become regular customers in these markets[24], and recycling of a substantial part of OPEC surpluses to non-oil developing countries after 1974 through commercial bank loans.

As well known, Phase III was brought to an end in 1982 by the world trade slump and the Mexican moratorium. With the ensuing end of voluntary bank lending bilateral and multilateral agencies have played again an important role in Brazil. Short term helps from the U.S. Treasury, Eximbank and the B.I.S. was instrumental in preventing a foreign exchange crisis at the end of 1982, for International reserves evaporated as the Brazilian government would not announce the start of formal negotiations with the IMF – the successful completion of which was a condition for the granting of financial accommodation by private banks – before the general elections due to take place in mid-November. Moreover, from 1983, as Brazil overcame the worst of the liquidity crunch, the stepping up of longer term lending by the World Bank, the IDB and the U.S. Eximbank, and the rescheduling of government or government-guaranteed debt at the Paris Club enormously helped external adjustment. This, together with large and increasing trade balance surpluses in 1983 and 1984 will allow Brazilian authorities to refrain from further borrowing from private banks during 1985.

3. The experience of main International agencies in Brazil

[23] For a description of these measures, see Pereira (1974), Chapter 1.

[24] This change in the relative position of developing countries as borrowers in Eurocurrency markets was quite rapid. As a financial analyst saw it in 1972: “Last year, and increasingly this year, the reduction in loan demand from U.S. multinationals and top European borrowers has forced the Euro-currency banks to offer these very fine rates to fringe borrowers outside the traditional catchment areas for Euro-currency banking... To gain business, banks have found that they are forced to lend for longer and longer periods and to areas of the world which were hardly regarded as prime credit risks as little as a year ago”. *Euromoney*, July 1972, quoted in Wells (1973), p. 12.

It is, of course, quite beyond the scope of this paper to deal comprehensively with the experience of all International agencies – multilateral or national – in Brazil during the post-war period. Such a comprehensive treatment would have to take into account not only the activities of the larger agencies such as the World Bank, the Inter-American Development Bank (IDB), Eximbank, and USAID but also those of the less relevant bodies in terms of financial involvement such as the United Nations Development Program, International Foundations – Ford, Gulbenkian, IDRC, Kellog, Rockefeller, among others of more recent entry in Brazil – and modest official aid of British, Canadian, French and German origin.

While it would be ideal to be able to examine more closely at least the experience of the big agencies, attention here will be limited to Eximbank activities in Brazil until the early 1950s – for since then, as discussed below, the latter's operations with Brazil cannot be considered as "aid" –, the World Bank, and the IDB. Unfortunately, it was impossible to obtain reliable retailed Information on US economic assistance. Total US economic assistance to Brazil between 1962 and 1984 amorented to US$ 2,230 million (US$ 576 million corresponded to grants and US$ 1,654 million to loans mosthy at very low rates of interest[25].

3.1. The U.S. Eximbank

The contribution of the Eximbank was rather important before the mid-fifties. As discussed in Section 2, from its creation in 1934 to the end of World War II, the Eximbank gave a crucial contribution to financing Brazil's foreign exchange needs: during this period not less than US$118 million were lent to clear commercial arrears or to finance equipment imports. Although limited in the late forties – no more than US$ 63 million in 1946-50 – it rose again significantly in the early fifties (see appendix A) because of the US$ 300 million tendered to thaw exchange arrears in 1953 which carne on top of around US$ 150 million in commercially-generated loans.

These "development assistance" loans to finance the supply of US goods had as an important consequence to foster the growth of the borrower's market for US goods both in the short run – by making the purchase at all possible – and in the long run – by contributing to the acceleration of economic growth it is however undeniable that Brazil gained important benefits, since there would be no alternative suppliers willing to finance the sales of competitive capital goods during the war or in the immediate post-war period. After the mid-1950s, of course, it is rather unrealistic to consider Eximbank loans – or, for that matter, those of any other financial agency mainly concerned with export credits and guarantees – as involving any "aid" or "grant" element as their primary aim was

[25] United States. Agency for International Development (1985), p. 40 and Baer (1974), pp. 554-5.

to foster US exports, interest rates being adjusted in many cases to take account of competitive bids by other suppliers. Indeed, of all loans extended by the Eximbank until 1953 – when Eximbank's policy of strict consideration of trade-generated loans was reasserted by the Eisenhower Administration[26] – only one included local costs, the one to ICOMI S.A. a mining concern partly owned by Bethlehem Steel.

3.2. The World Bank

After an initial loan to Canadian-owned Brazilian Traction the share of World Bank's loans to Brazil as a proportion of total loans was maintained in "normal" years between 8.0% and 10.5%[27] (see Table 3.1). There was, of course, a long "abnormal" period after the politically motivated interruption of the Bank's involvement with Brazil in the early 1950s which lasted almost continuously until the mid-1960s, the attempted *rapprochement* under Kubitschek being avorted by the break with the IMF in 1959 as described in Section 2.

Indeed, Brazil's loans corresponded in 1950-54[28] to an average proportion of 9.4% of total approved loans; this fell to practically nihil in 1955-64, and then increased to 8.1% in 1965-68 and 10.7% in 1969-74[29]. After the first oil shock, this share fell to 9.7% in 1975-78 then to 8.7% in 1979-82. Since 1982, on the other hand, Brazil's share of total loans recovered to 13.3% as a result primarily of the Bank's concern with its balance of payments difficulties, as discussed in Section 4.

The volume of Brazilian indebtedness with the Bank is a consequence of the interaction of availability (supply) and cost in comparison with alternative sources (demand). When the cost of alternative sources tends to infinity the volume of borrowing from the Bank is, of course, a direct consequence of its resource availability, a situation that is typical of the post-1982 period. It would seem that the Brazilian authorities proved to be cost-sensitive in the 1970s. Immediately after 1972 and 1976 when Bank loans became more expensive than those obtainable in private financial markets – as the relevant interest rate differentials in table 3.2 show – the Brazilian share in total loans tended to fall significantly in relation to previous periods.

[26] See Hillman (1982), pp. 22 and ff.
[27] Financial years ending 30 June.
[28] It would be obviously preferable to work with actual disbursements on net (of amortization and interest) transfers but these data are not available in an adequately disaggregated form.
[29] For a review of the main evaluations of the Bank's activities up to the early 1970s, see Baer (1974).

Table 3.1

World Bank: Approved Loans, World and Brazil, 1947-1983 (US$$10^6$)

Year (June 30)	Total (1)	To Brazil (2)	(2)/(1) %
1947	250.0	-	0
1948	263.0	-	0
1949	137.1	75	54.7
1950	166.1	15	9.0
1951	297.1	15	5.1
1952	298.6	37.5	12.6
1953	178.6	3.0	1.7
1954	323.7	48.6	15.0
1955	409.6	-	0
1956	396.0	-	0
1957	387.9	-	0
1958	710.8	13.4	1.9
1959	703.1	84.6	12.0
1960	658.7	-	0
1961	609.9	-	0
1962	882.3	-	0
1963	448.7	-	0
1964	809.8	-	0
1965	1,023.3	79.5	7.8
1966	839.2	49.0	5.8
1967	876.8	100.6	11.5
1968	847.0	62.0	7.3
1969	1,399.2	74.9	5.4
1970	1,680.4	205.0	12.2
1971	1,896.4	160.4	8.5
1972	1,966.1	437.0	22.2
1973	2,050.0	187.7	9.2
1974	3,218.4	242.0	7.5
1975	4,319.7	426.5	9.9
1976	4,977.1	498.0	10.0
1977	5,759.3	425.0	7.4
1978	6,097.7	705.0	11.6
1979	6,989.0	674.0	9.6
1980	7,644.2	695.0	9.1
1981	8,808.9	844.0	9.6
1982	10,329.6	722.1	7.0
1983	11,136.3	1,457.5	13.1
1984	11,949.2	1,604.3	13.4

Source: World Bank, *Annual Report*, several years.

In the late 1970s and early 1980s, Brazil faced the menace of being "graduated" by the World Bank losing, in consequence, access to its loans. In the early 1970s, the Bank had started to try to define a "graduation" policy: since a developing country reached an income per capita threshold, defined quite gratuitously at US$ 1,000 (1970 prices), a review would start and eventually Bank loans to this country would be phased out. This policy had been devised in a period marked by the easy access of developing countries to the world financial markets since it was perhaps excusable to associate somewhat mechanically level of development measured by per capita income levels – and access to financial markets. Brazil was one of the strong candidates for graduation by the Bank in the early 1980s, and quite late in the day – in fact just before the Mexican crisis in 1982[30] – the Bank still insisted in the adoption of this rather mechanical and in some aspects quite arbitrary policy[31].

