CRISIS AND ADJUSTMENT: MONETARY POLICY, FISCAL POLICY AND INVESTMENT BEHAVIOUR IN GUYANA 1970-1992

BY

GARFIELD BARNWELL
(RESEARCHER, I.D.S)

SUBMITTED

TO

REGIONAL PROGRAMME OF MONETARY STUDIES
ANNUAL CONFERENCE, TRINIDAD AND TOBAGO
NOVEMBER 1993

IDS
UNIVERSITY OF GUYANA

CONTENT

SECTION 1: Introduction

The 1980s are widely considered as the lost decade for many developing countries. Stagnation, austerity, deep indebtedness and the increased incidence of poverty have materialised from the performance of the global economy, and have imposed severe constraints on national economies. Lynn and McCarthy (1989) claim that countries which performed relatively well in the 1980s, typically had high investment ratios, participated actively in the global market and had an appropriate relationship between the public and private sectors. Many developing countries sought recourse to the International Monetary Fund and World Bank group for assistance to meet the challenge of the 1980s. Tables 1 and 2 provide summaries of a selected set of studies on the effects of Fund and Bank programme on developing countries. These summaries indicate that while there are conflicting claims of the effects on: balance of payments, the current account, inflation and growth, the general consensus is that these market-oriented programmes impose a contractionary effect on investment and the potential growth capacity of developing economies.

Guyana, a high debt-low income country, after experiencing more than a decade of cumulative decline in the economy, embarked on a Fund-Bank oriented economic recovery programme in April 1989. This paper evaluates the process of adjustment in the 1970s and 1980s and its implications for sustaining growth in the 1990s. In so doing, the emphasis in the paper is on the savings-investment

gap and the key issues that arise in stabilising this gap to expand the economy. Investment in this paper is viewed as changes in the physical stock of capital in the economy on an annual basis. This definition is adopted to emphasise the productive capacity that exist in an underdeveloped economy such as Guyana. As such, the paper ignores the importance of financial investments, given the fragmented structure of the underdeveloped financial system in Guyana. Section 2 of this paper reviews a selection of theoretical issues on adjustment and growth. Section 3 evaluates the Guyanese experience and, in Section 4 some concluding remarks are provided.

Table 1: Summary of Selected Studies on Macroeconomic Effects of Fund-Supported Programmes

thors	Time Period	Number of Programmes	Number of Countries	Method*	Effects On** Balance of Payments	Current Account	Inflation	Growth	Comments
ıann & ıon (1978)	1963-72	79	...	Before-After	0	...	0	+	
ıann	1973-75	21	18	Actual-v-Target	+	...	+	+	
:s (1979)	1973-77	31	23	Before-After	0	0	0	0	
ran (1981)	1970-76	12	12	With-Without	...	...	-	+	
ran (1982)	1971-80	78	44	With-Without	+	+	-	-	
:k (1984)	1974-79	38	24	Before-After	0	0	-	0	
l (1985)	1980-81	35	22	Actual-v-Target Before-After	...	0 +	- -	- 0	
tein & el (1986)	1974-81	68	58	Before-After With-Without Generalised Evaluation	- -	- + -	- - +	- + -	
son (1987)	1977-79	32	14	With-Without	+	...	0	0	
r (1987)	1965-81	...	18	Before-After	+	0	0	0	
& Knight)	1968-75	...	29	Comparative Simulations	+	+	-	-	
& Knight)	1968-75	...	29	Comparative Simulations	+	+	-	-	
y (1984)	1971-82	38	38	With-Without	0	0	-	-	
(1990)	1973-88	315	69	Before-After With-Without Comparative Simulations	+ +	+ + +	+ + +	- + -	

- indicates that comparison covers more than a one-year period

- indicates direction of change: (+) indicates positive effect; (-) indicates negative effect; (0) indicates no effect.

e: Khan (1990), Table 1, p 208.

Table 2: Summary of Selected Studies on Macroeconomic Effects of Bank-Supported Programmes

Authors	Time Period	Coverage of Programmes	Method	Effects On: Real GDP Growth	Real Export Growth	Investment/ GDP Ratio	Inflation	BOP	Priv Capi Infl
World Bank (1988)	1980-87	All Programme Aid (SAL + SALS)	With-Without	0	+	-	...	+	...
World Bank (1990)	1985-88	All Programme Aid (SAL + SALS)	With-Without	0	+	-	...	+	...
Harrigan & Mosley (1989)	1980-87	All Structural Adjustment Lending	With-Without	-	+	-	...	+	...
			Multiple Regression	-	+	-	...	+	0
Faini, de Melo, Senhadi-Semlali Stanton (1989)	1982-86	All IMF & World Bank Loans over the period	With-Without (3-5 year period)	0	...	-	0	+	...

Source: Table on Results from the studies cited above.

SECTION 2: Adjustment, Investment and Growth – A Review of Selected Issues

A central assumption implicit in the IMF-WB market-oriented adjustment programmes is that the private sector is the engine of sustainable economic growth. In countries where the state, through the public sector plays a significant role in the economy, it is assumed that there is 'crowding out' of the private sector and consequently, low rates of growth are attained. In this process the Fund and Bank recommend the implementation of tight fiscal and monetary policies, the liberalisation of the domestic financial sector, trade and exchange rate policies which they claim stimulate increased private sector investment and foreign resource inflows. Killick (1987) claims that this approach with its stress on sustained growth reflects the design of a 'new orthodoxy' that raises numerous questions on the consistency of policy objectives and a wide range of long standing issues raised in development economics. Dornbusch (1991) and Williamson (1987) are apprehensive of the conventional wisdom implicit in Fund-Bank adjustment programmes, that sustained growth is an assumed outcome of the market-oriented packages without cognisance being taken of the costs and potential stagnationary effects. These concerns have been the central arguments of Latin American structuralists that have advocated because of the constraints of 'structural rigidities' on the conduct of policy and the growth process in developing economics. [Bacha (1984, 1990), Pastor (1987) and Taylor (1991a, 1991b)]

2.2 Growth - Oriented Adjustment — A Brief Assessment

The new orthodox model of 'growth-oriented' adjustment is essentially a reformulation of the neoclassical growth model to illustrate its compatibility with the Polak model in a merged model. This is reflected in the work of Khan and Montiel (1989), Montiel (1990), and Reinhart (1991) among others, have employed the conventional neoclassical growth model. This model postulates several questionable rationalisations, such as the assumption that the economy is operating on its production possibility frontier. In this process it is advocated that capacity growth depends on total factor productivity, the full employment of the labour force, and best practice technology utilisation in production. Secondly, that real private savings is proportional to real disposable income. Finally, that savings and investment are identical.

This approach focuses on growth trends, externalities and the importance of relative price flexibility in a full-employment equilibrium situation, which is central to all orthodox models of adjustment. [Robinson, 1991] Simultaneously, several assumptions are made in the monetary component of the merged model. First it is assumed that changes in the money stock is supply determined. Secondly, that the demand for money is a stable function. Finally, that the money market is in equilibrium. The central objective of the merged model is to demonstrate the superiority of the private sector vis-a-vis the performance of the public sector in developing countries, and the effectiveness of the market mechanism in the

allocation and use of resources.

However, to ensure compatibility in the merged model four additional assumptions are made namely:

(i) the private sector does not borrow from abroad and domestic interest rates are zero; only the government borrows abroad and this entails foreign debt for the economy;

(ii) all investment in the economy are private sector investment and all increases in domestic credit is absorbed by private sector. Hence, there is no public sector investment and all government spending is absorbed in consumption;

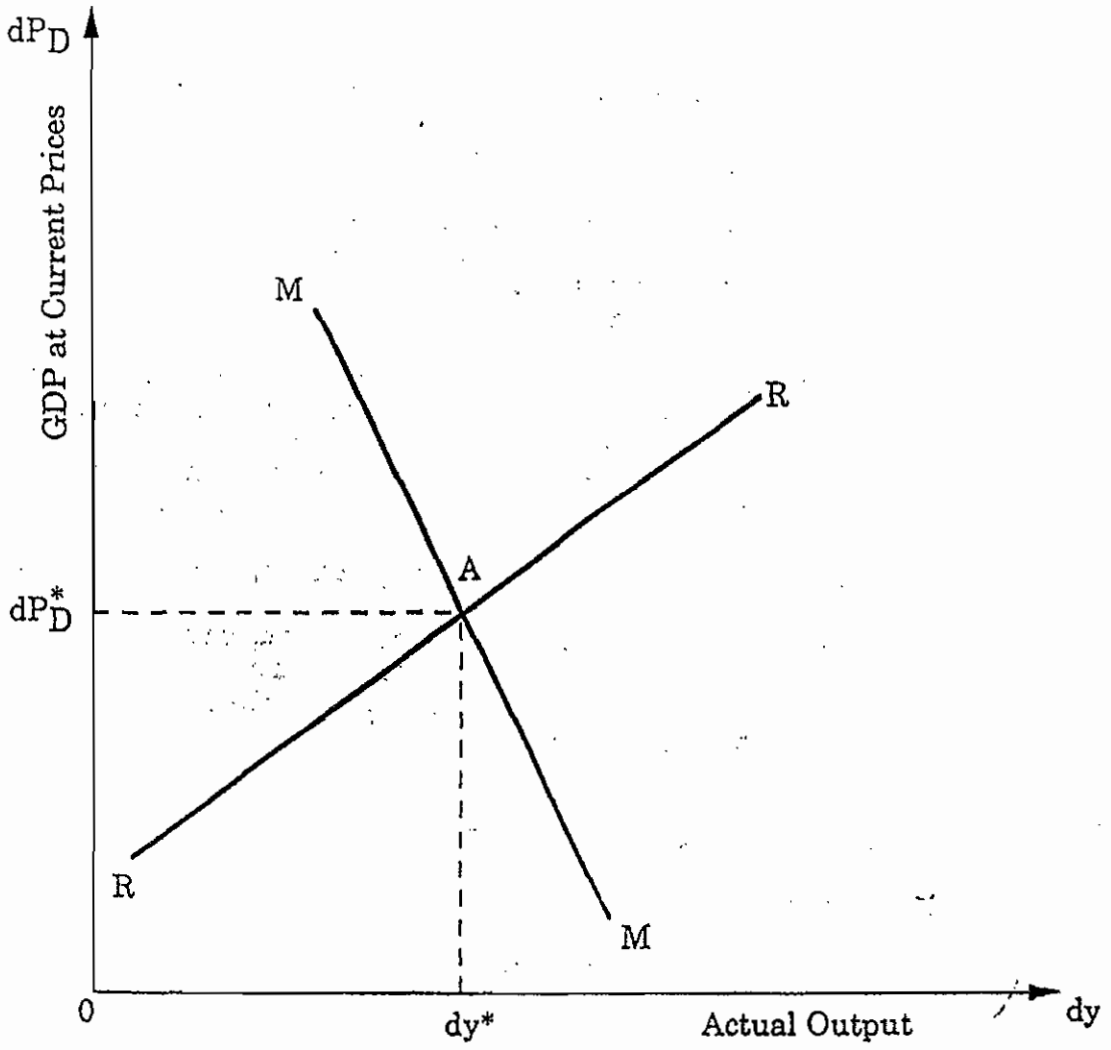
(iii) that there are no capital gains from a devaluation;

(iv) the Marshall-Lerner conditions hold, and all adjustments take place in one period, within a discrete time period so that there is continuous equilibrium.

