



institute of social studies
the hague, the netherlands

FOREIGN CAPITAL AND DOMESTIC SAVINGS:
THE 1965-80 LATIN AMERICAN EXPERIENCE

A Research Paper presented by

Ricardo M. Padilla Casaverde

(Peru)

in partial fulfilment of the requirements for obtaining the degree of

Master of Development Studies

Members of the Examining Committee

Dr. G.W. Irvin

Prof. R. Teekens

October 1983

The Hague,

FOREIGN CAPITAL AND DOMESTIC SAVINGS: THE 1965-80
LATIN AMERICAN EXPERIENCE

by

Ricardo M. Padilla Casaverde
(Peru)

A research paper submitted in
the requirements for obtaining the degree of
Master of Arts in Development Studies of the
Institute of Social Studies, The Hague

October, 1983

This document represents part of the author's study programme while at the Institute of Social Studies; the views stated therein are those of the author and not necessarily those of the Institute. Research papers and theses are not made available for outside circulation by the Institute.

To my Parents

To M.K.

ACKNOWLEDGEMENTS

I wish to thank Dr. George Irvin and Prof. Ruud Teekens for their critical and helpful comments which have led to various improvements in the original draft. I wish also to thank Prof. E.V.K. FitzGerald for the valuable comments during the early stages of this work.

CONTENTS

Page

I.	INTRODUCTION	1
1.	Foreign Capital and domestic savings: Griffins's Theoretical Argument	3
1.0	Introduction	3
1.1	The Macroeconomics of foreign Capital	4
1.2	The Capital imports and domestic consumption	6
1.3	Aid and The Pattern of Investment	11
1.4	Foreign Capital and The Balance of Payments	13
2.	Foreign Capital and domestic savings: Additional Arguments and Counterarguments	17
3.	Foreign Capital and domestic savings: The Experience of The Major Latin American Economies	28
3.0	Introduction	28
3.1	Capital Formation and Development	28
3.1.1	Growth and Accumulation	28
3.1.2	Investment and Savings Trends	33
3.2	The Role of Foreign Capital	39
3.2.1	The Flow of Foreign Capital	42
4.	Foreign Capital and Domestic Savings: empirical contrast of Griffin's Argument	48
4.0	Introduction	48
4.1	Analysis of the Main Sub-hypothesis of Griffin's Argument	49
4.2	Up-dating of Griffin's savings function and Analysis of results.	53
II.	FOOTNOTES	58

CONTENTS (cont)

Page

III. CONCLUSIONS

59

IV. BIBLIOGRAPHY

61

V. ANNEX: STATISTICAL TABLES

63

I. INTRODUCTION

The Orthodox view of the role of the foreign finance considers that economic growth in Latin America is significantly more dependent upon the foreign sector for two basic reasons. First, long term foreign capital flows into Latin American countries play a greater role in supplementing domestic savings and increasing the rate of growth; domestic savings being in many cases not sufficient to enable the country to obtain the desired growth target. Second, the fact that capital equipment is mostly manufactured abroad renders developing countries heavily dependent upon imports of capital equipment from developed countries. Thus, domestic savings are insufficient in themselves as a means of capital formation and the availability of foreign exchange plays an important role in channelling domestic savings into productive investment.

On the opposite hand, several studies have found a significant inverse relation between foreign capital inflows and domestic savings. One of the main representative authors is K. Griffin whose main contention seems to be that foreign capital inflows to developing countries may do nothing to foster development, and may even retard it because capital imports discourage domestic savings. Moreover, it is true that our understanding of the significance of the external finance is also hampered by inclarity as to the role of such funds in Latin America accumulation and the role of the state in that process.

The purpose of the present paper is to provide a theoretical view and a very general and preliminary analysis of the interrelationships existing between the foreign capital inflows to the major Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) and fundamental economic issues in these coun-

tries, like the capital accumulation, economic growth, capital formation, savings and fiscal accounts over the period 1965-1980. Another two aims are to provide a theoretical treatment and empirical contrast of Griffin's argument about the negative relation between capital imports and domestic savings. Rather it does update Griffin's results using data series for the major Latin American economies in the last decade; and provide supporting empirical evidence to establish the relevance of the hypothesis. And, finally to try to introduce some global notions to understand the role of the foreign finance in Latin American accumulation.

This work is divided into two broad parts, the first part contents two chapters and deals with the theoretical issues. The first chapter provide the main arguments of Griffin's position about foreign capital and domestic savings. The second chapter define additional arguments and counterarguments refered to capital imports and domestic savings. The second broad part focuses on the empirical evidence refered to the particular case of the major Latin American countries. In that sense, the third chapter provide a background or summary of major developments related to foreign capital and domestic savings in Latin America over 1965-80. And, the last chapter analyses the way in which the main economic issues, growth, consumption, investment, savings and fiscal accounts of the major Latin American economies have developed during 1965-80 in response to using more foreign capital. Moreover, it does update Griffin's results using data series for recent decade and to provide supporting evidence to establish the relevance of Griffin's hypothesis.

CHAPTER ONE

FOREIGN CAPITAL AND DOMESTIC SAVINGS:GRIFFIN'S THEORETICAL ARGUMENT1.0 Introduction

Several studies have found a significant negative relation between foreign capital inflows and domestic saving. The hypothesis of a negative relation was first put forward by Haavelmo and has been tested by Rahman, Griffin and Enos, Chenery and Eckstein, Weisskopf, and Leff, among others (Thirlwall, 1974). However, Griffin's work has contributed greatly to increase the controversy about the role of foreign capital inflows. Griffin's main contention seems to be that aid to less developed countries may do nothing to faster development, and may even retard it, (a) because capital imports discourage domestic savings, i.e. capital imports are consumed and (b) because any, addition to saving tends to be offset by a rise in the capital - output ratio. This chapter tries to define the main issues and to establish the relevance of Griffin's argument about foreign capital and domestic savings.

Griffin (1971, pp 156) has asserted that he counts himself among people who in principle would favour a redistribution of income from rich to poor nations. In practice, however he has come to the reluctant conclusion¹ that capital imports rather than accelerating development, have in some cases retarded it.

Griffin's main concern is the relationship between foreign capital, domestic savings and economic development. His fundamental argument is that capital imports reduces domestic savings. In his writings, he supports the above argument analysing basicly the following four aspects:

firstly, the macroeconomics of foreign capital; secondly, the capital imports and domestic consumption; thirdly, aid and the pattern of investment; and finally, foreign capital and the balance of payments.

1.1 The Macroeconomics of Foreign Capital

In general, Griffin challenges conventional dual gap analysis. He argues that many models have been constructed which attempt to show how capital imports affect the aggregate behaviour of an economy, the usual point of departure being the Harrod growth equation: $g = sk$, where "g" is the proportional rate of growth of national income, "s" the proportion of national income saved and invested, and "k" the incremental output-capital ratio. If a country receives an inflow of foreign capital, "a", expressed as a fraction of its national income, the growth rate rises to $g = (s + a)k$ (1971, pp 227).

The conventional saving gap argument is that the marginal propensity to save is higher than the average ($s' > s$), so that a given inflow of foreign aid has two effects: first, it supplements domestic savings and leads to a higher rate of accumulation of capital and, secondly, it raises income per capita and hence the proportion of income saved. As a result, foreign aid increases a country's capacity for growth. Eventually, it is argued, growth will become self-sustaining and the need for further foreign aid or private foreign investment will cease. Thus, if g^* is a target or planned rate of growth and if k is assumed to be constant, one can deduce the rate of capital accumulation (c) necessary to achieve the target: $g^*/k = c$. The difference between "c" and "s" indicates the savings gap on the amount of aid necessary to achieve the target: $c - s = a$.

Griffin (1970, pp. 101) notes, however, that even if all the assumptions of the model are valid, self-sustained growth would be achieved only if $s' > g^* / k$. The larger is the savings gap, the greater is $c - s$, the less likely it is that the above condition will be satisfied, since the larger the gap, the more must the marginal propensity to save exceed the average in order eventually to close it.

About the foreign exchange gap, Griffin (1971, pp. 227) mentions that other economists argue that the difficulties experienced by many underdeveloped countries, particularly those in Latin America, arise from their inability to acquire foreign exchange by exporting. The role of foreign capital not as supplementing savings but as supplementing foreign exchange earnings. Griffin adds that the implication of models which emphasise the foreign exchange gap is that potential domestic savings are being frustrated because at least some of the capital goods necessary to undertake derived investment are not produced domestically and cannot be obtained from abroad. If additional foreign exchange were available the level of investment and the rate of growth would increase.

In foreign exchange gap models the exports are given or exogenous, so $x = \bar{x}$. The requirements for imports (M), are rigidly determined by the level of income (Y) and the propensity to import: $M = mY$. Given the desired level or rate of growth of national income, the demand for foreign exchange to finance imports may exceed the supply of foreign exchange obtained from exports. If this happens a foreign exchange gap may arise which would reduce the rate of growth unless it is filled by foreign aid. The absolute size of the gap is equal to $mY - \bar{x}$. This can be expressed in proportional terms and rewritten as $a = m - \bar{x}/Y$.

In an accounting sense, these two gaps must be equal, since national income must be exactly equal to national expenditure. This accounting rule is expressed by the identity: $I - S \equiv M - X$. The terms can be rearranged and written in the previous notation as:

$$a = c - s = m - \bar{x}/Y$$

According to Griffin (1970, pp. 102) the weakness of this argument is that it assumes domestic and foreign resources cannot be substituted. It is assumed that the economy is extremely rigid: it can produce neither capital goods, nor export goods nor import substitutes. Furthermore, Griffin argues that is the unwillingness of a government to introduce policies which reduce consumption in order to expand exports or reduce imports which is the source of the difficulty. In other words, Griffin says that ultimately there can only be one constraint on investment, viz. savings, and it is the contribution of capital imports to total savings that is important for economic growth.

1.2 The Capital Imports and Domestic Consumption

On the other hand, about the second point, capital imports and domestic consumption, Griffin says that foreign capital is viewed as an addition to the physical resources of a developing economy and it is assumed that all of these additional resources are saved and invested. Moreover, Griffin mentions that some authors, like Chenery and Strout (1966) go even further and argue that not only do capital imports raise the rate of investment by the full amount of the foreign assistance, they also lead to a higher rate of domestic savings (s), since the marginal propensity to save is assumed to be higher than the average. Griffin (1970) adds that many models (the most frequently cited: Chenery and Strout model) have been constructed which attempt to show how capital imports alter the aggregate performance of

an economy. The great majority of these models are Keynesian in spirit and rely on fixed technical relationships and stable savings and imports propensities. These models assume, first, that the rate of development will increase if the ratio of investment to national income rises; and secondly, that the investment ratio will rise if capital imports increase. Griffin argues that neither of these assumptions are wholly correct, and he asserts that "capital imports act essentially as a substitute for savings and a large proportion of foreign capital ultimately is used to increase consumption rather than investment" (1971, pp. 228).

In relation to the above, Griffin mentions that governments have, and are encouraged by foreign lenders to have, growth targets. From these targets and an assumption about the incremental output - capital ratio the amount of investment needed to achieve the target can be estimated. This investment can be financed either from domestic savings or from capital imports. Assuming the government wants to achieve its growth objective at the lowest possible cost in terms of reduced current consumption, it will substitute foreign capital for domestic savings to the fullest extent possible.

In the Bulletin of the Oxford University, Griffin (1971) made a reply to three comments to his article "Foreign Capital, domestic savings and economic development". In that reply, Griffin defines clearly that in a world in which capital transfers² occurs, it is reasonable to assume that consumption will be a positive function of total available resources, i.e. national income plus net capital imports. He continues saying that if this is accepted, unless the marginal propensity to consume is zero, capital imports will raise total consumption and reduce domestic savings.

Griffin assumes his consumption function is of the form:

$$c = d + a (Y + A)$$

Since $S = Y - C$ by definition, it follows that:

$$S = -d + \beta Y - a A$$

Where $\beta = 1 - a$. In other words, given the level of income, the larger the inflow of capital the lower the level of domestic savings. The saving equation can be written in ratio form. The easiest way to do this is to suppress the intercept and divide by Y :

$$\frac{S}{Y} = \beta - a \frac{A}{Y}$$

The last equation does not imply a constant level of income; it expresses that the higher is the ratio of aid to income the smaller will be the rate of domestic savings.

The key question is whether foreign savings substitutes for, rather than complementing, domestic savings. Speaking of fifteen Latin American nations in the period 1958-1964, Griffin notes that there is a clear tendency for gross domestic savings (expressed as a proportion of gross product) to fall as foreign capital imports (again expressed as a proportion of gross product) rise. In other words, the more foreign capital a nation receives, the less it tends to save itself.

Thus, Griffin (1969, pp. 124) concludes that the available statistical evidence suggests that foreign assistance certainly does not lead to a rise in domestic savings, and

probably leads to a fall. Moreover, Griffin (1968) argues that the inverse relationship is very apparent if one compares the average flow of savings in the period before capital imports became important with the rate of savings in the early years of the Alliance for Progress.

Having demonstrated that in theory one ought to expect a foreign capital inflow to reduce domestic savings, Griffin's next step is to consider whether this occurs in practice. Griffin (Oxford Bulletin, 1970) points out that much of the evidence is based on cross section data and may not, therefore, tell much about the behaviour of an economy over time. Finally, the quality of much of the data is poor: domestic savings are calculated as a residual and the net inflow of foreign capital is assumed to be equal to the deficit on current account of the balance of payments.

Griffin made a cross-section study of 32 underdeveloped countries, using United Nations data, and obtained the following results:

$$\frac{S}{Y} = 11.2 - 0.73 \frac{A}{Y} \quad R^2 = 0.54$$

(0.11)

Where S/Y = gross domestic savings as a per cent of GDP, 1962-1964; and A/Y = foreign savings as a per cent of GDP, 1962-1964. Within the sample of 32 countries 13 were from Asia and the Middle East.

Griffin follows the report of these results by investigating the precise channels through which an increase in foreign capital leads to a reduction in domestic savings. He lists the most obvious ways as: first, a decline in public savings due to (i) reduction in taxation, (ii) less effort to collect taxes, (iii) an inelastic tax system

combined with inflation, (iv) a change in the composition of government expenditure in favour of consumption.

Second, a decline in private savings due to (i) the availability of finance on soft terms, (ii) pre-emption of profitable opportunities which would have generated savings by local investors.

Finally, capital imports may reduce domestic savings by stimulating the consumption of importables and exportables. The increased availability of imported goods which foreign capital facilitates may lead to an increase in their consumption. Perhaps even more likely, the increased availability of foreign exchange which accompanies capital imports may induce the government to adopt or maintain inappropriate exchange rates or other trade policies. The consequence of these policies may be to reduce the effort devoted to exporting and to increase domestic consumption of potential export goods.

Thus Griffin asserts that in theory one should expect foreign capital to reduce domestic savings, in practice it serves to do so, and it is easy to imagine a variety of mechanisms through which this occurs.

Furthermore, Griffin (1971, pp. 159) mentions that in so far as capital imports permit a more egalitarian distribution of consumption in the world, they are welcomed. He adds, however, that there is little evidence that capital imports have financed an increase in consumption of those specific goods which would accelerate development. Moreover, if the increased consumption which capital imports finance is to accelerate development, two conditions must be satisfied according to Griffin: first, aggregate consumption of specific items must increase (e.g. animal proteins) and, second, these items must be distributed to groups where their impact on productivity will be maximized.