After 1982, there was no immediate explicit public redefinition of this specific Bank policy in the light of changing international economic conditions. However the Bank tended to adopt a more flexible line on graduation without abandoning it as a long term policy[32]. Disbursement of loans to Brazil was accelented under the so-called Special Action Program. It is unlikely that graduation will affect the Brazilian ability to raise loans in the World Bank in the near future in face of the prospects of their balance of payments position and of the deterioration in economic performance plus real cruzeiro devaluation and its impact on the dollar income per capita level.

The Bank's total of approved to Brazil in real terms[33] – deflated by the US Wholesale price index – increased by 5.2% a year in 1947-65, then 8.8% a year in 1965-75. More recently, growth has proved to be laggard: only 3.3% a year in 1975-82 accelerating to 12.6% a year in 1982-84, after the Bank's recent change of policy.

Access to the Bank loans for a country like Brazil implies gains corresponding to the difference between interest rates charged by the Bank and those charged by private banks, even if there is a real alternative to raise finance in private financial markets, which, of course, is not always the case. In terms of proportion of the loan's nominal amount, these gains vary directly with grace and amortization periods, and interest rate differentials. Data presented in table 3.2 suggest that the interest rate differentials may vary quite considerably: they were quite substantial before the mid-1960s, eventually became negative in two occasions in the 1970s and reached record levels in 1980-81.

30 World Bank, *Annual Report*, 1982.
31 See Abreu and Fritsch (1984) for an analysis of graduation in trade and finance.
32 Bank's Statement on Graduation, R84-252, September 6, 1984.
33 Data on net disbursement are roughly in line with approved loan totals especially in the late 1970s. See OECD (1984), p. 214. This also applies to IDB loans.

Table 3.2

World Bank Loans to Brazil: Weighted Interest Rates and Market Interest Rates, 1949-1983

Year	(1) World Bank Interest rate[34]	(2) Market Interest rate[35]	(3) Brazilian Spread[36]	(4) = (2) + (3) Cost of alternative funds[37]	(5) = (4) - (1) Interest rate differential
1949	4.5			10.0	5.5
1950	4.3			10.0	5.7
1951	4.3			10.0	5.7
1952	4.7			10.0	5.3
1953	4.9			10.0	5.1
1954	4.9			10.0	5.1
1958	5.8			10.0	4.2
1959	6.0			10.0	4.0
1965	5.5			10.0	4.5
1966	• • •			10.0	[4.0]
1967	• • •			10.0	[4.0]
1968	• • •	6.4	1.0	7.4	[1.4]
1969	6.0	9.8	1.0	10.8	4.8
1970	7.0	8.5	1.0	9.5	2.5
1971	7.2	6.6	1.0	7.6	0.4
1972	7.2	5.5	1.0	6.5	-0.7
1973	7.2	9.2	1.0	10.2	3.0
1974	7.4	11.0	1.1	12.1	4.7
1975	8.3	7.0	1.7	8.7	0.4
1976	8.7	5.6	1.9	7.5	-1.2
1977	8.4	6.0	2.0	8.0	0.4
1978	7.5	8.7	1.7	10.4	2.9
1979	7.5	12.0	1.0	13.0	5.5
1980	8.4	14.4	1.3	15.7	7.3
1981	10.3	16.5	>2.0	>18.5	>8.2
1982	11.5	13.5	>2.0	>15.5	>4.0
1983	10.7	9.8	>2.0	>11.8	>1.1

Source: World Bank, *Annual Report*, several years.

[34] Weighted by loan amount, corresponds to calendar year, fixed interest rates until mid-1982. After mid-1982, variable interest rates are charged on new loans. Commission of 1.0-1.5% charged until 1964 included in interest rate. Front-end fee charged after 1982 (1.5 – 0.25%) not included.
[35] IMF, *International Financial Statistics*, several issues: 1968-81, London Eurodollar rate; 1982-83, 6 month LIBOR, US$ dollar.
[36] P. N. Batista Jr. (1983), p. 118 and Edwards (1983).
[37] Cost of alternative resources 1949-67 set at 10% a year following a suggestion of Edmar Bacha.

The grant element entailed by cheap fixed interest rate Bank loans floated in the 1960s and 1970s in a context a rapidly increasing interest rate was quite relevant. It is of course quite difficult to compute an aggregate grant element for the total amount outstanding as this would require a loan-by-loan calculation. To give a quantitative idea of such gains for the future, supposing a differential interest rate of 3.5% favouring World Bank loans, grace and repayment periods of 2 and 10 years respectively and a stable LIBQR of 10%, there is a grant element corresponding to more than 17% of the loan's nominal amount (the lower the grant element, the higher the LIBOR).

It must be noticed that if LIBOR including spread falls below, say, 10.5% the grant element entailed by the Bank's 1981 loans becomes negative. In an environment marked by the long run instability of interest rates, it is not altogether unambiguous what may be impact on the relative cost of World Bank loans *vis a vis* private loans (if and when they are available). It is clearly misleading to take the decreasing interest rate differential between Bank and private loans as an indication that it will be possible for Brazil to favour finance raised in private markets as it will be less costly than Bank loans. Comparative costs become irrelevant to determine the rate of expansion of Brazil's debt when the availability of resources becomes the main explanatory factor of its level of indebtedness.

Table 3.3 below summarizes the loans extended to Brazil classified by sector for the period 1949-1984 on a year-by-year basis. Table 3.4 presents the sectoral distribution of loans extended to Brazil and to all countries in 1947-1965, 1966-1975 and 1975-1984. The same information is included in table 3.5 in terms of shares of total approved loans[38].

It is clear that some sectors have been gaining quite strongly to the detriment of others in terms of shares of total approved loans. The Bank's initial commitment to energy and transportation projects has been reduced and industry almost disappeared as a share of the Bank's total projects. Emphasis was shifted to "social" sectors such as water supply and sewerage, urban development and, especially, agriculture.

Sectoral shares in the case of Brazil also changed, mostly in line with changing global trends. Agricultural loans reached a "normal" share of about 20%; "social" sector projects – water supply, sewerage, urban development – increased their share well above the Bank's overall sectoral shares while transport, energy and industry sectors reduced theirs. Industrial projects, however, fell less precipitously in the case of Brazil than for total loans possibly because of the emphasis of Brazilian industrial policy on massive import-substitution projects as part of the post-oil shock adjustment policy[39].

[38] It must be noted that due to fungibility the Bank was in fact financing Brazilian marginal impost and the government's marginal projects go the sectoral distribution of loans probably had little impact on the sectoral distribution of aggregate public resources in Brazil.

[39] An adequate comparison, of course, would have to take into account the final sectoral breakdown of loans to development finance companies but this un- fortunately is not available.

In general, the Bank tended to approve an increasingly larger share of agricultural/social/ development finance agencies loans to the detriment of infrastructure/industry projects. This change in shares is explained by a shift in the Bank’s policy concerning the choice between equity and efficiency: income redistribution became a prime target of the Bank’s policy in the 1970s. It was thought moreover that social/agriculture projects were less likely to find alternative sources of finance in the private financial markets than more “straightforward” efficiency-geared projects. Changing sectoral shares, of course, also partly reflect the change of the sector mix of Bank's clients following the veiled and then explicit “graduation” of many developing countries in the late 1960s/early 1970s.

The emphasis on “social” projects had as an important consequence to increase the free foreign exchange element of the Bank's loans as “social” projects tended to entail lower direct and indirect costs than infrastructure/industrial projects. In this sense, the Bank’s financing efforts became naturally more relevant from the point of view of balance of payments finance through sectoral mix changes.

Table 3.3

World Bank Loans to Brazil: Sectoral Distribution, 1949-1984 (US$ 10^6)

Year	Electric Power	Transportation			Sewerage and water supply	Urban Development	Education	Agriculture	Industry	Other	Total
		Railways	Highways	Ports							
1949	75	-									75
1950	15	-	-	-	-	-	-	-	-	-	15
1951	15	-	-	-	-	-	-	-	-	-	15
1952	25	12.5	-	-	-	-	-	-	-	-	37.5
1953	-	-	3.0	-	-	-	-	-	-	-	3.0
1954	36.1	12.5	-	-	-	-	-	-	-	-	48.6
1958	113.4	-	-	-	-	-	-	-	-	-	13.4
1959	184.6	-	-	-	-	-	-	-	-	-	84.6
1965	179.5	-	-	-	-	-	-	-	-	-	79.5
1966	149.0	-	-	-	-	-	-	-	-	-	49.0
1967	100.6	-	-	-	-	-	-	-	-	-	100.6
1968	-	-	-	-	-	-	-	40.0	22.0	-	62.0
1969	48.9	-	26.0	-	-	-	-	-	-	-	74.9
1970	80.0	-	100.0	-	-	-	-	-	25.0	-	205.0
1971	70.0	-	-	45.0	22.0	-	8.4	-	-	15.0	160.4
1972	60.0	46.0	89.0	-	-	-	-	-	242.0	-	437.0
1973	20.0	-	51.0	-	-	-	-	116.7	-	-	187.7
1974	206.0	-	-	-	36.0	-	-	-	-	-	242.0
1975	-	175.0	110.0	-	-	-	23.5	23.0	95.0	-	426.5
1976	102.0	75.0	55.0	-	-	-	-	52.0	110.0	104.0	498.0
1977	82.0	-	-	-	40.0	-	32.0	125.0	146.0	-	425.0
1978	130.0	-	114.0	-	110.0	88.0	-	178.0	85.0	-	705.0
1979	109.0	-	110.0	-	100.0	163.0	-	94.0	98.0	-	674.0
1980	214 .0	-	-	-	269.0	159.0	32.0	69.0	-	58.0	695.0
1981	179.0	-	-	-	180.0	90.0	-	145.0	250.0	-	844.0
1982	282.7	-	240.0	-	-	123.9	-	162.5	-	13.0	722.1
1983	-	-	154.0	-	302.3	8.9	-	467.8	304.5	220.0	1,457.5
1984	528.9	-	210.0	-	-	52.7	60.0	398.7	-	354.0	1,604.3

Source: World Bank, *Annual Report*, several years.

