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Debt, growth and structural adjustment in Latin America: an appraisal of the baker initiative

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1. Introduction

Over the past two years, the perception of the nature of the macroeconomic adjustment problem facing the larger debtor countries and of the measures best suited to cope with it has undergone significant change. The basic reasons for this are twofold. On the one hand, the crucial importance of a favourable international environment as a pre-condition for any lasting solution of the debt problem became even more clear. Although this point has been forcibly put forward by the Cartagena consensus since its inception, it seems to have been taken more seriously by the leading industrial countries – and, especially, by the American government – as the sharp improvement in the outlook for debtor countries triggered by lower interest rates, fast US recovery and rising commodity prices following the debt crisis petered out.

On the other hand, it became increasingly clear that demand-oriented adjustment programs aimed at rapid adjustment of the current account position, as followed throughout Latin America after the crisis, could not be indefinitely pursued without severe and lasting negative effects on long-term economic growth. In fact, given the dual nature of the debt transfer problem – involving filling both a foreign exchange and a real resources gap – overcoming the balance of payments constraint may imply a compression of total available savings which depresses investment and hinders capacity output growth.

This basic point can be made clear by noting that for a given output to capacity ratio k, the rate of growth of potential output y^* can be expressed as:

$$y^* \leq k \frac{I}{Y^*} \tag{1}$$

where $\frac{I}{Y^*}$ is the share of net investment in capacity output.

Since, in goods' markets equilibrium

$$I = SD + SE = SD - H \tag{2}$$

where SD stands for domestic savings and SE for external savings, equal to H, the surplus in the balance of payments in goods and non-factor Services, equation (1) can be written as

$$y^* \leq k(s - h) \tag{3}$$

where s and h represent the shares of SD and H in potential output. It follows, therefore, that for a given rate of domestic savings s, the greater the real transfer burden h required to maintain external equilibrium, the lower the growth of potential – and, for a given level of capacity utilization, also current – output.

An important outcome of this greater concern with international interdependence and the need to foster the conditions for long term growth in debtor countries was the American Government's policy initiative announced by the US Treasury Secretary at the IMF-BIRD September 1985 meeting

in Seoul – the so-called Baker Plan – calling for a coordinated effort between debtor and creditor country governments, private banks and multilateral agencies.

The Baker plan is, broadly speaking, a proposal for enlarged financial assistance to debtor countries, access to which would be conditional to the implementation of a new set of "structural policies", whose content will be discussed below. Fresh funds would be provided by "a 50 percent increase in World Bank and IDB disbursements to the principal debtors, to $9 billion annually in 1986-88, or about $20 billion in net new credits over this period, after scheduled repayments; and $20 billion in net new lending by the commercial banks over the same period in support of growth-oriented policies by the debtor nations". Moreover, creditor governments would be exhorted to conduct their policies so as to provide a more stable international environment.

Although the explicit recognition of interdependent responsibility in the solution of the debt problem represented a great advance in the position of creditor country governments, since its announcement the plan was criticized along three main lines.

Firstly, although the importance of a favourable international environment was recognized and the role of industrial countries' policies in producing such environment was underlined, no effectively binding compromise for greater policy coordination was contemplated.

Secondly, access to resources to be made available under the Plan was to be conditional to the implementation of "structural adjustment" policies by debtor countries. However, even though the defence of "growth-oriented" supply-side policies by the staff of Bretton Woods institution has grown together with their worries with the effects of protracted demand-oriented adjustment packages, the set of policies and instruments referred to as constituting the core of structural adjustment programs is still ill-defined. The Baker initiative, for instance, broadly refers to "the development of more efficient domestic capital and equity markets, increased efficiency and privatization of public enterprises, growth-oriented tax reform, improvement of the environment for both domestic and foreign investment, trade liberalization and the rationalization of import regimes".

Moreover, the wisdom of specific policy prescriptions that have been put forward – and which may come to form part of the conditionality imposed for access to fresh financial assistance under the program – are still the object of academic debate.

Last but not least, there were widespread doubts as to the adequacy of the amount of fresh funds contemplated to cope with prospective financial requirements.

This paper is an attempt at assessing the validity of these criticisms. Section 2 addresses the question of the need for greater policy coordination among industrial countries to guarantee an adequate International environment for debtor countries' growth. Section 3 critically appraises the main *a priori* and empirical arguments put forward in defence of structural adjustment policies in developing countries. In Section 4, the question of foreign finance availability and its relation to

growth and structural adjustment in an indebted economy is discussed with the help of a simple simulation model. Section 5 summarizes the main conclusions of the study.

2. Economic Fluctuations in the OECD and their Impact on Latin American Debtor Countries[1]

Recent events have dramatically underlined the links between Latin America and the main developed economies in spite of its relative closeness, especially in relation to trade, if compared to other developing areas.

The years since the second oil shock provide solid evidence of the importance of macroeconomic management in the leading industrial countries for the trade performance of developing countries. Since mid-1982 the combination in the US of a looser monetary policy and a strong fiscal stimulus had a powerful impact on world trade growth and on Latin American export growth rates. The elements of instability of the US recovery, as the driving force of world recovery, were evident as the US growing external requirements undermined confidence in the dollar and as, after the fiscal stimulus stabilized, the deterioration in the current account dragged down economic activity, without compensating moves elsewhere in the OECD.

The issue of macroeconomic policy coordination was thus brought to the fore. After initial advances on the issue of exchange rates, difficulties are being faced as coordination increasingly depends on a firm commitment by the US to reduce the fiscal deficit and by Germany and Japan to adopt expansionary monetary and fiscal policies. So, developing countries growth performance depends crucially on the success of macroeconomic policy coordination among developed countries.

Demand growth, interest rate fluctuations and, to a lesser extent directly, inflation rates are the crucial macroeconomic variables to follow in terms of their influence on the economic performance of developing countries. Their impact determines in large measure the behaviour of exports and debt Service in developing countries and consequently – given the level of imports and autonomous capital inflows – balance of payments results.

Given the extremely heterogeneous conditions among Latin American economies concerning export composition, market structure, debt-export ratios, import mix, and success in substituting imports, the impact of macroeconomic policies in developed economies on specific Latin American economies is bound to vary quite considerably. Based on these differences – oil exporters and importers establishing the main contrasting categories – it is possible to define the existence of different groups of economies in terms of their vulnerability to unfavourable policy developments in their major trade and financial partners.

[1] This section draws heavily on Abreu and Fritsch (1986), section 3.

2.1. Demand Fluctuations

Demand conditions in developed countries are extremely important to define both export volumes and export prices, especially those of commodities, in developing countries. This obvious short-run relation between demand conditions in the developed countries and export volumes in developing economies must, however, be qualified by long run arguments, as structural trends are extremely powerful. The impact of OECD activity on commodity prices, on the other hand, is not evenly distributed, being especially powerful in the case of non-oil commodities. Again, the relative strength of those links is bound to vary quite considerably depending on the specific Latin American economy under analysis.

2.1.2. Export Volumes

In the short-run, given export promotion and exchange rate policies, demand growth in developed countries is the most important single variable which explains the behaviour of manufactured and non-oil commodity exports by developing countries. While prices, of course, are also relevant, their elasticity is not high, especially so in the case of non-oil exports[2].

Oil export volumes are, of course, also affected by activity variables but the administration of supply by OPEC makes this a rather special case. Actual estimated elasticities of export volumes are in fact considerably higher for developing countries which export fuel than for other groups[3].

While the relation between demand conditions in developed countries and developing countries' export volumes is well documented[4], the results tend to obscure the pronounced instability in relation to marginal changes in specifications and the marked pro-cyclical behaviour of such elasticities, as illustrated by their evolution since the early 1970s. Immediately after the first oil shock they became negative in the OECD, then increased to more than 2.0 to fall again in 1980/81 to -2.67 and -0.50 and then recover to reach 2.0 in 1983/85[5].

In the case of Latin American exports such elasticities have been much more stable, especially for countries which do not export oil (Table 1). But even oil exporters had impressive export performances only marred in the two last years. Indeed, in terms of volumes exported the performance after the mid-1970s of oil and non-oil Latin American exporters was not significantly different (see Table 2). Specific countries, however, fared much worse – Venezuela is the best example – or much better – as Argentina, Brazil and Mexico – than their respective groups.

[2] See Dornbusch (1985), p. 337.
[3] IMF (1986), p. 26.
[4] See, for instance, IMF (1986), pp. 26 and 32.
[5] See Resende, Lago, Abreu and Fritsch (1984), pp. 22-25.

These contrasting performances are mainly explained by the very unequal behaviour of specific groups of Products – energy, raw materials, food and manufactures – over two cycles of OECD economic activity since the early 1970s, as well as by different market orientation. OECD aggregate import volume per GDP unit varied roughly in line with GDP but energy and raw material import volumes per unit of output were particularly laggard, falling 40% and 20% respectively over the last 12 years due to conservation, substitution and changes in GDP mix.

Table 1

Latin America; Export Volume Growth Rates, 1976-85

Year	Total exports	Oil exporters	Non-oil exporters	Elasticity in relation to QECD growth			
				OECD growth	Total exports	Oil exporters	Non-oil exporters
1976	7.1	3.0	8.8	4.8	1.48	0.63	1.83
1977	7.2	5.8	7.8	3.8	1.89	1.53	2.05
1978	11.5	14.5	10.4	4.0	2.87	3.63	2.60
1979	10.5	13.8	9.2	3.1	3.39	4.45	2.97
1980	5.9	5.7	6.0	1.2	4.92	4.75	5.00
1981	9.2	1.2	12.7	2.0	4.60	0.60	6.35
1982	-1.3	9.2	-5.4	-0.5	2.60	-18.40	10.80
1983	7.1	6.2	7.8	2.4	2.96	2.58	3.25
1984	7.2	4.4	9.8	4.9	1.47	0.45	2.00
1985	-1.7	-6.4	2.5	2.8	-0.61	-2.29	0.89

Source: CEPAL (1984), CEPAL (1985) and OECD (1985).

Table 2

Latin America: Export Volumes, 1970-85 (1970 = 100)

Year	1985	1980	1983	1984	1985
Latin America	77.8	166.7	196.0	210.2	206.7
Oil exporters*	85.8	128.8	151.6	158.3	148.1
Mexico	119.9	278.9	496.7	492.8	451.8
Venezuela	63.9	59.0	48.3	50.1	46.6
Non-oil exporters	127.4	190.8	225.5	247.7	253.8
Argentina	77.8	147.8	192.6	186.1	217.2
Brazil	157.9	265.1	349.9	414.9	413.6
Colombia	152.0	153.8	132.0	180.3	202.1
Chile	126.2	221.9	260.4	255.2	267.7

Sources: CEPAL (1984) and CEPAL (1985).
*Oil exporters include Bolivia, Ecuador, Mexico, Peru and Venezuela.

In the other extreme, the volume of manufactured goods imports per unit of GDP increased by more than 30% in spite of the rise of protectionism. In principle, the abler was a Latin American country to diversify its exports by increasing the share of manufactures, the less vulnerable was it to these very marked structural trends.