1.3 Aid and the Pattern of Investment

A third point treated by Griffin is aid and the pattern of investment. The saving gap model implies that foreign capital raises the growth rate by the amount "AK". Where "A" is an inflow of foreign capital and "K" the incremental output capital ratio. However, Griffin argues that most foreign capital supplements consumption and that only a small part is used to increase the rate of investment. Assuming increased consumption does not increase productivity, capital imports would increase the rate of growth by much less than orthodox models suggest, i.e. by: $(1 - \alpha) AK$; where " α " is the fraction of aid consumed. Furthermore, Griffin argues that the slight positive effect of foreign capital in raising investment will be more than offset by a decline in the output - capital ratio, so that the growth rate actually falls. Given that " α " is quite large, for Griffin it can easily be demonstrated that the effects on growth of even a large capital inflow may be completely neutralized by a small decline in the output-capital ratio, using the following expressions to calculate the growth rate (g):

$$\text{Dual-gap model:} \quad g = SK$$

$$\text{Griffin model :} \quad g = [(1 - \alpha) A + S] K$$

thus, Griffin (1971, pp. 223) argues that "the impact of foreign aid on the total investment programme may result in a lower output - capital ratio". Moreover, a crucial step in his analysis is the hypothesis that the output - capital ratio will fall as aid increases. A less output - capital ratio means a reduced effectiveness of investment.

About the above, Griffin (1970) asserts that aid may not only lead to lower savings, it may also retard long-run

economic growth by altering the composition of investment to the disadvantage of the receiving country. A large proportion of foreign assistance is channeled into activities which either are not directly productive or have long gestation periods. All of these projects tend to bias the allocation of investment in favour of schemes which have a very slight and long delayed impact on output. For Griffin, this occurs due to the following three reasons: one reason is the motive of the aid donors. Political objectives are paramount, and in most instances there can best be achieved in the recipient country by concentrating on large, and highly visible projects. A second reason is that aid agencies have certain ideological biases against government ownership of directly productive activities. This ideological bias tends to alter the pattern of investment in favour of social overhead capital and economic infrastructure, transport facilities, electric energy, housing and schools. A general bias against directly productive activities should tend to lower the aggregate output-capital ratio. Finally, the last reason, the administration of aid programmes tends to lower the effectiveness of investment. By concentrating on a few large projects the agency can reduce the difficulties of supervising its projects and keep down its administrative costs.

Moreover, Griffin (April 1970, pp. 323) argues that even when foreign assistance is channeled to directly productive activities, the consequences for growth may be small. Most often investments involve manufacturing goods with techniques that require considerable capital, both initially, while the plant is being constructed, and afterward, when it is in operation. To the extent that foreign assistance is biased in favour of capital-intensive technology, it has a tendency to increase the receiving country's subsequent needs for capital, prejudice its exports, raise the capital-output ratio, and reduce the rate of growth.

The last problem is stressed by two difficulties. One of the obstacles with aid project is that assistance normally can be used only to finance the foreign exchange costs of a project. This induces countries first, to select projects which are intensive in foreign exchange; and, second, to design any given project so as to maximise the foreign exchange component of total cost.

Finally, there is tied aid which implies, firstly, a higher cost of imported goods; and, secondly, to a continuing flow of high cost imports in the form of spare parts and equipment complementary to the aid-financed imports. Griffin points out that indeed the practice of tying aid greatly increases the costs of investment to Latin America, lower the aggregate output-capital ratio and reduces the international competitiveness of aid financed activities.

1.4 Foreign Capital and the Balance of Payments

A last point considered by Griffin is the foreign capital and the balance of payments. Griffin (1970, Oxford Bulletin) argues that in the long run the foreign exchange gap is a pseudo-gap. He accepts however, that in the short run, i.e. a period during which the economy is unable to reallocate resource, additional foreign exchange may enable a country to increase investment at a much lower cost than would otherwise be possible. It is important to consider the long run consequences, and Griffin mentions that there is a growing number of underdeveloped countries that are unable to service their foreign debt. Moreover, he points out that many of the largest aid recipients, in fact, have had to negotiate their debts, some more than once.

The two-gap model cannot explain the above facts because it is assumed that capital imports are productively used and generate a surplus out of which the debt can be serviced. In

that sense, Griffin (1971, pp.161) assumes that a country receives a net capital inflow of "A" and invest a certain fraction of it $(1 - \alpha)$. Ignoring the possible effects of increased consumption on the productivity of labour, and assuming an incremental output-capital ratio of "K", foreign capital will raise total output by $(1 - \alpha) AK$. Interest (γ) must be paid on the entire loan, however, not just on that part which is invested. If:

$$(1 - \alpha) AK < \gamma A$$

the additional output generated by capital imports will be insufficient to service the debt. Countries which are forced to borrow at relatively high rates of interest and yet have a strong tendency to consume a large proportion of their capital imports may well find that their repayment obligations exceed the value of the extra output produced. In practice, some fraction of the additional income will be consumed, say " α " again. It is only out of the rest that debts can be serviced. Specifically, the balance of payments effects will be unfavourable if:

$$(1 - \alpha) K < \gamma$$

The country will then appear to have a foreign exchange constraint, but Griffin asserts that in fact the difficulty is caused by a combination of excessive consumption and insufficient productive investment. He concludes that even if the balance of payments is a constraint on long run growth, capital imports may make matters worse than better, unless (i) the government has firm control over the level of consumption, (ii) investment is allocated efficiently and (iii) the rates of interest on foreign borrowing are low. If condition (i) and (ii) are fulfilled capital imports will

be unnecessary, although they should be welcomed on grounds of equity. If the first two conditions are not fulfilled, capital imports other than grants create more problems than they solve.

Furthermore, Griffin (1969, pp. 142) argues that conventional theory would have us believe that a country receiving external capital would enjoy a substantial import surplus on current account. H. Myint has shown that more often than not there were repatriated profits when there is no evidence of a previous inflow of capital in the form of import surpluses. To explain this, Griffin cites two possibilities.

First, foreign control of an enterprise may be obtained with domestic capital. That is, there may never have been a capital inflow; funds may have been raised in the local financial system of the host country. The second possible explanation for the absence of an important surplus is that foreign investors may demand an extraordinarily high rate of return on their investments. From the point of view of the capitalists, foreign investments is an unusually risky activity which requires a high rate of amortization. The substantial leakages of interest payments, dividends, and profit repatriation greatly reduce the impact of foreign investment on the host economy and directly accentuate the problem of the balance of payments.

Something very important to remark is that Griffin finds there has been a consistent net capital outflow from the low-income, capital poor countries to the high income, capital - abundant countries. Speaking about Latin America, Griffin using data from the U.S. Department of Commerce, indicates that over the twelve year period 1950 through 1961 the region as a whole repatriated more capital than it received.

The net inflow of \$ 1,829 million on public account was not nearly sufficient to compensate for the \$ 3,910 million outflow of capital on private account, Thus, Griffin concludes that Latin American region was a source of capital to the United States throughout the period.

CHAPTER TWO

FOREIGN CAPITAL AND DOMESTIC SAVINGS: ADDITIONAL
ARGUMENTS AND COUNTERARGUMENTS

It is necessary to review the main contributions to the analysis of the effects of the capital imports on the domestic savings in order to have a clear theoretical perspective. In this sense, our concern is to provide the essential arguments developed by Weisskopf, Papanek, Payer and FitzGerald.

In a correct way, Papanek (1972, pp. 934) has pointed out that the early literature discussing the impact of foreign resources on the economic growth of less developed countries was curiously naive, yet it remained essentially unchallenged until recently. Some aspects of the simple Harrod-Domar model were subject to subsequent modifications (including several developed by Hollis Chenery), which greatly increased its sophistication and connection with reality. But assumptions about the contribution of foreign resources were not changed, they were exactly additive to domestic savings and domestically financed imports. On the contrary, Papanek asserts that conventional wisdom would hold that any additional resources are used in part to increase consumption and only in part to augment investment.

However, since the beginning of the 1970's some articles have reached the opposite conclusions: i.e. that foreign savings does not increase investment or promote growth. Authors such as K.B. Griffin, J.L. Enos, Anisur Rahman, Kaj Areskoug, Thomas Weisskopf, and H.B. Chenery, amongst others, agree that aid and other foreign inflows have generally reduced domestic savings and are used in part to increase consumption. It is certainly plausible that some share of

foreign inflows increases consumption. Given the assumption which underlies all this work, that savings equals investment minus foreign inflows, as long as the effect of an additional unit of foreign resources on investment is less than one, its effects on savings will appear to be negative.

It is possible to identify savings function which would result in a fall in domestic savings, and a small or zero increase in investment, as a result of foreign inflows. Papanek notes that Rahman, Griffin and Weisskopf imply that savings are substantially determined by government policy and that a government's savings effort will be less vigorous if greater foreign resources are available. Specifically, if one assumes that savings are a function of government efforts or policies, that governments have a fixed growth rate as their objective, that achievement of this growth rate requires a given investment; then, if any resources for investment come from abroad, a government will change its policies and programmes to reduce domestic savings by an equivalent amount.

There are persuasive theoretical reasons for believing that an inflow of foreign capital should have a negative impact on domestic intentions to save. Weisskopf (1972) has argued that foreign capital inflow represents an addition to the total supply of resources available to a country and thereby increases the possible magnitude of domestic expenditures. Any plausible utility function, balancing the immediate benefits derived from current consumption and the future benefits to be derived from current investment, would lead to a marginal allocation of expenditures partly to consumption and partly to investment. But to the extent that private or public decision-makers wish to use the additionally available external resources to increase private or public consumption, there will be a decline in intended

domestic savings, for domestic income remains unchanged. Thus, for Weisskopf a case in which foreign capital inflow had no impact on domestic savings behaviour would appear to be extreme rather than typical.

Weisskopf mentions two attempts to apply statistical evidence to this question have supported the view that domestic savings is inversely associated with foreign savings. Using cross-country data for 31 underdeveloped countries for the year 1962, Rahman (1968) obtained the following estimated relationship:

$$S/Y = 0.14 - 0.25 F/Y \quad (t = 2.5)$$

Where S, F, and Y represent domestic savings, foreign capital inflow and gross national product respectively. A similar regression carried out by Griffin and Enos (1970) with data for 32 countries for the three year period 1962-1964 yielded a more striking inverse relationship:

$$S/Y = 0.11 - 0.73 F/Y \quad (t = 6.6)$$

Weisskopf asserts that such results are suggestive but not conclusive because, in the first place, the authors failed to exclude from the regression countries for which there was a net outflow of capital. This implies that the causality runs from domestic savings to the capital flow. Secondly, the authors did not address themselves to the question of whether the level of domestic savings observed in each country reflected an ex-ante behavioural function or merely an ex-post accounting relationship.

Weisskopf (1972) seeks to study the relationship between foreign capital inflow and domestic savings by examining time series evidence from a sample of 44 underdeveloped

countries during the recent postwar period. In order to do this, Weisskopf introduces a simple analytical model of a capital receiving country. This model is used to develop a test to distinguish those countries in which a behavioural savings function can be econometrically identified from those in which it cannot. Weisskopf has introduced into the discussion, and into his study, two issues which differentiate his work from that of all other studies known to the writer. These were mentioned previously, the first of these issues is his contention that other investigators have erroneously by included capital outflow countries in their analysis; the second issue is best given by direct quotation as follows: "only in situations characterised by a binding savings constraint and a slack trade constraint is the relationship between foreign capital and ex-post savings described by the ex-ante savings function."

Another feature which differentiates Weisskopf's study is that he deflated the data by a single deflator for each country. About Weisskopf's study, Newlyn (1977) asserts that deflation reduces the standard errors but whether or not it is appropriate in estimating the actual relationship established in an inflationary situation is a moot point.

It was in respect of these seventeen countries that Weisskopf ran time-series regressions of domestic savings on income, external finance, and exports. In order to average the results he also ran a pooled regression, the results of which is given below:

$$S = a + 0.183 Y - 0.227 F + 0.176 E$$

Where S = domestic savings; Y = GDP; F = imports - exports;
E = exports.

The estimated propensity to save out of foreign resources of 0.773 implied in this result is high and according to Newlyn higher than the results of other pooled regressions using net resource inflow. The conclusions of the Weisskopf's study are therefore that there is a very wide range of individual country behaviour in the time series, a representative value of which is a propensity to save out of net foreign resources (including current transfers) of about 0.5 but the pooled result gives an estimate of nearly 0.8. Furthermore, Weisskopf concludes in the above mentioned article that the numerical results support the hypothesis that the impact of foreign capital inflow on ex-ante domestic savings in underdeveloped countries is significantly negative. To an extent that varies from one country to another, foreign savings appears to have substituted for domestic savings. This finding is quite consistent with a-priori expectations based upon inter-temporal welfare - maximizing behaviour on the part of the recipients of foreign capital. For Weisskopf, it implies that savings functions used for planning purposes in underdeveloped countries must include as an argument the magnitude of net foreign capital inflow.

Papanek (1972) argues that the critics (Griffin, Rahman, Areskoug, Weisskopf, Chenery) who support a negative casual relationship between foreign inflows and savings is not proved by their quantitative analysis. He adds that in many instances causality is more complex than they assume. For a number of countries it is plausible to conclude that exogenous factors - political and military disturbances, terms of trade, weather and other shocks, and historically low or high savings propensities - caused both high inflows and low savings rates and generally low growth rates as well. Moreover, Papanek asserts that only a careful analysis of individual countries can really shed any light on the

impact of foreign inflows on savings, exports or growth, and even such analysis are unvariably subject to disagreement and dispute. Finally, Papanek points out that as long as both savings and inflows are substantially affected by third factors, the negative correlation between the two found in many studies sheds little or no light on their casual relationship.

Given more details about Papanek's study, he suggests that aid and growth are positively correlated across countries despite the paltry levels of assistance received per capita and the fact that the productivity of foreign resources may differ markedly between countries. Papanek relates domestic growth to three types of foreign capital inflow: aid (a); private foreign investment (f); and other foreign inflows (o). Taking 85 countries and including the domestic savings ratio (Sd) as an additional explanatory variable, the following equation is estimated (t - statistics in brackets):

$$Y = 1.5 + 0.20 (Sd) + 0.39 (a) + 0.17 (f) + 0.19 (o)$$

$$\quad (6.0) \quad (5.8) \quad (2.5) \quad (2.1)$$

$$R^2 = 0.37$$

The aid coefficient is highly significant and is also higher in absolute term than any of the other coefficients, suggesting that aid is more productive than domestic resources and other capital inflows.

Since the results obtained by Papanek were a pure cross-section regression (one observation for each country but data for two periods combined), the author claims only that it is suggestive. But Newlyn (1977) comments that it is well specified and as a reflection of the long-term effect it is very relevant to subsequent discussion. The

remarkable features are the greater growth effect of aid as compared both with savings and direct investment. Papanek explains the former plausible by the joint two gap role played by aid and the low contribution to growth.

About the Papanek's results, Thirlwall (1974) asserts that in view of the positive effect of capital inflows on the domestic growth rate, and the positive effect of the growth rate on the savings ratio, the fairly large negative coefficients relating domestic saving and capital inflows reported earlier are somewhat surprising. The results obtained are open to a number of different interpretations. Thirlwall says that either capital imports in the samples of countries taken by the various studies were not a strong growth inducing force and/or generated no savings, or such a large proportion of capital import was consumed that, for the definitional reasons, decisions to save more were disguised by accounting conventions.

Furthermore, Papanek favours the hypothesis that the negative association between foreign capital and domestic savings is caused by a common third factor, namely low per capita income. He argues (1972, pp. 947) that poor countries, and countries passing through a temporary crisis often have low savings rates and (*Ceteris Paribus*) low growth rates. If at the same time, such countries frequently have greater inflows because of greater need, then savings and growth will be negatively associated with inflows for many countries without any causal relationship between them. Aid is a major part of foreign inflows which goes primarily to the needy poor or crisis - ridden countries. About this, Thirlwall asserts that it could simply be that the causal relation is the other way round: that low savings leads to high levels of capital imports because balance of payments deficits caused by too much consumption require financing.