On the basis of these assumptions, the solution to a set of equation is attained that reconcile the targets and instruments which establish the framework of the merged model as mapped out in figure I.

Therein, a relationship is established showing that the price-output target in the model is attained when monetary stability is attained through fiscal austerity. This leads to a temporary reduction in the incremental capital output ratio (ICOR), causing a rightward shift in the RR locus without affecting the MM locus. Nevertheless, since it is assumed that only the private sector invests, output would increase as a result of falling domestic prices. This process of adjustment is based largely on an

Figure 1: Macroeconomic Equilibrium in 'Merged' Model



Source: Kahn and Montiel (1989): Figure 1, page 290

extrapolation of the 'crowding out' thesis in conventional macroeconomics and the assertion that the savings constraint is the binding constraint in developing countries.

Similar arguments are central to the Polak model, which assess that a payments deficit only arise from domestic credit creations. This has been a major element in the Fund's approach to stabilisation. Tanzi (1990) has pointed out that Fund supported programmes stress balance of payments stability, and view external imbalances in developing countries as the result of excessive monetary expansion. This, the Fund assumes, originates from fiscal deficits that cannot be financed through non-inflationary channels. Herein, credit to government is viewed as a reflection of the fiscal deficit, and the principal mechanism result by which the private sector is 'crowded out' in the economy. On the basis of these arguments, Tanzi (1990) claims that the Fund's approach towards correcting external imbalances is:

> "... a kind of 'fiscal approach to the balance of payments' that establishes a close connection, through liquidity expansion between the financing of fiscal deficit and the outcome of the balance of payments equilibrium." [1990, p4]

On the basis of these assumptions and propositions, savings are identified as the central constraint in the process of adjustment and have been the basis for the one gap models articulated by the Fund and Bank. Arising from this feature of the

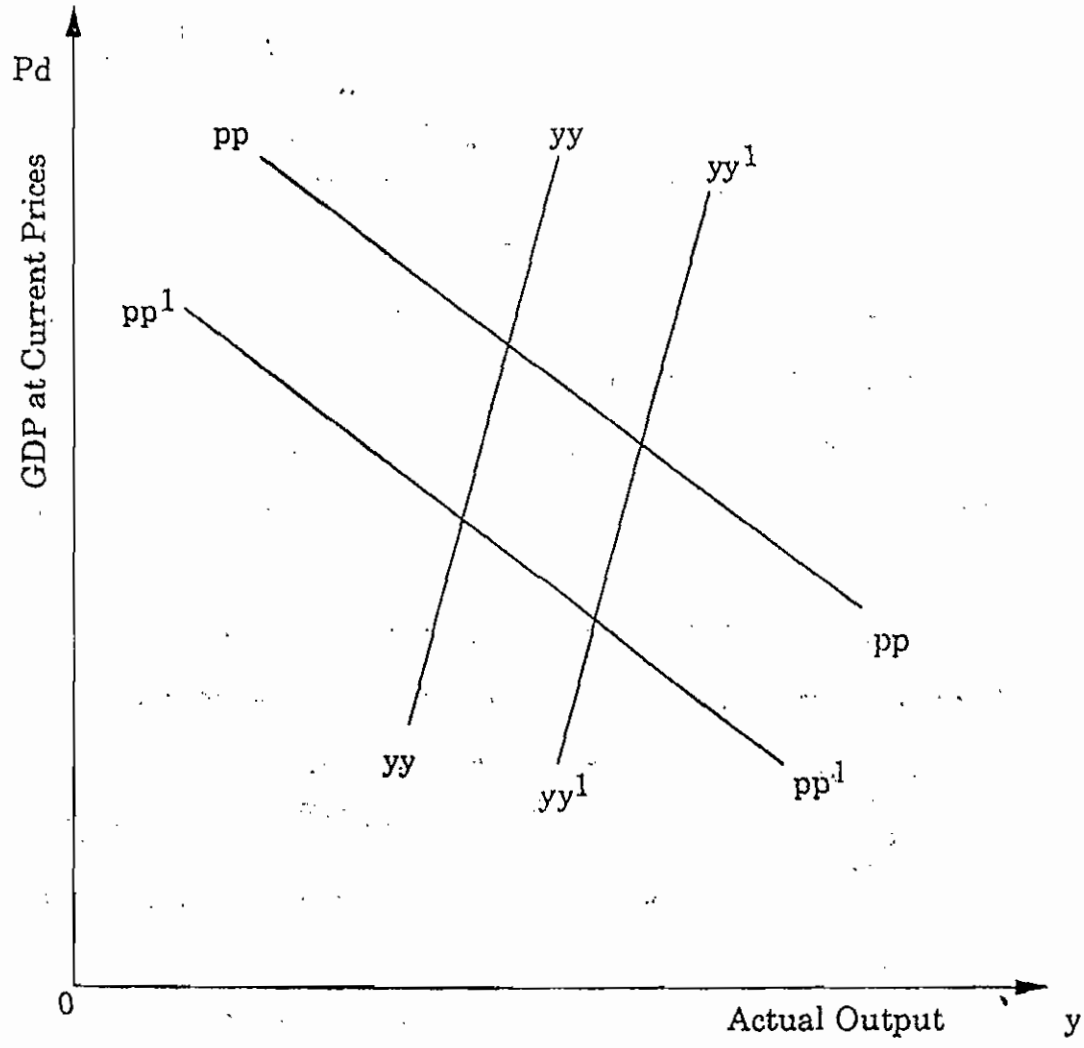
merged model exercises, interest rate behaviour is given significant attention as the major determinant of savings and investment decisions. This has often led to **the role of central banking being viewed as passive and determined by the role of government in the economy** as articulated in Montiel's model. Therein, the investment function is implicit and depends on private savings and credit behaviour in the economy. In addition, it should be noted that fiscal austerity is assumed to be a precondition for growth and the attainment of internal and external stability, since a temporary reduction in the rate of growth of credit and a ceiling of credit to the public sector protects the private sector. This acts in the model as an allocative stimulus for increasing the availability of resources to the private sector. Under these conditions, adjustment with growth can be attained and as growth increases, the current account and the balance of payments improve.

In contrast to the merged model exercises which ignore the negative effects of external shocks and the importance of an explicitly defined investment function, Vines (1990) reformulated the model to account for these and other omissions in the model. Vines (1990) restate the supply - side of the model to account for the role of exchange rate behaviour, which was assumed away in these exercises since prices were assumed to be perfectly flexible. In Vines (1990) reformulation exchange rate devaluations affect both the supply and demand sides of the model. Using these

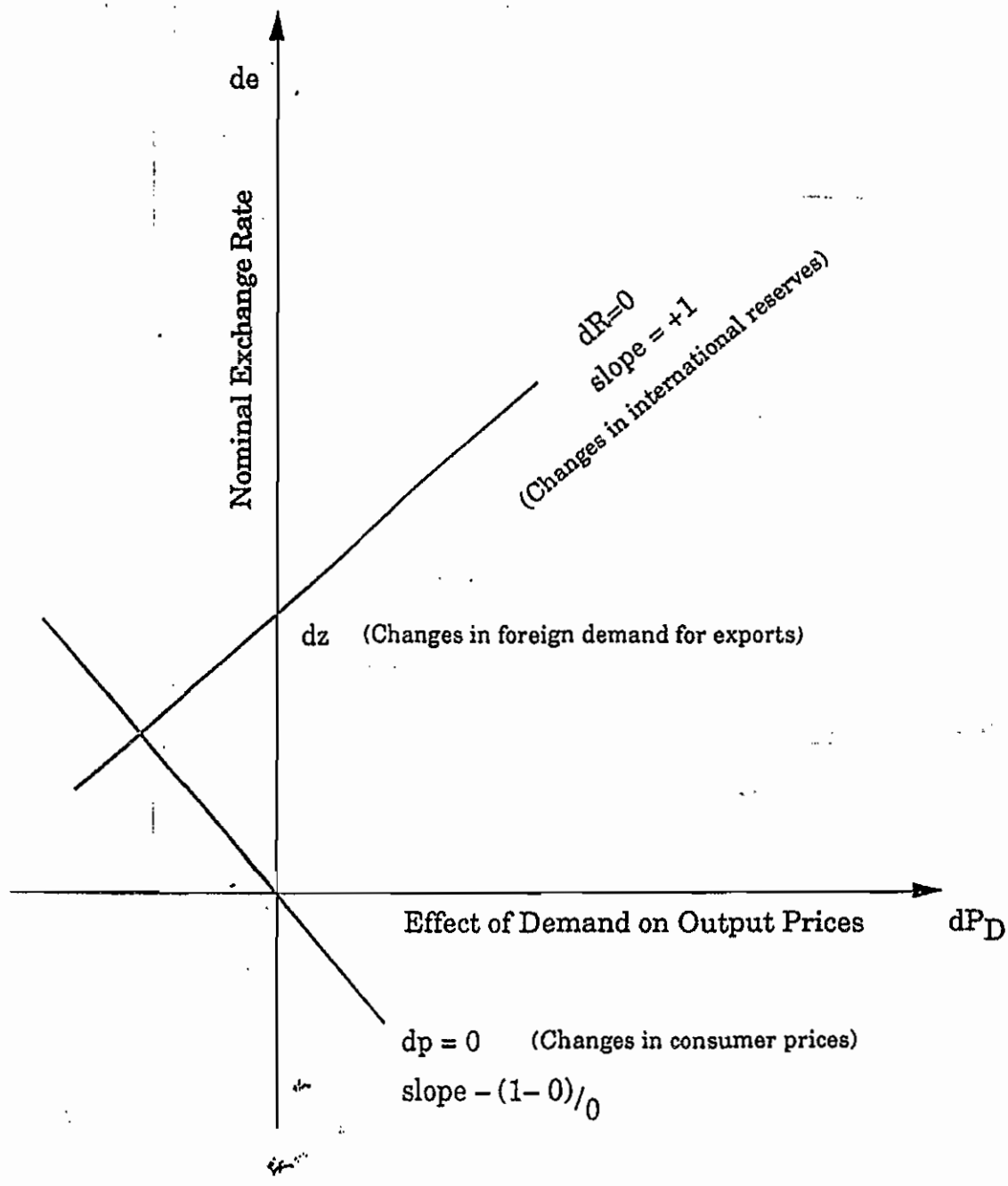
modifications, Vines (1990) adopted the general IS-LM framework to compare the Polak (1957) and the Khan-Montiel (1989) version of the merged model. Vines (1990) found that the Polak model and the merged model indicated a reduction in the foreign demand for exports and outputs. More importantly, the Keynesian IS-LM specification adopted by Vines indicated that Fund-Bank policies impose a contractionary effect in a Keynesian manner on the overall economy. These results are shown in figures 2, 3 and 4 where adjustment and growth are shown to be incompatible, since output falls below the desired level and prices remain high.