As the US market absorbs no less than two thirds of total developed countries' imports of manufactures from developing countries it is likely that a developing country which is a big exporter of manufactures will depend relatively more on US market growth than countries exporting other goods. Since the US market has been growing much faster than other developed markets, Latin American countries which depend relatively more on this market – Brazil, Chile, Colombia, Mexico – tended to fare better than other countries such as Argentina and Uruguay[6].

Developed country protectionism prompted by protracted structural adjustment, rising unemployment and exchange rate misalignment acts as an important filter, insulating developing countries' exports from the favourable impact of expansionary demand management in the developed countries. It is extremely difficult to evaluate with any precision what has been the impact of the recent rise of protectionism in terms of loss of trade especially so in the case of non-tariff barriers. It is unlikely, however, that developing countries' exports *as an aggregate* would increase by much more than 15% in the event there was a complete removal of protectionist barriers in developed countries[7]. This impact could be larger in Latin America than for the world. Losses entailed by protectionism are bound to hurt those countries specializing in products facing major trade obstacles such as Argentina – whose exports are hurt by the extremely protective agricultural policies of the EEC and Japan as well as by EEC and US export subsidies – and Brazil – vulnerable to VERs affecting many manufactured products in the US and the EEC[8].

2.1.2. Export Prices

Non-oil commodity prices have been the subject of exhaustive studies showing the paramount importance of macro- economic policies in the major developed economies in explaining fluctuations of demand variables. Results tend to converge to estimates for the elasticity of real non-oil commodity prices in relation to activity in developed countries of around 2. There is evidence suggesting that elasticities are smaller the longer the period of analysis. Elasticities also vary considerably depending on the type of non-oil commodities, metals and agricultural raw materials, being more sensitive to activity fluctuations than food and beverages[9].

[6] See UNCTAD (1885B), pp. 18-23.
[7] This supposes no terms of trade effects. See IMF (1986), p. 40 and UNCTAD (1985A).
[8] See UNCTAD (1985A), p. 45.
[9] See IMF (1986), p. 16 ff.

The other important variables to explain non-oil commodity prices are the real dollar exchange rate and inflation in the main developed economies. Chu and Morrison (1984) obtained an elasticity of 1.0 linking prices to the real dollar exchange rate: an appreciation of the dollar, involves, *ceteris paribus*, a fall in non-oil commodity prices at an equivalent rate[10]. This is basically a consequence of the increase in prices denominated in European currencies on the level on non-US OECD imports of non-oil commodities.

As inflation rates varied quite considerably in the main OECD economies since the late 1970s there was a correspondingly significant impact on non-oil commodity prices, first tending to strengthen them, then, after 1982, to depress them[11]. Interest rate fluctuations, on the other hand, while not irrelevant in explaining the behaviour of non-oil commodity prices have been found to be relatively insignificant in terms of the magnitude of their influence.

The interaction of such factors produced a rather unfavourable impact on Latin American non-oil commodity export prices after the second oil shock. In contrast with the first oil shock, non-oil commodity prices fell quite significantly after 1980, modestly recovered after 1982 as the US economy started to grow rapidly, and then were depressed again through the joint impact of the dollar appreciation and the fall of inflation rates (see Table 3). Again the impact on specific Latin American countries varied rather significantly depending on the composition of their exports, Argentina being more unfavourably affected than other non-oil exporters.

The behaviour of manufactured goods export prices is notoriously difficult to explain in the longer perspective. At least since the early 1980s it would seem that they are more akin to non-oil commodity prices than with the prices of the developed countries' exports with which they at least in some cases compete. That this is the case for Brazil over the past few years is shown in Table 4 where export and import prices are presented. This somewhat surprising feature can be explained, partly by the extremely competitive nature of markets for exports in which Brazil specialize, partly by the substantial real devaluations undertaken as part of adjustment policies adopted since 1981 with their consequent terms of trade unfavourable impact.

The link between aggregate demand in developed economies and oil export prices is qualified by OPEC's supply policies, at least in the short run. Table 3 indicates that between 1980 and 1985 export prices for oil and non-oil exporters in Latin America have varied more or less in line with each other while in the previous period oil exporters had enjoyed much higher price increases. This trend is likely to be sharply reversed after 1986 with the significant fall of oil prices in the International markets turning upside down analysis based on 1972-85 relative price patterns.

[10] See IMF (1986), p. 22 ff.
[11] Chu and Morrison (1984); the relevant inflation elasticity is of the order of 2.0.

Table 3

Latin America; Export Unit Prices, 1970-85 (1970=100)

Year	1975	1980	1983	1984	1985
Latin America	224.2	380.8	316.8	329.4	316.1
Oil exporters	322.6	621.0	534.2	551.8	532.2
Mexico	186.0	427.3	354.2	363.8	354.7
Venezuela	532.4	1,241.0	1,170.8	1,228.2	1,191.4
Non-oil exporters	181.9	277.6	223.1	233.8	.222.1
Argentina	214.8	306.2	228.2	343.5	214.3
Brazil	196.4	277.3	227.7	237.3	221.8
Colombia	143.3	335.2	288.6	306.5	297.3
Chile	113.2	190.5	132.9	127.1	120.7

Sources: CEPAL (1984) and CEPAL (1985).
* Oil exporters include Bolivia, Ecuador, Mexico, Peru and Venezuela.

Table 4

Brazil: Export and Import Prices, 1977-85 (1980=100)

Year	Export Prices		Import Prices
	Goods produced by manufacturing industry	Non-industrial goods	Goods competing with manufacturing industry
1977	81.9	138.7	75.6
1978	77.1	109.6	78.0
1979	91.7	109.4	92.4
1980	100.0	100.0	100.0
1981	98.4	68.2	104.5
1982	89.4	69.9	102.7
1983	83.0	73.3	106.3
1984	84.4	83.7	98.4
1985	77.4	76.0	92.8

Sources: *Conjuntura Econômica*, several issues.

Latin American countries which depend on oil imports were, of course, particularly strongly hit by oil price increases, their terms of trade deteriorating since the early 1970s more than 40% in some cases (see Table 5). Indeed, in magnitude the fall in terms of trade in these countries is similar to the one which occurred in the late 1920s and early 1930s. Brazil was in fact the only large Latin American economy to face such deterioration of the terms of trade. Indeed, it was the country most affected in the world economy by oil price increases in absolute terms, oil imports corresponding to 40% of total

imports and 5% of GDP[12]. Other Latin American economies similarly affected but to a much lesser extent were Uruguay, Chile, Colombia and many smaller Central American economies whose oil export bill rose to 15-20% of total imports.

2.2. Interest Rate Fluctuations

The impact of interest rate fluctuations on the economies of developing countries is rather complex as they affect demand growth in developed countries and consequently, as already discussed, the prices and volumes of their imports.

Table 5

Latin America: Terms of Trade, 1970-85 (1970=100)

Year	1975	1977	1979	1982	1983	1984	1985
Latin America	116.3	127.6	119.3	106.6	105.7	110.0	106.8
Oil exporters	193.2	195.7	206.0	215.8	206.3	210.8	205.8
Mexico	105.7	122.9	132.5	160.7	155.4	154.2	150.0
Venezuela	335.3	344.6	401.1	508.8	525.1	559.7	545.7
Non-oil exporters	84.9	98.8	83.7	62.4	62.3	66.1	63.7
Argentina	100.7	86.3	81.1	82.2	79.7	88.1	77.9
Brazil	85.4	100.8	79.9	54.0	55.0	59.6	57.4
Colombia	81.5	189.8	129.6	110.9	113.3	117.4	115.7
Chile	53.2	51.3	53.4	34.4	36.7	34.3	32.9

Sources: CEPAL (1984) and CEPAL (1985).

Moreover, interest rate fluctuations are crucial determinants of real exchange rate fluctuations which are, as already mentioned, crucial to explain developing countries' export volumes – by determining their competitiveness – and prices.

The more direct and important impact of interest rate fluctuations on developing countries is, of course, on the interest element of debt service. It is now generally recognized that a crucial element of the deterioration of the balance of payments position of developing countries since the late 1970s has been the steep increase of nominal interest rates in the US which prompted the further accumulation of foreign debt. Debt-export ratios increased very rapidly in Latin America, again very unequally as between countries as shown in Table 6. Among the larger Latin American economies Argentina reached a very high debt-export ratio even by Latin American standards and became extremely vulnerable to interest rate fluctuations as became clear during the period of very high interest rates in the US until 1982. Venezuela was in the other extreme, being relatively immune to

[12] GATT (1986), p. 22.

interest rate increases. If the important fall in oil prices started in the end of 1985 is maintained it is to be expected *ceteris paribus* that Venezuela and even more Mexico will eventually become much more vulnerable to interest rate fluctuations than in the past.

The negotiation – in a context of credit rationing – of agreements establishing minimum foreign exchange transfers related to the foreign debt Service in many Latin American countries has entailed the need to produce massive trade surpluses in a context of an almost complete interruption of voluntary private capital flows and political limits to the import contraction entailed by demand shrinkage. This simple general equilibrium argument has proved to be extremely difficult to digest by vested interests in developed countries concerned with the production of those goods more exposed to foreign: competition. It is obvious that stable equilibrium over time concerning the debt problem of developing countries will have to take into account not only trade and financial interests in developed countries but also import levels in developing countries required to attain politically determined GDP rates of growth.

Table 6

Latin America: Debt-Export Ratios, 1983-85

Year	1983	1984	1985
Latin America	3.91	3.70	4.0
Oil Exporters	3.43	3.25	3.61
Mexico	4.13	4.02	4.54
Venezuela	2.30	1.97	2.12
Others	3.57	3.56	3.83
Non-oil exporters	4.42	4.09	4.33
Argentina	5.94	5.92	6.02
Brazil	4.41	3.77	4.04
Others	3.63	3.72	3.91

Source: CEPAL (1985).
* Oil exporters include Bolivia, Ecuador, Mexico, Peru and Venezuela.

While specific indebted countries may have success in their adjustment policies through increased exports, it is obviously impossible for *all* such countries to succeed especially so when the rate of growth of world trade is relatively laggard. For all Latin American countries to adjust a marked break with past export performance would in any case be required.

In dynamic terms the trade-debt link in each economy is made explicit by the requirement – given certain conditions related to the behaviour of imports – that to avoid ever increasing debt – export ratios the rate of growth of exports must exceed the nominal rate of interest[13].

[13] See Simonsen (1984).

An important variation of the rationing argument just mentioned above refers to loans by multilateral organizations whose capacity to raise funds is directly and indirectly influenced by the fiscal stance of the major developed economies through their decisions to fund such agencies. Such supply of funds can also be affected by protectionist lobbies fearing the development of more efficient productive capacity in countries applying for official multilateral finance.

Another important trade-debt transmission link refers to the consequences of the impact of recessive policies adopted in developing countries to ease their balance of payments troubles through import contraction on their developing trade partners. This affects suppliers in developed countries and also those developing countries with a more diversified geographical export distribution. This was true for Latin America as a whole – exports to such markets feel from 28% of total exports in 1981 to 25% thereafter – and even more marked for a country such as Brazil[14].