Papanek suggests that foreign aid is relevant to growth. About this, a relevant contribution is made by Payer (1974) who asserts that foreign aid is an over-used and inaccurate term that would be used in his study only because any alternative terminology is likely to prove cumbersome and distracting. He used the term to cover financing transactions made or guaranteed by one government (the creditor) to another government (the debtor). These financial transactions may be in the form of gifts (a small proportion of the total); they may be government-to-government loans on terms of any degree of 'hardness' up to, but not including, the commercial; and they may include government guarantees to cover payments due to private exporters. They do not include private capital movements, whether loans or direct investments, that are not guaranteed by the creditor's government.

Payer mentions that towards the end of the 1950's, a number of circumstances contributed to a major shift of emphasis and mode of operation in aid-giving, a change so significant that its results could be called the new style of aid-giving. The major components of this new style were:

- (a) the growth of the practice of 'tied aid'
- (b) a shift in emphasis from project to programme aid;
- (c) the development of the consortium technique in order to coordinate policies of several different aid-givers, and to encourage more countries to share the aid burden with the United States;
- (d) the decision to rely on IMF stand-by arrangements as a 'pilot' for other aid programmes;
- (e) an increase of more than 50 per cent in IMF quotas, and therefore lending power;
- (f) the formation of the International Development Association (IDA), an affiliate of the World Bank which could administer lending of soft loans (loans on terms very much easier than commercial).

Payer argues that, historically speaking, nations have failed to develop not because they had too little international finance, but because they had too much. So, the grant aid of the 1950's served to make poor nations dependent on western brand names and accustomed to the idea of development via imports, rather than by their own efforts, thus paving the way to the debt slavery of the 1960's and 1970's.

Payer, finally concludes that large scale aid would be a pernicious influence on development even if no conditions whatsoever were imposed as a 'quid-pro-quo'. Further, the conclusion applies *pari passu* to any reformist scheme which proposes to allocate more foreign exchange to poor governments. This would include commodity agreements intended to secure better prices for raw material exports and the IMF scheme of compensatory finance for fluctuations in export earnings (both, like aid, bribes to present change in the traditional system of production), or the proposed allocation of newly created SDR's - the international money issued by the IMF - to poor countries as a backdoor sort of untied foreign aid.

Talking about Latin America, Celso Furtado (1970) argues that a trend which emerged in the immediate post-war years was the growing use of international credit agencies as financial intermediaries for the region's national government. He mentions that between 1948 and 1971, the World Bank has made loans to the value of 5.3 billion dollars to private and public enterprises in the region, backed with government guarantee. These loans have been used almost entirely for infrastructure projects, specially electric power and transport.

Furtado, however shows figures that in the 1950's and 1960's Latin America's exports exceeded imports, indicating that, strictly speaking, the region relied only on its own

resources for accumulation and consumption. Moreover, the modest or negligible flow of external resources to Latin America in the period under consideration contrasts with the considerable increase both in the external debt and in direct foreign investment. About the direct foreign investment, Furtado argues that the expansion of subsidiaries of foreign companies is based essentially on locally - obtained resources: depreciation reserves, undistributed profits, bond issues, local bank loans. Furtado uses available information on American subsidiaries which indicates that four-fifths of their expansion in the period 1957-65 was financed from locally-raised resources; resources obtained directly from the United States covered only 17 per cent of total expenditure. Furtado's arguments about the relevance of foreign capital, mainly foreign aid, to finance the development differs from Payer's point of view. While for Payer there was a large scale aid which would be a pernicious influence on development; for Furtado the flow of external resources to Latin America was modest and negligible, and further there was a net outflow of capital.

About this last controversy, the effects of foreign capital, FitzGerald (1981) argues that the evidence derived from the testing of such two-gap models in both Latin America and the periphery generally seems to indicate that the effect of external savings on investment is not very large, the main effect being apparently to reduce domestic savings. FitzGerald's argument is that the loans to the banking system permit greater trade credit and consumption (and thus less savings, or at least a lower savings rate), that loans to the state enterprise, reduce the borrowing requirement (with a similar effect) while loans to the treasury reduce domestic borrowings once again, or else avoid the need to raise consumption taxes still further. Thus, the clue to the whole issue is the inability of the state to command

sufficient control over consumption out of profits and the use of foreign exchange to support this is the real reason for the recourse to external borrowing. Moreover, the foreign exchange is mainly required to sustain consumption - particularly that of the middle and upper classes - and not for fixed investment as such, although accumulation does depend upon the expansion of this consumer demand to a large extent.

Finally, FitzGerald argues that the external finances serves to permit the continued realisation of the domestic surplus in the form of foreign exchange; but the connection between foreign borrowing and the 'fiscal crisis of the state' is close, if only because the state does not have sufficient real control over the available foreign exchange in order to allocate the available reserves to its own needs. In other words, it is a problem of the relative autonomy of the state in acting in the interest of capitalist development as a whole.

CHAPTER THREE

FOREIGN CAPITAL AND DOMESTIC SAVINGS: THE EXPERIENCE
OF THE MAJOR LATIN AMERICAN ECONOMIES3.0 Introduction

The main purpose of the present chapter is to provide a background or summary of major developments in the seven major Latin American economies (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) over 1965-1980. This analysis is made in the context of the theoretical debate refers to foreign capital and domestic savings discussed in the first two chapters; and furthermore, using empirical data relevant for up-dating and contrasting Griffin's results in the next chapter.

3.1 Capital Formation and Development3.1.1 Growth and Accumulation

The problem of accumulation and distribution is central in the analysis of the developing countries. The existence of surplus is the first step of accumulation. There are two possibilities to increase the surplus: firstly, decreasing or reducing the consumption of non-basic or basic goods (e.g. through a deterioration of real wages); and, secondly, increasing productivity (e.g. irrigation projects in agricultural sector). Arguments as to whether capital formation takes first place or not as a determinant of growth do not invalidate the fact that capital formation is essential for development. Griffin argues that the problem of the countries of "Spanish American is not so much growth as it is development". Growth can take place, it is true, without development, but there can be no development without growth and capital formation is a key determinant of the rate of growth of the economy.

About the rate of growth in the total GNP of the Latin America region, which was about 5.3 percent in 1980, almost similar to the trend observed in the decade of the 60's (5.5%) and the decade of the 70's (5.6%). The population of the region grew by about 2.4% for all the decade of the 70's lower than the former decade (2.8%) (Table III.1). The results obtained in the growth rate of Latin America are higher than those obtained in the industrialized countries. However, the higher population rate in Latin America determines a lower GNP per capita.

Most countries were affected by the adverse international economic environment, which, by worsening further in 1980, made it necessary for many to adopt internal adjustment policies that restricted economic growth. Chief among the external shocks: lower prices received for principal commodity exports other than petroleum, sharply higher costs of foreign borrowing, and the worldwide recession.

The regional aggregates mask important differences on performance among countries. It is not necessary to take into account every country, because seven Latin American countries, Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela represent the 89% of the total GDP of the Latin America region in 1980. While in 1960, these seven economies explained the 86.5% of the total GDP (Table III.2). In real terms, the aggregated GDP of these seven countries grows three folds, from 147,036 millions of US dollars to 460,744, between 1960 and 1980. A similar pattern was registered for the Latin America region which grew also three folds, from 169,922 to 519,493 in the same period.

Looking at the structure of these seven Latin American countries, with major relative development, there is a change in their contribution to the total GDP, during the period 1960-1980. The participation of Brazil has increased

TABLE. III.1

SELECTED ECONOMIC INDICATORS, REGIONAL SUMMARY
(Percentages)

	1960-70	1970-77	1978	1979	1980
<u>INDUSTRIALIZED COUNTRIES</u>					
Real rate of Growth					
Total GNP	5.0	3.4	4.0	3.3	1.2
Population	1.1	0.8	0.6	0.6	0.7
GNP per Capita	3.9	2.5	3.4	2.6	0.6
Gross investment	6.8	1.7	4.9	5.5	-2.2
Share in GNP					
Gross investment	23.2	23.0	22.0	22.7	22.1
Gross National Savings	23.9	23.5	22.6	22.5	21.7
<u>ALL DEVELOPING REGIONS</u>					
Real rate of Growth					
Total GNP	5.8	5.8	5.9	4.8	5.0
Population	2.3	2.3	2.0	2.0	2.0
GNP per Capita	3.5	3.5	3.8	2.8	3.0
Gross investment	7.7	9.8	7.7	3.4	5.3
Share in GNP					
Gross investment	20.7	24.7	26.9	26.3	26.2
Gross National Savings	18.0	23.7	25.8	26.4	25.6
<u>LATIN AMERICA AND THE CARIBBEAN</u>					
Real rate of Growth					
Total GNP	5.5	5.8	3.4	5.9	5.3
Population	2.8	2.5	2.3	2.3	2.3
GNP per Capita	2.6	3.2	1.1	3.5	3.0
Gross investment	6.6	7.9	0.3	4.8	6.4
Share in GNP					
Gross investment	20.4	24.2	24.5	23.9	23.8
Gross National Savings	19.4	21.9	21.5	21.5	20.0

Source: WORLD BANK. Annual Report.

TABLE III.2

LATIN AMERICA: GROSS DOMESTIC PRODUCT 1960, 1970-1980

	1960		1970		1980	
	Millions dollars Price 1980	Structure %	Millions dollars Price 1980	Structure %	Millions dollars Price 1980	Structure %
<u>Main Latin American Economies</u>	<u>147,035.5</u>	<u>86.5</u>	<u>257,790.5</u>	<u>87.6</u>	<u>460,743.6</u>	<u>88.7</u>
Argentina	27,896.6	16.4	42,549.0	14.5	53,637.3	10.3
Brazil	47,759.7	28.1	86,088.6	29.3	200,176.7	38.5
Chile	8,558.4	5.0	13,241.8	4.5	17,661.4	3.4
Colombia	8,240.2	4.8	13,712.7	4.7	24,068.0	4.6
Mexico	31,520.0	18.5	62,114.0	21.1	107,263.0	20.6
Peru	9,454.7	5.6	15,450.8	5.3	20,925.5	4.0
Venezuela	13,605.9	8.0	24,633.6	8.4	37,011.7	7.1
<u>Rest of Latin America</u>	<u>22,886.6</u>	<u>13.5</u>	<u>36,420.1</u>	<u>12.4</u>	<u>58,749.1</u>	<u>11.3</u>
<u>Latin America</u>	<u>169,922.1</u>	<u>100.0</u>	<u>294,210.6</u>	<u>100.0</u>	<u>519,492.7</u>	<u>100.0</u>

SOURCE:

INTER-AMERICA DEVELOPMENT BANK. Economic and Social Progress in Latin America.

from 28.1% to 38.5%. In similar trend, Mexico has augmented from 18.5% to 20.6%. Argentina and Venezuela have reduced their relevance. Colombia has maintained a similar participation from 4.8% to 4.6%, improving its relevance from the last place (1960) to the fifth place (1980). Peru and Chile are the last ones of this group of seven economies. We can see that just three countries Brazil, Mexico and Argentina explain the 70% of the GDP of Latin America, so they have a great influence in the aggregated growth of the region. Furthermore, the above seven countries constitute the 83.5% of the total population of Latin America (annex 2).

In relation with this group of seven Latin American economies, the World Bank (1982) says that Latin America and the Caribbean is one of the industrialized area of the developing regions. There are sharp differences within the region, however, in the degree of industrialization that has been attained. From the largest countries, Argentina, Brazil and Mexico, come almost two-thirds of the total value added in manufacturing; each of the three has established relatively wide-based industrial structure. A second group, comprising countries of medium size (Chile, Colombia, Peru and Venezuela) plus smaller countries of relatively high per capita incomes (Barbados, Costa Rica, Jamaica and Uruguay, for example), has attained moderate levels of industrialization. The third group of countries, characterized by industries in a nascent stage, include those smaller nations with lower per capita incomes such as Bolivia, Haiti, Honduras, Paraguay and the smaller Caribbean countries. Therefore, according to the World Bank the strongest seven Latin American economies are characterized by higher levels of industrialization.

Additionally, the Interamerican Development Bank comments that due to the population growth in Latin America is

higher than other developing regions, the increase of the product per capita registered in the decade of the 70's was only 3.2% average which is an insufficient result comparing with the goal of 3.5% pursued by the international development strategy of the U.N.

3.1.2 Investment and Savings Trends

In order to understand the above pattern of growth of the Latin American economies, a key determinant is to consider the capital formation. The rate of capital formation depends upon the rate of investment and the capital-output ratio. In turn, the rate of investment is dependent on the rate of domestic savings and on the rate of supply of foreign investment.

There is a debate about if the rate of savings determines the rate of investment or the investment determines the savings. The first position, more savings means more investment is supported by classical economics (Smith, Ricardo) and neoclassical economics (Samuelson). Briefly, the classics say that due to retention of profits is possible more investment; and, the neoclassics argue that the increase of the interest rate means more savings and hence more investment. In the second position, Keynesians and Marxian said the opposite, the high level of Investment contributes to the accumulation and so higher savings. The Keynesian argument is based in that more investment increases the income, and in consequence the savings. The Marxian assert that the rate of accumulation implies lower wages and so, more savings. Our concern is to understand the significance of the external finance in Latin America accumulation. In that sense, our interest is addressed primarily to "whether savings (or surplus) are an ex-ante constraint on investment in Latin America, and thus whether foreign finance can lift the constraint, albeit only temporarily" (FitzGerald, 1982).

Quantifying the rate of capital formation, however, is an elusive task in Latin America, as Farley (1972) points out. There is incomplete data on changes in stocks, especially in the field of manufacturing, and incomplete data on fixed capital stock by sectors. There are any number of uncertainties which make for difficulty in estimating desired levels of investment in relation to desired rates of economic growth. It is not easy to arrive at consistent generalization about the relations between capital formation and economic growth rates in individual Latin American countries or in Latin America as a whole. Nonetheless, the estimates of capital information are useful indicators of the dimensions of the problem.

Two main indicators of the economic development process and the internal efforts to mobilize resources on Latin America, are the following coefficients: gross domestic investment as a proportion of GDP and the national savings as a proportion of GDP.

In the last year, the investment coefficient or capital-output ratio has decreased mainly in Brazil, Chile and Peru, specifically since 1975; while in Venezuela has showed a continuous grow with exception of 1979; finally, in Argentina, Colombia and Mexico the investment coefficient has an unstable pattern (table III.3). Looking at the long trend of the investment coefficient, America Latina as a whole shows a slight improvement from 22.4% to 24.2 between 1970 and 1979. While, the group of seven Latin American economies has grown from 22.9% (1970) to 24.9% (1979). The capital formation in the seven economies with major relative development (MRD) has been higher than the global. In the level of particular cases, the average investment coefficient has grown in five economies, Argentina, Brazil, Colombia, Mexico, and mainly in Venezuela, in the last decade, the 70's,

TABLE III.3

LATIN AMERICA: GROSS DOMESTIC INVESTMENT 1]
(Percentage of GDP)

	1965-69	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1970-79
<u>Main Latin American Economies</u>		22.9					24.8					24.9
Argentina	18.8	20.4	20.1	20.9	20.5	22.2	22.1	20.8	23.2	n.a.	n.a.	21.2
Brazil 2]	20.0	19.5	25.3	25.5	27.3	31.6	30.2	28.3	22.2	22.0	21.5	25.3
Chile	16.1	15.6	14.1	12.7	13.9	12.4	6.5	5.5	9.0	n.a.	n.a.	11.2
Colombia	19.6	22.0	22.7	20.3	16.8	22.6	18.2	20.9	23.5	23.0	n.a.	21.1
Mexico	21.2	19.6	19.7	19.2	20.2	26.2	24.4	24.2	22.7	25.1	28.0	22.9
Peru	17.1	12.9	15.0	14.2	15.7	18.9	19.9	18.1	15.0	13.7	14.0	15.7
Venezuela	25.7	27.7	27.7	29.2	29.4	24.0	30.6	34.7	41.5	42.6	34.1	32.2
<u>Rest of Latin America</u>												
<u>Latin America</u>		22.4					24.1					24.2

1] based on figures in national currencies at current prices.