Table 3.4

IBRD Loans to Brazil and World: Sectoral Distribution, US$$10^6$

Type	World			Brazil		
	1947-65	1966-75	1976-84	1947-65	1966-75	1976-84
Agriculture	624.7	3,189.4	17,207.5	-	179.7	1,686.0
Education	6.0	750.0	2,933.0	-	31.9	124.0
Energy	3,030.7	3,160.2	16,021.8	343.6	634.5	1,427.6
Industry	1,378.6	3,264.2	2,523.6	-	384.0	993.5
Transportation	2,950.8	3,828.8	11,934.3	28.0	642.0	958.0
Highways	1,200.6	1,568.7	7,310.9	3.0	376.0	883.0
Ports	322.7	812.1	1,713.6	-	45.0	-
Railways	1,279.6	1,122.4	2,467.2	25.0	221.0	75.0
Other	147.9	325.6	442.6	-	-	-
Urban Development	-	159.9	2,536.6	-	-	685.5
Water Supply and Sewerage	33.0	800.1	3,964.6	-	58.0	1,001.3
Other	748.0	692.2	19,827.4	-	15.0	749.0
Total	8,771.8	15,844.8	76,948.8	371.6	1,945.1	7,624.9

Source: Elaboration of data from IBRD, *Annual Report*, several issues.

Table 3.5

IBRD Loans to Brazil and World: Sectoral Distribution (in %)

Type	World			Brazil		
	1947-65	1966-75	1976-83	1947-65	1966-75	1976-83
Agriculture	7.1	20.1	22.4	-	9.2	22.1
Education	0.1	4.7	3.8	-	1.6	1.6
Energy	34.6	19.9	20.8	92.5	32.6	18.7
Industry	15.7	20.6	3.3	-	19.7	13.0
Transportation	33.6	24.2	15.5	7.5	33.0	12.6
Highways	13.7	9.9	9.5	0.8	19.3	11.6
Ports	3.7	5.1	2.2	-	2.3	-
Railways	14.6	7.1	3.2	6.7	11.4	1.0
Other	1.7	2.1	0.6	-	-	-
Urban Development	-	1.0	3.3	-	-	9.0
Water Supply and Sewerage	0.4	5.1	5.1	-	3.0	13.1
Other	8.5	4.4	25.8[40]	-	0.8	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: computed from Table 3.4.

[40] The bulk of this corresponds to development finance companies.

3.3. The Inter-American Development Bank

IDB started operations in 1961. Loans to Brazil in early days – up to 1968 – represented 18.4% of total approved loans. This increased dramatically in 1969-73 to 26.0% then started to fall significantly: 17.4% in 1974-78, then 15.7% in 1979-83 (see table 3.6). This was at least partly a result of an informal voluntary restraint agreement entered upon by Argentina, Brazil and Mexico to make room for the smaller Latin American countries.

It should be noticed that a significant share of IDB's approved loans corresponded to loans partly denominated in the borrower's currency being thus irrelevant from a balance of payments point of view. The Cr$-convertible currency loan ratio, however, was never much above 25% of the total resources involved and consequently does not significantly affect comments above on the time distribution of foreign exchange proceeds of loans to Brazil.

The Bank's total loans in real terms – once more deflated by the US Wholesale price index – define a time pattern similar to the World Bank's experience already commented upon: IDB's total approved loans first increased in real terms at 5.6% a year in 1961-65, then at 7.3% in 1965-75. In 1975-81 this rate fell quite significantly to only 1.3% – mainly as a result of US change of heart concerning his role in regional development banks – recovering somewhat in the last two years also in line with the World Bank (in 1975-83 total real approved loans increased at 3.1% a year).

Contrary to the experience with the World Bank group – where Brazil never had access to IDA's soft loans – IDB resources were tapped by Brazil using four main financial facilities (see table 3.7): a hard window corresponding to the Ordinary Capital fund, a softer window to the Special Operation Fund, still softer ones to the Fiduciary Fund – used only in early days – and other minor – British, Canadian, Swedish – low or no-interest funds. The proportion of Special Operations Fund loans in total loans was never above 20-25%.

As can be seen from table 3.8 interest rates charged on Ordinary Capital loans were quite high in comparison to World Bank loans or even to private loans (see table 3.2). This, of course, was an additional incentive for the reduction in Brazilian – and other large Latin American borrowers' – interest in IDB loans before the balance of payments difficulties after the end of 1982. Special Operations Fund loans were of course much more interesting: supposing total costs of about 4.0% including commissions the interest rate differential in the 1970s and 1980s was never below 2.5% and reached something around 14.0%. The grant element in a hypothetical loan (4 years' grace, 16 years' repayment period) supposing an alternative private market interest rate of 10% compared with 4% for the IDB loan would be of no less than 40% of the initial loan amount. The present value of yearly transfers to Brazil would be of around US$ 20 million supposing Special Operations Fund Loans are held at the 1979-83 average level.

Table 3.6

Inter-American Development Bank: Approved Loans, Total and Brazil, 1961-83

Year	(1) Total Loans	(2) Loans to Brazil	(2) / (1) (%)
1961	293.7	28.2	9.6
1962	329.4	81.8	24.8
1963	258.9	23.3	9.0
1964	299.3	96.0	32.1
1965	373.5	45.1	12.1
1966	396.1	88.8	22.4
1967	496.4	106.9	21.5
1968	430.9	58.0	13.5
1969	631.5	143.4	22.7
1970	644.4	161.1	25.0
1971	651.8	148.9	22.8
1972	807.2	213.2	26.4
1973	884.0	274.1	31.1
1974	1,110.7	187.0	16.8
1975	1,375.0	269.5	19.6
1976	1,527.8	239.1	15.7
1977	1,808.9	361.6	20.0
1978	1,870.1	283.2	15.1
1979	2,051.0	365.5	17.8
1980	2,308.1	424.4	18.4
1981	2,493.8	383.1	15.4
1982	2,744.3	372.2	13.4
1983	3,045.0	441.0	14.5

Source: BID, *Annual Report*, several years

Table 3.7

Inter-American Development Bank: Approved Loans, Brazil, 1961-83 (US$ 10^3)

Year	Ordinary Total	Capital[41] (Cr$)	Special Total	Operations Fund (Cr$)	Fiduciary Fund	Other	Total (US$ 10^6)
1961	14.361	3.967	9.699	-	4.120	-	28.2
1962	23.940	-	11.636	2.636	46.190	-	81.8
1963	15.690	640	3.150	1.500	4.500	-	23.3
1964	82.251	20.000	7.000	3.000	6.700	-	96.0
1965	24.506	500	20.640	11.600	-	-	45.1
1966	27.224	1.700	61.550	15.650	-	-	88.8
1967	59.423	660	47.500	18.000	-	-	106.9
1968	23.050	500	35.000	12.000	-	5.839	58.0
1969	52.378	2.700	82.070	34.100	-	9.228	143.4
1970	78.405	-	77.000	27.500	-	-	161.1
1971	72.906	5.000	71.000	34.500	-	-	148.9
1972	162.245	17.700	45.700	14.800	-	5.220	213.2
1973	221.200	23.900	41.800	14.600	-	4.356	274.1
1974	168.900	11.000	18.000	9.100	-	-	187.0
1975	199.500	-	70.000	55.000	-	-	269.5
1976	187.070	-	52.000	• • •	-	-	239.1
1977	301.548	-	60.000	• • •	-	-	361.6
1978	283.200	• • •	-	• • •	-	-	283.2
1979	306.500	• • •	59.000	• • •	-	-	365.5
1980	332.400	• • •	92.000	• • •	-	-	424.4
1981	341.600	• • •	41.500	• • •	-	-	383.1
1982	269.600	• • •	82.500	• • •	-	-	372.2
1983	374.500	• • •	66.500	• • •	-	-	433.5

Source: BID, *Annual Report*, several years.