Vines (1990) claimed that under these circumstances a high degree of uncertainty arises, since the external account may not be in deficit but may reflect an overkill as advocated by Dias Alejandro (1963) and Dell (1982). These result reinforce Williamson (1987) and Dornbusch's (1991) apprehension that Fund-Bank adjustment programmes portray an unjustifiable optimistic scenario, while ignoring all negative effects by assumptions. Further, the results of Vines's analysis lend credence to the arguments of Latin American structuralists, that Fund-Bank adjustment programmes require attention to be focussed on the supply-side features of developing economies.

Figure 2: The Impact Effect of a Negative Shock in 'Megged' Model

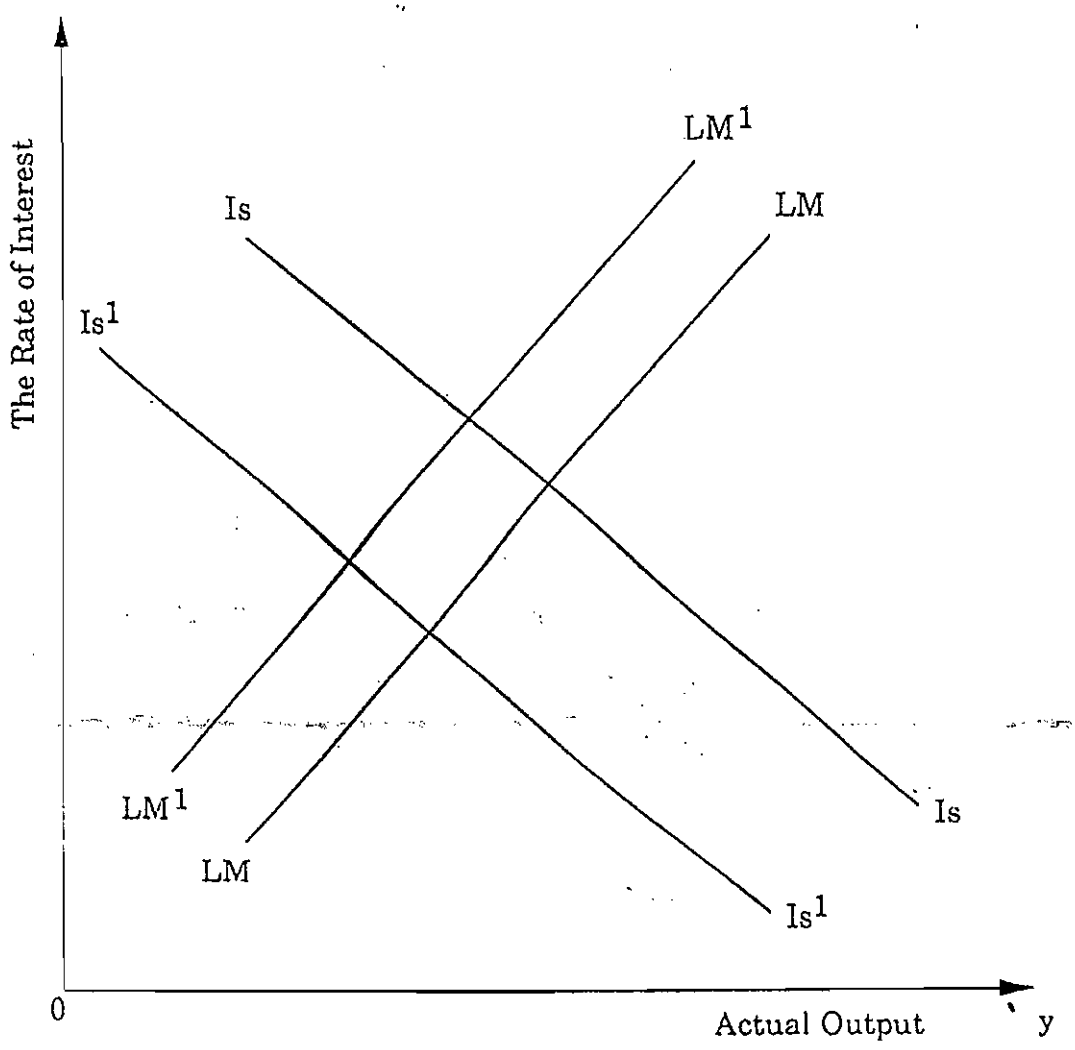


Source: Vines (1990): Figure 1, page 26



Source: Vines (1990): Figure 3, page 28

Figure –4: The Impact Effect of a Negative External Shock in a Modified Keynesian General Model



Source: Vines (1990): Figure 3, page 27

2.3 Structuralist Models of Adjustment Investment and Growth - A Synopsis

In contrast to the orthodox approach outlined above, the structuralist approach focuses on the structural constraints that inhibit the process of growth and the requirements for sustainable external balance. Generally, there are three trends in the structuralist literature. First, there is the neo-Keynesian perspective that evolved out of the work of Kaldor (1956); Pasinetti (1962); and Robinson (1956; 1962) which demonstrated that savings equate investment through adjustments in the distribution of income. Kaldor (1956) and Pasinetti's (1962) views reflect the Marxian hypothesis that workers spend all their income on consumption while capitalist save a large proportion of their income for investment. Kaldor (1956) stressed the importance of technical progress as reflected in a stable capital output ratio and its relation to the profit rate 'vis-a-vis' the relationship of labour productivity and the capital-labour ratio as they affect the growth process. Pasinetti focussed on the relationship between the rate of growth and the distribution of income as the latter affects the former through the savings propensities among the social classes and the profit rate sensitivity to the investment demand function. Finally, Robinson's approach reflects the Schumpeterian view that savings are determined by investment. Despite these variations, the neo Keynesian approach view adjustment as the process whereby the actual rate of growth augments the 'potential' rate of growth through forced savings.

The second trend, is often referred to as Kaleckian and attributable to the work of Kalecki (1965, 1971); Steindl (1952); and Baran and Sweezy (1966) which advocates the view that higher levels of output ensues from high levels of equilibrium that are derived from increased capacity utilisation. This establishes the mechanism for higher levels of savings to satisfy investment demands and improved productivity developments. This approach emphasises the independence between the investment function and the output function. It stresses that adjustment takes place through changes in productive capacity which stimulates changes in output, savings and investment.

Finally, there is the view that evolved from the development economics literature as epitomized in the Feldman-Mahalanobis model which advocates that the economic structure determines the savings propensity and the incremental capital-output ratio pattern in the economic system. On this basis it is advocated that the process of adjustment depends on the development of the economy. Generally most of these early modelling trends were dominated by the identification of a single constraint under the assumption of 'full-employment.'

On the other hand, development might not be constrained only by the lack of domestic savings as stated in the orthodox approach but also the insufficiency of by foreign exchange. This led to the subsequent development of the 'two gap' model by Cheneny and Strout

(1966) among others. In reviewing the literature on this model Bliss (1989) demonstrated that foreign transfers can play two distinct roles, namely:-

(i) they allow a developing economy to expand output without the domestic economy providing the required savings to finance the process of accumulation;

(ii) foreign transfers to a developing economy relax the external constraint and facilitate the import of investment goods.

Given these features of foreign transfers, the policy problem that arise relates to the identification of which of the two constraints – the savings constraint or the foreign exchange constraint is the primary binding constraint on the accumulation process in developing countries. To resolve the problem, Bliss (1989) established two propositions on the basis of a set of simple assumptions associated with the model, namely:

(a) the saving constraint, associated with investment that either equal to or below the sum of domestic and foreign savings, and

(b) the foreign exchange constraint, associated with imports that are either equal to or less than the sum of exports and foreign transfers.

These are the two independent constraints that affect the targetted rate of growth. Foreign transfers relax the foreign exchange constraint which is the primary constraint at low levels of growth and this constraint is relaxed at higher levels of growth. On the other hand, the saving constraint is often associated with a fixed exchange rate regime and the marginal propensity to save out of domestic income. This latter component is assumed to rise as

incomes rise and decreases as the marginal propensity to import increases. Bliss (1989) points out that the important lessons learnt from the 'two gap' model is that with the relaxation of the foreign exchange constraint when an economy is at a low level of growth, domestic savings are augmented at higher levels of growth.

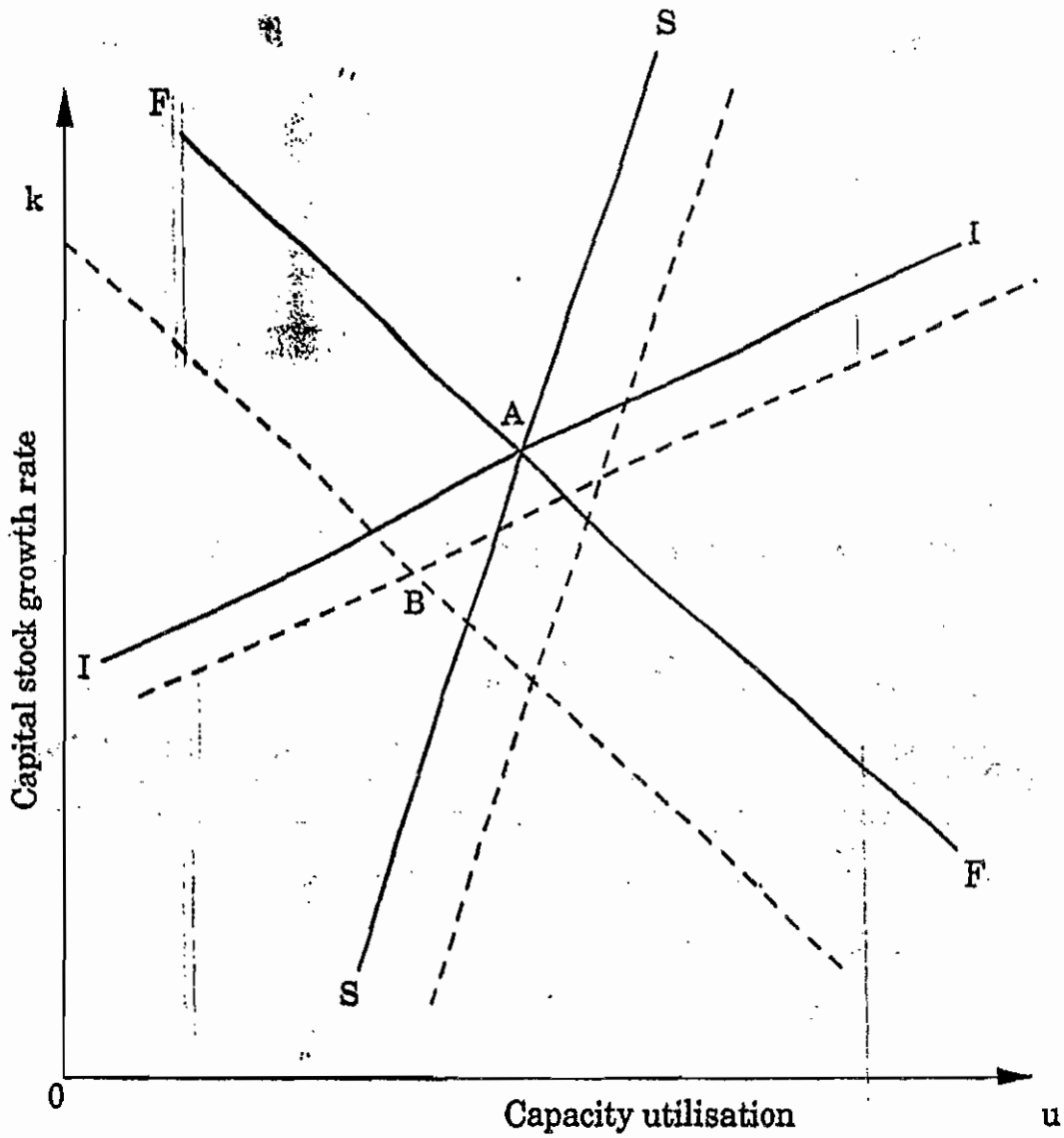
More recently, Bacha (1984, 1990) and Taylor (1983, 1990, 1991b) have reformulated the 'two gap' model to emphasise the problems associated with the fiscal constraint. Essentially, the fiscal constraint highlights a government's inability to finance investment demand in a non-inflationary manner without adding to either a decline in output capacity or a fall in new private investment. In formalising these propositions in a 'three-gap' model cognizance is taken of the public debt phenomenon confronting many developing countries, and the empirical assertion that there is a strong 'crowding-in' effect of public expenditures on the private sector investment demand function. In demonstrating the multidimensional impact of these issues, Bacha (1990) and Taylor (1990) specify four constraints: savings, foreign exchange, inflation and investment as they affect the process of growth and the policies required to overcome these disequilibria within the 'three-gap' model. These gaps are identified as: the savings – foreign exchange; savings – investment and the investment – foreign exchange gaps.