2] Some countries do not publish separate figures for gross domestic investment and changes in stocks in their national accounts in such instances gross fixed investment is used to calculate the coefficient for the following country and years, Brazil 1977-1979. Insofar as the change in stocks is significant, the results reported may be either under or overestimated.

Source: INTERAMERICAN DEVELOPMENT BANK, based on official statistics of its member countries.

comparing with the lapse 1965-69. An opposite trend has occurred in Peru and Chile, in the latter the investment coefficient has decreased from 16.1% (average 1965-69) to 11.2% (average 1970-77), almost five points. Obviously, the above capital formation has effects on the growth rate of each economy. In the decade of the 70's only two countries, Brazil and Venezuela, have reached a capital-output ratio higher than 25%. Three countries, Argentina, Colombia and Mexico greater than 20%. And, Peru and Chile between 10% and 20%

In the other hand, the global saving coefficient for the region has decreased from 19.7% (1970) to 18.7% (1979) (Table III.4). A similar pattern was registered for the major Latin American economies which reduced from 20.7% to 19.0% in the same period. About the long trend, three countries Argentina, Colombia and Venezuela have improved their savings ration in the decade of the 70's respect to the period 1965-69, mainly Venezuela which grew from 27.0% to 34.1%. Two economies, Brazil and Mexico have kept a similar behaviour in their savings ratio during the periods 1965-69 and 1970-79. Finally, two Latin American economies Peru and Chile have reduced their savings coefficient. It is necessary to point out that in Chile, the savings ratio decreased from 14.6% (1965-69) to 9.6% (1970-77). During the decade of the 70's, only Venezuela has an average savings coefficient higher than 25%; Argentina and Brazil overcome 20%; and Colombia, Mexico and Peru were between 10% and 20%, and, only Chile had a savings coefficient lower than 10%.

Something important to take into account, is the contribution of the national savings in financing the gross domestic investment, and by extension this reveals the share of external resources in the financing of the investment.

TABLE III.4

LATIN AMERICA: GROSS NATIONAL SAVINGS 1)
(Percentage of GDP)

	1965-69	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1970-79
<u>Main Latin American Economies</u>		20.7					18.7				19.0	
Argentina	19.0	19.8	18.4	20.2	22.3	20.1	16.8	21.6	23.7	n.a.	n.a.	20.3
Brazil	21.6	18.2	22.8	23.1	25.2	24.9	24.7	24.2	19.8	18.3	16.6	21.8
Chile	14.6	13.8	12.0	8.6	11.2	11.5	7.7	6.6	5.2	n.a.	n.a.	9.6
Colombia	17.0	17.6	16.5	17.3	15.9	19.2	16.7	20.7	25.8	23.3	n.a.	19.2
Mexico	19.2	16.9	17.5	17.2	17.9	22.7	20.2	19.7	20.3	22.0	23.8	19.8
Peru	14.7	15.6	15.1	14.1	14.0	12.8	9.7	9.8	7.7	11.8	17.5	12.8
Venezuela	27.0	27.8	28.5	29.7	35.1	46.8	39.7	36.2	33.5	29.3	34.4	34.1
<u>Rest of Latin America</u>												
<u>Latin America</u>		19.7					18.3				18.7	

n.a. - not available

1) based on figures in national currencies at current prices.

Source: INTERAMERICAN DEVELOPMENT BANK, based on official statistics of its member countries.

The contribution of the national savings in the finance of the investment declines from 88.1% (1970) to 77.2% (1979) in Latin American (Table III.5). This regressive trend also was registered for the group of the major economies which decreases from 90.3% to 76.6% in the same period. The trends in the long term indicate that only four countries Chile, Colombia, Mexico and Venezuela were financing this investment with more national savings in the decade of the 70's respect to the period 1965-69. Argentina has suffered a slight deterioration from 101.5% (average 1965-69) to 98.9% (average 1970-77). In opposite sense, Brazil, and Peru are using more external resources to finance their investments.

During the decade of the 70's, only two countries Venezuela and Colombia generate enough national savings to finance all their investment. Argentina, Chile and Venezuela had savings which financed more than 90% of the investment. Brazil, and Peru financed between 80% and 90% of the investment with own resources. It is necessary to say that Peru used more external sources to finance its investments during the 70's in comparison with another main Latin American economies. Finally, we must point out that during the decade of the 70's five major Latin American economies, Argentina, Brazil, Colombia, Mexico and Venezuela have increased their investment respect to the GDP and also the savings respect to the GDP. However, only in three countries, Colombia, Mexico and Venezuela the savings have grown more than the investments, say they use more national savings to finance more investments. While Argentina and Brazil have financed the higher investments with more external resources. Chile is using more national savings to finance lower levels of investment. And Peru is using more external resources but not finance more investments, because its investment coefficient has decreased in the last decade.

3.2 The Role of Foreign Capital

The role of foreign capital in financing investment in Latin America varies enormously from one country to another. Griffin (1971) suggests that this can be seen by comparing the deficit on the current account of the balance of payments (which measures the net inflow of foreign capital) with total gross domestic savings. In the decade of the 70's the major Latin American economies have registered different outcomes. In Venezuela and Argentina, foreign savings accounted for -10.0% and -1.6% of total savings (Table III.6), i.e. there was a net capital outflow. On the opposite case, in Brazil, Chile, Mexico and Peru, between 10% and 30% of total savings originated abroad. The extreme case is Chile where 27% of its total savings are foreign savings. Colombia has a participation of 5% of foreign savings in its total savings.

Looking at the long term trends, during the period 1970-80 respect to 1965-69, Brazil, Chile and Mexico have a higher proportion of foreign savings in their total savings, e.g. in Chile the external resources grew from 6.3 (average 1965-69) to 27.1% (average 1970-80) in the total savings. In Peru, the average trend is fixed, however there is strong fluctuations in the annual observations from -39.4% (1979) to 57.6% (1975). In Colombia is decreasing the use of foreign savings in the capital formation process, from 12.2% (average 1965-69) to 4.9% (average 1970-80); in fact there was a net capital outflow during 1976-79. Finally, in Argentina and Venezuela there was a continuous outflow of capital, mainly in Venezuela reaching -93.2% in 1974, and -10% for the last decade. The above figure give an idea about the different role of foreign capital in the main Latin American economies.

TABLE III.6

LATIN AMERICA: RELATIONSHIP BETWEEN FOREIGN SAVINGS AND TOTAL SAVINGS 1]
(Foreign Savings as percentages of Total Savings)

Year	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela
<u>1965-69</u>	<u>-2.0</u>	<u>1.6</u>	<u>6.3</u>	<u>12.2</u>	<u>9.4</u>	<u>14.8</u>	<u>1.5</u>
1965	-5.4	-5.5	3.1	1.9	9.2	18.6	1.8
1966	-6.7	0.5	8.9	24.8	8.4	22.7	-1.3
1967	-4.1	3.8	9.9	8.5	9.4	29.3	-8.3
1968	1.3	6.5	14.0	12.6	10.7	3.4	7.7
1969	4.8	2.8	-4.6	13.3	9.4	-0.2	7.6
<u>1970-80</u>	<u>-1.6</u>	<u>11.0</u>	<u>27.1</u>	<u>4.9</u>	<u>14.1</u>	<u>14.5</u>	<u>-10.0</u>
1970	3.1	8.1	6.6	18.8	13.2	-25.2	3.2
1971	6.6	12.7	11.0	26.4	10.5	3.3	0.4
1972	4.1	11.1	29.7	11.1	10.0	2.9	2.5
1973	-9.9	9.8	18.3	3.2	12.0	18.0	-17.4
1974	-0.8	22.4	11.3	12.8	17.2	33.2	-93.2
1975	13.1	19.9	104.7	4.6	19.4	57.6	-25.2
1976	-5.0	16.9	-26.4	-6.5	20.4	50.0	-3.9
1977	-11.1	12.6	36.8	-9.6	9.5	48.6	20.6
1978	-14.2	16.6	39.7	-6.0	13.1	12.3	33.8
1979	...	22.9	27.3	-7.7	15.7	-39.4	-2.2
1980	...	24.4	39.1	7.2	14.4	-2.1	-28.4

1] based on figures in national currencies at current prices.

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982.

Elaboration: By the Author

It is desired to meet domestic capital requirements from the own internal resources. This would at least permit internal economic decision-making without considering any boundary conditions laid down by international institutions or by foreign central governments. The charter of Punta del Este (Uruguay, 1960) set no specific target date for Latin America to attain self-sufficiency in meeting its own domestic capital requirements. It stated, however, that: the economic and social development of Latin America will require a large amount of additional public and private financial assistance on the part of the capital exporting countries, including the members of the Development Assistance Group and international lending agencies.

Prebisch, on the other hand, while recognizing that continued inflow of external assistance was critical for the desired rate of domestic capital formation, conjectured that Latin America might become self-sufficient enough to meet its domestic investments needs by 1990. This conjecture presupposed, among other conditions, that the investment coefficient in Latin America would rise to about 26.5 percent by the 1950's and that industrial countries would contribute, as the U.N. recommended, at least 1 percent of their gross product to finance resources to be transferred to developing countries. The total net flow of official and private financial resources provided by the industrial member countries of the Development Assistance Committee (DAC) of the Organization of Economic Cooperation and Development (OECD) to the developing countries and multilateral agencies, grew from an annual average of \$ 22 billion in 1972-74, to more than double that amount in 1975-76. It reached \$ 71 billion in 1978 and \$ 74 billion in 1979. As a proportion of the gross national product of the DAC countries taken as a whole, this flow attained an average of 1.15 percent in

1975-79, compared with rates to 0.95 percent and 0.65 percent between 1961 and 1974, respectively. (Annex.3)

Thus, we appreciate that since 1975 the members of the DAC contribute with more than 1 percent of the gross product.

3.2.1 The Flow of Foreign Capital

Foreign savings may be transferred to a developing country mainly through three ways. Firstly, a large amount of the capital inflow in Latin America consists of loans tied to purchases of goods produced in the United States, e.g. the loans given by the EXIMBANK (Export and Import Bank) secondly, a major source of foreign aid is the international lending agencies, especially the World Bank group and the Interamerican Development Bank. Finally, there are private foreign savings transferred through grants, purchases of financial assets or direct investment.

The effects of a given capital inflow for the recipient country according to Griffin (1971) depend, at least in part, upon the precise manner in which the savings are transferred. Gifts and grants are a one-way transfer; they do not give rise to a return flow of resources. Loans, in contrast give rise to fixed repayment obligations which occur over a specified period of amortization. Direct private investment also lead to a reverse flow of resources, repatriated profits, the amount and duration of this outflow is indeterminate.

Respect to the loans, the World Bank Group justifies its existence on the grounds that the commercial banking system must satisfy the massive need for development capital in nations which must borrow at the soft loan window because the commercial banking system cannot perform the vital function of financing needed infrastructure. The World Bank Group, operating in Latin America as well as in all less

developed countries, includes the International Bank for Reconstruction and Development (IBRD), the International Finance Corporation (IFC), and the International Development Association (IDA). The IBRD, founded in 1944, the IFC founded in 1956, and the IDA founded in 1960 all subscribe to the same purposes and have the same pre-requisites, but with different ranges of flexibility. Their basic common purpose is subscription to the economic growth of the member countries of the Bank. The three major pre-requisites of the World Bank Group for the successful execution of a project are satisfactory studies of the proposed project; an organization or institution capable of constructing or administering the project; and policies which are consistent with the realization of the objectives of the project.

The loans of the IBRD proper are usually long term, at more or less conventional rates of interests, for projects of high priority. IDA lends to the poorest countries, those which cannot really afford to borrow money and service loans on conventional terms. The third affiliate, the IFC, operates exclusively in the private sector; lending money to private business without government guarantees; investing in share capital; and underwriting placements and offerings of securities by new and expanding enterprises.

The Interamerican Development Bank, the bank of the Alliance for Progress, from the beginning of its operation on December 1, 1960, inevitably fell under some United States influenced regulation for U.S. membership in the bank was authorized on August 7, 1959, and initial U.S. appropriations were provided for by law a month later. The bank finances only specific projects, though it has power to make loans to local development banks which can in turn finance local business. Like the World Bank Group, the Interamerican Development Bank, administers a Fund for Special

operations. This fund is really the soft loan window of the bank, carrying on functions similar to those of the IDA in relation to the IBRD, making loans in special circumstances such as to countries with a balance of payments problem preventing servicing in hard currency, or countries with special situations.

In the other hand, in relation with the role of the external resources, Beauvoir (1983) 1] points out that the flow of financial resources from industrial countries has always been and continues to be an important factor in the development process of developing countries, including those in Latin America. Its traditional role as a complement to both domestic savings and foreign exchange investment requirements has contributed to the economic growth and progress achieved in the developing world. Beauvoir adds that it grew rapidly in the 1970's, as the financial needs of the developing country became more urgent.

However, not all the external resources are destined to the capital formation. In the 1970's, the net flow of external funds to Latin American countries increased substantially as their financial needs rose sharply in the face of a world economy characterized by World wide inflation, unemployment and recession. The region as a whole experienced large and substantial current account deficits, as a result of the surge in oil prices, the higher costs of manufactured imports, and a downturn in trade with the industrial countries.

These current account deficits, as well as the increase in their international monetary reserves, were mainly financed by medium and long-term credits and loans from abroad. However, due to the limited availability of official resour-

1] Economist in the International Economic Section of the Inter-american Development bank.

ces, the major portion of external funds came from private sources, largely from commercial banks, especially through Euro-currency credit operations.

In contrast to Beauvoir, Griffin argues in many of his writings that foreign capital has a negative effect on the domestic savings and by consequence in the growth. Furthermore, the net contribution of all foreign capital movements was to aggravate Latin America's balance of payments difficulties. In other words, the reverse flows associated with (earlier) foreign capital substantially exceed the current inflow of capital. There has been a consistent net capital outflow from the low-income, capital-poor countries to the high-income, capital-abundant countries. In order to determine the effects of foreign capital, an appropriate measure is the flow of foreign capital in net terms. During the 1970's there was a higher inflow of foreign capital in Brazil and Mexico with an accumulated amount of \$ 62,881 million and \$ 32,535 million respectively. While Chile, Peru and Argentina registered a figure between \$ 2,000 and 6,000 millions. And, only in Venezuela the net effect was an outflow of capital of \$ -4,773 for the decade; in other words, national savings were transferred abroad. (Annex.4) The above figures of net inflow of foreign capital were calculated using the deficit on current accounts of balance of payments.