[41] Includes export Financing and Inter-regional Capital.

Table 3.8

Inter-American Development Bank: Interest Rates on Loans to Brazil, 1961-1984

Year	Ordinary Capital*	Export Financing	Special Operations Fund*	Fiduciary Fund	Other
1961	5.75-6.00	-	4.50	2.75	-
1962	5.75	-	4.00	1.25-2.75	-
1963	5.75	-	4.00	1.25-2.75	-
1964	5.75-6.00	6.50	4.00	1.25	-
1965	6.00	-	2.25-4.00	-	-
1966	6.00-6.50	-	2.25-3.25	-	-
1967	6.50-7.75	6.50	2.25-3.25	-	-
1968	7.75	-	3.25	-	0-2.00
1969	8.00	6.50	3.25	-	3.00
1970	8.00	6.50	2.25-3.25	-	-
1971	8.00	6.50-7.00	2.25-3.25	-	-
1972	8.00	• • •	3.00-4.00	-	3.00
1973	8.00	• • •	3.00	-	3.00
1974	8.00	• • •	4.00	-	-
1975	8.00	• • •	3.00-4.00	-	-
1976	8.00-8.60	7.00-8.00	3.00	-	-
1977	8.00-8.35	7.00-8.00	2.00-4.00	-	-
1978	7.50	7.00-7.50	2.00-4.00	-	-
1979	7.50-7.90	7.00	2.00-4.00	-	-
1980	8.25	7.00	2.00-4.00	-	-
1981	9.25	7.00	3.00	-	-
1982	10.50	8.75	3.00	-	-
1983**	11.00	• • •	2.00-4.00	-	-

Source: IDB, *Annual Report*, several years.

* Service and/or commission fees charged over outstanding debt and undisbursed amounts on at least part of the loans. These vary considerably over time and according to source of funds and currency in which the loan is payable.

** Since 1983, variable rate loans.

In terms of sectoral loan distribution, the Brazilian experience with IDB is not substantially different from what has been already described in connection with IBRD loans. The shares of infrastructure/industry sectors tended to be larger for Brazil for all periods than for total loans in a context of declining importance of these sectors in comparison with the "social" sectors, including agriculture, and, in contrast with IBRD, science and technology. On the other hand, IBD's enthusiasm with urban development and public health loans seems to have been much less pronounced than IBRD's: one would expect that the net foreign exchange contribution of IDB loans tended to be lower than that entailed by IBRD loans for reasons already discussed in sub-section 3.1.

Table 3.9

IDB Loans to Brazil: Sectoral Distribution US$ 10^6 (% in brackets)

Type	1961-65		1966-70		1971-75		1976-80		1981-83	
Energy	61.2	(19.3)	235.4	(40.6)	369.2	(34.0)	496.6	(30.8)	113.5	(12.9)
Industry and Mining	93.0	(29.3)	43.3	(7.5)	271.0	(24.9)	307.4	(19.1)	147.6	(16.8)
Agriculture	36.2	(11.4)	107.3	(18.5)	50.0	(4.6)	455.1	(28.2)	112.9	(12.8)
Transport and Communications	25.6	(8.1)	70.6	(12.2)	183.3	(16.9)	188.9	(11.7)	92.0	(10.4)
Education, Science and Technology	4.0	(1.3)	28.0	(4.8)	98.0	(9.0)	79.0	(4.9)	119.9	(13.6)
Public Health	77.8	(24.5)	43.1	(7.4)	40.0	(3.7)	8.0	(0.5)	147.2	(16.7)
Export Financing	10.8	(3.4)	31.2	(5.4)	42.0	(3.9)	81.9	(5.1)	45.6	(5.2)
Urban Development	3.3	(1.0)	20.0	(3.5)	-	(-)	-	(-)	60.0	(6.8)
Feasibility Studies	5.1	(1.6)	0.8	(0.1)	33.4	(3.1)	-6.0*	(0.4)	42.5	(4.8)
Total	317.0	(100.0)	579.7	(100.0)	1,086.9	(100.0)	1,611.2	(100.0)	881.2	(100.0)

Source: Elaboration of data from BID, *Annual Report*, several years.

* Mistake probably originating in reclassification of loan.

Table 3.10

IDB loans: Sectoral Distribution, Cummulative, Total and Brazil US$10^ (% in brackets)

Type	Total				Brazil			
	1961-75		1976-83		1961-75		1976-83	
Energy	1856	(21.4)	4,840	(29.6)	665.8	(33.6)	610.1	(24.5)
Industry and Mining	1254	(14.4)	2,522	(15.4)	407.3	(20.5)	455.0	(18.3)
Agriculture	1975	(22.7)	3,573	(21.8)	193.5	(9.8)	568.0	(22.8)
Transport and Communications	1592	(18.3)	1,684	(10.3)	279.5	(14.1)	280.9	(11.3)
Education, Science and Technology	375	(4.3)	939	(5.7)	130.0	(5.5)	198.9	(8.0)
Public Health	838	(9.7)	1,540	(9.4)	160.9	(8.1)	155.2	(6.2)
Export Financing	132	(1.5)	402	(2.5)	84.0	(4.2)	127.5	(5.1)
Urban Development	454	(5.2)	337	(2.1)	23.3	(1.2)	60.0	(2.4)
Feasibility Studies	138	(1.6)	203	(1.2)	39.3	(2.0)	36.3	(1.5)
Tourism	71	(0.8)	197	(1.2)	-	(-)	-	(-)
Other	-	(-)	113	(0.7)	-	(-)	-	(-)
Total	8685	(100.0)	16,350	(100.0)	1,983.6	(100.0)	2,492.4	(100.0)

Source: Elaboration of data from BID, *Annual Report*, several years.

4. Conclusions: past experience and the challenge of official lending institutions in the coming years

The main points in the analysis of Brazilian experience with foreign official financial "aid", presented in Sections 2 and 3, can now be summarized.

In Section 2 it was seen that the origins of foreign official financial assistance can be traced back to the second half of the thirties and the years of World War II when the Eximbank not only provided urgently needed compensatory finance to settle large Brazilian payments arrears with the U.S. but also lent to make possible the expansion of large scale iron ore mining and steel production by nationalized enterprises. During the immediate post war years, however, Brazilian hopes of an enlarged access to development assistance following the creation of the World Bank were successively frustrated: The Brazilian government refusal to meet the Bank's administration wishes as to the conduct of some aspects of economic policy led to an almost continuous suspension of World Bank lending to Brazil from 1953 to 1965.

With the creation of IDB and the launching of USAID in 1961, and the more collaborative approach taken by the World Bank after 1964, the sixties saw a progressive and substantial increase in multilateral and government lending both in the shape of balance of payment loans made during the external adjustment crisis of the first half of the decade and, later, in the form of project loans. From the late sixties until the recent debt crisis official lending proceeded in a significant scale, although the importance of its contribution to Brazilian economic growth through the supply of long-term capital diminished markedly during these years relatively to that of foreign private sources, especially commercial banks.

In Section 3, where World Bank and Inter-American Development Bank lending to Brazil was analysed, it was shown that for most periods it was the actual availability of multilateral and government agencies resources which defined the level of Brazil's indebtedness with these agencies. As a rule, these loans entailed sizeable "grant elements" related to the interest rate differentials in relation to private financial market alternative sources.

However, in the heyday of the growth *cum* debt model for such countries as Brazil such differentials were not always favourable to multilateral and government agencies loans. Moreover, the fall in the rate of growth of real resources available to these agencies – a result of an increasing reluctance by the US government to bear the major part of the fund provision – prompted the menace of the adoption of "graduation" policies, which would effectively close World Bank windows for Brazil. Only the emergency liquidity situation after 1982 was able to shelve such plans at least temporarily.

Changes in World Bank policy concerning the sectoral emphasis of its financing efforts were important both directly by their impact on the distribution of Bank loans and indirectly by their influence on the priorities of other agencies such as the IDB. Loans first concentrated in infrastructural (energy and transport) as well as industrial projects then – with the Bank change of emphasis in the efficiency-equity balance – on “social” (sewerage, water supply, urban development) and agricultural projects.

Domestic policies emphasizing import substitution had a relevant impact in the distribution of sectoral shares in Brazilian loans as compared with total loans. The net availability of foreign exchange tended to increase over time as the import element of financed projects tended to be reduced.