Taylor (1991b) highlights the nature of the 'three-gaps' and their interaction as they affect the adjustment process in developing economies at different stages of industrial development. On this basis, specific adjustment rules on model closures are established. In the savings-foreign exchange classification, a fall in capacity use arises if the foreign exchange constraint is binding as discussed above. Alternatively, if savings is the binding constraint, a fall in savings would create am excess demand on the real side of the economy. Then, at the initial investment level, the inflation rate will accelerate as the emerging gap is closed. In this situation, the required savings would have to be forced savings and this would initiate the operation of an inflation tax. In the savings - investment classification, Taylor (1991b) highlights the dynamic relationship among changes in foreign transfers, the level of international reserves and investment behaviour in the economy. Taylor (1991b) points out that a decline in foreign transfers, traditionally imposes a burden on the international reserve position of a semi-industrialised economy, and in the long term often leads to public expenditure cuts and capacity contraction. The impact effects of these events are multidimensional and Taylor (1991b) advocates that:

> "... there is no dearth of mechanisms by which the gaps can be resolved. The policy challenge is to select a relatively comfortable adjustment path ..." (1991b, p172)

These propositions are demonstrated in Figures 5 and 6. Figure 5 illustrates the joint solution of investment, savings, and

Figure 8 : Joint Solution of Investment, Savings and Foreign Exchange Constraints



Source: Taylor (1991b): Figure 8–5, page 173

the foreign exchange constraints in the adjustment process. The foreign exchange locus FF is the most volatile element among the others in the diagram, reflecting the stage of industrial development, the sectoral composition of the economy and the competition between investment and other spending sectors for the scarce foreign exchange in a stylized economy. The investment demand schedule II typifies the Keynesian accelerator principle and the potential 'crowding-in' effects as highlighted by Taylor (1990, 1991b) in the economy. The savings function is reflected in the SS locus and illustrates the impact of changing inflation rates on the targetted growth rate and capacity utilisation. Further, given the empirical assertion in the WIDER studies that the Fund-Bank programmes are contractionary, Taylor (1991b) advocate a series of plausible policy responses that can redress the dilemma confronting many developing countries and restore the economy from the low level of equilibrium at point B to the higher level point A. To highlight the dynamics of the inflationary experience of many developing economies in Figure 6, a stylized inflationary gap is imposed on the process mapped out in Figure 5. This approach synthesises the structuralist view that inflation is characterised by the social conflicts, the propagation mechanism and the government's response to counteract the inflationary spiral through its fiscal and monetary policies.

In this model, an inflationary tax plays the crucial role in the adjustment process and responds inversely to changes in

consumption demand. Then, assuming that investment is limited by the foreign exchange constraint, the investment locus (II) would be less steeper than the savings locus (SS) but above the reduced savings locus, (S^1S^1). This indicates the existence of excess commodity demand unless:

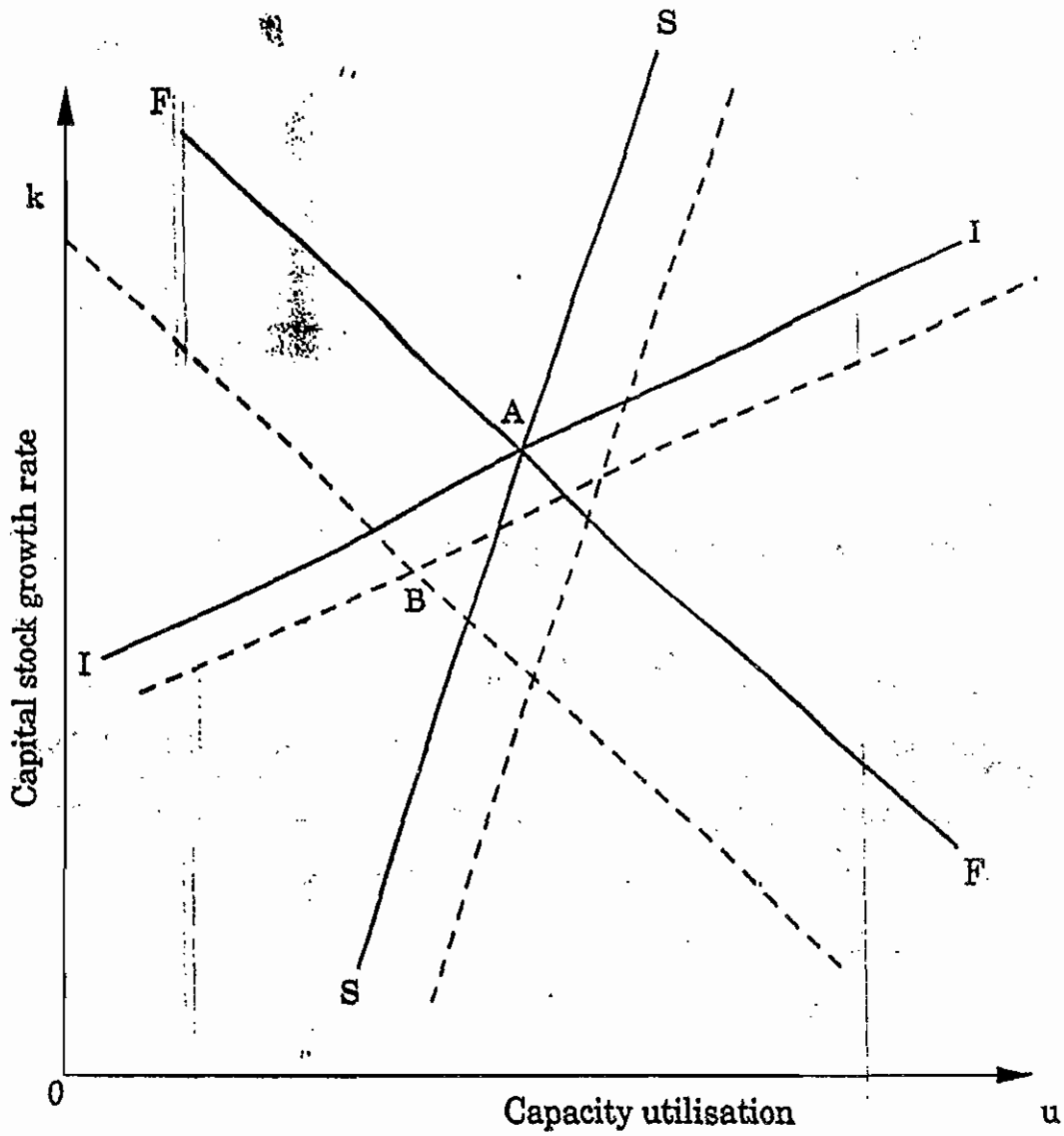
(i) the II locus shifts downwards;
(ii) with the II locus maintaining its position with increased foreign inflows;
(iii) with a reduction in international reserves; and/or
(iv) an increase in public debt would shift the FF locus upwards.

In these circumstances, Taylor (1991b) points out that the demand pressure would be strong, so that an increase in capacity use would shift output towards installed capacity as reflected in Figure 5. These results are in sharp contrast to much of recent neoclassical modelling exercises that consistently advocate savings as the binding constraint irrespective of the economic structure and stage of economic development.

2.4 An Evaluation of the Two Approaches

These two contending explanations of 'growth-oriented adjustment' have significant implications for the pursuit of policy and the process of accumulation in the developing world. The central issue is the application of appropriate macroeconomic policy to release the constraints on economic performance and maximise the rate of growth of different sectors, economy-wide within targetted inflation rates and values for balance of payments stability. This issue has been the main source of the large volume

Figure 8.5: Joint Solution of Investment, Savings and Foreign Exchange Constraints



Source: Taylor (1991b): Figure 8–5, page 173

of literature on the alternative approaches to adjustment in developing countries, which we have broadly classified as neoclassical (orthodox) and structuralist as discussed above.

The orthodox approach has been explicitly defined by Montiel (1990) as

> "... an approach to adjustment which relies heavily on the market mechanism, on getting prices right, and **removing** restrictive financial policies ..." (emphasis added, 1990, p1)

The central issue to have evolved from this literature has been the effectiveness of incentives in both the domestic and international markets and the implications of 'government failure' and 'market failure'. Several writers in the neoclassical literature such as Lal (1983) and Krueger (1986) advocate a dominant role for the market and a minimal role for the government in the economy. The basis for this proposition evolved from the neoclassical literature on second-best welfare rules of the various aspects of benevolent policy making and several shortcomings associated with early development thinking, that the state had an unlimited scope in directing economic outcomes. However, inspite of shortcomings associated with early development thinking there are fundamental methodological problems associated with establishing an appropriate counter factual institution to replace the state. Shapiro and Taylor (1990) have indicated that the state has historically been a fundamental characteristic of economic progress. It is for these reasons that in the neoclassical economic literature that there are

inconsistencies associated with several propositions on the state's role, such as an instrument for information coordination and the governance of economic rules.