In the last few years, the net external financing of Latin America grew rapidly from an annual average of \$ 8 billion in 1971-75 to \$ 16.3 billion in 1976-1977, and to \$ 22.3 billion in 1978-79 (table III.7). Partial data indicate that the total net flow has been slightly smaller in 1980 than the amount recorded in 1979, due to an estimated reduction in commercial bank credits added to a net outflow of \$ 100 million in IMF compensatory financing. Due

TABLE. III.7

LATIN AMERICA 1]: NET FLOW OF EXTERNAL FINANCIAL RESOURCES
(Millions of dollars)

	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1. <u>TOTAL OFFICIAL</u>	<u>794.4</u>	<u>1,217.5</u>	<u>1,191.6</u>	<u>1,415.4</u>	<u>1,493.4</u>	<u>2,632.8</u>	<u>2,817.8</u>	<u>2,990.2</u>	<u>1,961.4</u>	<u>1,690.7</u>	<u>2,105.0</u>	<u>2,961.7</u>
A. Multilateral	283.4	434.8	722.9	894.4	729.4	1,214.2	1,490.5	2,199.4	1,166.2	691.7	1,819.9	2,208.7
- Development	306.2	611.3	689.8	724.6	859.1	1,130.6	983.0	1,012.3	1,313.3	1,564.7	1,672.5	2,310.1
- Compensatory	-22.8	-176.5	33.1	169.8	-129.7	83.6	507.5	1,187.1	-147.1	-873.0	147.4	-101.4
B. Bilateral	511.5	782.7	468.7	521.0	764.0	1,418.6	1,327.3	790.8	795.2	999.0	285.1	753.0
- United States	498.7	685.5	373.4	336.4	486.3	736.6	635.7	401.9	277.2	202.0	203.9	653.0
- Other countries	12.8	97.2	95.3	184.6	277.7	682.0	691.6	388.9	518.0	797.0	81.2	100.0
2. <u>TOTAL PRIVATE</u>	<u>776.2</u>	<u>2,277.4</u>	<u>2,957.6</u>	<u>3,880.4</u>	<u>5,899.5</u>	<u>8,086.2</u>	<u>9,409.2</u>	<u>12,979.9</u>	<u>14,613.8</u>	<u>20,468.2</u>	<u>20,399.1</u>	<u>19,138.3</u>
A. Suppliers	7.4	400.2	160.9	494.1	381.2	156.3	89.2	323.8	341.4	884.1	-75.3	n.a.
B. Banks	49.4	696.3	1,042.1	2,209.9	3,244.5	5,463.9	5,996.8	9,590.2	9,394.8	13,733.9	15,068.5	n.a.
C. Bonds	148.9	56.1	123.3	250.9	35.4	233.4	134.7	658.0	2,379.0	2,186.9	591.6	na.a
D. Direct investment	578.1	1,077.3	1,558.6	944.2	2,285.5	1,760.1	3,308.8	1,540.3	2,983.1	3,901.1	4,978.8	5,080.8
E. Others	-7.6	47.5	72.7	-18.7	-47.1	472.5	-120.3	867.6	-484.5	-237.8	-164.5	n.a.
<u>GRAND TOTAL (1+2)</u>	<u>1,571.1</u>	<u>3,494.9</u>	<u>4,149.2</u>	<u>5,295.8</u>	<u>7,392.9</u>	<u>10,719.0</u>	<u>12,227.0</u>	<u>15,970.1</u>	<u>16,575.2</u>	<u>22,158.9</u>	<u>22,504.1</u>	<u>22,100.0</u>

1] Including the IDB member countries and subregional institutions

Source: INTER-AMERICAN DEVELOPMENT BANK. Official documents of the member countries.

to the limited availability of official funds and the highly liquid private capital markets, the major portion of the net external flow to Latin America came increasingly from private sources; and among these, private bank credits rose sharply to become the largest single component of the overall net flow of funds from abroad. Bank credits rose from about \$ 700 million in 1970 to \$ 6 billion in 1975, and reached \$ 15 billion in 1979.

It is important to have clear that the composition of capital imports makes a difference in the net contribution of foreign capital movements.

CHAPTER FOUR

FOREIGN CAPITAL AND DOMESTIC SAVINGS: EMPIRICAL
CONTRAST OF GRIFFIN'S ARGUMENTS4.0 Introduction

In this chapter, we shall analyse the way in which the main issues, growth, consumption, investment, saving and fiscal accounts, of the major Latin American economies have developed during 1965-1980 in response to the expansion of using more foreign capital.

Griffin's analysis of the foreign capital and domestic saving provides our initial working hypothesis to be applied to the major Latin American economies. Griffin's main hypothesis is "foreign savings often tend to supplant rather than supplement domestic savings"³ Furthermore, we consider the following two main sub-hypothesis:

- (1) Aid may not only lead to lower savings, it may also retard long-run economic growth by altering the composition of investment to the disadvantage of the receiving country. To the extent that foreign assistance is biased in favour of capital-intensive technology, it has a tendency to increase the receiving country's subsequent need for capital, prejudice its exports, raise the capital-output ratio, and reduce the rate of growth.
- (2) Governments, finding abundant resources abroad, expand their consumption and refrain from raising taxes. In other words, aid frequently becomes a substitute for tax reforms.

Finally this chapter doesn't pretend to advance Griffin's methodology nor pretend to prove or disapprove Griffin's hypothesis rather it does update Griffin's results using

data series for recent decade, 1965-1980, limited to the major Latin American economies, and to provide supporting evidence for the relevance of the hypothesis.

4.1 Analysis of the Main Sub-hypothesis of Griffin's Argument

Foreign assistance can be successful in accelerating long-run growth only if it raises the marginal propensity to save. According to Griffin, a necessary, although not sufficient, condition for ultimately achieving independence from foreign aid is that:

$$s' > \bar{q}/e > s$$

Where: \bar{q} = target rate of growth
 s = average savings ratio
 s' = marginal savings ratio
 e = incremental output-capital ratio

Yet if Griffin's hypothesis that capital imports lead to lower domestic savings is correct, a country that relies upon foreign assistance to achieve growth may become permanently dependent and incapable of self-maintained growth.

The inverse relationship between gross domestic savings and foreign capital is obvious in figure IV.1. This figure includes observations from seven Latin American Countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) divided in two periods: 1965-69 and 1970-80. In the first period, there is a clear tendency for gross domestic savings (expressed as a proportion of gross product) to fall as foreign capital imports (expressed as a proportion of gross product) rise. The more foreign capital a nation receives, the less it tends to save itself. The inverse

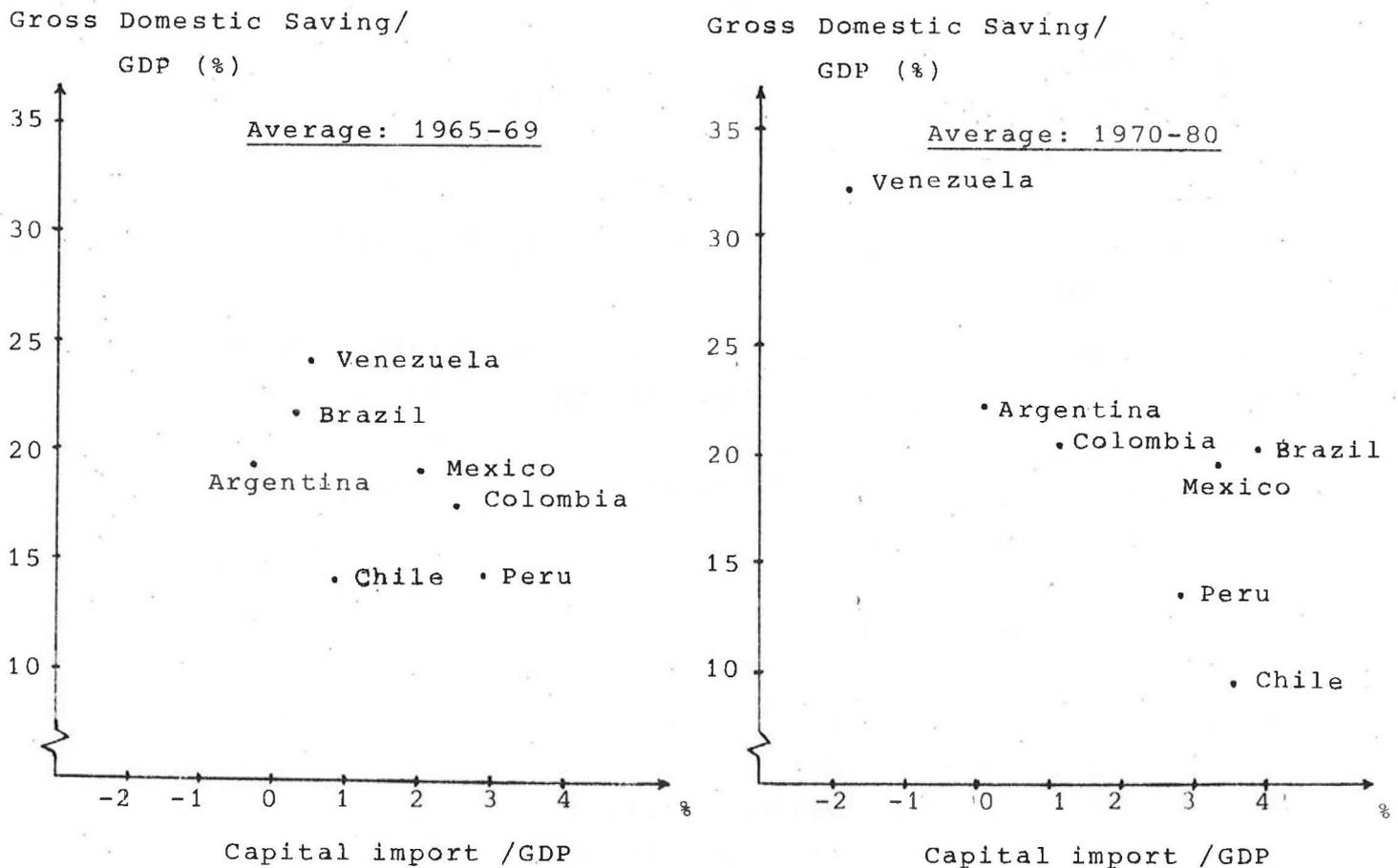


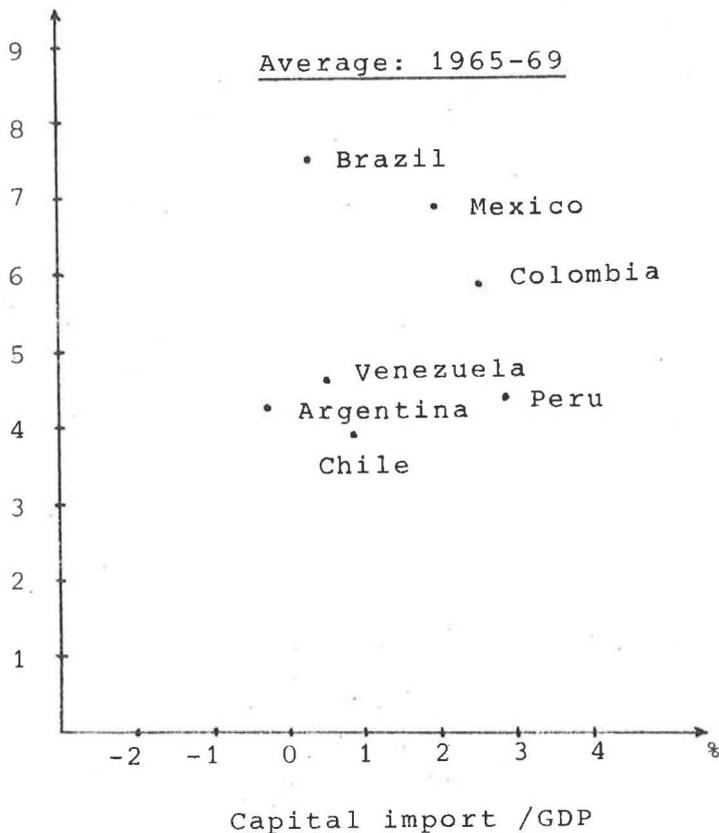
Figure IV-1

relationship is very apparent if we see the average flow of savings in the period 1970-80 when capital imports became important.

Thus the available statistical evidence suggests that foreign capital certainly does not lead to a rise in domestic savings, and probably lead to a fall.

One of the main sub-hypothesis is referred to the statement that capital imports retard economic growth by altering the composition of investment. In figure IV-2 is plotted the average rate of growth of gross domestic product over the years 1965-1969 and 1970-80 for the seven Latin American economies referred to earlier, and they are inversely related to the ratio of foreign capital to GDP. About this, Griffin (1969) argues that "the association is rather

Growth Rate
GDP (%)



Growth Rate
GDP (%)

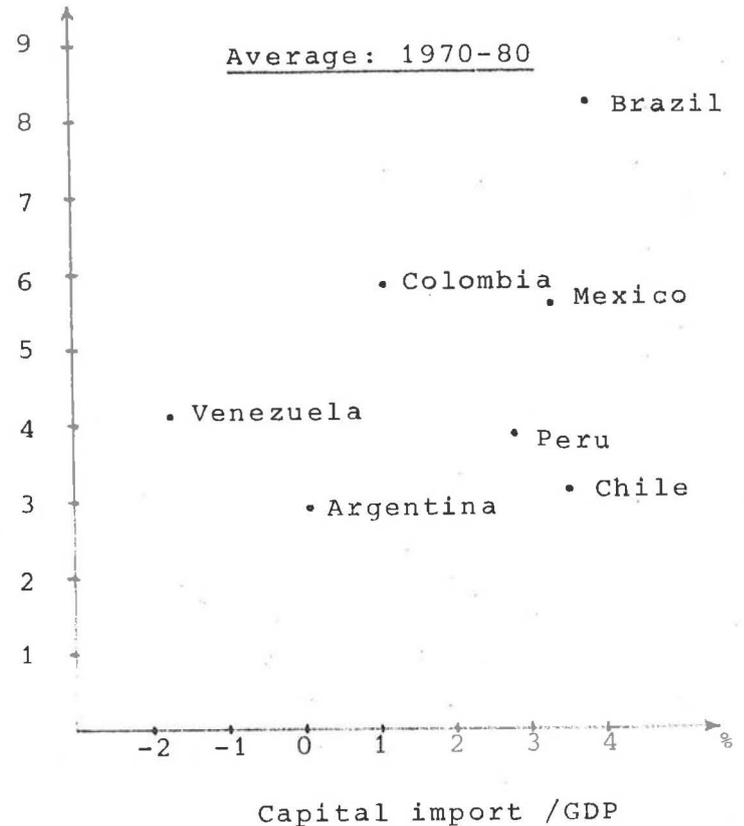


Figure IV-2

loose, but the general tendency is clear: the greater is the capital inflow from abroad the lower is the rate of growth of the receiving country."