3. Structural Adjustment Policies: Rationale and Facts

As reviewed in Section 1, over the past few years, it has become increasingly clear that macroeconomic adjustment programs enforced in debtor countries through demand management policies, aimed at restricting aggregate absorption, have inherent limitations. Besides the perception of the low political feasibility of sustaining policies with very high short run social costs, attention began to be drawn to the longer run consequences of protracted slow economic growth stagnation of capital accumulation. Accordingly, the debate between academics and policy makers began to shift towards the so-called "structural" or "supply-side" policies. These, differently from recessive demand control policies geared to rapidly improving the balance of payments current account even at the cost of output losses, presupposes a longer view of the adjustment process, aiming at "structural adjustment", i.e., the improvement in the conditions for higher and sustained growth with external equilibrium.

Although what can be termed structural adjustment policies can take a variety of specific forms it has been customary to group them into two broad sets of measures (Khan (1986)): policies to increase growth of potential, or capacity, output; and measures to improve the efficiency of resource allocation. Generally speaking, the former group comprises the use of monetary and fiscal policies to alter the size and composition of domestic (private and public) savings and investment.

The latter include a wide array of sectoral policies to reduce existing distortions in goods and factor markets which may lead to inefficient allocation of scarce resources and, thus, allow an increase in output without necessarily compressing current consumption levels. In this Section the arguments

[14] GATT (1985), table A10. In Brazil, this share fell from more than 40% to around 33% in the same period, FUNCEX (1982 to 1985).

for, and the practical limitations in, the use of such policies are critically appraised.

3.1. Policies aimed at increasing domestic savings, capital productivity and growth of capacity output

In Section 1 it was put forward that at any moment, for a given marginal output-capital ratio, the availability of total savings constrains the growth of capacity output, e.g., that:

$$y^* = k(s - h)$$

It follows from the above that, for a given transfer burden h, policies aimed at stimulating the growth of capacity output, must either increase domestic savings or the productivity of capital. Since domestic savings equals the sum of private savings and the government current account surplus, increasing the growth of potential output requires increasing the private sector's savings rate or improving public sector (current) budget performance. This brings interest rate and fiscal policy into the framework of structural adjustment programs.

Interest rate policy and savings performance

A traditional diagnosis of developing countries' failure to increase domestic (and foreign) savings, which became increasingly popular in the 1970s, and still constitute the theoretical underpinning of orthodox supply side financial policy proposals (see, for instance, Balassa (1982), pp. 33 ff.), is based on the so-called McKinnon-Shaw hypothesis (McKinnon (1973)). According to it, in an inflationary environment, government intervention in financial markets through widespread imposition of interest rate ceilings led to negative real interest rates and financial de-intermediation which repressed private savings and distorted investment patters, as access of firms to loanable funds at preferred rates did not reflect their marginal efficiency of capital.

From this diagnosis, a conclusion was derived that higher interest rates brought about by deregulation and financial "decompression", by offering asset holders an attractive return, could bring a sizeable improvement in savings rates. Moreover, not only would domestic private savings respond positively to the changed market conditions but, in a context where international capital flows had become extremely responsive to interest rate differentials – as was the case before the debt crisis – foreign savings would also grow. As, prior to the decompression of financial markets, investment was *ex-hypothesis* constrained by savings, these policies would allegedly lead to a higher rate of domestic private fixed capital formation and of capacity output (Khan and Knight (1982), p. 718).

Criticism of the wisdom of such policy prescriptions in present day Latin America can be made on several grounds. Firstly, since 1982 the end of private banks' voluntary lending made international

capital inflows entirely insensitive to interest rate differentials. In this context, the high interest rates which will be brought about by liberalization of capital markets are likely to have a negative impact on private investment. Indeed, the rationale for interest rate decompression is based on the assumption that a number of private sector investment projects promising high rates of retum exists. If this is not the case – and there are grounds to believe that business expectations will be at least temporarily adversely affected by uncertainties generated by the reforms – the effect of high interest rates is bound to be a *fall* in private investment. In the case of Turkey, where such reforms were implemented as part of conditionality under a World Bank SAL programme in 1981, interest rates soared to 70% and the share of private investment in total investment fell from levels near 50% prior to financial decompression, to 40.9% in 1983 (Yagci et al. (1985), p.26). Thus, it may well be that public investment may have to *rise* at least temporarily during financial liberalization so as to compensate for the latter's likely inhibiting impact on private investment.

Secondly, the empirical evidence concerning the relation between real interest rate changes and saving rates in developing countries is far from being conclusive (cf. for instance, the conflicting results of Giovannini (1983), on the other hand, and of Mac Donald (1983) and Fry (1984) on the other). Moreover, when the effects of high interest rates on a heavily (domestically) indebted public sector is brought into the picture, the impact of such policies on domestic savings is even more mixed. Indeed, there are grounds to believe that in the conditions prevailing in several Latin American countries, high interest rates may have a negative impact on domestic savings (for simulations that suggest this to be true in the case of Brazil, see Werneck (1986)).

Finally, it should be recalled that one of the fundamental characteristics of the recent erosion of Latin American saving and investment rates is that it has been to a large extent accompanied by the contraction not only of foreign but, and to a large extent, *government* savings rates, caused by the fiscal drag of high inflation processes (see Tanzi (1981) for a discussion of such effects) and a high interest burden. This is illustrated in Table 7, where disaggregated data for private, general government and external savings are presented for six Latin-American countries during 1980-84. Thus, it would seem that an important part of the adjustment in domestic savings required to guarantee the return to adequate capacity growth rates in Latin America should be played by fiscal policy and measures aimed at rebuilding the financial health of efficient public enterprises.

Fiscal Policy and Domestic Savings

Government fiscal policy affect domestic savings directly, through changes in the public sector current balance, and indirectly, via the effects of tax and expenditure decisions on the private sector. The basic aim of fiscal policies geared to improving domestic savings potential should thus be to try

and reduce current deficits without crowding out private savings and investment.

Opinions on how to achieve this, however, vary. Mainstream economic theory points that the indirect effect of fiscal policy on private sector savings and investment behaviour works through two basic channels: changes in after tax returns, and interest rate fluctuations brought about by changes in public sector borrowing requirements. Evidence on the working of these mechanisms is, however, scanty. Empirical work on the responsiveness of domestic private savings to changes in after tax returns as there is available gives little support to orthodox analysis (Khan and Knight (1982), p. 718), and the importance of crowding out of private investment via upward pressures on interest rates depends on the degree of interest sensitivity of private capital expenditure which, as discussed above, does not seem to be large.

It is, no doubt, important to recompose government savings and investment to pre-crisis level. However, best instruments may vary from country to country and a general recipe, as derived from orthodox analysis of the savings-investment process, which ignores specific institutional factors, can be seriously misleading. In relation to both the effects of interest rate as well as of fiscal policies on private savings and potential output it seems, therefore, reasonable to conclude that "what is needed in particular is a clearer idea of the theoretical and empirical links between policy variables and private capital formation so as to evaluate the influence that government can exercise over private investment decisions that change the current and future growth rate of the economy" (Khan (1986), pp. 19-20).

Moreover, it should be stressed that reduction in public sector current deficits may not be an unqualified blessing. Running or even increasing deficits to pay for health education or other social programs which enhance overall economic efficiency in the long run is bound to be beneficial for the growth of potential output. Therefore, in controlling public expenditure, emphasis should concentrate on increasing the efficiency of resource allocation and not on myopic and indiscriminate across the board reduction of current outlays.

Table 7

Composition of Aggregate Savings (Percentages of GNP)*

Country	Year	Private Savings**	General Government Savings	External Savings	Aggregate Savings
Argentina	1980	18.2	1.6	3.2	23.0
	1981	18.2	-3.8	4.5	18.9
	1982	14.5	-0.9	5.4	19.0
	1983	17.0	-3.4	2.6	16.2
	1984	13.8	-1.0	1.9	14.7
Brazil	1980	18.4	-0.4	5.3	23.2
	1981	20.2	-0.9	4.4	23.7
	1982	21.2	-2.9	6.1	24.3
	1983	20.8	-3.0	3.0	20.8
	1984	21.5	-3.7	0.0	17.9
Chile	1980	7.9	6.4	7.4	21.7
	1981	5.1	3.5	15.1	23.7
	1982	6.4	-5.0	11.0	12.3
	1983	11.9	-7.2	6.0	20.7
	1984	10.7	-7.0	11.2	14.9
Colombia	1980	17.6	1.9	-0.4	19.2
	1981	16.9	-0.1	4.1	20.9
	1982	15.7	-0.7	6.0	20.9
	1983	17.4	-2.0	4.5	19.8
	1984	18.4	-2.0	3.1	19.4
Mexico	1980	27.8	-2.5	3.6	28.9
	1981	30.4	-5.5	5.1	30.0
	1982	27.3	-3.9	-1.0	22.5
	1983	28.2	-1.0	-8.3	18.9
	1984	26.3	-1.8	-6.0	18.5
Venezuela	1980	22.0	10.5	-7.9	24.6
	1981	11.5	17.2	-6.0	22.8
	1982	8.5	11.6	6.3	26.5
	1983	8.0	9.0	-2.4	14.7
	1984	10.0	14.9	-8.9	16.0

* Calculated in national currencies at current prices. Details may not add to totals owing to rounding.
** Comprises business sector, households, and State enterprises.
Source: Inter-American Development Bank (1985), Report, p. 43.

Public Investment and the Role of Public Enterprises

The relation between public investment, private savings and long run economic efficiency and growth is even more complex. Khan and Knight (1985) point out that public investment may not "crowd out" private investment. A number of projects undertaken by the government are complementary, as opposed to substitutes, to private investment. For instance, Blejer and Khan (1984) argue that infrastructure government projects increase private investment while other types of investment are likely to inhibit private activity. This makes the relation between public and private investment dependent upon the nature of government projects. Other authors have not found a significant relation, either positive or negative, between aggregate public and private investments. The composition of public investment, as between infrastructure and other types, varies from country to country. "Pooled data" estimates hide country specificities that would justify different courses of action to reduce the role played by the government.

It is believed in Latin America that public investment is primarily complementary to private capital formation. However, the scarce empirical evidence does not allow one either to support or to reject this hypothesis. For reasons of scale and financial limitations, which are especially relevant for Latin American countries, the government has undertaken large investments in basic industries. As Balassa (1982) recognizes/in those cases reliance on private incentives may not suffice. Any structural adjustment program that envisages to reduce participation of government in capital formation should consider on an individual country basis the motivations and the role played by public investment.

Orthodox structural adjustment policies invariably aim at increasing the efficiency of public enterprises and in the limit, selling them off to the private sector. The general view is that public investment "crowds out" the private sector as it competes for scarce resources and that public enterprises are necessarily inefficient. The empirical evidence on these matters, especially for Latin-American countries, is very limited as data for public enterprises are not easily available. For this reason, according to Fisher (1985) the effects of selling off public corporations and improving the efficiency of public investment are difficult to estimate quantitatively.