In contrast to these positions, the structuralist models articulate several useful propositions on the effectiveness of foreign inflows in releasing the 'bottlenecks' that affect potential growth rates. Generally, the structuralist literature indicate that changes in output response can be derived from investment, and the role of income distribution policy in sustaining the development process. According to the structuralist economic literature, income distribution policy should be influence by the effects of the operative constraint, whereby:

(a) in cases where the savings constraint is binding the marginal savings propensity is expected to be positively related to real income levels. Then, with all other conditions held constant economy-wide, the potential growth rate is expected to improve in the longer term. In the short term, the effect can be cancelled out if increased savings result from reductions in aggregate demand in the economy reflected in falling output levels and the possible exaggeration of supply problems. In each case the likely outcome leads towards a deterioration in balance of payments stability and the widening of the foreign exchange gap;

(b) in the case where the foreign exchange constraint is binding, the role of income distribution and wage demands, along with the behaviour of the wage goods sector and the luxury goods sector plays significant roles in the determination of outcomes in structuralist models. Therein, income distribution policies play an active role in the relaxation of the foreign exchange constraint, the accumulation process and the direction of development;

(c) in the case of the fiscal constraint being operative, direct limitations are usually imposed on the use of income distribution policies since taxes are assumed to be rigid in most structuralist models. Hence, any fiscal redistribution in these models imply a trade-off between public investment contraction and increases in current expenditure budgets. These results often lead to reductions in the growth rate. However, these issues are complex and depends on the structure of the tax system. It is argued that income distribution policies lead to reduction in tax revenue and the further tightening of the fiscal constraint.

From these propositions discussed above all of the shocks affect the constraints differently in the structuralist models when compared with the orthodox approach. It is important to emphasise that a central feature of the orthodox approach relates to the assumption of pure competition as it characterises the industrial structure of developing countries. Structuralist analyses have questioned such assumption and postulate the alternative view that oligopolitic industrial structures characterise many developing economies. The implications of these assumptions in the analysis of adjustment mechanisms relates to the use of relative prices to correct the disequilibria gap. Structuralist analyses have indicated that the use of relative prices as an adjustment mechanism would entail some degree of inflation which is not a source of disequilibria but a cost in the adjustment phase, since relative price adjustments relate to changing supply conditions towards the attainment of some degree of competition. In addition, it should be re-emphasised that structuralist analyses generally view some degree of inflation as part of the short term adjustment exercise and advocate the targeting of the fiscal and savings

constraints towards assisting in the relaxation of the foreign exchange constraint, which is viewed as the principal obstacle towards the long term development of developing countries.

SECTION 3: Guyana's Adjustment Experience

3.1 Introduction

Guyana's adjustment experience is increasingly being viewed by the international donor community as a model of how a high debt-low income economy can get out of a crisis. Guyana has not only been an early recipient of the World Bank's Structural Adjustment Facility when it was introduced in 1981 , but recently it also became an early recipient of the Bilateral Donor Support Group formulated adjustment programme. This programme popularly known as the Economic Recovery Programme (ERP) was endorsed by the IMF, IBRD and IDB and implemented by the Guyana government in April, 1989. Although the conditions for its implementation appear necessary, indications are that sufficient finance was not guaranteed to bridge the gap between the internal and external imbalances. Significant external transfers have so far been allocated to reschedule outstanding debt through Paris Club arrangements and other associated debt reduction facilities. Nonetheless, the immediate impact of the ERP on necessary investment required for the rehabilitation of the dilapidated infrastructure and productive capacity appear wanting and highlight the vulnerability of the adjustment effort.

3.2 The Domestic Performance of the Economy

Tables 3 and 4 show the sluggish pattern of performance of the Guyanese economy. In the 1960's the period average percentage change of selected economic aggregates shows modest growth. The

Table 3: Selected Economic and Financial Performance Indicators 1970-89

(Average Annual Rates of Growth)

A:	Domestic Performance Indicators		1960-69	1970-79	1980-89	1990-92
	Gross National Product at Market Prices	% change	3.0	1.4	-4.2	n.a.
	Gross Domestic Product at Constant Market Prices	% change	2.9	0.9*	-2.4	8.8
	Consumption	% change	7.8	-1.0*	-2.4	5.4
	Gross Domestic Investment	% change	-1.3	-4.6	-4.9	-0.5
	Gross National Savings	% change	-6.6	0.2*	n.a.	-
	Government Deficit	% change	7.9	21.4	21.5	-
	Internal Debt	G$Mm	43.4	527.1	2964.6	-
	Money Supply Growth	% change	9.4	15.8	16.0	-
	Inflation Rate	% change	1.9	9.4	13.4	-
	Unemployment Rate	% change	16.0	20.0	n.a.	-
B:	**External Performance Indicators**					
	Export of Goods and Non Factor Services	% change	-3.1	-3.1	-3.0	19.3
	Import of Goods and Non Factor Services	% change	-5.4	-5.4	-3.8	11.3
	Outstanding External Debt	G$Mm	677.1	677.1	2005.7	-
	Debt Service Payment Arrears	G$Mm	7.0	7.0	364.9	-
	Balance of Trade	G$Mm	-33.5	-33.5	-105.4	-
	Gross International Reserves	G$Mm	6.6	6.6	-830.7	-
	Net Capital Inflows	G$Mm	79.9	79.9	10.1	-

* indicates that the data refers to the period 1973-80; 1980-88 respectively.

Source: World Bank (1985, 1989, 1992)

Table 3: Selected Economic and Financial Performance Indicators 1970-89

(Average Annual Rates of Growth)

A: Domestic Performance Indicators		1960-69	1970-79	1980-89	1990-92
Gross National Product at Market Prices	% change	3.0	1.4	-4.2	n.a.
Gross Domestic Product at Constant Market Prices	% change	2.9	0.9*	-2.4	8.8
Consumption	% change	7.8	-1.0*	-2.4	5.4
Gross Domestic Investment	% change	-1.3	-4.6	-4.9	-0.5
Gross National Savings	% change	-6.6	0.2*	n.a.	-
Government Deficit	% change	7.9	21.4	21.5	-
Internal Debt	G$Mm	43.4	527.1	2964.6	-
Money Supply Growth	% change	9.4	15.8	16.0	-
Inflation Rate	% change	1.9	9.4	13.4	-
Unemployment Rate	% change	16.0	20.0	n.a.	-
B: External Performance Indicators					
Export of Goods and Non Factor Services	% change	-3.1	-3.1	-3.0	19.3
Import of Goods and Non Factor Services	% change	-5.4	-5.4	-3.8	11.3
Outstanding External Debt	G$Mm	677.1	677.1	2005.7	-
Debt Service Payment Arrears	G$Mm	7.0	7.0	364.9	-
Balance of Trade	G$Mm	-33.5	-33.5	-105.4	-
Gross International Reserves	G$Mm	6.6	6.6	-830.7	-
Net Capital Inflows	G$Mm	79.9	79.9	10.1	-

* indicates that the data refers to the period 1973-80; 1980-88 respectively.

Source: World Bank (1985, 1989, 1992)

Table 4: Sectoral Composition Of Output, 1960-89

(Average Annual Percentages at 1977 Prices)

Year	Agriculture	Mining	Other	GDP
1960-66	0.6	8.8	0.4	3.2
1967-73	1.1	-0.8	0.4	2.5
1974-80	2.1	-2.7	0.3	2.0
1981-89	-1.0	-8.1	-0.1	-2.7
1960-89	**0.6**	**-1.5**	**0.2**	**0.9**

Source: World Bank (1992)

pattern of growth shown in table 4 highlight the variations in the sluggish performance of the economy. The period 1960-80 shows positive levels of output growth as a result of the relatively strong performances of the major sectors in the economy and an increasing inflow of foreign capital. The sectoral composition in output growth shown in table 4 shows the declining contribution of the mining sector, particularly the bauxite industry to the economy. On the other hand, the agricultural sector contribution was relatively modest over the period 1960-1980 but declined significantly thereafter. The general trend has been that the economy grew modestly until the mid 1970's, experiencing an annual average growth rate of 3.6% between 1970-74, even in light of the 1973-74 oil crisis. The major source of these performances is attributable to the boom in the international commodities market for Guyana's main exports of sugar, rice and bauxite-alumina. After 1974, a series of dramatic negative performances unfold in the economy. The mining sector decline averaged 2.7% per annum over the period 1974-80 and 8.7% over the period 1981-89. The agricultural sector showed moderate growth rates of 2.1% over the period 1981-89. Thomas (1982, 1988) has attributed these declines to the government's nationalist experiment of "co-operative socialism" which advocated four principal policy actions, namely:

1) the expansion of the public sector through state ownership of the "commanding heights" of the economy.

2) the pursuit of a basic needs strategy based on the ambiguous idea that the profit motive should be substituted with the social goal of making the "small man a real man."

3) the introduction of the political doctrine of "party paramountcy" where the People's National Congress (PNC) was to be paramount over all organs of the state and social life of the country.

4) the economic idea of self-sufficiency and self-reliant growth through increased production and productive use of the resource base of the country.

These policies led to the selection of party personnel with limited technical "know-how" to manage the wide range of public enterprises. Moreover, the development strategy provide the scope for nepotism, corruption, poor industrial relations and the migration of skilled manpower from the country. This situation cumulated into the decline of output, the deterioration of the balance of payments, the debt crisis and the other associated problems that evolved in the economy as shown in Table 3.

3.3 The External Performance of the Economy

The economy experienced serious balance of payments difficulties since the mid-1970's. In the period 1970-75 the current account recorded an average deficit of 6.4% of GDP, this rose to 33% over the period 1981-83 and 26% over the period 1984-1988. These are largely the results of the compression of imports and the contraction in exports in the 1980's. Until the mid 1970's the trade accounts were relatively balanced, with deficits averaging approximately 0.3% of GDP. However, in the second half of the 1970's the trade account showed deficits averaging 7% of GDP. This situation deteriorated further in the 1980's averaging 8% of GDP. Table 3 shows that in the 1960's the balance of trade

recorded an average positive balance of G$15.1 million per annum which declined in the 1970's and 1980's to -G$33.5 million and -G$105.4 respectively.

The capital account of the balance of payments is dominated by the government's inability to service the external debts contracted. Table 3 indicates outstanding external debts averaged approximately G$108.0 million per annum in the 1960's, which increased in the 1970's and 1980's to G$667.1 million and G$2005.7 million, respectively. The data in Table 3 also indicate the increasing trend in debt service payment arrears, which increase from an annually average G$6.6 million in the 1970's to G$364.9 million in the 1980's. These debts were not serviced in the 1980's and with the contraction in external capital inflows in the 1980's Guyana became illegible for external assistance. At the end of 1989 the total external public debt had reached approximately US$654 million. The latest available data indicate that government rescheduling through Paris Club arrangements amounted to US$630 million of US$1,050 million in external payments arrears at the end of 1989. (World Bank, 1992)

3.4 Adjustment and Investment Behaviour

The general consensus in the economic literature is that the external environment is in continuous motion and affecting the stimuli to adjust. Then, the process of adjustment depends on the structure, performance and conduct of policy in the economy. Using

the national income identity where external adjustment (defined as imports less exports plus net factor income) equate domestic adjustment (defined as total investment less national savings) can outline the nature of Guyana's adjustment experience. Then the relationship that evolved between investment and savings in this process can be evaluated.