From the analysis of the Brazilian experience with foreign official financial assistance during the past fifty years presented in this study stems the conclusion that except for periods of severe balance of payments constraint such as the thirties, World War II and the first half of sixties, when official lending was extremely important for economic stability and growth, the contribution of government and multilateral lending to Brazil’s economic development should not be overestimated. The World Bank lost a great opportunity to further Brazilian economic growth in the early fifties by withdrawing its support to the country's development plans just when official assistance was most needed because of the lack of alternative sources of finance. From then on, and especially from the mid-sixties, the existence of ample and competitive supply of foreign capital from alternative private sources made government and multilateral lending relatively less important as a source of external finance but for the years of recurrent external adjustment crisis in the early sixties. Since 1982, however, as in previous situations of several external disequilibria, government and multilateral lending have played a fundamental part in Brazil’s external adjustment.

With the end of voluntary back lending and the need to effect large interest transfers abroad, the relative importance of official long-term capital to Brazil is bound to remain large in the near future and the role of official agencies will certainly be crucial in helping the country to restore high rates of output growth and maintain external equilibrium.

The importance of multilateral and government agencies lending to Brazil’s external adjustment over time, as well as the trade-off between official lending, domestic output growth and the growth of private bank lending in the process of adjustment can be illustrated by a simulation exercise. This can be done with the help of a simple model capable of generating Brazil’s financial requirements under alternative scenarios, defined as a time pattern for a set of basic exogenous variables relating to the behaviour of the world economy, and Brazilian trade elasticities. For a given scenario the model can forecast the amount of new money (net financial requirements) and of new money plus eventually necessary amortization rescheduling (gross financial requirements) needed from multilateral and government agencies, and the evolution of total debt to them, for every time patterns of domestic GDP growth and of growth of private bank debt[42].

The results of such simulations under the Base Scenario shown in Table 4.1 are presented in Table 4.2. Simulation I, which assumes no new lending from commercial banks, highlights the fact that if private banks refrain from further lending, multilateral and government institutions alone cannot possibly guarantee a sustained rate of economic growth above 5 percent a year in Brazil. To achieve 6 percent GDP growth would require official lending agencies to allow total Brazilian liabilities to them to grow at an average 11 percent a year over the coming decade and near 20 percent a year over the coming three years, a clearly unfeasible proposition.

Simulation II, also shown in Table 4.2, recalls the crucial contribution of continued official *and* private lending to Brazil's sustained recovery: with commercial bank lending growing at about 3 percent a year – a rate compatible with a reduction of their exposure in Brazil – GDP growth rates of 6 percent are made feasible if rescheduling of existing debt takes place. In this situation, practically no new money from official lenders would be needed from 1986 and partial amortization of principal could be re-enacted by the end of the eighties.

Fortunately, as indicated above, since late 1982 the World Bank stepped in to play an important complementary role in financing the external adjustment process, especially in middle- income debtor countries. In Brazil, this has happened in spite of a concurrent Sharp fall in the demand for project financing due to public and private investment cuts associated with the orthodox external adjustment program applied over the past two and a half years under IMF supervision. More recently, with the envisaged end of the period covered by the IMF extended facility program, the Bank has shown to be increasingly willing to assume a role in line with the Fund in supervising, more commonly at the level of sectoral policies, the application of orthodox adjustment programs such as those now being implemented.

[42] For a description of the model, see Appendix D.

Table 4.1

Base scenario for the debt projection

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
OECD output growth rate (%)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Export price change (%)	4.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Import price change (%)	4.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
LIBOR (%)	10.5	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Official agencies lending rate (%)	9.0	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Net direct investment (US$ million)	200	300	500	500	500	500	500	500	500	500
Output elasticity of real imports	3	1.5	1.2	1	0.9	0.9	0.9	0.9	0.9	0.9
OECD growth elasticity of real exports	1.6	1.5	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Table 4.2

Brazil: 1985-1994

Projections of gross and net financial requirements from and debt outstanding to multilateral and governmental agencies (in million dollars)

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	Simulation I: No new lending by commercial banks									
Domestic output growth at 4% p. a.										
Financial requirements:										
Gross	2687	2730	1725	295	-	-	-	-	-	-
Net (new money)	1379	1077	105	-	-	-	-	-	-	-
Debt outstanding*	13579	14656	14761	13912	12771	11563	10558	9642	8893	8383
Domestic output growth at 5% p. a.										
Financial requirements:										
Gross	3157	3570	2988	1991	1284	941	662	-	-	-
Net (new money)	1849	1917	1368	847	92	-	-	-	-	-
Debt outstanding*	14049	15966	17334	18181	18273	17537	16354	14310	12276	10464
Domestic output growth at 6% p. a.										
Financial requirements:										
Gross	3656	4446	4290	3733	3790	4076	4207	4481	4522	4100
Net (new money)	2348	2793	2670	2589	2401	2248	2053	1911	1732	1629
Debt outstanding*	14548	17341	20011	22600	25001	27249	29302	31213	32945	34574

Table 4.2 (continued)

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	Simulation II: Domestic output growth of 6% p. a.									
No new lending by commercial banks										
Financial requirements:										
Gross	3656	4446	4290	3733	3790	4076	4207	4481	4522	4100
Net (new money)	2348	2793	2670	2589	2401	2248	2053	1911	1732	1629
Debt outstanding*	14548	17341	20011	22600	25001	27249	29302	31213	32945	34574
Bank debt growth of 3%										
Financial requirements:										
Gross	3656	1806	1702	1213	1353	1434	1390	1271	1342	1310
Net (new money)	2348	153	82	69	-	-	-	-	-	-
Debt outstanding*	14548	14701	14783	14852	14816	14709	14529	14341	14120	13979
Bank debt growth of 5% p. a.										
Financial requirements:										
Gross	3656	46	-	-	-	-	-	-	-	-
Net (new money)	2348	-	-	-	-	-	-	-	-	-
Debt outstanding*	14548	12941	11321	10177	8788	7259	5710	4282	2753	1333

* End of year.
Note: All projections assume no new lending by commercial banks in 1985.

"Structural adjustment" loans, however, have up to now been rare in Latin America and non-existent in Brazil. Similarly, the Bank's hefty list of conditionalities – macro-economic as well as sectoral – has been on the main successfully resisted in Brazil in spite of growing pressures, especially in the case of sectoral loans[43] in recognition of the limitations imposed on specific projects by adverse "policy environments". The growing importance of World Bank loans in the future, as a source of badly needed foreign exchange, as illustrated by the simulations discussed above, will probably bring the issue of Bank conditionality to the fore. It is to be expected that the lessons of the 1950s concerning the long run costs of doctrinaire intransigence among Bank managers as to the conduct of economic policy in Brazil will inform their lending policies in the 1980s.

[43] See Bacha (1985), pp. 18-20 on conditionalities in relation to recent agricultural and import financing sectoral loans.

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Appendix A

Eximbank loans to Brazil, 1939-1953

Year	Corporation	US$ Dollar (10^6)
1939	Banco do Brasil	19.2
1939	American Brazilian Corporation	1.1
1940	Companhia Siderúrgica Nacional	45.0
1942	Companhia Vale do Rio Doce	14.0
1945	Companhia Vale do Rio Doce	5.0
1945	Central Railways of Brazil	3.8
1945	Lloyd Brasileiro	38.0
1946	Moore McCormack (Navegação) S.A.	0.1
1947	Sorocabana Railways	6.6
1948	Companhia de Transportes Municipais de São Paulo	3.2
1948	Companhia Brasileira de Energia Elétrica	2.3
1948	Companhia Brasileira de Energia da Bahia	0.4
1948	Companhia Central Brasileira de Força Elétrica	0.1
1948	Companhia Força e Luz de Minas Gerais	0.2
1948	Companhia Força e Luz Nordeste do Brasil	0.1
1948	Companhia Força e Luz do Paraná	0.3
1948	Companhia de Energia Elétrica Rio Grandense	1.0
1948	Companhia Paulista de Força e Luz	2.1
1949	Empresa Internacional de Transportes Ltda.	2.2
1950	Cimento Aratú S.A.	3.1
1950	Companhia Paulista de Estradas de Ferro	8.8
1950	Companhia Siderúrgica Nacional	25.0
1951	Sociedade Brasileira de Mineração	30.0
1951	Companhia Brasileira de Ligantes Hidráulicos	5.0
1952	Affiliates of the American & Foreign Power, Co. Inc.	41.1
1952	Companhia Paulista de Estradas de Ferro	7.0
1952	Santos-Jundiaí Railway	8.6
1952	State of Minas Gerais	5.0
1952	ICOMI S.A.	67.5
1952	Companhia Metalúrgica Bárbara	1.9
1952	BNDE (agricultural equipment)	18.0
1952	Companhia Vale do Rio Doce	1.1
1953	Banco do Brasil	300.0
1953	Companhia Brasileira de Estireno	2.5
1953	S.A. Indústrias Reunidas F. Matarazzo	0.6
1953	S.A. Indústrias Votorantin	0.3