However, even a cursory glance may show that in several Latin-American countries, efficient public corporations may coexist with other inefficient public enterprises. Any attempt to mix them all together in the same "inefficiency bundle" may prove unjustified. Their financial difficulties may not seem so much from inefficient mobilization of resources but from the special relations developed between government in the conduct of economy policy, and its enterprises. These again may vary in shape and intensity from country to country. It is well-known that, as foreign debt and inflation threatened Latin American economies in the I980s, public enterprises have been extensively used as

a shelter for foreign borrowing and as a damper for inflationary pressures. The effect this explosive combination of high debts and depressed tariffs had on their rates of return fostered an unjustified image of inefficiency of Latin American public corporations. Table 8 shows the increasing participation of the public sector in total investment after the debt crisis for six representative countries of Latin America. In Argentina, Brazil and Venezuela private capital outlays fell more rapidly than public investment. As a result, the public sector increased its share in gross fixed capital formation. A major shift is also perceived within the public sector as state enterprises gained more importance in investment in recent years in Argentina, Brazil and Venezuela. The energy sector public enterprises were particularly favoured. With the public sector accounting for more than 50% of fixed capital formation, structural adjustment proposals have to be more country-tailored and detailed concerning the scope and the pace of reducing the presence of government in the economy. Misjudgements based on general rules may impair growth prospects for Latin American countries in the short-run by far more than the gains in efficiency to be achieved in the medium and long-run.

Capital-Output Ratios

Since the growth of capacity output depends, for a given investment rate, as shown above, on capital productivity, one of the major targets of structural adjustment programs is to obtain an increase in the efficiency of investment. The efficiency of investment is generally, but roughly, measured by marginal capital-output ratios. Table 9 presents the historical pattern of marginal capital-output ratios for selected countries and periods of time between 1960 and 1984. It becomes clear that simplistic cross-country comparisons of marginal capital-output ratios can be misleading.

One would conclude that the so-called developed economies are inefficient because of their high capital-output ratios. If relative factor abundance can serve as the drawing line for comparisons of capital-output ratios between developed and developing economies, it should also normalize comparisons within the group of developing economies. Argentina, with the highest overall capital/output ratio in Latin America, turned relatively capital-abundant much earlier than most other Latin American countries. The composition of investment and production is another factor usually disregarded in calculations of marginal capital-output ratios. Once again, neglected country specificities may bias the relative inefficiencies of investment. For instance, if construction represents a sizeable proportion of total investment and the national accounts do not impute to income the accrued rental values adequately, marginal capital/output ratios would be biased upwards. Also different patterns of growth among Latin American countries are likely to affect incremental capital-output ratios and, hence, intercountry comparisons. This is especially true when computations are restricted to short time spans.

Table 8
Gross Fixed Investment and its Components by Country

Country	Type	Percentage of GNP				Percentage of gross fixed investment			
		Average 1980/81	1982	1983	1984	Average 1980/81	1982	1983	1984
Argentina	Gross Fixed Investment	20.4	17.8	16.1	14.7	100	100	100	100
	General Government	7.8	7.2	6.9	6.4	38.2	40 ,4	42.9	43.5
	State Enterprises	4.9	5.6	5.0	3.8	24 .0	31.5	31.1	25.9
	Private Sector	7.7	5.0	4.2	4.5	37.7	28.1	26.1	30.6
Brazil	Gross Fixed Investment	22.3	22.3	19.8	16.3	100	100	100	100
	General Government	2.4	2.5	2.4	2.3	10.8	11.2	12.1	14.1
	State Enterprises	4.3	5.1	4 .0	n.a.	19.3	22.9	20-2	n.a.
	Private Sector	15.6	14.7	12.4	n.a.	70.0	65.9	62.6	n.a.
Chile	Gross Fixed Investment	18.3	16.0	13.1	13.4	100	100	100	100
	General Government	5.9	7.0	6.2	6.4	32.2	43.8	47.3	47,8
	State Enterprises	7.8	5.0	3.5	n.a.	42.6	31.3	26.7	n.a.
	Private Sector	4.6	4.0	3.4	n.a.	25.1	25.0	26.0	n.a.
Colombia	Gross Fixed Investment	17.4	17.8	17.3	17.1	100	100	100	100
	General Government	4.1	3.8	4.3	5.1	23.6	21.3	27.7	29.8
	State Enterprises	3.2	4.5	3.6	3.8	18.4	25-3	20-8	22-2
	Private Sector	10.1	9.5	8.9	8.2	58.0	55.4	51.4	48,0
Mexico	Gross Fixed Investment	25.7	23.5	17.9	18.0	100	100	100	100
	General Government	4.0	3.5	2.3	3.2	15.5	14.9	12.8	17.8
	State Enterprises	7.6	7.3	5.3	4.2	29.6	31.1	29.6	23.3
	Private Sector	14.1	12.7	10.3	10.6	54,9	54.0	57.5	58.9
Venezuela	Gross Fixed Investment	24.7	24.6	21.2	18.2	100	100	100	100
	General Government	3.1	3.1	3.8	2.6	12.6	12.6	17.9	14.3
	State Enterprises	10.3	13.7	12.0	11.0	41.7	55.7	56.6	60-4
	Private Sector	11.3	7.8	5-4	4.6	45.7	31.7	25.5	25.3

Source: Inter-American Development Bank (1986), Report, p. 36.

Table 9

Marginal Capital-Output Ratios

Country	1966 to 1972	1973 to 1980	1961-63 to 1971-73	1971-73 to 1979-81	1960 to 1984
Argentina	7.0	10.6	4.4	11.1	7.0
Brazil	2.6	3.6	2.9	3.3	3.7
Chile	4.8	4.5	3.8	5.0	7.4
Colombia	2.7	3.2	3.1	3.3	3.9
Mexico	2.8	3.3	2.5	3.1	3.3
Venezuela	4.7	7.3	4.2	7.2	4.7

Sources: 1966 to 1972 and 1973 to 1980 – obtained dividing average gross investment rate to GDP by average GDP growth rate within the period.
1961-63 to 1971-73 and 1971-73 to 1979-81 – Diaz-Alejandro (1984), p. 338.
1960-84 – World Bank (1986), p. 27. The value for Venezuela was constructed using the same procedure for other countries.

Intertemporal comparisons of incremental capital-output ratios for the same country also involve difficulties.

In general investment is associated with growth of output within the same period, which disregards time lags between investment and the expansion of potential output and also between output growth and new investment decisions. The argument becomes stronger when marginal capital-output ratios are computed by the ratio of the average share of investment to the average growth rate of real output over short periods of time. Under these conditions incremental capital-output will be more tightly related to the reciprocal of real output growth than to what it really purports to measure, which is investment efficiency.

High marginal capital/output ratios are in general associated with inefficiencies in resource allocation that could be resolved by liberalization. Empirical evidence, however, does not seem to conform strongly with the theory. Observation of a positive correlation between the level of protection and marginal capital-output ratios for some countries and for some intervals of time seem to over-emphasize the actual relationship between liberalization and investment efficiencies. Table 10 presents a set of effective rates of protection which include Latin American countries. When this table is compared to Table 9, the alleged relation between levels of protection and marginal capital/output ratios is clearly challenged.

In accordance with Balassa and Michalopoulos (1985) the decline in the level of protection in Brazil from the early 1960s to 1966-72 is associated with a decline in the incremental capital-output ratio. However, in the late 1970s the effective rate of protection further declined in Brazil while the marginal capital-output ratio almost doubled. During 1966-72 the effective rate of protection in Argentina corresponds to approximately one half of the estimates for Brazil and Mexico. However, the marginal capital-output ratio in Argentina for 1966-72 is almost three times larger than those for Brazil and México. In the late 1970s Argentina, Brazil and México show similar levels of protection

while the incremental capital-output ratio in Argentina is again three times larger than in Brazil and México. The effective rate of protection almost doubled in Colombia from 1966-72 to the late 1970s while the incremental capital-output ratio increased, but only slightly.

Table 10

Effective Rates of Protection in the Manufacturing Sector for Selected Developing Countries (%)

Country	1950-mid 1960s	1966-72	Late 1970s
Argentina	-	27 (1969)	38 (1977)
Brazil	106 (1958)	66 (1967)	44 (1980/81)
Chile	190 (1961)	217 (1967)	-
Colombia	-	029 (1969)	55 (1979)
Ivory Coast	-	72 (1970/71)	-
Korea	-	-1 (1968)	28 (1982)
Mexico	27 (1960)	49 (1970)	37 (1980)
Singapore	-	6 (1967)	-
Taiwan	-	44 (1966)	-

Source: Anjaria et al (1985), p. 149, based an Havrylyshyn and Alikhani (1982).

These counter-examples suggest that, without further qualifications, the empirical evidence for Latin America cannot be easily reconciled with a strong positive correlation between liberalization and investment efficiency.

3.2. Policies aimed at Increasing Allocative Efficiency

This subsection will critically examine the main types of policies usually designed to increase output through improved resource allocation: exchange rate policies – which, of course, also influence demand – and pricing policies generally, including tariffs.

Exchange Rate Policies

Exchange rate policy is an important ingredient of structural adjustment programs due to its supply-side effects. As long as devaluation raises the domestic currency price of final output relative to factor prices, it will have a stimulative impact on aggregate supply. Increased supply should reduce excess domestic absorption and the payments deficit. Besides, factors of production would be shifted towards the production of tradable goods. However, the stimulative impact on supply may only be temporary if nominal factor prices rise in the medium – and long-run by the full amount of the devaluation.

Devaluation also exerts a contractionary effect upon aggregate demand as it reduces real factor incomes and wealth in the short-run. The net impact upon output depends upon the dominance of either the contraction of domestic demand or the expansion of domestic supply. According to Guitian (1976) if trade elasticities are small and the structure of production is biased towards tradable goods, output could decline as a result of devaluation. As countries differ in terms of both trade elasticities and the weight of tradable goods in production, devaluation may induce different responses in terms of output effects. Khan and Knight (1985) recognize that in the short-run demand factors may outweigh supply factors. This is in line with the conclusions of Diaz-Alejandro (1965) and Krugman and Taylor (1978) based exactly upon the experience of Latin American countries and models which emphasize the short-run. The redistributive effects of devaluation, on which the models are based, should be more important for countries where the dispersion of the distribution of income is large. Latin American countries are characterized by wide inequalities in income distribution.

Besides the possible negative effects upon output and employment, the reluctance to devalue may be associated to its inflationary costs. In a non-indexed economy, a nominal devaluation could result in a one-shot increase in the price level. The price rise depends on the weight of tradable goods in the consumption basket. Inflation vanishes afterwards and the real devaluation thus attained is proportional to the magnitude of the nominal devaluation. The proportionality is determined by the weight of non-tradable goods in the consumption basket. In an indexed economy, different levels of the real exchange rate are associated with different inflation rates, and not price levels. Indexation of domestic factor prices, coupled to further nominal devaluations to sustain the real exchange rate, would work towards perpetuating the rate of the initial price rise. Clearly the acceleration of inflation depends among other things on the degree of indexation built into the system. In the limit if the economy is perfectly indexed, no real devaluation will result from a nominal devaluation.

Indexation has become particularly relevant for Latin America as major countries sought mechanisms that would dampen the distributive effects of inflation.