Table 5 shows the relation that evolved between important aggregates which determined external and internal balances in the economy. The data indicate that the trade balance deteriorated significantly over time and that the economy had been unable to generate the resources required to absorb the interest payments on external debt obligations which are reflected in the net factor payments abroad. This crisis had deepened in the 1980's even in light of Fund-Bank assistance over the period 1977-87. The deterioration in the trade balance as reflected in Table 5, shows that national savings had to be diverted to offset outstanding debt obligations rather than the allocation requirements of the economy. From our discussion in Section 2, the investment - savings gap could be closed through increases in national savings, a reduction in investment or a combination of those two elements. Guyana's experience show that the latter approach evolved in the economy which manifested in the decline of the production capacity of economy. Moreover, when the data presented in Table 5 is subdivided into the period 1970-76 which covers the government's "socialist experiment" and the 1977-87 period which covers the

Table 5: Indicators of External and Domestic Adjustment 1970-92

(Percentages of GDP at Market Prices)

External Adjustment = Domestic Adjustment

Year	Imports of Goods & NFS M	Exports of Goods & NFS X	Trade Balance (M-X)	Net Factor Payment Abroad R	External Savings S_E	Total Investment I	National Savings S_N	Na as In
1970	57.0	56.4	0.6	7.7	8.3	22.7	14.4	
1971	54.7	58.4	-3.7	6.0	2.3	18.6	16.3	
1972	58.8	57.5	1.3	3.5	4.8	19.8	15.0	
1973	68.9	52.2	16.7	4.9	21.6	27.2	5.6	
1974	66.4	68.3	-1.9	5.9	3.8	26.4	22.6	
1975	74.9	74.9	0	3.6	3.6	33.1	29.5	
1976	91.0	66.1	24.9	8.7	33.6	43.3	9.7	
1977	78.8	63.2	15.6	6.8	22.4	32.3	9.9	
1978	63.1	63.1	0	6.4	6.4	21.9	15.5	
1979	69.2	59.8	9.4	5.8	15.2	37.5	22.3	
1980	93.6	81.3	12.3	9.5	21.8	32.8	11.0	
1981	92.3	68.9	23.4	10.9	34.3	31.4	-2.9	
1982	70.1	52.8	17.3	14.1	31.4	25.0	-6.4	
1983	64.6	45.9	18.7	14.7	33.4	21.4	-12.0	
1984	51.4	44.2	7.2	13.7	20.9	27.4	6.5	
1985	61.9	48.1	13.8	11.8	25.6	35.8	10.2	
1986	53.2	46.3	6.9	18.6	25.5	40.0	14.6	
1987	92.2	78.5	13.7	20.2	33.9	30.5	-3.4	
1988	68.3	63.6	4.7	16.2	20.9	21.5	0.6	
1989	85.6	76.9	8.7	15.8	24.5	34.2	9.7	
1990	95.1	78.3	16.8	16.1	32.9	42.3	9.4	
1991[P]	51.9	55.6	-3.7	28.7	25.0	25.0	0.0	
1992[P]	55.9	67.2	-1.4	21.2	19.8	22.5	2.7	

Note: [P] - preliminary estimate
Source: World Bank (1985, 1989, 1992); Statistical Bureau (1993)

implementation of various aspects of Fund-Bank market-oriented programme , the investment-savings gap increased dramatically in the latter period. The data in Table 5 are expressed as percentages of GDP and show that national savings declined from 14.4% of GDP in 1970 to 9.7% in 1976 and 2.7% in 1992. In 1970, national savings covered 63.15% of total investment and declined to 12.0% in 1992, averaging approximately 33% of total investment over the period 1970-92. Comparable averages for the decades of the 1970's and 1980's indicate average percentages of 57.55 and 13.88, respectively. These averages indicate that investment were increasingly financed by foreign savings.

Table 6 shows the relationship between national savings, net factor payment abroad and domestic savings. In addition, to reinforcing the arguments made above, this table shows the erratic behaviour of domestic savings which increased from 22.2% of GDP in 1970 to 33% in 1975 before declining to 2.7% in 1983 and recovering to approximately 25% in 1992. On the other hand, net factor payments showed an increasing trend. This stood at 7.7% of GDP in 1970, 8.7% in 1976 and 17.2% in 1992. These trends indicate the fragile nature of the domestic financial system and the inability of the central bank to influence developments in the economy.

Nonetheless, inspite of the developments, the net domestic assets of the banking system which in 1980 stood at approximately 75% of GDP, grew rapidly in the 1980's, reaching approximately 200%

Table 6: Domestic Savings, National Savings and Net Factor Payments

(Percentage of GDP at Market Prices: 1970-92)

Year	National Savings S_N	Net Factor Payments R	Domestic Savings S_D
1970	14.4	7.7	22.2
1971	16.3	6.0	22.4
1972	15.0	3.5	18.5
1973	5.6	4.9	10.5
1974	22.6	5.9	28.3
1975	29.5	3.6	33.0
1976	9.7	8.7	16.4
1977	9.9	6.8	16.8
1978	15.5	6.4	21.9
1979	22.3	5.8	28.1
1980	11.0	9.5	20.4
1981	-2.9	10.9	8.0
1982	-6.4	14.1	7.7
1983	-12.0	14.7	2.7
1984	6.5	13.7	20.2
1985	10.2	11.8	22.0
1986	14.6	18.6	33.2
1987	-3.4	20.2	16.8
1988	0.6	16.2	16.8
1989	9.7	15.8	26.6
1990	9.4	16.1	25.5
1991[p]	0.0	28.7	28.7
1992[p]	2.7	21.2	23.9
Averages	**at Current 1980**	**Prices**	
1973-80	85.5	-0.2	85.2
1980-87	61.5	-33.2	32.2

Note: [p] - preliminary estimates
Source: World Bank (1985, 1989, 1992); Statistical Bureau (1993)

of GDP at the end of 1989. This situation highlights one of the principal findings of the WIDER studies [F] which indicate that there is often a high degree of liquidity in the domestic financial system of many developing countries pursuing Fund-Bank adjustment programmes. This level of liquidity often imposes pressure on the nominal interest rate to fall and in turn accelerate the level of instability in the economy. In the case of Guyana, the banking system's liquidity were 50% higher than the systems liabilities to the private sector. Further, the government import deposit scheme introduced in 1978, where private enterprises wishing to import had to deposit local currency equivalent to the required foreign exchange with the central bank, also played a role in this process. The central bank had been unable to convert these funds because of foreign exchange shortages. Simultaneously, there were dramatic increases in the system's net international reserve liabilities which increased from 15% of GDP in 1980 to approximately 300% at the end of 1989.

Another important feature of the adjustment process over the period 1970-92 relates to the composition of total savings, investment and consumption. Tables 7, 8 and 9 shows the changes in the public and private components of these aggregates and the changes in national and external savings over the period. Government savings declined dramatically throughout the period from 0.6% of GDP in 1970 to -11.5% in 1992. These trends in tables 7 and 8 highlight some elements of the fundamental problems

Table 7: Relative Growth of Banking System Indicators

	1979 Percentage of GDP	Indices - 12/79=100					1989 Percentage of GDP
		1981	1983	1985	1987	1989	
Net International Reserves	-15	-245	-490	-981	-2,991	-10,460	-294
Net Domestic Assets	75	167	295	432	662	1,175	161
Public Sector Credit (net)	66	171	310	490	727	1,043	125
Central Government (net)	56	157	295	482	880	1,323	135
Private Sector Credit (net)	12	161	232	320	606	1,577	35
Narrow Money Supply (M1)	19	125	177	267	455	951	33
Broad Money Supply (M2)	49	136	202	289	460	949	85
GDP (current prices)	100	120	109	149	255	548	100

Source: Bank of Guyana (1993)

Table 8: Indicators of National and External Savings: 1970-92

(Percentages of GDP at Market Prices)

Year	Private Savings S_P	General Government Savings S_G	National Savings S_N	External Savings S_E	Aggregate Savings (Total Investment) I
1970	22.1	0.6	14.4	8.3	22.7
1971	18.9	-0.3	16.3	2.3	18.6
1972	17.5	2.3	15.0	4.8	19.8
1973	31.9	-4.7	5.6	21.6	27.2
1974	18.8	7.6	22.6	3.8	26.4
1975	16.0	17.1	29.5	3.6	33.1
1976	39.5	3.8	9.7	33.6	43.3
1977	34.7	-2.4	9.9	22.4	32.3
1978	25.2	-3.3	15.5	6.4	21.9
1979	37.5	0.0	22.3	15.2	37.5
1980	38.7	-5.9	11.0	21.8	32.8
1981	43.7	-12.3	-2.9	34.3	31.4
1982	42.3	-29.3	-6.4	31.4	25.0
1983	54.3	-35.2	-12.0	33.4	21.4
1984	56.6	-29.2	6.5	20.9	27.4
1985	62.5	-26.7	10.2	25.6	35.8
1986	73.8	-33.7	14.6	25.5	40.1
1987	67.8	-37.8	-3.4	33.9	30.5
1988	-4.8	26.3	0.6	20.9	21.5
1989	3.9	30.3	9.7	24.5	34.2
1990[P]	70.9	-28.6	9.4	32.9	42.3
1991[P]	45.3	-20.3	0.0	25.0	25.0
1992[P]	34.0	-11.5	2.7	19.8	22.5

Note: [P] - preliminary estimates
Source: World Bank (1985, 1989, 1992); (IADB, 1993); Statistical Bureau (1993)

TABLE 9: INVESTMENT, CONSUMPTION AND THEIR COMPONENTS: 1970-1992
(Percentages of GDP at Current Prices)

Activities	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total Investment	22.8	18.6	19.8	27.2	26.4	33.1	41.3	32.3	21.9	37.5
Public Investment	10.2	11.7	12.2	16.5	14.1	23.6	27.4	20.5	15.4	19.6
Private Investment	10.8	6.5	5.8	7.5	6.7	5.9	10.1	8.6	5.1	11.4
Variation in Stock	1.7	0.4	1.8	3.2	5.7	3.6	3.8	3.2	1.4	6.5
Total Consumption	77.8	77.6	81.5	89.5	71.7	67.0	83.6	83.2	78.1	71.9
Public Sector	17.0	18.9	19.5	24.8	17.0	19.6	28.2	25.8	23.3	26.2
Private Sector	60.8	59.6	62.0	64.7	54.7	47.4	55.4	57.4	54.7	45.7

(TABLE 9 : CONTINUED)
Averages - 1980 Conditions Prices - % per annum

Activities	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991_p	1992_p	1973-80
Total Investment	31.4	25.0	21.4	27.4	35.8	40.1	30.5	21.5	34.2	42.3	35.3	31.7	-4.6
Public Investment	22.6	20.8	17.3	22.6	21.1	24.7	27.1	18.4	16.4	22.3	19.6	17.0	n.a
Private Investment	6.9	4.1	4.1	4.8	8.8	9.1	3.4	3.1	17.8	20.0	15.7	14.7	n.a
Variation in Stock	1.9	0.1	0.0	0.0	5.9	6.3	0.0	0.0	0.0	0.0	0.0	0.0	-
Total Consumption	92.0	92.3	97.3	79.8	78.9	66.8	83.2	83.2	74.4	74.5	67.0	65.4	0.0
Public Sector	29.1	25.8	27.1	18.1	18.1	31.5	28.3	28.1	16.5	13.6	55.2	57.8	4.8
Private Sector	63.0	66.5	70.2	61.7	59.9	35.3	31.1	32.1	24.8	24.8	11.8	11.8	-2.1

Note: $_p$ - preliminary estimates
Source: World Bank (1985, 1989, 1992)

associated with the management of the economy. As discussed earlier, the dominant role of the public sector in the economy and the declining trend in national savings were largely due to the poor performance of the public sector, particularly the state control bauxite-alumina industry and the sugar industry. These two state controlled enterprises recorded massive deficits in the 1980's. A second major contributory factor to the deterioration in government savings had been the mismanagement of the "fiscal constraint" facing the government. As discussed in section 2, the lack of internal finance often imposes on governments of developing countries to borrow funds to finance investment opportunities. In the case of Guyana, the government was borrowing funds to finance its internal debt obligations. Thomas (1982, 1988) suggest that these condition contributed significantly to the decline in consumption and investment as shown in Table 9 and the rise of the "under-ground economy" in Guyana. The data in Table 9 indicate that major reductions took place in the private sector. Total investment at 1980 constant prices declined from an annual average -1.3% over the period 1965-73 to -4.9% over the period 1980-87 while total consumption declined from an annual average 6.9% over the period 1965-73 to -3.4% over the period 1980-87.