It is suggested that foreign capital retard growth because foreign capital leads to a less desirable composition of investment and, hence, a higher capital-output ratio. Another, and more important reason is that aid reduces the incentive to save. Griffin asserts that capital imports are likely to alter the composition of investment in favour of large, lumpy, capital-intensive projects with long gestation periods, e.g. road, dams, university buildings. This change in the composition of investment, far from raising the incremental output-capital ratio, is likely to lower it and thereby reduce the rate of growth. In figure IV-3 of seven Latin American countries indicates that the capital-output

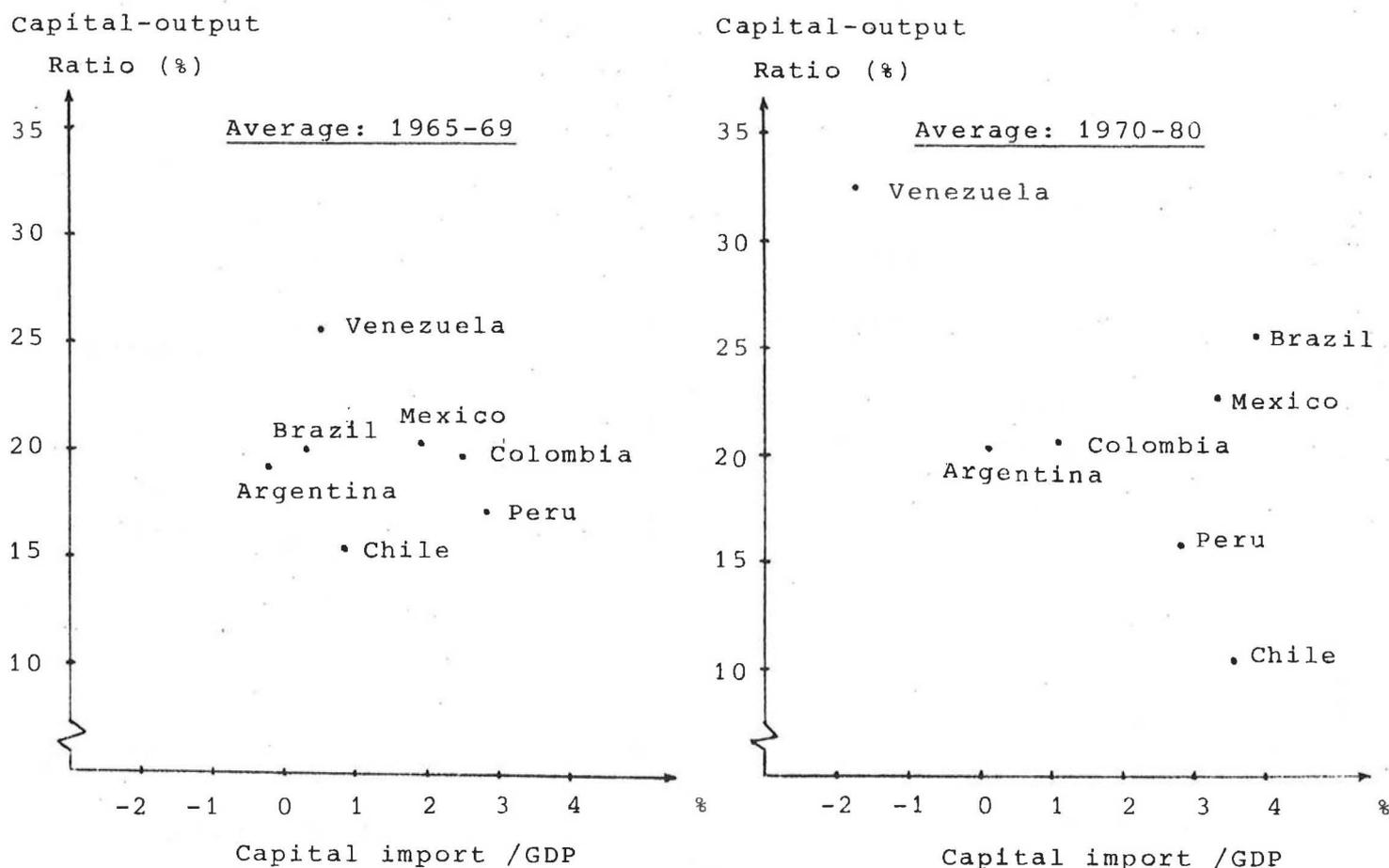


Figure IV-3

ratio varies positively with the amount of capital imports received (expressed as a proportion of GDP). The great exception is Venezuela, which had a very high capital-output ratio and received little foreign capital, especially in the last decade, 1970-80

A second Sub-hypothesis is related to the foreign capital and taxes. Griffin investigates the precise channels through which an increase in foreign capital leads to a reduction in domestic savings. He lists the most obvious ways as: first a decline in public savings due to (i) reduction in taxation, (ii) less effort to collect taxes, (iii) an inelastic tax system combined with inflation, (iv) a change in composition of government expenditure in favour of consumption. In figure IV-4 we can see the inverse relationship between fiscal revenues and capital imports. This

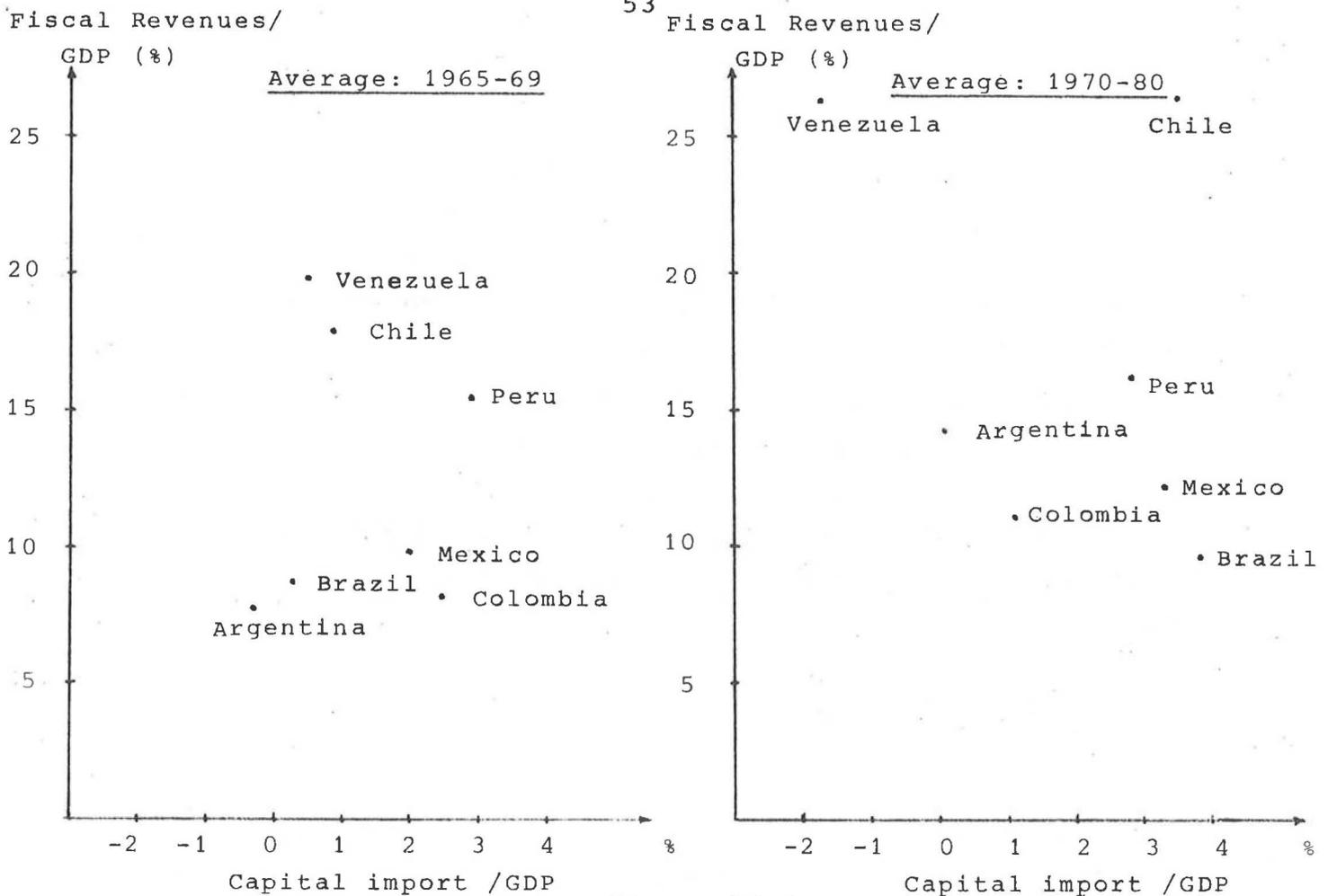


Figure IV-4

figure includes observations from the seven Latin American countries referred to earlier. There is a clear tendency for fiscal revenues (expressed as a proportion of GDP) to fall as foreign capital imports (as a proportion of GDP) rise. Thus the available statistical evidence suggests that foreign capital certainly does not lead to a rise in economic growth and fiscal revenues, and probably leads to a fall.

4.2 Up-dating of Griffin's savings function and Analysis of results

Most models of economic growth are based on the assumption that any increase in foreign capital is devoted entirely to raising the rate of capital accumulation. In other words, the above is compatible with the Inter-american Development

Bank opinion that capital imports supplement domestic savings rather than consumption. In contrast, Griffin argues that capital imports act essentially as a substitute for savings and a large proportion of foreign capital ultimately is used to increase consumption rather than investment.

Griffin having argued that in theory the foreign capital inflow can reduce domestic savings, his next step was to consider whether this occurs in practice. In that sense, Griffin made a cross-section study of 32 underdeveloped countries, using United Nations data, gave the following results:

$$\frac{S}{Y} = 11.2 - 0.73 \frac{A}{Y} \quad R^2 = 0.54$$

(0.11)

Where S/Y = gross domestic savings as a percent of GDP, 1962-1964 and A/Y = foreign savings as a percent of GDP, 1962-1964. Within the sample of 32 countries 13 were from Asia and the Middle East. The estimated value of the coefficient indicates that only 27% of the foreign capital was destined to investment and 73% financed an additional public current expenditure.

We have up-dated the savings equation using the same definitions and sources used by Griffin, but we are re-estimating the regressions using the time serie 1965-1980, and the estimation method used is Ordinare least squares. It is estimated the saving function for the seven major Latin American economies (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) as a whole and also for each country individually. The result for the aggregated function of the major L.A. economies as a whole is:

$$\frac{S}{Y} = 20.3177 - 0.4477 \frac{A}{Y} \quad R^2 = 0.1029$$

$$(t = -1.2672)$$

The estimated value of the coefficient indicates that 55% of the foreign capital was destined to investment and 45% to additional current expenditure. However, we must point out that the results of the statistical tests are not relevant, the determination coefficient is very low, almost $R^2 = 0.10^4$; and the t - test is also rather low. But not always the most important are the statistical indicators, we can be more interested in obtaining estimate the value of the coefficients of some significant economic hypothesis. This is more obvious in the case of estimating elasticities through of using econometric techniques, regressions, usually the obtained statistical tests are low.

Taking into account each country individually, the results are the following:

$$(1) \text{ Argentina: } \frac{S}{Y} = 22.2178 - 0.9713 \frac{A}{Y} \quad R^2 = 0.2252$$

$$(t = -2.02)$$

$$(2) \text{ Brazil: } \frac{S}{Y} = 21.5914 - 0.3281 \frac{A}{Y} \quad R^2 = 0.0655$$

$$(t = 0.99)$$

$$(3) \text{ Chile: } \frac{S}{Y} = 12.9652 - 0.6064 \frac{A}{Y} \quad R^2 = 0.1383$$

$$(t = 1.50)$$

- (4) Colombia: $\frac{S}{Y} = 20.9567 - 0.9825 \frac{A}{Y}$ $R^2 = 0.4970$
 (t = 3.72)
- (5) Mexico: $\frac{S}{Y} = 18.1761 + 0.4902 \frac{A}{Y}$ $R^2 = 0.1011$
 (t = 1.25)
- (6) Peru: $\frac{S}{Y} = 15.2964 - 0.6178 \frac{A}{Y}$ $R^2 = 0.6946$
 (t = 5.64)
- (7) Venezuela: $\frac{S}{Y} = 29.5946 - 0.5156 \frac{A}{Y}$ $R^2 = 0.4005$
 (t = 3.06)

Thus, the results obtained give some empirical support to Griffin's hypothesis with exception of the case of Mexico, in the other countries the sign of the coefficients are negative, and the magnitudes fluctuate between 0 and 1. It must be clear that the above econometric results are not a sufficient condition to prove the hypothesis that foreign capital reduces domestic savings. However, they do constitute supporting empirical evidence for the hypothesis.

Analysing the results, we can see that in Colombia the 2% of foreign capital is used in investment, but we have seen previously that Colombia has financed its investment mainly with domestic savings, and the participation of foreign savings is quite low in total savings. That can explain that Colombia uses foreign resources to finance current expenditure due to its politics to finance investment with own resources. In the case of Brazil, 67% of the foreign savings are destined to finance investment which is compatible with its strategy to finance capital formation with more external public debt.

The case of Argentina is something similar to Brazil, uses mainly more external public debt to finance investment, its coefficient reveals that 3% of the foreign savings are used in investment, that means a less efficient use comparing with Brazil.

We must take into account that Colombia, Mexico and Venezuela, increased their investment coefficient in the last decade, using basically more domestic savings. The coefficients show that in Mexico the effect is positive. And, in Venezuela the 48% of the foreign savings financed new investments.

Finally, in Peru and Chile didn't increase the investment coefficient in the last decade, however they were using more foreign savings. For Peru and Chile the coefficients are -0.62 and -0.61 respectively. That means that both countries used only 39% of the external resources to finance investment and the difference for current expenditure.

Whether or not the results of econometric analysis prove the main hypothesis, it is necessary to know the specific mechanisms through which an increase in foreign capital leads to a reduction in domestic savings. This last task is very relevant, however, escapes to the main goals of this study.

II. FOOTNOTES

- (1) For instance, Ch. Kennedy and A. Thirlwall (1971) have asserted that Mr. Griffin's spirited attack on aid cannot be allowed to pass without comment and they add that Griffin's analysis needs to be challenged on a number of counts, and he fails to establish a case against capital imports.
- (2) International grants, loans, and private foreign investment constitute the main means of resource transfers.
- (3) In other words, given a target rate of growth in the developing country, foreign aid will permit higher consumption, and domestic savings will simply be a residual, that is, the difference between desired investment and the amount of foreign aid available.
- (4) A value of one is a perfect correlation.

III. CONCLUSIONS

One feature of the Latin American economies is that they are significantly more dependent upon the foreign sector. Mainly long term foreign capital flows play a greater role in relation with the domestic savings and growth. Moreover, the development strategies implemented in Latin America depend heavily upon imports of capital equipment, thus domestic savings are insufficient as a means of capital formation and the availability of foreign exchange plays an important role in certain countries. So, it is relevant to define the significance of the external finance in the process of capital accumulation in Latin America.

Several studies have found an inverse relationship between foreign capital inflows and domestic savings. The hypothesis of a negative relation was first put forward by Haavelmo and has been tested by Rahman, Griffin and Enos, Chenery and Strout, Weisskopf and Leff among others.

The purpose of the present study is not to advance Griffin's methodology nor prove or disapprove Griffin's hypothesis rather it does updates Griffin's results using time series for recent decade and limited to the major Latin American economies, and to provide supporting empirical evidence for establishing the relevance of the hypothesis.

Our main hypothesis are related to the following crucial issues: the foreign finance was mainly used to finance consumption expenditures instead to contribute to the capital accumulation in Latin America, say consumption expenditures led to a greater financial outflow; and, the profits outflow, interests outflow and capital outflow is a cause of shortage of savings in Latin American economies. In that sense, this study provides a background of major development in Latin America over 1965-80 in the context of the theoretical

debate about foreign capital and domestic savings, and empirical dates relevant for up-dating Griffin's results.

The weakness of this paper has undoubtedly been the failure to integrate and contrast empirically the mechanisms through which the foreign imports reduces domestic savings. Furthermore, we don't consider the composition of the foreign capital in detail, say aid, private foreign investment, public foreign inflows which have different effects on growth and it could be an improvement in Griffin's model. Moreover, to consider with more detail every particular country, in order to provide more economic support, in terms of economic policy, to the nature of the relationship between foreign capital and domestic investment.

The central thrust of the argument presented here can be summarized as follows. If we agree with Griffin that consumption will be a positive function of total available resources and not only national income, thus a part of the capital import will be destined to consumption. The above fact is close related to the development strategy followed by each country and the source of financial resources used to finance the development, all these factors contribute to determine the process of accumulation. Then the study of the financing of development must be concerned with the relation and effects of foreign finance on the process of accumulation. This includes not only take into account the balance of payments accounts, but also fiscal structures and macroeconomic policies. So far, our preliminar results constitute a supporting empirical evidence to Griffin Hypothesis.