As inflation accelerated, indexation became widespread, inhibiting government action to change relative prices, such as real exchange rate devaluations. Modiano (1985) has shown that the 30% real devaluation of February 1983 in Brazil added about 75 percentage points to annual inflation rates. The multiplier of 2.5 was estimated on the basis of an initial inflation of 100% per year and the links between current and past inflation that prevailed in the Brazilian economy in 1983.

Exchange rate policies in structural adjustment programs involve two steps. In the first step real exchange rates are to move near “equilibrium” values. In the second step supporting policies should be envisaged to sustain the real rate. The determination of the “right” real exchange rate and, hence, the extent of misalignment is not trivial. First of all, there may be conflicting objectives, with the output and inflationary costs discussed above favouring a smaller real depreciation and trade

imbalances and the loss of International competitiveness pending towards a larger real depreciation. Even if the trade perspective is adopted, conflicts still remain as manufactured goods exporters may benefit from devaluation while primary goods exporters may be hurt by a decline in international prices. The extent to which the "price-taking" hypothesis that underlies structural adjustment proposals, is true depends upon the composition of exports.

Also attention must be paid to joint devaluations as countries with similar export bases undergo structural adjustment programs at the same time. As Abreu and Fritsch (1986) have argued, manufactured goods markets behave as commodity markets as all "price-takers" devalue their currency simultaneously. Export volumes increased after the devaluation round triggered by the 1982 crisis but a deterioration in the terms-of-trade could not be avoided, independent of the composition of the exports between manufactured and primary goods.

Khan (1986) asserts that the "right" real exchange rate depends on the state of the world. Exogenous foreign shocks as well as domestic supply shocks tend to alter the equilibrium real exchange rate. This suggests that the common practice of using a purchasing power parity (PPP) index to evaluate the appropriate level of the real exchange rate may not be suitable. Judgement on the basis of a PPP index requires the assumption that some past level of the real rate was "right". However, as the state of the world changes over time, it is more likely that no single past level can give a precise indication on whether and by how much the current rate is misaligned with respect to the "equilibrium" rate that should be pursued.

Table 11 presents data for both the basket and the dollar real exchange rates for six Latin American countries over the period 1971/85. If the peak basket real exchange rate over the period is considered "right" one would conclude that by 1985, with the exception of Argentina, domestic currencies were overvalued in: Brazil by 16.4%; Chile by 9.0%; Colombia by 20.8%; Mexico by 23,4% and Venezuela by 13.4%. If proximity in time can be considered as a "proxy" for smaller discrepancies between different States of the world and the last peak is taken as a reference, the extent of overvaluation is considerably reduced for Brazil and Colombia.

When real dollar exchange rates are considered the conclusions change radically. Exception made for the Mexican peso, all other dollar rates, after the massive devaluations of the early eighties, attain their peak values over the period in 1985. This exercise illustrates the difficulties involved in ascertaining "equilibrium" rates by a PPP index. Its limitation is further illustrated by the decline in oil prices verified in 1986. This change of the "state of world" would represent *ceteris paribus* a depreciation of the long-run real exchange rate for Mexico and Venezuela and an appreciation for Brazil.

Table 11

Dollar and Basket Real Exchange Rates in Latin America

Country	Year	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Coefficients of Variation	
																	1971/85	1974/81
Argentina	Dollar	257.3	268.3	200.1	170.9	283.5	208.7	234.6	178.7	126.8	100.0	129.4	305.2	288.4	265.9	317.1	0.312	0.343
	Basket	136.4	155.8	146.1	129.2	176.1	133.8	163.3	147.3	112.1	100.0	112.0	170.7	153.5	141.8	191.7	0.175	0.198
Brazil	Dollar	83.5	84.0	81.4	78.6	79,3	77.7	76.5	75.8	82.3	100.0	94.9	98.0	134.4	151.3	159.7	0.288	0.110
	Basket	72.1	74.9	81.4	80.7	81.0	77.3	76.7	81.1	90.0	100.0	81.3	77.0	90.7	85.6	85.9	0.087	0.093
Chile	Dollar	52,8	48.8	66.6	91.6	124.3	112.3	102,6	115.3	113.7	100.0	92.2	116.1	145.9	158.9	205.4	0.367	0.111
	Basket	80.3	61.0	52.9	103.5	135,1	118.6	110.6	128.6	117.5	100.0	89.9	100.0	108.0	109.1	123.9	0.228	0.133
Colombia	Dollar	128.6	129.1	122.5	120.3	127.1	125.5	106.4	103.3	100.4	100.0	99.8	99.9	106.0	121.8	143.4	0.121	0.108
	Basket	117.4	119.0	120.7	114.4	117.4	111.4	100.2	101.2	98.7	100.0	92.7	84.6	83.2	83.9	99.9	0.123	0.153
Mexico	Dollar	177.3	115.8	109.5	98.4	93.1	105.1	127.0	117.3	110.7	100.0	92.2	141.5	154.2	135.8	127.7	0.199	0.115
	Basket	103.3	106.6	107.2	103.5	101.6	105.5	118.2	113.4	108.6	100.0	90.0	129.2	135.9	112.7	110.1	0.104	0.082
Venezuela	Dollar	110.3	109.9	109.4	111.6	110,7	108.9	107.6	108.0	107.0	100.0	95.0	92.0	89.5	135.8	134.8	0.119	0.054
	Basket	99.6	100.9	108.2	110.8	106.1	102.6	99.5	102.1	105.7	100.0	90.8	83.0	77.7	108.2	97.7	0.093	0.058

Sources: Balassa et.al. (1986), pp. 48-49 and International Financial Statistics, IMF, various issues.

Long-run real exchange rate stability may be far more important for resource allocation than minor corrections of "equilibrium" values in the short-run. Along this line the World Bank (1986) reported a study showing a negative correlation between exchange rate instability and net investment based upon the evidence for twenty-four developing economies during 1960-83. It asserts that instability is more important than misalignment in explaining changes in investment. It is common practice to measure instability of the exchange rate by the coefficient of variation (the variance of the rate relative to its mean) over a long period of time. This coefficient should not be viewed, however, as a measure of the capacity of an economy to sustain a real exchange rate as it disregards changes in the mean value that may result from movements towards new "equilibria".

Table 11 also presents the coefficients of variation for real exchange rates in the six countries under consideration. If the analysis is restricted to 1971/85 and to the basket of currencies, Brazil and Venezuela lead in terms of exchange rate stability. Chile and Argentina show highly unstable exchange rates. However, for the period starting after the first oil shock and finishing before the Mexican debt crisis, exchange rates in Chile have been moderately stable when compared to Argentina and Colombia. If the US dollar, to which most currencies are pegged, is taken as a reference, real exchange rate instability in Brazil becomes comparable to Argentina and Chile during 1971/85. Once again, as the initial and terminal years are suppressed, the conclusions change, favouring now both Brazil and Chile. This exercise shows that care must be taken when relating real exchange rate instability to other macroeconomic variables. The choice of the period of analysis may bias the results either way and simple correlations may overemphasize the role played by stable exchange rates.

The empirical evidence on the impact of real exchange rate devaluations upon trade balances for individual Latin American countries is controversial. Recent estimates of real exchange rate elasticities for aggregate imports and exports by Diaz-Alejandro (1984) do not support general validity of the Marshall-Lerner conditions. According to this study import volumes respond significantly to changes in real exchange rates in Brazil, Mexico and Venezuela but not in Argentina, Chile or Colombia.

Export performance is found to be influenced by real exchange rate changes (lagged one year) in Brazil and Chile but not in Argentina, Colombia, México or Venezuela. These results are not surprising once it is ascertained that the composition of exports and imports, between oi1 and non-oil and between primary commodities and industrialized goods, varies widely among different countries as made clear in section 2. They do shed light, however, on the relevance of country specificities for the proper size and pace of real exchange rate devaluations at the onset of any structural adjustment program.

Pricing Policies

Among policy recommendations designed to stimulate supply it would be hardly disputed that the principle that it is desirable that public prices should not hinder efficient resource allocation must be included. It is widely acknowledged, however, not only that policies designed to improve efficiency in the use of scarce resources have to take into account "political realities", but also that they are not based on sound foundations as "the theory underlying micro-oriented policy measures is not sufficiently developed to be able to yield precise answers on the effects of such policies"[15].

Moreover, the speed of adjustment of investment allocation to new price signals can be extremely slow so that abrupt realignment of prices can be counterproductive, the resulting inflationary pressures not being compensated by short run increased efficiency. This was partly recognized in Brazil after the first oil shock, energy price adjustments being delayed by the recognition that supply response would be rather slow.

The fragility of the framework supporting such micro-oriented analysis is underlined by the havoc provoked by recent changes in energy relative prices as apparently sound investment decisions taken before 1985 can prove to have been disastrous if oil prices much lower than previously anticipated are to persist in the long run. Unfortunately, authoritative recipes to align domestic energy prices to international energy prices did not take into account the present scenario of real oil prices more than 60% below their peak level.

With the energy crisis receding, the issue of realignment of prices has tended to center on agricultural prices: the bulk of the 1986 *World Development Report* was taken by a thorough treatment of trade and pricing policies in world agriculture. Evidence is presented there to show that many developing countries tax export crops lowering levels of production and exports in relation to what would be attained without such distortions[16].

While this is true and the correction of such must be accorded priority in any structural adjustment program, it is to be doubted whether farm prices are a good indication of farmers' incomes as there are in many countries important transfers in the form of credit and input subsidies. More important, it is not altogether clear whether the unilateral removal of such distortions in agricultural exporting countries will have so clear advantages in relation to the present position. To take a temperate agricultural product such as wheat as an example, the removal of price distortions in Argentina since the early 1980s, mainly through a strong foreign exchange real devaluation, without a parallel reduction of production subsidies either in net importers in the developing world, such as

[15] See Khan (1986), p. 13.

[16] World Bank (1986), p. 62 and ff. For a major appraisal of the destabilizing effects of protectionism in agriculture in the EEC see Australia Bureau of Agricultural Economics (1985). For American and Japanese nominal protection coefficients see Anjaria et al (1985), pp. 138 and 141.

Brazil and South Korea, or in new inefficient large producers such as the EEC – which export under the umbrella of subsidies – only aggravated over- supply in the world market, further depressing prices[17]. Dismantling the system of disincentives of agricultural output and exports of such products in developing countries can only be fruitfully examined in the context of an overall reduction of protectionist barriers affecting agricultural trade.

For tropical products, widespread reduction of disincentives would result in expanded supply and depressed prices until the markets adjust. It is to be doubted whether such a programme is realistic – given the extremely low commodity prices in the recent past – without the provision of specific financial facilities to cope with transition costs.

Every time the misallocation of resources implied by agricultural policies adopted, say, by the EEC is stressed and the gradual dismantling of the Common Agricultural Policy is suggested, arguments are raised concerning the political difficulties of such a task given the political weight of the agricultural lobby. A symmetrical argument exists, and is rarely advanced, on the enormous political difficulties entailed by the reduction of disincentives to agricultural production in developing countries and the choice of alternative ways of raising finance and/or fostering import substitution.