Source: United States Senate. 83rd Congress 2nd Session. *Study of Latin American Countries. Interim Report of the Senate Committee on Banking and Currency. A Study of the Operations in Latin American Countries of The Export-Import Bank and the International Bank and Their Relation to the Expansion of International Trade* (Pursuant to S. Res. 25, 83rd Congress, 1st Session), Washington, 1954.
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APPENDIX B

STATISTICAL TABLES

Table B.1

Brazil; 1960-1982 GDP growth rates and the contribution of foreign capital inflows to savings (in %)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	
Rate of growth of GDP	9.7	10.3	5.3	1.5	2.9	2.7	3.8	4.8	11.2	10.0	8.8	
Net capital inflow as a proportion												
Total savings:												
- loans and credits only	-0.46	6.62	1.48	0.74	0.16	1.22	3.30	4.44	2.43	3.63	7.36	
- loans and credits plus direct investment	2.07	9.26	3.17	1.45	0.78	2.52	4.43	5.64	3.20	5.12	8.35	

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1081	1982
Rate of growth of GDP	12.0	11.1	13.6	9.7	5.4	9.7	5.7	5.0	6.4	7.2	-1.6	0.9
Net capital inflow as a proportion												
Total savings:												
- loans and credits only	9.76	20.71	13.14	16.23	9.98	12.13	10.24	16.91	10.34	10.02	17.51	10.26
- loans and credits plus direct investment	11.06	22.80	17.45	19.01	12.21	14.43	12.01	18.95	13.20	12.01	20.22	11.91

Note: Savings data as revised by Fundação Getúlio Vargas *in Conjuntura Econômica*, July, 1984, and linked to years prior to 1970 through the rate of growth of total savings as previously published in national account statistics by Fundação Getúlio Vargas.

Source: *Conjuntura Econômica*, several issues.

Table B.2

Brasil: 1947-1983

Outstanding foreign debt and its composition according to nature of credit operation (numbers in brackets represent shares of total debt)

US$ million	1947	1948	1949	1950	1951	1952	1953	1954
Credits from official agencies	na	na	na	na	na	na	na	426[a] (32.3)
World Bank	na	na	na	na	na	na	na	na
IDB	na	na	na	na	na	na	na	na
USAID	na	na	na	na	na	na	na	na
PL-480	na	na	na	na	na	na	na	na
Eximbank	na	na	na	na	na	na	na	na
Other	na	na	na	na	na	na	na	na
Private credits	na	na	na	na	na	na	na	97[a] (7.4)
Commercial Bank cash loans	na	na	na	na	na	na	na	na
Suppliers' credits	na	na	na	na	na	na	na	na
Bonds	-	-	-	-	-	-	-	-
Consolidated public debt	597 (95.5)	576 (96.5)	454 (75.5)	301 (53.8)	270 (47.3)	243 (38.1)	222 (19.2)	180 (13.7)
Compensatory loans	na	na	na	na	na	na	na	614 (46.6)
Other	-	-	-	-	-	-	-	-
Total Debt	625 (100)	537 (100)	601 (100.0)	559 (100.0)	571 (100.0)	638 (100.0)	1159 (100.0)	1317 (100.0)

Table B.2 (continued)

	1955	1956	1957	1958	1959	1960	1961	1962
Credits from official agencies	525[a] (36.6)	523[a] (33.1)	498 (32.8)	700 (34.2)	729 (32.6)	682 (28.7)	635 (22.4)	536 (19.8)
World Bank	na	na	na	na	na	na	na	na
IDB	na	na	na	na	na	na	na	na
USAID	na	na	na	na	na	na	na	na
PL-480	na	na	na	na	na	na	na	na
Eximbank								
Other								
Private credits	149[a] (10.3)	397[a] (25.1)	326 (25.1)	486 (23.8)	768 (34.4)	951 (40.0)	983 (34.7)	1075 (35.8)
Commercial Bank cash loans	na	na	na	na	na	na	na	na
Suppliers' credits	na	na	na	na	na	na	na	na
Bonds	-	-	-	-	-	-	-	-
Consolidated public debt	155 (10.7)	130 (8.2)	184 (12.1)	160 (7.8)	136 (6.1)	120 (5.1)	102 (3.6)	92 (3.1)
Compensatory loans	616 (42.6)	530 (33.5)	509 (33.5)	698 (34.1)	601 (26.9)	619 (26.1)	1115 (39.3)	1242 (41.3)
Other	-	-	-	-	-	-	-	-
Total Debt	1445 (100.0)	1580 (100.0)	1518(100.0)	2044(100.0)	2234(100.0)	2375(100.0)	2835 (100.0)	3005 (100.0)

Table B.2 (continued)

	1963	1964	1965	1966	1967	1968	1969	1970
Credits from official agencies	587 (19.0)	740 (23.4)	924[b] (23.5)	1772 (37.9)	1187 (35.1)	1302 (33.7)	1473 (33.5)	1702 (32.1)
World Bank	na	na	na	na	na	na	199 (4.5)	258 (4.9)
IDB	na	na	na	na	na	na	151 (3.4)	181 (3.4)
USAID	na	na	na	na	na	na	792 (18.0)	870 (16.4)
PL-480	na	na	na	na	na	na	103 (2.3)	115 (1.7)
Eximbank	na	na	na	na	na	na	167 (3.8)	190 (3.6)
Other	na	na	na	na	na	na	61 (1.4)	99 (1.9)
Private credits	1116 (36.1)	1044 (33.0)	1011 (25.7)	1028 (22.6)	989 (29.2)	1508(39.1)	2052 (46.6)	2895 (54.7)
Commercial bank cash loans	na	na	na	na	682[c] (20.2)	1125[c] (29.1)	1605 (36.5)	2285 (43.2)
Suppliers' credits	na	na	na	na	307 (9.1)	383 (9.9)	447 (10.2)	611 (11.5)
Bonds	-	-	-	-	-	-	-	-
Consolidated public debt	82 (2.6)	77 (2.4)	73 (1.8)	68 (1.5)	63 (1.9)	59 (1.5)	16 (0.4)	15 (0.3)
Compensatory loans	1304 (42.2)	1299 (41.1)	1729 (44.0)	1677 (36.9)	795[d] (23.5)	657[d] (17.0)	548 (12.4)	382 (7.2)
Other	-	-	-	-	-	-	-	-
Total Debt	3089 (100.0)	3160 (100.0)	3928 (100.0)	4545 (100.0)	3383 (100.0)	3861 (100.0)	4403 (100.0)	5295 (100.0)

Table B.2 (continued)

	1971	1972	1973	1974	1975	1976
Credits from official agencies	1980 (29.9)	2267 (23.8)	2659 (21.2)	3539 (20.6)	4085 (19.3)	4749 (18.3)
World Bank	348 (5.3)	484 (5.1)	647 (5.1)	978 (5.7)	1094 (5.2)	1287 (5.0)
IDB	206 (3.1)	244 (2.6)	277 (2.2)	312 (1.8)	416 (2.0)	546 (2.1)
USAID	931 (14.1)	960 (10.1)	1007 (8.0)	1054 (6.1)	1092 (5.2)	1121 (4.3)
PL-480	115 (1.7)	108 (1.1)	103 (0.8)	97 (0.6)	92 (0.4)	87 (0.3)
Eximbank	239 (3.6)	278 (2.9)	320 (2.5)	543 (3.2)	685 (3.2)	817 (3.1)
Other	141 (2.1)	193 (2.0)	305 (2.4)	555 (3.2)	706 (3.3)	891 (3.4)
Private credits	4038 (61.0)	6724 (70.6)	9432 (75.0)	13195 (76.9)	16702 (78.9)	20897 (80.4)
Commercial bank cash loans	3193 (48.2)	5528 (58.1)	7848 (62.4)	11211 (65.3)	14561 (68.8)	18194 (70.0)
Suppliers' credits	845 (12.8)	1136 (11.9)	1442 (11.5)	1812 (10.6)	1980 (9.4)	2414 (0.3)
Bonds	-	60 (0.6)	142 (1.1)	172 (1.0)	161 (0.8)	289 (1.1)
Consolidated public debt	15 (0.3)	12 (0.1)	10 (0.1)	9 (0.1)	7 -	5 -
Compensatory loans	382 (7.2)	241 (2.5)	203 (1.6)	169 (1.0)	137 (0.6)	106 (0.4)
Other	301 (5.7)	278 (2.9)	268 (2.1)	254 (1.5)	240 (1.1)	228 (0.9)
Total Debt	6623 (100.0)	9522 (100.0)	12571 (100.0)	17166 (100.0)	21171 (100.0)	25985 (100.0)

Table B.2 (continued)