IV. BIBLIOGRAPHY

Chenery, H. & Strout, A. (June 1965), Foreign Assistance and Economic Development. Discussion paper No.7 (revised), AID, Washington, D.C.

Chenery, H. & Strout, A.M. (September 1966), Foreign Assistance and Economic Development. IN: The American Economic Review, Vol. LVI, September 1966, No.4, Part 1, pp. 679-733.

Farley, R. (1972), The Economics of Latin America. Harper and Row, New York.

FitzGerald, E.V.K. (1981), Aspects of Finance Capital in Latin America, Sub-series on money, finance and development No.3, Institute of Social Studies, The Hague.

Furtado, C. (1976), Economic Development of Latin America: Historical Background and Contemporary Problems. Cambridge University Press, Second Edition, Cambridge.

Griffin, K. (1969), Underdevelopment in Spanish America. An Interpretation. George Allen and Unwin Ltd. Great Britain.

Griffin, K. (Editor) (1971), Financing Development in Latin America. Macmillan, St. Martin's Press, Great Britain.

Griffin, K.B. & Enos, J.L. (April 1970), Foreign Assistance: Objectives and consequences. IN: Economic Development and cultural change Vol. 18, Number 3, pp. 313-327.

Griffin, K. (1970), Foreign Capital, Domestic Savings and Economic Development. IN: Bulletin of the Oxford University Institute of Economics and Statistics. Vol. 32, pp. 99-112.

Griffin, K., Newlyn, W. & Papanek, G. (1973), The effects of Aid and other Resource Transfers on Savings and Growth in less developed countries: Two comments and a reply. IN: Economic Journal, Vol. 83, No.331, pp. 863-874.

Kalecki, M. (1976), Essays on Developing Economies. The Harvester Press Limited, England, pp. 208.

Kennedy, Ch., Stewart, F., Eshag, E. & Griffin, K. (1971). Foreign Capital, Domestic Savings and Economic Development: Three comments and a reply. IN: Bulletin Oxford University Institute of Economics and Statistics, Vol.33, pp. 135-161.

Newlyn, W.T. (1977), The Financing of Economic Development Clarendon Press, Oxford.

Papanek, G. (September 1972), The effects of Aid and other resource transfers on savings and growth in less developed countries. IN: The Economic Journal, pp. 934-950.

Payer, C. (1974), The Debt Trap: The International Monetary Fund and the Third World. Monthly Review Press, New York, London.

Salazar, J. (1983), Foreign Debt and Latin American Economic Development. Pergamon Press, USA.

Thirlwall, A.P. (1974), Inflation, Saving and Growth in Developing Economics. The Macmillan Press, Ltd. London.

Thirlwall, A.P. (1976), Financing economic development. Macmillan, London.

Weisskopf, T. (1972), The impact of foreign capital inflow on domestic savings in underdeveloped countries. IN: Journal of International Economics, Vol.2, pp 25-38.

Whitehead, L. & Thorp, R. (1979), Inflation and stabilisation in Latin America. Macmillan in association with St. Antony's College, Oxford.

Empirical Material

Comisión Económica Para América Latina (CEPAL), Balance Preliminar de la Economía Latinoamericana, Santiago de Chile.

Interamerican Development Bank (IDB), External Public Debt of the Latin American countries, Washington.

External Financing of the Latin American countries (statistical abstract), Washington.

Economic and Social Progress in Latin America Report, Washington.

International Monetary fund. International Financial Statistics Yearbook, Washington.

World Bank. Annual Report, Washington.

V. ANNEX: STATISTICAL TABLES

ANNEX. 1

LATIN AMERICA: GROSS DOMESTIC PRODUCT GROWTH RATE
(Percentages)

	1966-70	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 1]	1971-80
<u>Major Latin American Economies</u>												
Argentina	4.3	4.8	3.1	6.1	6.5	-0.9	-0.2	6.0	-3.9	6.8	1.1	2.9
Brazil	7.5	11.3	10.4	11.4	9.8	5.7	9.0	4.7	6.0	6.4	8.0	8.3
Chile	3.9	7.7	-0.1	-3.6	5.7	-14.3	3.8	9.7	8.3	8.2	6.5	3.2
Colombia	5.8	5.8	7.8	7.1	6.0	3.8	4.6	4.9	8.9	5.1	4.0	5.8
Mexico	6.9	3.4	7.3	7.6	5.9	4.1	2.1	3.3	7.3	8.0	7.4	5.6
Peru	4.4	5.1	5.8	6.2	8.0	4.5	2.0	-0.1	-0.7	3.4	3.4	3.8
Venezuela	4.6	3.3	3.0	6.7	5.8	5.9	8.4	6.8	3.2	0.7	-1.6	4.2
<u>Rest of Latin America</u>												
<u>Latin America</u>	<u>5.9</u>	<u>6.6</u>	<u>6.5</u>	<u>7.7</u>	<u>7.3</u>	<u>3.8</u>	<u>5.3</u>	<u>4.7</u>	<u>4.6</u>	<u>5.8</u>	<u>5.4</u>	<u>5.8</u>

1] Preliminar

Source: INTER-AMERICAN DEVELOPMENT BANK. Economic and Social Progress in Latin America.

ANNEX. 2

LATIN AMERICA: POPULATION

	1980		Growth Rate	
	Thousand Persons	Structure	1960 - 1970	1970 - 1980
		%	%	%
<u>Major Latin America</u>				
<u>Economics</u>	<u>287,811</u>	<u>83.5</u>		
Argentina	27,720	8.0	1.4	1.6
Brazil	120,287	34.9	2.8	2.6
Chile	26,115	7.6	2.7	2.1
Colombia	11,104	3.2	2.0	1.7
Mexico	69,900	20.3	3.8	3.4
Peru	17,624	5.1	3.0	2.7
Venezuela	15,061	4.4	3.4	3.4
<u>Rest of Latin America</u>	<u>56,915</u>	<u>16.5</u>		
<u>Latin America</u>	<u>344,726</u>	<u>100.0</u>	<u>2.8</u>	<u>2.6</u>

Source: INTER-AMERICAN DEVELOPMENT BANK. Economic and Social Progress in Latin America.

ANNEX. 3

TOTAL NET FLOW OF DAC RESOURCES TO THE DEVELOPING COUNTRIES AND MULTILATERAL AGENCIES
(Percentage of GNP 1])

	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Australia	0.64	1.15	1.38	0.98	0.55	0.70	0.75	0.56	0.63	0.66	0.73
Austria	0.50	0.67	0.56	0.55	0.53	0.61	0.49	0.94	1.03	0.84	0.36
Belgium	1.30	1.19	1.09	1.16	1.10	1.12	1.36	1.83	1.61	2.85	2.03
Canada	0.33	0.77	1.00	0.98	0.93	1.11	1.26	1.29	1.22	1.09	1.14
Denmark	0.15	0.54	0.88	0.57	0.74	0.68	0.78	1.26	1.05	1.38	1.25
Finland	n.a.	0.24	0.28	0.36	0.16	0.28	0.32	0.23	0.23	0.40	0.43
France	1.31	1.24	1.00	1.06	1.09	1.22	1.17	1.53	1.37	1.67	1.52
Germany	0.64	0.79	0.88	0.68	0.52	0.83	1.19	1.24	1.18	1.18	0.96
Holland	1.25	1.34	1.18	1.59	1.03	1.31	1.56	1.97	1.97	2.06	1.29
Italy	0.45	0.73	0.86	0.58	0.47	0.28	0.95	0.87	1.02	1.23	1.25
Japan	0.55	0.92	0.95	0.93	1.44	0.65	0.59	0.72	0.80	1.09	0.75
New Zealand	n.a.	0.38	0.36	0.38	0.33	0.40	0.59	0.46	0.56	0.52	0.38
Norway	0.55	0.59	0.50	0.38	0.48	0.81	0.98	1.49	1.53	1.60	1.64
Sweden	0.35	0.74	0.67	0.66	0.73	1.15	1.09	1.53	1.98	1.53	1.26
Switzerland	1.38	0.67	1.00	0.58	0.72	0.75	1.25	2.31	6.20	4.24	5.65
United Kingdom	1.03	1.02	0.96	0.92	0.82	1.25	2.82	3.57	2.81	3.18	2.83
United States	0.77	0.63	0.65	0.65	0.64	0.32	1.16	0.72	0.66	0.76	0.79
<u>TOTAL DAC</u>	<u>0.77</u>	<u>0.77</u>	<u>0.80</u>	<u>0.76</u>	<u>0.79</u>	<u>0.65</u>	<u>1.17</u>	<u>1.12</u>	<u>1.10</u>	<u>1.24</u>	<u>1.14</u>

1] At current prices and exchange rates.

Source: OECD. Development Cooperation. Efforts and Policies of the Members of the Development Assistance Committee.

ANNEX. 4

MAJOR LATIN AMERICAN COUNTRIES: NET INFLOW OF FOREIGN CAPITAL 1]
(Millions of US dollar)

YEAR	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	TOTAL
<u>1965-69</u>	<u>-338.0</u>	<u>773.0</u>	<u>353.0</u>	<u>711.0</u>	<u>2,492.8</u>	<u>698.0</u>	<u>264.0</u>	<u>4,953.8</u>
1965	-222.0	-284.0	43.0	21.0	403.0	148.0	35.0	144.0
1966	-259.0	31.0	93.0	288.0	392.0	233.0	-26.0	752.0
1967	-132.0	237.0	93.0	67.0	499.4	296.0	-169.0	891.4
1968	49.0	508.0	174.0	160.0	604.6	22.7	206.0	1,724.3
1969	226.0	281.0	-50.0	175.0	593.8	-1.7	218.0	1,442.1
<u>1970-80</u>	<u>2,643.7</u>	<u>62,881.2</u>	<u>6,360.5</u>	<u>610.5</u>	<u>32,535.0</u>	<u>3,847.3</u>	<u>-4,773.3</u>	<u>104,104.9</u>
1970	157.0	837.0	91.0	293.0	1,068.0	-202.0	104.0	2,348.0
1971	382.4	1,637.9	197.6	454.3	835.5	34.1	13.0	3,554.8
1972	228.2	1,690.5	471.2	190.0	916.3	31.5	101.0	3,628.7
1973	-789.7	2,157.8	279.0	54.8	1,415.1	262.3	-860.7	2,518.6
1974	-108.7	7,562.2	178.0	350.0	2,875.5	725.2	-5,810.0	5,772.2
1975	1,296.1	7,026.3	564.6	109.3	4,054.0	1,540.8	-2,141.8	12,449.3
1976	-634.6	6,540.4	-161.6	-206.7	3,410.5	1,192.6	-423.7	9,716.9
1977	-1,318.8	5,109.1	492.7	-440.2	1,771.1	918.8	3,100.9	9,634.4
1978	-1,856.0	7,036.0	1,088.0	-322.0	3,171.0	192.0	5,735.0	15,044.0
1979	513.0	10,478.0	1,189.0	-490.0	5,476.0	-785.0	-350.0	16,031.0
1980	4,774.0	12,806.0	1,971.0	618.0	7,542.0	-63.0	-4,241.0	23,407.0

1] Griffin defines foreign savings, in accordance with current conventions, to be the same as the deficit on current account.

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics 1982.
WORLD BANK. World Tables, 1980.

ANNEX. 5

MAJOR LATIN AMERICAN COUNTRIES: GROSS DOMESTIC SAVINGS 1]

YEAR	Argentina (M. Pesos)	Brazil (M. Cruzeiros)	Chile (M. Pesos)	Colombia (M. Pesos)	Mexico (M. Pesos)	Peru (M. Soles)	Venezuela (M. Bolivares) 2]
1965	7,359	10,250	3.15	10,535	49,770	17,401	8,630
1966	8,527	14,054	4.07	11,316	53,719	21,250	9,041
1967	11,143	16,134	4.57	14,030	60,034	21,917	9,975
1968	12,760	24,574	6.13	17,840	62,993	24,905	11,157
1969	15,664	39,061	11.26	19,700	71,658	27,929	11,986
1970	18,743	43,856	14.10	23,283	87,650	38,866	13,947
1971	24,928	59,340	16.25	25,463	88,756	38,316	15,762
1972	44,064	80,669	21.27	33,556	103,246	40,615	17,262
1973	82,036	122,183	137.98	39,460	130,013	46,102	24,980
1974	117,964	178,253	1,156.03	64,792	172,656	56,506	51,585
1975	313,602	229,883	-124.25	70,190	209,937	46,331	45,568
1976	2,132,831	342,988	10,106.88	118,583	243,188	68,511	48,807
1977	6,232,256	502,137	18,223.10	185,427	382,423	81,503	51,311
1978	14,321,005	639,559	52,388.00	221,529	479,406	213,183	48,275
1979	32,826,379	952,170	117,875.00	290,040	671,120	623,972	68,922
1980	63,663,207	2,093,745	119,921.00	377,621	1,029,604	894,785	82,192

1] Griffin defines domestic savings as the difference between total savings and foreign savings.

2] M.: Millions of local currency

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982
WORLD BANK. World Tables, 1980.

Elaboration: By the Author

ANNEX. 6

MAJOR LATIN AMERICAN COUNTRIES: TOTAL SAVINGS 1]

YEAR	Argentina (M. Pesos)	Brazil (M. Cruzeiros)	Chile (M. Pesos)	Colombia (M. Pesos)	Mexico (M. Pesos)	Peru (M. Soles)	Venezuela (M. Bolivares) 2]
1965	6,985	9,712.4	3.25	10,742.2	54,808	21,370	8,788
1966	7,990	14,123.0	4.47	15,040.4	58,619	27,499	8,924
1967	10,706	16,766.9	5.07	15,341.0	66,277	31,017	9,214
1968	12,932	26,291.7	7.13	20,406.2	70,551	25,783	12,084
1969	16,455	40,205.5	10.76	22,715.2	79,081	27,863	12,967
1970	19,336	47,700.0	15.10	28,660.3	101,000	31,049	14,415
1971	26,694	68,000.0	18.25	34,585.1	99,200	39,636	15,821
1972	45,927	90,700.0	30.27	37,739.3	114,700	41,834	17,706
1973	74,649	135,400.0	168.98	40,764.5	147,700	56,253	21,276
1974	117,000	229,600.0	1,304.03	74,279.5	208,600	84,571	26,695
1975	361,000	287,000.0	2,647.75	73,599.9	260,600	109,196	36,390
1976	2,044,000	412,800.0	7,996.88	111,353.4	305,600	137,004	46,990
1977	5,695,000	574,400.0	18,830.10 ^{3]}	169,140.0	422,400	158,510	64,620
1978	12,844,000	766,700.0	86,830.00	208,940.0	551,600	243,200	72,890
1979	33,502,000	1,234,500.0	162,160.00	269,190.0	796,000	447,700	67,420
1980	72,434,000	2,768,800.0 ^{3]}	196,790.00	406,840.0	1,202,700	876,600	63,990

1] Griffin defines Total Savings as the difference between Total incomes minus Total Consumption (equal to gross domestic investment).

2] M.: Millions of local currency.

3] Gross fixed Capital formation

Source: WORLD BANK. World Table, 1980.

INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982.