Arguments which stress the importance of the removal of price distortions to improve the efficiency of resource allocation have also relied on the relevance of tariff reduction in developing countries to achieve higher rates of GDP growth. Given the popularity of such unqualified views it is surprising how limited is recent work on comparative rates of protection[18].

It is not easy to explain the important discrepancies of evidence presented in Table 10 – especially for Latin American countries – in relation to expectations based on pre-conceived views. So Brazil – much more heavily protected than, say, Argentina – had together with México by far the best record in terms of growth.

Similarly, as already suggested elsewhere in this paper, capital-output ratios are consistently lower in countries more heavily protected such as Brazil, Colombia and México as compared to Argentina. Data on ERPs in paradigmatic countries such as Korea indicate a disappointing long-term trend which is aggravated by the very high variance of ERPs in such countries if compared to the major Latin American economies: ERPs on engineering products in Korea in the late 1960s, for instance, exceeded those in Brazil in spite of the sharp contrast in terms of aggregate ERP.

As Krueger and Michalopoulos (1985) presenting as evidence Table 12 bluntly state, the existence of a strong relation between export growth and real income growth in developing countries is no longer questioned. What continues to be questioned is whether slow export growth economies

[17] World Bank (1986), chapter 6.

[18] See, for instance, Balassa and Michalopoulos (1985), pp. 27-8, already quoted, for an unqualified association of incremental capital-output ratios (and consequently economic growth) to levels of protection between countries and for the same country over time.

can increase their exports by the adoption of outward-looking policies as commonly implied. It is difficult to define what are outward- looking – or "balanced trade incentives" – policies, as exemplified by the incoherencies implied in the taxonomic exercise undertaken by Krueger and Michalopoulos. For instance, the only possible reason for the inclusion of Brazil among the outward-looking group in the 1960s seems to be the fleeting tariff/import control liberalization after 1967 (foreign exchange policies, foreign investment treatment and pricing policies were on the whole maintained unchanged). Why should then the Ivory Coast, where the aggregate ERP in 1970/72 was 72%, be included in the group of outward-looking group of countries? Without Brazil and the Ivory Coast the Balanced Trade Incentives cases are restricted to the well-known group of Asian countries. Similarly, the disastrous impact on growth of the sharp liberalization experiences in Argentina in the late 19 70s is dealt with in a most unsatisfactory way by placing Argentina in the group of inward-looking policies. Chile's growth *cum* liberalization record in recent years also does not seem to fit well with simple recipes based on trade *cum* growth emphasis. All these arguments stress the subjectivity of such exercises and suggest that much more sophisticated treatment of country differentiation is required if adequate recommendations are to be advanced. Based on Latin American recent experience, especially in the larger economies, it would seem that sustained theoretical second best policies such as those adopted by Brazil are much to be preferred to the alternative adoption of first best and lower grade policies as in Argentina and Chile in some periods in the last ten years.

This is not to say that there is not ample scope for tariff reduction in many Latin American countries in the context of major tax reform. The difference between statutory and average tariff is very substantial in many countries – 79% and 5% in Brazil in 1983, for instance – and low average tariffs result in very low shares of tariff proceeds in total revenues[19].

4. The Baker Plan: A Quantitative Assessment

This section presents and discusses data generated by a model which simulates a discrete two-gap, foreign exchange or savings constrained, path of consistent effective and capacity output growth over a finite time horizon. Alternative scenarios for the world economy, foreign credit availability and structural parameters of a debtor economy are analysed.

[19] See Anjaria et al (1985), p. 147.

Table 11

Export Growth and Economic Performance on Selected Developing Economies, 1960-73 and 1973-81

Economies	Period	Real Yearly Rate of Growth		Economies	Period	Real Yearly Rate of Growth	
		Exports	GDP			Exports	GDP
World	1950-73	8.1	5.0	World	1973-81	3.8	2.5
		Sample of economies with balanced trade incentives					
Brazil	1968-73	13.6	11.2	Chile	1975-80	12.0	7.5
Hong Kong	1962-73	13.6	10.1	Hong Kong	1973-81	8.5	9.1
Ivory Coast	1960-73	11.2	7.6	Ivory Coast	1973-81	4.5	5.7
Korea	1960-73	14.0	8.9	Korea	1973-81	15.7	8.8
Malaysia	1965-73	8.8	7.1	Malaysia	1973-81	4.2	7.3
Singapore	1965-73	12.6	12.7	Singapore	1973-81	4.2	8.0
Average		12.3	9.6	Average		9.5	7.6
		Sample of economies with inward-looking policies					
Argentina	1960-73	4.0	4.1	Argentina	1974-81	5.3	0.4
Chile	1960-68	3.7	4.4	Ghana	1973-81	0.0	-2.4
Ghana	1961-73	1.5	2.7	India	1973-78	7.7	5.1
India	1960-73	3.0	3.5	Pakistan	1974-81	6.4	5.4
Pakistan	1960-73	2.9	6.2	Sudan	1974-81	2.6	3.8
Turkey	1960-73	7.3	5.9	Turkey	1973-80	0.3	4.0
Average		3.9		Average		3.7	3.7

Source: Krueger and Michalopoulos (1585), p. 41.

4.1. The Model

The savings constraint is modelled in a way similar to that used in Ortiz and Serra-Puche (1986). If Y^* stands for full capacity output in period t, I_t for net investment and k is the output/capital ratio, it follows that:

$$Y_t^* = Y_{t-1}^* + kI_t \tag{4}$$

Since ex-post net investment equals total savings minus depreciation of the capital stock:

$$I_t = SD_t + SE_t - zkY_{t-1}^* \tag{5}$$

where z is the depreciation rate, SD_t stands for domestic, and SE_t for external, savings. Decomposing domestic savings into its private (SPR) and public (SPU) components:

$$I_t = SPR_t + SPU_t + SE_t - zkY_{t-1}^* \tag{6}$$

Private savings can be expressed as a fixed proportion s of disposable income,

$$SPR_t = s(1-\tau)Y_t^* \tag{7}$$

where s is the propensity to save and τ stands for the average tax rate, and

$$SPU_t = \tau Y_t^* - G_t \tag{8}$$

where G_t is current public sector expenditure. It should be noted that the influence of inflation on the distribution of domestic income between the private and public sectors by virtue of seignoriage – the so-called inflation tax – is assumed away in the model.

External savings, being by definition equal to the real resources gap, that is, the deficit in trade and non-factor Services, can be modelled in balance of payments equilibrium as:

$$SE_t = -rD_{t-1} + NDI_t + D_t - D_{t-1} \tag{9}$$

where D_t is net foreign debt, r_t is the average rate of interest, including spread and commissions, on foreign debt, and NDI_t represents net foreign direct investment in the debtor country minus net non-interest factor payments. If d_t is the rate of growth of net foreign debt in period t

$$d_t = \frac{D_t - D_{t-1}}{D_{t-1}} \tag{10}$$

equation (9) can be rewritten as:

$$SE_t = NDI_t + (d_t - r_t)D_{t-1} \tag{11}$$

or

$$SE_t = NDI_t + (d_t - r_t)\prod_{j=1}^{t-1} D_0(1+d_t) \tag{11'}$$

Substituting equations (5) to (8) and (11') into equation (4) and rearranging:

$$Y_t^* = \frac{(1-zk) - k\left[G_t - NDI_t - (d_t - r_t)\prod_{j=1}^{t-1} D_0(1+d_t)\right]}{1-k[s(1-\tau)+\tau]} \tag{12}$$

Equation (12) allows the iterative simulation of capacity output over time given initial values

for potential output and net foreign debt, the structural parameters z, k, s and τ, and exogenous time patterns for G_t, NDI_t, d_t and r_t.

The simple model used to generate the time pattern of foreign exchange constrained output starts from the balance of payments equilibrium condition:

$$X_t - M_t + NDI_t + (d_t - r_t)\prod_{j=1}^{t-1} D_0\left(1 + d_j\right) = 0 \tag{13}$$

where X_t and M_t are, respectively, exports and imports of goods and non-factor Services. Since commodity trade can be modeled as:

$$X_t = X_0\prod_{j=1}^{t}(1 + g_j x_j + PX_j) \tag{14}$$

and

$$M_t = M_0\prod_{j=1}^{t}(1 + y_j m_j + PM_j) \tag{15}$$

where X_0 and M_0 are initial values of X_t and M_t, X is the elasticity of real exports of the debtor country in relation to OECD real output, g_j is the rate of growth of OECD real output, PX is the rate of change of the debtor country's export prices, m is the output elasticity of imports in the debtor country, g is the rate of growth of output in the debtor country and PM is the variation of its import prices. Assuming that net payments to non-factor Services are a stable proportion f of imports, from equations (7) to (15) the foreign exchange-constrained rate of growth of output in period t can be expressed as:

$$y_t = \frac{1}{m_t}\left\{\frac{X_t + NDI_t + (d_t - r_t)\prod_{j=1}^{t-1} D_0(1 + d_j)}{M_0(1 + f)\prod_{j=1}^{t-1}(1 + m_j y_j + PM_j)} - 1 - PM_t\right\} \tag{16}$$

and foreign exchange-constrained output as:

$$Y_t = Y_0\prod_{j=1}^{t}(1 + y_j) \tag{17}$$

given the initial values of real output and net debt, the parameter f and exogenous time patterns for g, n, PX, m, PM, NDI, d and r.

Thus, equations (12) and (17) allow the simulation of, respectively, savings and balance of payments constrained growth path for a given international scenario, including credit availability, and a set of structural parameters of the debtor country. The determination of the actual output and capacity growth paths depends, however, of the determination of the effectively binding constraint at every period. Thus, the simulations of Y_t^* and Y_t starting from their initial values are performed on a period by period basis. As long as the capacity constraint is not binding, the model generates the time

path of what can be termed effective capacity EY^*, i.e., capacity created by investment out of the savings generated by the actual growth of foreign exchange constrained real output y_t, vie.:

$$EY_t^* = (1 - zk)EY_{t-1}^* - k\left\{s(1-x) + xY_t - G_t + NDI_t + (d_t - r_t)\prod_{j=1}^{t-1} D_0(1+d_t)\right\} \quad (18)$$

which is used as the initial value for the next period's simulation of capacity output.

4.2. Scenarios

Simulations based on the model described in the previous section were developed for different International and country (Argentina, Brazil, Chile, Colombia, Mexico and Venezuela) scenarios.

The different scenarios are described in Tables 13 and 14. Table 13 lists alternative International scenarios. The Basic International Scenario was combined with the Country Basic Scenarios (Table 14) to generate a reference simulation for each of the Latin American economies included in this study.

Variations from the Basic International Scenario include alternative scenarios concerning OECD growth rate (and compatible interest rate) and oil prices, the values of other exogenous variables being the same as in the Basic International Scenario.

Four different alternatives concerning the availability of international finance for Latin America were examined: no growth of nominal outstanding debt; the Baker initiative (estimated to correspond to a 2.2% yearly increase of nominal debt in 1987-89 followed by a freeze of outstanding debt until 1995); a 3% and 6% yearly growth of nominal debt. The basic scenarios involved the Baker initiative assumption on prospective indebtedness.