	1977	1978	1979	1980	1981	1982	1983
Credits from official agencies	5219 (16.3)	6038 (13.9)	6430 (12.9)	6968 (12.9)	7477 (12. 2)	8007 (12.2)	9178 (11.3)
World Bank	1540 (4.8)	1974 (4.5)	2181 (4.4)	2246 (4.2)	2264 (3.7)	2341 (3.3)	2588 (3.2)
IDB	624 (1.9)	731 (1.7)	873 (1.7)	1047 (1.9)	1071 (1.7)	1203 (1.7)	1367 (1.7)
USAID	1117 (3.5)	1099 (2.5)	1077 (2.2)	1048 (1.9)	1019 (1.7)	989 (1.4)	967 (1.2)
PL-480	81 (0.3)	76 (0.2)	70 (0.1)	64 (0.1)	57 (0.1)	50 (0.1)	44 (0.1)
Eximbank	886 (2.8)	928 (2.1)	929 (1.9)	931 (1.7)	955 (1.6)	934 (1.3)	981 (1.2)
Other	971 (3.0)	1230 (2.8)	1300 (2.6)	1632 (3.0)	1892 (3.1)	2234 (3.2)	2762 (3.4)
Private credits	26523 (82.2)	37223 (85.5)	43264 (86.7)	46707 (86.7)	53993 (87.9)	61765 (88.0)	69841 (85.9)
Commercial bank cash loans	21528 (67.2)	29500 (67.8)	34625 (69.4)	37820 (70.2)	44984 (73.3)	52916 (75.4)	59633 (73.3)
Suppliers' credits	3773 (11.8)	5343 (12.3)	5673 (11.4)	5651 (10.5)	6113[e] (10.0)	6239[e] (8.9)	7982[e] (9.8)
Bonds	1222 (3.8)	2380 (5.5)	2966 (5.9)	3236 (6.0)	2896 (4.7)	2610 (3.7)	2226 (2.7)
Consolidated public debt	5 -	5 -	4 -	4 -	3 -	2 -	2 -
Compensatory loans	75 (0.2)	44 (0.1)	19 -	- -	- -	544 (0.8)	2648 (3.3)
Other	215 (0.7)	201 (0.5)	187 (0.4)	168 (0.3)	157 (0.3)	136 (0.2)	119 (0.1)
Total Debt	32037 (100.0)	43511 (100.0)	49904 (100.0)	53847 (100.0)	61411 (100.0)	70198 (100.0)	81319 (100.0)

Notes: (a) Estimated; (b) Position in 30.6.1965; (c) Residual; (d) *From Relatório do Banco Central do Brasil*, 1968; (e) Includes the entry "Other credits from official agencies", included up to 31.12.1960 in Central Bank statistics under "Other suppliers' credits".

Sources: From 1947 to 1966, Donnely (1970); from 1967 to 1968, Velloso (1982), p. 79; from 1969 to 1983, *Relatório do Banco Central do Brasil* and *Boletim do Banco Central do Brasil*, several issues.

Table B.3

Brazil: 1947-1983 – Balance of Payments (in US$ million)

		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1.	Exports (FOB)	1157	1183	1100	1359	1771	1416	1540	1558	1419	1483	1392	1244
2.	Imports (FOB)	-1027	-905	-947	-934	-1703	-1702	-1116	-1410	-1099	-1046	-1285	-1179
3.	Trade Balance (1 + 2)	130	278	153	425	68	-286	424	148	320	437	107	65
4.	Interest payments, net	-13	-25	-21	-27	-20	-22	-34	-48	-35	-67	-67	-58
5.	Other services and private transfers	-268	-255	-214	-258	-451	-316	-335	-295	-283	-313	-304	-255
6.	Current account balance (3 + 4 + 5)	-151	-2	-82	140	-403	-624	55	-195	2	57	-264	-248
7.	Amortization payments (8 + 9)	-48	-41	-28	-85	-31	-33	-46	-134	-140	-187	-242	-324
8.	Autonomous Loans	-48	-41	-28	-85	-31	-33	-46	-71	-81	-89	-149	-266
9.	Compensatory loans	-	-	-	-	-	-	-	-63	-59	-98	-93	-58
10.	Foreign exchange gap (6 + 7)	-199	-43	-110	55	-434	-657	-2	-329	-138	-130	-506	-572
11.	Autonomous Capital inflows (12 + 13)	68	34	45	31	34	44	66	120	186	320	462	483
12.	Direct investment, net[a]	36	25	5	3	-4	9	22	11	43	89	143	110
13.	Loans and Credits (14 + 15)	32	9	40	28	38	35	44	109	143	231	319	373
14.	Official Sources	32	9	40	28	38	35	23	77	60	100	108	150
15.	Private sources (16 + 17)	na	na	na	na	na	na	21	32	83	131	211	223
16.	Suppliers' credits	na	na	na	na	na	na	na	na	na	na	na	na
17.	Cash loans	na	na	na	na	na	na	na	na	na	na	na	na
17a.	Bank loans[b]	na	na	na	na	na	na	na	na	na	na	na	na
17b.	Bonds	-	-	-	-	-	-	-	-	-	-	-	-
18.	Errors and Omissions	-43	29	82	-23	123	-26	-98	10	12	-14	-171	-189
19.	Pre-compensatory foreign exchange gap (10 + 11 + 18)	-174	20	17	63	-277	-639	-34	-199	60	176	-215	-278
20.	Compensatory loans and credits	80	-	38	-	28	-28	486	200	61	-28	37	195
20a.	IMF	-	-	38	-	28	-28	28	-	-	-28	37	37
20b.	Eximbank	-	-	-	-	-	-	300	-	45	-	-	100
20c.	U.S. Treasury	-	-	-	-	-	-	-	-	-	-	-	-
20d.	USAID	-	-	-	-	-	-	-	-	-	-	-	-
20e.	European Consolidated Agreement	-	-	-	-	-	-	-	-	-	-	-	-
20f.	BIS	-	-	-	-	-	-	-	-	-	-	-	-
20g.	Commercial bank bridge loans	-	-	-	-	-	-	-	-	-	-	-	-
20h.	Others	80	-	-	-	-	-	158	200	16	-	-	58
21.	Commercial arrears	72	-22	28	-106	28	541	-563	-46	-8	-	-	-
22.	Other Compensatory (19 + 20 + 21)	-22	-2	83	-43	-221	-126	-111	-45	113	148	-178	-83

Table B.3 (continued)

		1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
1.	Exports (FOB)	1282	1270	1405	1215	1406	1430	1596	1741	1654	1881	2311	2739
2.	Imports (FOB)	-1210	-1293	-1292	-1304	-1294	-1086	-941	-1303	-1441	-1855	-1993	-2507
3.	Trade Balance (1 + 2)	72	-23	113	-89	112	344	655	438	213	26	318	232
4.	Interest payments, net	-91	-115	-114	-118	-87	-131	-] 56	-155	-184	-144	-182	-234
5.	Other services and private transfers	-292	-340	-221	-182	-139	-73	-131	-229	-266	-390	-417	-560
6.	Current account balance (3 + 4 + 5)	-311	-478	-222	-389	-114	140	368	54	-237	-508	-281	-562
7.	Amortization payments (8 + 9)	-377	-417	-327	-310	-364	-277	-304	-350	-350	-484	-533	-673
8.	Autonomous Loans	-301	-366	-308	-265	-219	-185	-214	-226	-243	-371	-437	-593
9.	Compensatory loans	-76	-51	-19	-45	-145	-92	-90	-124	-107	-113	-96	-80
10.	Foreign exchange gap (6 + 7)	-688	-895	-549	-699	-478	-137	64	-296	-587	-992	-814	-1235
11.	Autonomous Capital inflows (12 + 13)	563	477	687	394	280	220	350	516	601	626	961	1516
12.	Direct investment, net[a]	124	99	108	69	30	28	70	74	76	61	127	108
13.	Loans and Credits (14 + 15)	439	348	579	325	250	192	280	442	525	565	834	1408
14.	Official Sources	148	83	233	131	149	131[c]	167[c]	262[C]	221[c]	258[c]	296[c]	328[c]
15.	Private sources (16 + 17)	291	265	346	194	101	61	113	180	304	307	538	1080[d]
16.	Suppliers' credits	na	na	na	na	na	na	na	na	na	na	na	na
17.	Cash loans	na	na	na	na	na	na	na	na	na	na	na	na
17a.	Bank loans[b]	na	na	na	na	na	na	na	na	na	na	na	na
17b.	Bonds	-	-	-	-	-	-	-	-	-	-	-	-
18.	Errors and Omissions	-25	10	49	-138	-76	-218	-31	-25	-35	-1	-41	92
19.	Pre-compensatory foreign exchange gap (10 + 11 + 18)	-150	-438	187	-443	-274	-135	383	195	-21	-367	106	373
20.	Compensatory loans and credits	-21	61	260	120	187	52	250	9	-33	-12	-	-
20a.	IMF	-21	48	40	-18	5	-28	20	-39	-33	-12	-	-
20b.	Eximbank	-	3	101	81	79	1	6	-	-	-	-	-
20c.	U.S. Treasury	-	-	35	10	30	-	-	-	-	-	-	-
20d.	USAID	-	-	-	25	25	50	-	-	-	-	-	-
20e.	European Consolidated Agreement	-	-	9	21	31	29	43	13	-	-	-	-
20f.	BIS	-	-	-	-	-	-	-	-	-	-	-	-
20g.	Commercial bank bridge loans	-	-	-	-	-	-	-	-	-	-	-	-
20h.	Others	-	10	75	1	17	-	181	35	-	-	-	-
21.	Commercial arrears	-	68	-68	163	14	57	-182	-44	-8	-	-	-
22.	Other Compensatory (19 + 20 + 21)	-129	-309	379	-160	-73	-26	451	160	-62	-379	106	373