More importantly, these trends do not follow any uniform pattern inspite of the dominant position of the public sector in the economy. This suggest the non existence of any explicit investment policy towards the public sector and the national

economy inspite of the clustering of private sector investment between 6% and 5% of GDP at current prices. The general tendency from these trends suggest that because the public sector is dominant in the Guyanese economy, it automatically 'crowds out' private sector activity as advanced by the IMF-World Bank group. However, the unavailability of adequate data restrict our analysis on the pattern of investment on the public and private sectors in the economy. Inspite of these limitations a preliminary analysis on the significance and consequences of public sector investment behaviour would be pursued below.

3.5 A Preliminary Analysis of Investment Behaviour: 1970-92

Two major objectives of the ERP in improving the domestic investment climate of Guyana are to attract domestic and foreign investment and to increase the level of domestic savings. To enhance this process the Government of Guyana is still in the process of formulating a public investment programme with the assistance of the IMF, IBRD and IDB. Expectations are that the public sector's role would be perceived as the facilitator to the private sector, through the provision of the infrastructure rehabilitation programme and the government privatisation programme. However, cognisance ought to be taken of the limitations of the last government's experience. Under the previous administration, the State Planning Secretariat failed to design any reliable information system for assessing the impact of economic policies on the economy. Rather this agency had been

Table 10: Central Government: Capital Expenditure

Year	Total	ECONOMIC SECTOR					SOCIAL SECTOR			
		Agri-culture	Commun-ications	Forestry	Public Works	Credits	Education	Health	Housing	Other
1958	19,881	7,716	4,274	647	2,965	156	306	184	3,131	502
1959	18,998	8,692	3,985	722	3,477	-	357	269	972	524
1960	15,801	6,129	2,593	740	3,972	718	398	322	582	347
1961	21,660	6,456	1,817	566	6,926	2,877	723	408	843	1,044
1962	19,387	8,396	4,959	59	969	872	1,432	285	689	1,726
1963	12,147	6,485	1,370	56	809	1,513	417	346	243	908
1964	9,570	5,268	1,047	58	1,472	612	240	404	74	395
1965	24,060	6,936	6,682	102	3,365	4,395	765	681	668	466
1966	36,386	5,913	10,402	859	6,870	8,591	997	626	1,298	830
1967	41,317	3,601	13,275	2,427	7,667	9,747	2,370	389	867	974
1968	39,652	4,250	17,142	2,493	9,705	1,803	2,438	257	293	1,271
1969	44,943	6,885	14,758	490	10,814	2,446	4,697	247	364	4,242
1970	52,129	15,105	15,298	475	7,637	4,162	4,617	506	1,114	3,215
1971	60,808	12,749	12,488	18	14,150	4,078	5,483	162	167	11,513
1972	56,387	12,725	5,092	221	12,466	10,265	4,361	379	561	10,317
1973	83,245	26,120	14,572	281	10,021	10,528	9,312	990	411	11,010
1974	104,392	20.876	21,799	195	14,872	9,435	13,148	253	258	24,601
1975	351,474	42,602	48,027	1,923	38,112	13,899	19,384	7,090	10,154	170.283
1976	[illegible]	45,714	66,724	454	103,497	19,097	7,347	[illegible]	11,517	[illegible]
1977	150,889	[illegible]	38,013	221	[illegible]	[illegible]	[illegible]	[illegible]	2,676	[illegible]
1978	114,815	[illegible]	28,557	604	33,335	3,234	4,329	[illegible]	1,950	[illegible]
1979	207,002	[illegible]	[illegible]	1,778	[illegible]	[illegible]	[illegible]	[illegible]	3,226	[illegible]
1980	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1981	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1982	790,474	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
1983	275,548	70,552	2,523	-	19,157	84,740	15,309	[illegible]	-	[illegible]
1984	309,614	74,528	5,439	-	24,775	107,455	13,269	13,157	-	70,991
1985	409,804	123,476	10,454	49	25,264	124,367	22,966	8,657	-	94,571
1986	1,221,566	120,234	7,619	-	37,057	967,614	17,200	2,713	-	69,129
1987	582,584	257,593	16,895	13	41,571	140,928	36,887	3,821	-	84,976
1988	949,308	136,328	29,795	39	56,299	523,324	25,690	6,070	988	170,775
1989	1,307,168	306,584	163,917	-	71,128	501,155	23,518	8,728	1,998	230,140
1990P	3,577,530	311,450	12,340	-	102,858	n.a.	10,562	7,138	621	193,089
1991P	525,296	65,370	17,798	-	61,113	n.a.	18,516	14,041	1,320	347,138
1992P	517,431	73,931	34,743	-	72,215	n.a.	47,265	65,006	2,950	221,321

Note: P - preliminary estimates
Source: Bank of Guyana 1989 Annual Report, Government of Guyana Estimates.

oriented towards operative functions. As a result, investment decisions were determined on an annual basis through the government budget.

For the Guyanese economy which has experienced a cumulative decline for almost two decades, the formulation, co-ordination and implementation of an appropriate Public Sector Investment Programme (PSIP) is a sine quo non for sustainable economic growth. Table 10 shows the pattern of government capital expenditure over the period 1970-92, which reinforces our argument that there were no clearly defined strategy towards the critical task of mobilising resources for development. Two striking features evolved from this table. Firstly, the manufacturing sector which is identified as the hub of any development process is neglected. Secondly, there is the unfortunate situation that arise where there are the accumulation of a large volume of unused resources acquired to rehabilitate the dilapidated economic and social infrastructure and productive capacity is recorded as credits. The lag in the execution of these projects raises questions of the inability of the government to motivate the private sector as an engine of sustainable economic growth.

3.6 Specification of a private sector investment function.

The historical neglect of the private sector and the unavailability of suitable data on the sectoral pattern of investment behaviour in Guyana limits our modelling exercise on

this critical function. Nevertheless, a preliminary approach would be adopted which focuses on the specification of a general private sector investment function of the economy. In pursuing this exercise, some attempt would be made to assess the potential impact of the policies adopted by the government and its effects on the investment behaviour of the public and private sectors. The analysis is based on the specification of the private sector investment function as:

$$I_p = a_o + a_1, I_{St-1} + a_2 I_{PE-1} + a_3 T; \ldots\ldots\ldots (1)$$

$$a_o > 0;\ a_2;\ a_3;\ a_4 > 0.$$

where I_p represents the private sector share in total investment. I_{Pt-1} represents the lag in private sector investment as a result of decision making in the public sector.

I_{gt-1} represents the public sector share of investment in total investment lagged by one year. The justification for this lag is based on the assumption that investment decisions taken by the government are largely for short-term infrastructural works which accommodate private sector participation within a one year period. T represents the net domestic transfer of resources from the private sector to the public sector.

The values in the model are expressed as percentages of GDP to capture their effects on the economy, while a_0, a_1, a_2, and a_3 are the estimates for the intercept term and the effects of 'crowding out' on the economy. In addition, to evaluating investment behaviour over the period 1970-92, an attempt would be made to

model the effects of policy during "cooperative socialism" and the liberalisation efforts of the Fund-Bank programmes. Then the specification stated at (1) above would be disaggregated into the sub-components, namely

$$I_p cs + a_0 + a_1 I_{gt-1}^{cs} + a_2 I_{PE-1}^{cs} + a_3 T^{cs} \quad ....(2)$$

$$a_0;\ a_1,\ a_2,\ a_3 > 0$$

which covers the period of 'co-operative socialism', 1970-77, and

$$I_p^{LF} = a_0 + a_1 I_{gt-1}^{LF} + a_2 I_{pt-1} LF + a_3 T^{LF} \quad .... \quad (3)$$

which accounts for the period of Fund-Bank liberalisation efforts 1978-1992.

The regression results are reported in table 13 based on the data presented in tables 11 and 12 calculated from the national income data. The regressions are based on OLS regressions without any attempt being made to net out potential external effects such as interest rate and exchange rate variations in investment decisions. The result for the period 1970-92 indicate no significant 'crowding out' nor 'crowding in' occurred. The statistics and estimated coefficient of I_{st-1} and T displayed the signs advocated in the economic literature and show that a 1% increase of public sector investment in GDP in any given year during the period result in a 0.04% reduction share of private sector investment in GDP. On the other hand, a 17% increase of net domestic resource transfers in GDP to the Public Sector from the private sector 'crowds out' private sector investment by

Table II. Financing of Public Sector Investment: 1970-89

(Percentage of GDP at Current Prices)

Year	Government Savings Sg	Net Capital Inflows to the Government Kg	Transfers from Private Sector to Public Sector T	Total of Government Investment Ig
1970	0.6	3.5	6.0	10.2
1971	-0.3	16.2	-14.2	11.7
1972	2.3	2.9	7.0	12.2
1973	-4.7	5.0	16.2	16.5
1974	7.6	5.3	1.2	14.1
1975	17.1	5.5	1.0	23.6
1976	3.8	3.8	19.8	27.4
1977	-2.4	7.9	15.0	20.5
1978	-3.3	8.0	10.7	15.4
1979	0.0	5.1	14.5	19.6
1980	-5.9	5.6	22.4	22.1
1981	-12.3	19.9	15.0	22.6
1982	-29.3	9.1	41.0	20.8
1983	-35.2	8.2	44.3	17.3
1984	-29.2	4.6	47.2	22.6
1985	-26.7	2.9	44.9	21.1
1986	-33.7	5.2	53.2	24.7
1987	-37.8	2.9	62.0	27.1
1988	26.3	-4.0	-3.9	18.4
1989	30.3	3.1	-17.0	16.4
1990[P]	-28.6	17.4	33.5	22.3
1991[P]	-20.3	15.7	24.2	19.6
1992[P]	-11.5	2.7	25.8	17.0