Country Basic Scenarios vary as oil prices affect differently average export and import prices depending on the share of oil in total imports or exports. Simulations of structural change scenarios involved the following independent variations of basic scenarios: a 20% rise in export elasticities, a 20% rise in import elasticities, a 20% rise in output/capital ratios, a 10% reduction in government current expenditure, a 10% rise in the private savings rate and a 20% rise in the tax rate.

Table 13

International Scenarios*

	1986	1987	1988	1989	1990-95
Basic International Scenario					
Interest rate	0.06	0.065	0.07	0.07	0.07
OECD growth	0.026	0.028	0.03	0.03	0.032
Oil prices	-0.46	0.2	0	0	0
Non-oil prices	-0.057	0.045	0.05	0.05	0.03
High OECD growth Scenario					
Interest rate	0.06	0.065	0.065	0.065	0.06
OECD growth	0.026	0.03	0.032	0.035	0.035
Low OECD growth scenario					
Interest rate	0.06	0.07	0.08	0.09	0.09
OECD growth	0.026	0.024	0.02	0.02	0.02
High Oil prices scenario					
Oil prices	-0.046	0.2	0.05	0.05	0.03
Low Oil prices scenario					
Oil prices	-0.046	-0.33	0.05	0.05	0.03

*Yearly rates of change, except for interest rates.

Table 14
Country Basic Scenarios (* in 1990; until growing 3% yearly)

Country / Year	Net Contribution Direct Investment (US$ 10^6)	Export Prices (%)	Import Prices (%)	Spread (%)	Export Elasticities	Import Elasticities	Output Capital Ratio	Government Current Expenditure (US$ 10^6)	Private Saving Rate (%)	Tax Rate (%)
Argentina										
1986	-200	5.7	3.0	2.2	1.0	1.9	0.143	14,446	22.5	24.5
1897	-200	4.5	4.5	2.2	1.0	1.9	0.143	14,879	22.5	24.5
1988	-200	5.0	5.0	2.2	1.0	1.9	0.143	15,326	22.5	24.5
1989	-200	5.0	5.0	2.2	1.0	1.9	0.143	15,876	22.5	24.5
1990-95	-200	3.0	3.0	2.2	1.0	1.9	0.143	16,260*	22.5	24.5
Brazil										
1986	0	5.7	-9.1	2.2	1.0	4.0	0.270	26,431	28.2	9.9
1897	0	4.5	9.2	2.2	2.0	2.0	0.270	27,620	28.2	9.9
1988	0	5.0	2.5	2.2	2.0	2.0	0.270	29,001	28.2	9.9
1989	0	5.0	2.5	2.2	2.0	1.0	0.270	30,451	28.2	9.9
1990-95	0	3.0	2.5	2.2	2.0	1.0	0.270	31,364*	28.2	9.9
Chile										
1986	-50	5.7	3.0	1.2	1.4	1.4	0.140	6,636	24.7	31.3
1897	-50	4.5	4.5	1.2	1.4	1.4	0.140	6,935	24.7	31.3
1988	-50	5.0	5.0	1.2	1.4	1.4	0.140	7,282	24.7	31.3
1989	-50	5.0	5.0	1.2	1.4	1.4	0.140	7,646	24.7	31.3
1990-95	-50	3.0	3.0	1.2	1.4	1.4	0.140	7,875*	24.7	31.3
Colombia										
1986	200	5.7	3.0	0.9	1.3	1.1	0.260	5,700	20.6	14.3
1897	200	4.5	4.5	0.9	1.3	1.1	0.260	5,871	20.6	14.3
1988	200	5.0	5.0	0.9	1.3	1.1	0.260	6,047	20.6	14.3
1989	200	5.0	5.0	0.9	1.3	1.1	0.260	6,228	20.6	14.3
1990-95	200	3.0	3.0	0.9	1.3	1.1	0.260	6,415*	20.6	14.3
Mexico										
1986	-100	-32.7	3.0	1.6	1.9	2.0	0.300	39,343	31.5	16.9
1897	-100	12.3	4.5	1.6	1.9	1.8	0.300	41,113	31.5	16.9
1988	-100	2.5	5.0	1.6	1.9	1.5	0.300	43,169	31.5	16.9
1989	-100	2.5	5.0	1.6	1.9	1.2	0.300	45,327	31.5	16.9
1990-95	-100	2.5	3.0	1.6	1.9	1.2	0.300	46,687*	31.5	16.9
Venezuela										
1986	-100	-42.0	3.0	1.1	0.0	1.1	0.210	8,798	2.1	28.6
1897	-100	16.9	4.5	1.1	0.0	1.1	0.210	9,062	2.1	28.6
1988	-100	1.0	5.0	1.1	0.0	1.1	0.210	9,334	2.1	28.6
1989	-100	1.0	5.0	1.1	0.0	1.1	0.2.10	9,614	2.1	28.6
1990-95	-100	0.0	3.0	1.1	0.0	1.1	0.210	9,902*	2.1	28.6

4.3. Simulation Results

In this section the results obtained with the model of section 4.1 under the alternative scenarios of section 4.2 are discussed. Table 15 presents average GDP growth rates for the time span of the Baker initiative, 1986-89, and the following five years, 1990-95, under the four hypothesis concerning the availability of foreign finance. Within each credit availability scenario, five other possibilities are considered: Basic, High- and Low-OECD and High- and Low-Oil[20].

Table 15 suggests that prospects for growth in Venezuela are very bad. Negative GDP growth rates result under most scenarios. Increased credit availability, within the range considered, is not sufficient to allow for significant output growth and the oil prices scenarios considered are not enough to produce positive GDP growth rates, except when foreign finance grows at 6% per year. At the other extreme is Brazil, which attains highly positive GDP growth rates in most scenarios. Amount the six Latin-American economies, Brazil is the only country to reach full capacity utilization within the simulation time horizon. Under all the scenarios Brazil becomes "savings-constrained" in the late 1980s or early 1990s, while the other economies remain "foreign-exchange-constrained" up to 1995.

With respect to credit availability, Table 15 shows that increased finance enhances GDP growth in the short-run in all countries. This is especially true for Argentina, Chile and Mexico, which seem more sensitive than the other countries to the availability of International finance. Growth prospects for Brazil during 1986-89 become almost insensitive to the rate of growth of credit availability, after it surpasses 3% per year. Increased finance foster growth of the Brazilian economy in the early years of the planning horizon, anticipating the attainment of full capacity utilization. As full capacity is reached, further increases in credit availability become irrelevant, as GDP cannot expand above the rate of growth of potential output.

Note that for all countries faster economic growth in 1986-89, associated with increased rates of growth of credit availability, results in slower economic growth in 1990-95. This can be explained by the heavier interest burden on the foreign debt that is accumulated during the first period.

The maximum rate of growth of the foreign debt considered (6% per year) falls below the rate of interest. Hence, within this range, interest payments reduce output growth during the second period.

[20] It is difficult to overstress the point that simulation results are extremely sensitive to assumptions underlying different scenarios concerning the behaviour of specific variables. Such *caveat* notwithstanding it is instructive to have a more concrete idea of the comparative future economic performance of the main Latin American economies than would have been possible based only on qualitative analysis.

Table 15

Latin America: International Scenarios (Average GDP Growth Rates, 1986-89 and 1990-95)

Country / Period	0% Debt Growth					3% Debt Growth					6% Debt Growth					Baker Initiative				
	"Basic"	High OECD	Low OECD	High Oil	Low Oil	"Basic"	High OECD	Low OECD	High Oil	Low Oil	"Basic"	High OECD	Low OECD	High Oil	Low Oil	"Basic"	High OECD	Low OECD	High Oil	Low Oil
Argentina																				
1986-89	1.2	2.0	-1.8	1.2	1.2	4.1	4.7	1.4	4.1	4.1	7.0	7.1	4.6	7.0	7.0	3.3	4.0	0.5	3.4	3.3
1990-95	3.6	3.9	3.4	3.6	3.6	2.4	2.8	1.8	2.4	2.4	1.8	2.6	0.9	1.8	1.8	2.1	2.4	1.6	2.1	2.1
Brazil																				
1986-89	7.0	7.7	4.4	6.1	8.0	8.1	8.2	5.6	7.2	8.3	8.4	8.4	6.9	8.4	8.4	7.8	8.0	5.2	6.9	8.2
1990-95	7.2	6.9	7.0	7.7	6.9	7.0	7.1	5.6	7.5	7.0	7.2	7.3	4.7	6.7	7.2	6.8	6.9	5.4	7.1	6.8
Chile																				
1986-89	-2.5	-1.9	-5.5	-2.5	-2.5	0.0	0.8	-2.8	0.04	0.04	2.8	2.8	0.2	2.8	2.8	-0.7	0.1	-3.5	-0.7	-0.7
1990-95	5.1	5.5	4.2	5.1	5.1	4.0	4.5	2.8	4.0	4.0	3.4	3.9	2.0	3.4	3.4	3.6	4.1	2.5	3.6	3.6
Colombia																				
1986-89	-0.4	0.2	-2.2	-0.4	-0.4	1.0	1.5	-0.8	2.0	1.0	2.5	3.0	0.7	2.5	2.5	0.6	1.2	-1.2	0.6	0.6
1990-95	4.5	4.9	3.2	4.5	4.5	3.9	4.4	2.5	3.9	3.9	3.6	4.1	2.2	3.6	3.6	3.7	4.1	2.3	3.7	3.7
Mexico																				
1986-89	1.6	2.7	-2.6	1.6	-3.9	4.2	5.2	0.4	4.2	-1.5	7.1	8.0	3.6	7.1	1.6	3.5	4.5	-0.1	3.5	-8.6
1990-95	8.3	8.8	6.9	8.3	8.1	6.4	7.1	4.6	6.5	5.4	5.4	6.2	3.3	5.4	3.9	6.1	6.7	4.2	6.1	5.0
Venezuela																				
1986-89	-3.2	-2.9	-4.1	-1.6	-13.5	-1.9	-1.7	-2.9	-0.4	-11.8	-0.6	-0.4	-1.6	0.8	-10.0	-2.3	-2.1	-3.2	-0 7	-12 3
1990-95	-2.7	-2.6	-2.7	0.4	0.7	-3.0	-2.8	-3.2	0.03	0.04	-0.3	-2.7	-3.3	-0.1	-0.1	-3.5	-3.3	-3.5	-0.3	-0.5

The Baker initiative cannot be directly compared with the other scenarios for foreign debt growth because it is limited in time. International finance availability increases at 2.2% per year between 1987-89 but the influx of foreign resources stops after 1990. GDP growth rates under the Baker initiative are higher than under the alternative of no-growth in foreign debt during the period 1986-89. Once again Argentina, Chile and Mexico, for which the balance-of-payments constraint is tighter, are the largest beneficiaries of the increase in foreign credit availability. Output growth rates under the Baker scenario during 1990-95 fall below those projected under the assumption that the foreign debt is frozen, due to increased interest payments on additional finance. The 3% debt growth scenario dominates the Baker initiative in terms of GDP growth rates for all countries. This is because under the former scenario, new foreign funds are available throughout 1995, while in the latter no foreign funds are guaranteed after 1990. Note that these simulations for the Baker initiative do not consider the effects of structural adjustment policies, which comprehend the main conditionality for increased finance and that should improve output growth performance in the long-run. The impact of structural adjustment policies is discussed below, when further alternative domestic scenarios are considered for each individual country.