Table B.3 (continued)

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
1.	Exports (FOB)	2094	3991	6199	7951	8670	10128	12120	12659	15244	20132	23293	20175	21899
2.	Imports (FOB)	-3245	-4235	-6192	-12641	-12210	-12347	-12023	-13683	-18084	-22955	-22091	-19395	-15429
3.	Trade Balance (1 + 2)	-341	-244	7	-4690	-3540	-2219	97	-1024	-2840	-2823	1202	782	6470
4.	Interest payments, net	-302	-359	-514	-652	-1498	-1810	-2104	-2696	-4186	-6311	-9161	-11353	-9555
5.	Other services and private transfers	-664	-886	-1181	-1780	-1662	-1949	-2030	-3270	-3716	-3673	-3775	-5737	-3752
6.	Current account balance (3 + 4 + 5)	-1307	-1489	-1688	-7122	-6700	-5978	-4037	-6990	-10742	-12807	-11734	-16310	-6837
7.	Amortization payments (8 + 9)	-850	-1202	-1673	-1920	-2185	-3009	-4135	-5439	-6541	-6705	-7517	-8722	-10742
8.	Autonomous Loans	-779	-1148	-1631	-1881	-2147	-2971	-4037	-5401	-6510	-6680	na	na	na
9.	Compensatory loans	-71	-54	-42	-39	-38	-38	-38	-38	-31	-24	na	na	na
10.	Foreign exchange gap (6 + 7)	-2157	-2691	-3361	-9042	-8885	-8987	-8172	-12429	-17283	-19512	-19251	-25032	-17574
11.	Autonomous Capital inflows (12 + 13)	2205	4618	5435	7946	7027	9001	9577	15355	13398	13439	19334	15872	10402
12.	Direct investment, net[a]	168	318	940	887	892	959	810	1071	1491	1121	1584	992	657
13.	Loans and Credits (14 + 15)	2037	4300	4495	7059	6135	8042	8767	14284	11907	12318[e]	17750[e]	14770[e]	9745[e]
14.	Official Sources	411	458	573	979	920	776	805	951	945	1277	1317	1900	5204
15.	Private sources (16 + 17)	1626[d]	3842[d]	3922[d]	6080	5215	7266	7962	13333	10962	10183	16026	12902	6988
16.	Suppliers' credits	415	601	811	952	691	1017	1125	1083	1322	1184	2052	1287	991
17.	Cash loans	1211[d]	3241[d]	3111[d]	5128	4524	6249	6837	12250	9640	8999	13974	11615	5997
17a.	Bank loans[b]	1211[d]	3145[d]	3075[d]	5103	4524	5980	6119	11312	8982	8608	13914	11503	5997
17b.	Bonds	-	96	36	25	-	269	718	938	658	391	60	112	-
18.	Errors and Omissions	-9	436	355	-68	-139	518	-611	-639	-130	-343	-414	-368	-670
19.	Pre-compensatory foreign exchange gap (10 + 11 + 18)	39	2363	2429	-1164	-2297	532	794	2287	-4015	-6416	-331	-7217	-7847
20.	Compensatory loans and credits	-	-	-	-	-	-	-	-	-	-	-	4177	776
20a.	IMF	-	-	-	-	-	-	-	-	-	-	-	544	2152
20b.	Eximbank	-	-	-	-	-	-	-	-	-	-	-	876	-876
20c.	U.S. Treasury	-	-	-	-	-	-	-	-	-	-	-	-	-
20d.	USAID	-	-	-	-	-	-	-	-	-	-	-	-	-
20e.	European Consolidated Agreement	-	-	-	-	-	-	-	-	-	-	-	-	-
20f.	BIS	-	-	-	-	-	-	-	-	-	-	-	500	-500
20g.	Commercial bank bridge loans	-	-	-	-	-	-	-	-	-	-	-	2557	-
20h.	Others	-	-	-	-	-	-	-	-	-	-	-	-	-
21.	Commercial arrears	-	-	-	-	-	-	-	-	-	-	-	-	-
22.	Other Compensatory (19 + 20 + 21)	39	2363	2429	-1164	-2297	532	794	2287	-4015	-6416	-331	-7217	-7071

Notes: (a) Excludes reinvested earnings; (b) Refer to loans under Law nº 4131, SUMOC's Instrução 289 and Central Bank's Resolução 63 and Resolução 64; (c) Includes the World Bank, IBD, Eximbank (US), USAID, IFC, KFW and the National Bank of Denmark; (d) Residual; (e) The difference between this value and the sum of the items in lines 14 and 15 is due to the fact the item.

Sources: Lines 1 to 6, 18 and 21 from *Boletim do Banco Central do Brasil*; several issues; lines 11 to 13 and 15 to 17a from 1947 to 1959 from Donnelly (1970), from 1959 to 1964 from *Relatório da SUMOC*, from 1965 to 1973 and from 1979 to 1983 from *Relatório do Banco Central do Brasil*, and from 1974 to 1978 from IPEA (1981); line 14 from 1947 to 1963 from Donnelly (1970), from 1964 to 1970 from *Boletim do Banco Central do Brasil*, from 1971 to 1973 and 1979 to 1983 from *Relatório do Banco Central do Brasil*, and from 1974 to 1978 from *IPEA* (1981).

APPPENDIX C

The model used in the Brazilian debt projections presented in Section 4 explores the idea that if the quantity elasticities of Brazilian imports in relation to GDP as well as the quantity elasticities of Brazilian exports in relation to OECD output growth are known, the time pattern of Brazilian borrowing can be generated for each time pattern of domestic output growth and a given scenario for the evolution of OECD growth, International interest rates, Brazilian terms of trade and net direct investment.

In fact, if for each period t, $t = 0, 1, \ldots, n$, one defines:

$X(t)$ – nominal value of exports in period t.
$M(t)$ – nominal value of imports in period t.
$p_x(t)$ – export prices growth rate in period t.
$p_m(t)$ – import prices growth rate in period t.
$g(t)$ – rate of growth of OECD output in period t.
$y(t)$ – rate of growth of Brazilian output in period t.
$\theta(t)$ – quantity elasticity of Brazilian exports relative to OECD growth in period t.
$\varepsilon(t)$ – quantity elasticity of Brazilian imports relative to domestic output in period t.
$ib(t)$ – average nominal interest rate (plus spread and fees) paid on outstanding net private debt at the end of period t.
$im(t)$ – average nominal interest rate charged on outstanding net official debt at the end of period t.
$IDL(t)$ – net foreign direct investment in Brazil minus dividends paid abroad in period t.
k – net non-factor services as a proportion of total imports.

The balance of payments equilibrium condition in period t can be represented as:

$$X_o \prod_{j=1}^{t} [1 + \theta(j) \cdot g(j) + p_{x(j)}]$$
$$- M_0(1+k) \prod_{j=1}^{t} [(1 + \varepsilon(j) \cdot y(j) + p_m(j)] - [ib(t) + 1]D_b(t-1) - [i_m(t) + 1]$$
$$- [i_m(t) + 1]D_m(t-1) = [D_b(t) - D_b(t-1)] + [D_m(t) - D_m(t-1)] + IDL(t)$$

Thus, given the initial values of private and official debt, equation (1) allows the iterative calculation of the time pattern of net financial requirements from official institutions for alternative scenarios defined as a set of parameters $\{\theta, g, p_x, p_m, \varepsilon, i_b, i_m, D_b, IDC\}$. Gross financial requirements were calculated by adding rescheduled amortization when needed. The amortization schedule for new debt contracted from official creditors in the form of both new money and rescheduled amortization was simulated as if these new loans would have average grace of three years and the amortization schedule applying to total Brazilian debt to official creditors in December 31, 1982.