ANNEX. 7

MAJOR LATIN AMERICAN COUNTRIES: NET INFLOW OF FOREIGN CAPITAL

YEAR	Argentina (M. Pesos)	Brazil (M. Cruzeiros)	Chile (M. Pesos)	Colombia (M. Pesos)	Mexico (M. Pesos)	Peru (M. Soles)	Venezuela (M. Bolivares)1]
1965	-374	-538	0.1	207	5,038	3,969	158
1966	-537	69	0.4	3,724	4,900	6,249	-117
1967	-437	633	0.5	1,311	6,243	9,100	-761
1968	172	1,718	1.0	2,566	7,558	878	927
1969	791	1,145	-0.5	3,015	7,423	-66	981
1970	593	3,844	1.0	5,377	13,350	-7,817	468
1971	1,766	8,660	2.0	9,122	10,444	1,320	59
1972	1,863	10,031	9.0	4,183	11,454	1,219	444
1973	-7,387	13,217	31.0	1,305	17,687	10,151	-3,704
1974	-964	51,347	148.0	9,488	35,944	28,065	-24,890
1975	47,398	57,117	2,772.0	3,410	50,663	62,865	-9,178
1976	-88,831	69,812	-2,110.0	-7,230	62,412	68,493	-1,817
1977	-537,256	72,263	10,607.0	-16,287	39,977	77,007	13,309
1978	-1,477,005	127,141	34,442.0	-12,589	72,194	30,017	24,615
1979	675,621	282,330	44,285.0	-20,850	124,880	-176,272	-1,502
1980	8,770,793	675,055	76,869.0	29,219	173,096	-18,185	-18,202

1] M.: Millions of local currency.

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982

Elaboration: By the Author

ANNEX. 8

MAJOR LATIN AMERICAN COUNTRIES: GROSS DOMESTIC PRODUCT

YEAR	Argentina (B. Pesos)	Brazil (B. Cruzeiros)	Chile (B. Pesos)	Colombia (B. Pesos)	Mexico (B. Pesos)	Peru (B. Soles)	Venezuela (B. Bolivares) 1]
1965	36	44.1	0.02	60.80	257.2	114.9	37.92
1966	45	63.8	0.03	73.61	287.2	136.8	39.52
1967	60	86.2	0.03	83.08	306.3	156.9	41.62
1968	69	122.4	0.05	96.42	339.1	185.8	44.98
1969	81	161.9	0.07	110.95	374.9	209.0	46.42
1970	88	210.1	0.10	130.36	444.3	240.7	52.31
1971	133	279.5	0.13	152.26	490.0	264.4	57.42
1972	220	368.4	0.24	186.09	564.7	294.7	61.80
1973	365	508.7	1.22	243.24	690.9	359.2	73.48
1974	482	740.5	9.66	329.16	899.7	447.5	113.51
1975	1,459	1,052.1	42.09	412.83	1,100.0	555.6	118.28
1976	7,546	1,680.2	146.65	534.02	1,371.0	769.0	135.32
1977	20,840	2,523.1	321.19	718.48	1,849.3	1,052.1	155.88
1978	51,798	3,719.8	487.51	916.56	2,337.4	1,670.9	170.96
1979	139,106	6,239.4	762.13	1,195.38	3,067.5	3,068.2	210.48
1980	281,700	13,104.3	1,095.18	1,584.27	4,276.5	4,962.5	257.67

1] B.: Billions of local currency.

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982.

ANNEX. 9

MAJOR LATIN AMERICAN COUNTRIES: FOREIGN EXCHANGE RATE 1]
(Local currency per U.S. dollar)

YEAR	Argentina (Pesos)	Brazil (Cruzeiros)	Chile (Pesos)	Colombia (Pesos)	Mexico (Pesos)	Peru (Soles)	Venezuela (Bolivares)
1965	1.684	1.896	0.003	9.871	12.500	26.820	4.500
1966	2.074	2.222	0.004	12.930	12.500	26.820	4.499
1967	3.311	2.669	0.005	14.095	12.500	30.743	4.500
1968	3.500	3.382	0.006	16.038	12.500	38.700	4.499
1969	3.500	4.076	0.009	17.227	12.500	38.700	4.500
1970	3.775	4.593	0.012	18.352	12.500	38.700	4.498
1971	4.619	5.287	0.012	20.080	12.500	38.700	4.501
1972	8.166	5.934	0.019	22.018	12.500	38.700	4.400
1973	9.354	6.125	0.110	23.813	12.499	38.700	4.304
1974	8.872	6.790	0.831	27.109	12.500	38.700	4.284
1975	36.570	8.129	4.910	31.202	12.497	40.800	4.285
1976	139.980	10.674	13.054	34.976	18.300	57.432	4.289
1977	407.630	14.144	21.529	36.998	22.572	83.813	4.292
1978	795.800	18.070	31.656	39.095	22.767	156.340	4.292
1979	1,317.000	26.945	37.246	42.550	22.805	224.550	4.292
1980	1,837.200	52.714	39.000	47.280	22.951	288.650	4.292

1] Annual Average

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics. Yearbook 1982.

ANNEX. 10

MAJOR LATIN AMERICAN COUNTRIES: GROSS DOMESTIC SAVINGS RATIO
(As a per cent of GDP)

YEAR	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	TOTAL
<u>1965-69</u>	<u>19.16</u>	<u>21.64</u>	<u>14.58</u>	<u>17.17</u>	<u>19.07</u>	<u>14.28</u>	<u>24.05</u>	<u>18.56</u>
1965	20.44	23.24	15.75	17.33	19.35	15.14	22.76	19.14
1966	18.95	22.03	13.57	15.37	18.70	15.53	22.88	18.15
1967	18.57	18.72	15.23	16.89	19.60	13.97	23.97	18.14
1968	18.49	20.08	12.26	18.50	18.58	13.40	24.80	18.02
1969	19.34	24.13	16.09	17.76	19.11	13.36	25.82	19.37
<u>1970-80</u>	<u>23.68</u>	<u>20.24</u>	<u>9.83</u>	<u>20.53</u>	<u>19.83</u>	<u>13.27</u>	<u>32.90</u>	<u>20.04</u>
1970	21.30	20.87	14.10	17.86	19.73	16.15	26.66	19.52
1971	18.74	21.23	12.50	16.72	18.11	14.49	27.45	18.46
1972	20.03	21.90	8.86	18.03	18.28	13.78	27.93	18.40
1973	22.48	24.02	11.31	16.22	18.82	12.83	34.00	19.95
1974	24.47	24.07	11.97	19.68	19.19	12.63	45.45	22.49
1975	21.49	21.85	-0.30	17.00	19.09	8.34	38.53	18.00
1976	28.26	20.41	6.89	22.21	17.74	8.91	36.07	20.07
1977	29.91	19.90	5.67	25.81	20.68	7.75	32.92	20.38
1978	27.65	17.19	10.75	24.17	20.51	12.76	28.24	20.18
1979	23.60	15.26	15.47	24.26	21.88	20.34	32.75	21.94
1980	22.60	15.98	10.95	23.84	24.08	18.03	31.90	21.05

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982
WORLD BANK. World Tables, 1980

Elaboration: By the Author

ANNEX. 11

MAJOR LATIN AMERICAN COUNTRIES: NET INFLOW OF FOREIGN CAPITAL RATIO
(As a per cent of GDP)

YEAR	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	TOTAL
1965-69	<u>-0.35</u>	<u>0.35</u>	<u>0.96</u>	<u>2.47</u>	<u>1.98</u>	<u>2.85</u>	<u>0.49</u>	<u>1.25</u>
1965	-1.04	-1.22	0.50	0.34	1.96	3.45	0.42	0.63
1966	-1.19	0.11	1.33	5.06	1.71	4.57	-0.30	1.61
1967	-0.73	0.73	1.67	1.58	2.04	5.80	-1.83	1.32
1968	0.25	1.40	2.00	2.66	2.23	0.47	2.06	1.58
1969	0.98	0.71	-0.71	2.72	1.98	-0.03	2.11	1.11
1970-80	<u>0.08</u>	<u>3.88</u>	<u>3.52</u>	<u>1.07</u>	<u>3.39</u>	<u>2.73</u>	<u>-1.74</u>	<u>1.83</u>
1970	0.67	1.83	1.00	4.12	3.00	-3.25	0.89	1.18
1971	1.33	3.10	1.54	5.99	2.13	0.50	0.10	2.10
1972	0.85	2.72	3.75	2.25	2.03	0.41	0.72	1.82
1973	-2.02	2.60	2.54	0.54	2.56	2.83	-5.04	0.57
1974	-0.20	6.93	1.53	2.88	4.00	6.27	-21.93	-0.07
1975	3.25	5.43	6.59	0.83	4.61	11.31	-7.76	3.47
1976	-1.11	4.15	-1.44	-1.35	4.55	8.91	-1.34	1.76
1977	-2.58	2.86	3.30	-2.27	2.16	7.32	8.54	2.76
1978	-2.88	3.42	7.06	-1.37	3.09	1.80	14.40	3.65
1979	...	4.52	5.81	-1.74	4.07	-5.75	-0.71	0.96
1980	...	5.15	7.02	1.84	4.05	-0.37	-7.06	1.96

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982
WORLD BANK. World Tables, 1980

Preparation: By the Author

ANNEX. 12

MAJOR LATIN AMERICAN COUNTRIES: FISCAL REVENUES

YEAR	Argentina (B. Pesos)	Brazil (B. Cruzeiros)	Chile (M. Pesos)	Colombia 1] (M. Pesos)	Mexico (B. Pesos)	Peru (B. Soles)	Venezuela (M. Bolivares) 2]
1965	...	3.91	3	3,948	...	17.4	7,264
1966	...	5.91	5	6,028	27.01	20.3	7,751
1967	5	6.81	6	6,688	28.86	23.7	8,539
1968	5	10.27	9	8,194	34.32	28.5	8,775
1969	6	13.95	13	9,581	37.85	32.3	8,661
1970	14	19.19	16	11,950	42.48	38.8	10,222
1971	18	26.98	23	17,171	47.49	41.4	12,423
1972	27	37.74	71	19,649	58.24	45.6	13,089
1973	44	52.86	326	25,070	69.54	53.3	16,979
1974	76	76.81	2,548	32,465	95.31	68.6	44,325
1975	160	95.45	11,456	48,190	133.40	87.9	42,410
1976	928	166.22	39,192	61,743	168.58	111.4	39,869
1977	2,960	242.89	87,933	83,281	240.72	154.1	42,884
1978	8,393	349.22	150,683	106,420	322.75	263.7	42,734
1979	23,543	509.84	251,805	148,334	438.62	552.2	50,888
1980	48,939	1,219.41	352,406	200,243	674.99	1,019.3	67,134

1] Series from 1965-71 include grants

2] M.: Millions, B.: Billions

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982

Elaboration: By the Author

ANNEX. 13

MAJOR LATIN AMERICAN COUNTRIES: FISCAL EXPENDITURES

YEAR	Argentina (B. Pesos)	Brazil (B. Cruzeiros)	Chile (M. Pesos)	Colombia (M. Pesos)	Mexico (B. Pesos)	Peru (B. Soles)	Venezuela (M. Bolivares)]
1965	...	4.50	4	4,340	...	21.5	7,118
1966	...	6.50	5	5,973	31.87	25.4	7,659
1967	6	8.04	7	6,919	33.87	29.9	8,479
1968	6	11.50	9	8,768	39.35	34.1	9,016
1969	7	14.71	13	10,405	46.93	34.3	9,639
1970	16	19.93	19	13,090	48.56	42.1	11,062
1971	22	27.65	33	19,187	51.65	49.5	11,131
1972	34	38.25	98	24,169	67.31	56.5	12,729
1973	59	52.57	399	29,991	88.05	67.4	14,273
1974	95	72.93	3,042	37,989	123.92	82.7	22,840
1975	282	95.37	12,164	50,664	161.61	118.5	27,553
1976	1,340	165.80	38,757	57,315	211.61	159.8	32,653
1977	3,263	241.85	92,131	81,088	285.52	233.2	42,229
1978	9,299	344.35	155,023	106,942	367.46	348.7	46,340
1979	24,927	507.54	221,605	144,444	505.21	570.6	44,105
1980	54,015	1,217.37	299,175	213,424	750.20	1,160.2	54,741

] M.: Millions, B.: Billions

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982

Laboration: By the Author

ANNEX. 14

MAJOR LATIN AMERICAN COUNTRIES: FISCAL REVENUES
(Percentage of GDP)

YEAR	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela
<u>1965-69</u>	<u>7.6</u>	<u>8.6</u>	<u>17.7</u>	<u>8.0</u>	<u>9.8</u>	<u>15.2</u>	<u>19.5</u>
1965	...	8.9	15.0	6.5	...	15.1	19.2
1966	...	9.3	16.7	8.2	9.4	14.8	19.6
1967	8.3	7.9	20.0	8.1	9.4	15.1	20.5
1968	7.2	8.4	18.0	8.5	10.1	15.3	19.5
1969	7.4	8.6	18.6	8.6	10.1	15.5	18.7
<u>1970-80</u>	<u>14.3</u>	<u>9.6</u>	<u>26.7</u>	<u>11.2</u>	<u>12.0</u>	<u>16.1</u>	<u>26.6</u>
1970	15.9	9.1	16.0	9.2	9.6	16.1	19.5
1971	13.5	9.7	17.7	11.3	9.7	15.7	21.6
1972	12.3	10.2	29.6	10.6	10.3	15.5	21.2
1973	12.1	10.4	26.7	10.3	10.1	14.8	23.1
1974	15.8	10.4	26.4	9.9	10.6	15.3	39.0
1975	11.0	9.1	27.2	11.7	12.1	15.8	35.9
1976	12.3	9.9	26.7	11.6	12.3	14.5	29.5
1977	14.2	9.6	27.4	11.5	13.0	14.6	27.5
1978	16.2	9.4	30.9	11.6	13.8	15.8	25.0
1979	16.9	8.2	33.0	12.4	14.3	18.0	24.2
1980	17.4	9.3	32.2	12.6	15.8	20.5	26.1

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982

Elaboration: By the Author

ANNEX. 15

MAJOR LATIN AMERICAN COUNTRIES: FISCAL EXPENDITURE
(Percentage of GDP)

YEAR	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela
<u>1965-69</u>	<u>9.1</u>	<u>9.6</u>	<u>19.3</u>	<u>9.1</u>	<u>11.6</u>	<u>18.2</u>	<u>19.9</u>
1965	...	10.2	20.0	7.1	...	18.7	18.8
1966	...	10.2	16.7	8.1	11.1	18.6	19.4
1967	10.0	9.3	23.3	12.0	11.1	19.1	20.4
1968	8.7	9.4	18.0	9.1	11.6	18.4	20.0
1969	8.6	9.1	18.6	9.4	12.5	16.4	20.8
<u>1970-80</u>	<u>17.6</u>	<u>10.1</u>	<u>29.2</u>	<u>11.1</u>	<u>14.1</u>	<u>20.0</u>	<u>22.2</u>
1970	18.2	9.5	19.0	10.0	10.9	17.5	21.1
1971	16.5	9.9	25.4	12.6	10.5	18.7	19.4
1972	15.5	10.4	40.8	13.0	11.9	19.2	20.6
1973	16.2	10.3	32.7	12.8	12.7	18.8	19.4
1974	19.7	9.8	31.5	11.5	13.8	18.5	20.1
1975	19.3	9.1	28.9	12.3	14.7	21.3	23.3
1976	17.8	9.9	26.4	10.7	15.4	20.8	24.1
1977	15.7	9.6	28.7	11.3	15.4	22.2	27.1
1978	18.0	9.3	31.8	11.7	15.7	20.9	27.1
1979	17.9	12.3	29.1	8.3	16.5	18.6	21.0
1980	19.2	10.8	27.3	7.4	17.5	23.4	21.2

Source: INTERNATIONAL MONETARY FUND. International Financial Statistics, 1982

Elaboration: By the Author