Within each scenario for the rate of growth of foreign credit availability, the results for two scenarios for OECD growth are also shown in Table 15. Overall, higher OECD growth foster economic growth for the six Latin-American countries. The impact becomes more relevant when the prospects for increased foreign indebtedness are less favourable. As the availability of international finance increases, the contribution of faster OECD growth to further enhance developing countries' GDP growth rate diminishes. Note that the effect of higher OECD growth on output growth rates in Latin-America is larger during the first four years than during the following five years. This is due to the fact that the decline in international interest rates, that accompanies the higher OECD growth scenario, is not sufficient to alleviate the balance-of-payments constraint in the early 1990s.

Two countries seem less sensitive than the others to faster OECD growth: Venezuela and Brazil. Venezuela benefits exclusively from the decline in interest rates on foreign debt, as its exports, mainly comprised of oil, do not follow necessarily the pace of world economic growth. In Brazil, higher OECD growth rates stimulate output growth in the short-run. However, as it reaches full capacity output faster, growth slows down. For instance, under the hypothesis of no new foreign finance during the planning horizon Brazil grows at 7.0% per year between 1986-89 and 7.2% per year between 1990-95. Faster OECD growth increases the Brazilian GDP growth rate to 7.7% per year between 1986-89 but reduces it to 6.9% per year between 1990-95. Under the lower OECD growth scenario, GDP growth prospects for the six Latin-American countries are severely impaired. This illustrates the importance of OECD macroeconomic policy coordination for the developing world. The large negative effects of a deceleration of OECD growth upon Latin-American economies suggest that it

must be avoided if growth in the developing countries is viewed as the only sound route to restore International social, economic and financial harmony.

The Baker initiative, coupled to the medium OECD growth scenario, provides for faster economic growth in Latin America in the short-run, when compared to the alternative scenario of no debt growth and high OECD growth. In the long-run, however, the no-debt growth and high-OECD growth scenario dominates, as the flow of new International finance ceases under the Baker initiative. This suggests that stable growth in the OECD, accompanied by lower interest rates, should be preferred as a long-run solution to overcome current bottlenecks to temporary and small increases in the availability of foreign funds, as contemplated by the Baker Plan. Hence, greater policy coordination for economic growth among OECD countries may benefit Latin-American countries in the long-run far more than increased finance.

The results for the two alternative oil-price scenarios are also displayed in Table 15. As would be expected, higher oil prices favour output growth in the oil-exporter countries, such as Mexico and Venezuela, and inhibit output growth in the oil-importer countries, such as Brazil. Argentina, Chile and Colombia are basically not affected by alternative trajectories for oil prices. As mentioned earlier, the high-oil price scenario is not sufficient to revert the recession projected for Venezuela, except in the case where foreign credit availability grows at a rate above 6% per year. Under the low-oil-price scenario, both México and Venezuela face a decline in GDP over the period 1986-89, if foreign debt cannot grow above 3% per year. At a rate of growth of 6% per year for international finance availability, México's GDP grows at 1.6% per year, which still falls well below its historical rate. Note in Table 15 that the output losses for México and Venezuela entailed by low oil prices outweigh the gains obtained by Brazil during 1986-89.

Table 16 presents the results of the simulations for structural change in each individual country. The international scenario is the basic Baker initiative scenario in Table 15. The changes in the structural parameters considered here can be divided into two sets. The first set comprises the higher export and import elasticities, that are associated with policies aimed at increasing allocative efficiency. The second set includes higher output-capital ratios, lower government current expenditures, higher private savings rates and higher tax rates, that would result from policies aimed at increasing growth of capacity output.

Table 16

Latin America: Baker Initiative and Cosmetic Scenarios **(**Average GDP Growth Rates, 1986-89 and 1990-95**)**

Country / Period	Basic Scenario No Structural Adjustment	Higher Export Elasticity	Higher Import Elasticity	Higher Output Capital Ratio	Lower Government Current Expenditure	Higher Private Savings Rate	Higher Tax Rate
Argentina							
1986-89	3.3	3.7	2.5	3.3	3.3	3.3	3.3
1990-95	2.1	2.6	1.8	2.1	2.1	2.1	2.1
Brazil							
1986-89	7.8	8.0	6.9	7.8	7.8	7.8	7.8
1990-95	6.8	6.8	6.5	7.8	7.1	7.8	7.4
Chile							
1986-89	-0.7	-0.1	-1.5	-0.7	-0.7	-0.7	-0.7
1990-95	3.6	4.5	3.0	3.6	3.6	3.6	3.6
Colombia							
1986-89	0.6	1.2	0.5	0.5	0.6	0.6	0.6
1990-95	3.7	4.5	3.7	3.8	3.7	3.7	3.7
Mexico							
1986-89	3.5	4.3	2.2	3.5	3.5	3.5	3.5
1990-95	6.1	7.4	5.1	6.1	6.1	6.1	6.1
Venezuela							
1986-89	-2.3	-2.3	-2.6	-2.‘3	-2.3	-2.3	-2.3
1990-95	-3.5	-3.5	-2.9	-3.5	-3.5	-3.5	-3.5

Higher export elasticities foster economic growth for all countries, with the exception of Venezuela, during 1986-89. After 1990 growth rates are still larger under higher export elasticities except for Brazil. As capacity restricts output growth in the Brazilian economy during 1990-95, the slack in the foreign-exchange constraint, due to the increase in the export elasticity, does not allow for higher growth. Higher import elasticities reduce the growth rates of GDP for all countries during the entire planning horizon. In the case of Brazil, the higher import elasticity brings back the foreign-exchange constraint during 1990-95 and the average GDP growth rate falls from 6.8% per year under the basic scenario to 6.5% per year.

A consistent scenario of import liberalization and export promotion would combine increases in both export and import elasticities. The simulations undertaken have not considered this possibility. However, the results in Table 16 suggest that for the same rate of increase in export and import elasticities, the negative impact upon GDP growth rates due to higher import elasticities outweighs the positive impact that results from higher export elasticities.

As Argentina, Chile, Colombia, Mexico and Venezuela remain constrained by foreign exchange availability during the entire planning horizon, policies aimed at increasing capacity growth do not result in higher effective GDP growth rates through 1995. Even in the case of Brazil the impact of these supply-side policies is not large and only observed after 1990, when economic growth becomes constrained by existing capacity.

For Brazil a 20% rise in the output/capital ratio increases the average GDP growth rate from 6.8% per year in the basic scenario to 7.8% per year during 1990-95. A 10% reduction in government current expenditures adds 0.3 percentage points to the average GDP growth rate. A 10% increase in the private savings rate raises output growth to 7.8 per year during 1990-95. Lastly, a 20% rise in the tax rate increases the average GDP growth rate for 1990-95 by 0.6 percentage points.

The above results raise some doubts about the effective contribution of the Baker Plan conditionality, especially those aimed at increasing the rate of growth of capacity output, to foster economic growth in Latin-America for the next ten years. Clearly the forecasts are very much dependent upon initial estimates of existing idle capacity. For the Brazilian economy the rate of capacity utilization was readily available from *Conjuntura Econômica*. For the other countries potential output was estimated on the basis of the peak production level and the trend GDP growth rate for the period 1970-84. When the same procedure is used for Brazil, the starting value for potential output is much larger than the actual value. When this alternative estimate of potential output is used in the simulations, the Brazilian economy also remains foreign-exchange constrained during the entire simulation time horizon. Once again the contribution of short- and medium-run structural adjustment policies aimed at increasing growth of capacity output would be challenged.

5. Conclusions

Over the past few years the debate on economic stabilization in Latin America has undergone significant change. On the one hand, the importance of a stable International environment for the success of domestic adjustment policies became clear. On the other hand, there was growing criticism of orthodox macroeconomic adjustment programs based on restrictive demand management policies, and a shift of emphasis towards so-called structural adjustment programs.

The impact of world trade growth and interest rate fluctuations and, to a lesser extent, inflation and exchange rates was reviewed in detail in Section 2 of this study. It is interesting to note that, given the substantial heterogeneity among even the leading Latin American economies concerning export composition, market structure, debt-export ratios, import composition, and success in substituting imports, the impact of macroeconomic policies in developed countries on specific Latin American economies vary considerably.

In spite of a large measure of consensus over the inadequacy of recessive adjustment policies and the broad aim of structural adjustment policies – to increase growth of potential output and/or improve the efficiency of resource allocation - the formulation of general propositions as to the design of such policies is, however, still a controversial subject. As reviewed in Section 3, most *general* orthodox policy proposals based on liberalization of trade and capital markets, privatization of public enterprises and the like are based on microeconomic reasoning lacking sound empirical support. There is indeed still a clear need for a major empirical effort on the impact of specific structural adjustment policy proposals.

Even though the way policy instruments should be used to achieve structural adjustment is still surrounded by the mist of academic debate, it is possible to assess the impact of measures aimed at increasing capacity output growth or allocative efficiency on medium-term economic performance of the large Latin American debtors' *vis à vis* increased credit availability and other exogenous determinants of performance.

This exercise was undertaken in Section 4 of the study with the help of a simple simulation model. One can see that, under the base world economic scenario of stable OECD growth and interest rates around current levels and with credit availability as defined in the Baker Plan, of the six countries studied it is only in the Brazilian case that supply-side measures aimed at increasing capacity output – higher output-capital ratios, lower government current expenditures, higher private saving rates and higher taxes – lead to improved growth prospects. In all the other cases, a binding foreign exchange constraint makes this set of policies irrelevant as part of any growth-oriented package in the ten-year time frame used for the simulations. It is also shown that, for all countries, in the absence of structural adjustment measures, increased credit availability stimulates growth in the early years of the

simulation horizon but result in slower growth in the longer run due to a heavier interest burden.

The effects of export promotion and import liberalization policies aimed at increasing allocative efficiency are extremely difficult to assess. It can be shown, however, that if these policies produce the same rate of increase in export and import elasticities, the negative impact upon GDP growth due to higher import elasticities outweighs the positive impact from higher export elasticities.

Finally, the results of the simulation exercise undertook in Section 4 conclusively points to the crucial importance of an improved world economy. scenario – that is, higher OECD growth and lower interest rates – for the growth prospects of Latin American debtor-countries. Foreign finance in the amounts potentially available under the Baker initiative coupled to the base world economy scenario, provides for faster economic growth in Latin America in the short-run, when compared to the alternative scenario of no debt growth and optimistic (high OECD growth) scenario. In the long-run, however, the latter dominates, as the flow of new international finance ceases under the Baker initiative. This suggests that stable growth in OECD, accompanied by lower interest rates, should be preferred as a long-run solution to overcome current bottlenecks to temporary and small increases in the availability of foreign funds, as contemplated by the Baker Plan. Hence, greater policy coordination for economic growth among OECD countries may benefit Latin-American countries in the long-run far more than increased finance.

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