Note: [P] - preliminary estimates

Source: Based on calculations from Tables 4-5, 4-6, 4-7, 4-8 and 4-9

Table 1: Public and Private Investment and Transfers: 1970-92

(Percentage of GDP)

Year	Private Sector Investment Ip	Public Sector Investment Ig	Transfers from Private Sector to Public Sector T
1970	10.8	10.2	6.0
1971	6.5	11.7	-14.2
1972	5.8	12.2	7.0
1973	7.5	16.5	16.2
1974	6.7	14.1	1.2
1975	5.9	23.6	1.0
1976	10.1	27.4	19.8
1977	8.6	20.5	15.0
1978	5.1	15.4	10.7
1979	11.4	19.6	14.5
1980	7.6	22.1	22.4
1981	6.9	22.6	15.0
1982	4.1	20.8	41.0
1983	4.1	17.3	44.3
1984	4.8	22.6	47.2
1985	8.8	21.1	44.9
1986	9.1	24.7	53.2
1987	3.4	27.1	62.0
1988	3.1	18.4	-3.9
1989	17.8	16.4	-17.0
1990[P]	20.0	22.3	33.5
1991[P]	15.7	19.6	24.2
1992[P]	14.7	17.0	25.8

Note: [P] - preliminary estimates

Source: Based on calculations from Tables 4-5, 4-6, 4-7, 4-8 and 4-9

Number of observations: 22

VARIABLE	COEFFICIENT	STD. ERROR	T-STAT.	2-TAIL SIG.
C	5.3623007	4.2712382	1.2554441	0.225
PUBI(-1)	-0.0419612	0.2060353	-0.2036605	0.841
PRIVI(-1)	0.5887239	0.2006261	2.9344333	0.009
TRANS	-0.0435013	0.0468893	-0.9277444	0.366

R-squared	0.342891	Mean of dependent var	8.590909
Adjusted R-squared	0.233372	S.D. of dependent var	4.787475
S.E. of regression	4.191782	Sum of squared resid	316.2787
Durbin-Watson stat	1.628573	F-statistic	3.130899
Log likelihood	-60.53804		

LS // Dependent Variable is PRIVI
Date: 11-15-1993 / Time: 22:31
SMPL range: 1971 - 1977
Number of observations: 7

VARIABLE	COEFFICIENT	STD. ERROR	T-STAT.	2-TAIL SIG.
C	3.8414067	3.4136778	1.1252985	0.342
PUBI(-1)	0.1090884	0.1547153	0.7060031	0.531
PRIVI(-1)	0.1680611	0.4843566	0.3468348	0.752
TRANS	0.0751244	0.1146732	0.6551176	0.559

R-squared	0.584392	Mean of dependent var	7.428571
Adjusted R-squared	0.168784	S.D. of dependent var	1.718249
S.E. of regression	1.566546	Sum of squared resid	7.362200
Durbin-Watson stat	2.910047	F-statistic	1.406113
Log likelihood	-10.10914		

LS // Dependent Variable is PRIVI
Date: 11-15-1993 / Time: 22:24
SMPL range: 1978 - 1992
Number of observations: 15

VARIABLE	COEFFICIENT	STD. ERROR	T-STAT.	2-TAIL SIG.
C	23.002354	6.4501405	3.5661788	0.004
PUBI(-1)	-0.7960649	0.2927791	-2.7189946	0.020
PRIVI(-1)	0.5894581	0.1763921	3.3438344	0.007
TRANS	-0.0910100	0.0441134	-2.0630940	0.064

R-squared	0.698426	Mean of dependent var	9.133333
Adjusted R-squared	0.616178	S.D. of dependent var	5.667787
S.E. of regression	3.511384	Sum of squared resid	135.6280
Durbin-Watson stat	1.201687	F-statistic	8.491756
Log likelihood	-37.79307		

approximately -0.04%, and net out each other. These results do not support the suggestion that the public sector investment 'crowds out' or 'crowds-in' private sector investment.

Secondly, when the regressions are disaggregated into the two periods to assess the effects of policy. The results for the period 'cooperative socialism', 1971-77 displayed the signs advocated in the economic literature and produce similar results as equation(1). The estimators of I_{SE-1}^{cs} showed a 1% increase of public sector investment in GDP result in a 0.11% increase in private sector investment, while the domestic resource transfer leads to a 0.1% crowding out of private investment. These results are statistically significant. In contrast, for the period 1978-92 when the government adopted various policy measures advocated by the Fund-Bank adjustment programme. The estimated coefficients of I_{gt-1}^{LF} and T^{LF} in addition to displaying the signs advocated in the economic literature indicate that a 1% increase of public sector investment in GDP result in 0.80 reduction of private sector investment. The resource transfers effect is negligible and shows a negative sign. These results indicate different degrees of interaction between these two sectors over different periods and the results of changes in policy.

Nevertheless, these results are general and should not be taken as conclusive for several reasons. First, the public sector still maintains its dominance in the economy and there are

significant transfers of external sources from the private sector to the public sector. Secondly, the economy has experienced a cumulative decline over the period covered in this exercise. Thirdly, although the adjusted R squared statistic for all the equations are relatively stable they do not account for external influences on private sector investment behaviour such as interest rate and exchange rate changes, external capital flows and retained earnings among other factors. Fourthly, the DW statistic performs well, but cation ought to be taken in interpreting the results, since the existence of lagged regressions in the equations can bias the results. Finally, the limitations of data availability and quality limit the number of regressions in the estimation exercise and this undermine the results presented in table 13. Inspite of these shortcomings, the most significant result of this exercise is that the size of the public sector and the decision-making process per se does not imply 'crowding in' or 'crowding out' of private sector investment opportunities. Rather, these crude estimates indicate that the driving force of investment in the performance of the economy.

SECTION 4: Some Concluding Remarks

There is no general standardised path to development which can be applied uniformly to all countries. The adjustment experiences of developing countries over the last decade have demonstrated the unevenness and high social costs associated with Fund-Bank adjustment programmes. The Guyanese experience suggests that the

limit to investment resides in the structure and conduct of policy in the economy rather than any scarcity of finance. The evidence indicates that even with access to an abundance of finance in the early 1970s and more recently, in the excess credits available in the government's capital accounts, the government is restricted by the domestic resource availability and capacity of the institutional setting to implement policy. What is required are clearly defined criteria that establish the intersectoral priorities of 'on-going' projects and the desire for new projects. These tasks in turn require the designing of a clearly defined industralisation programme. It is in this process that the links between institutions, policies and sectors can be firmly established. Perhaps, it is appropriate the conclude by quoting from the Commonwealth Advisory Group 1989 report which the Guyana Parliament endorsed in 1990. The report claims that:

> "... To succeed, governments must have a clear vision of where they want to go and the people of how to get there. They must also be able to mobilise scarce technical and financial assistance towards the achievement of that goal and the programme of adjustment must enjoy broad public support..."(1989, pp4.5).

CHART 1 - INVESTMENT BEHAVIOUR 1971-92

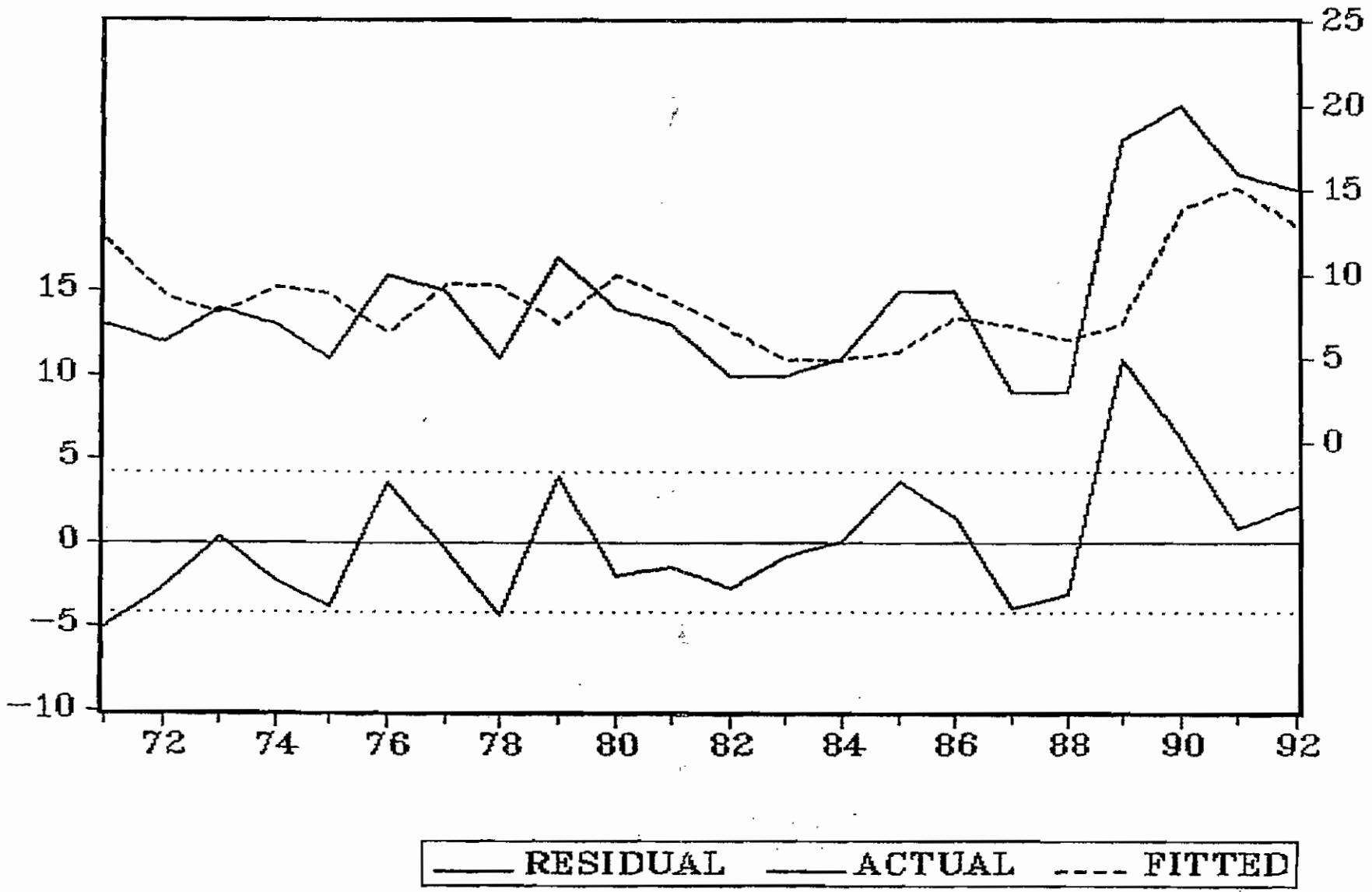


CHART 2 - INVESTMENT BEHAVIOUR 1971-77

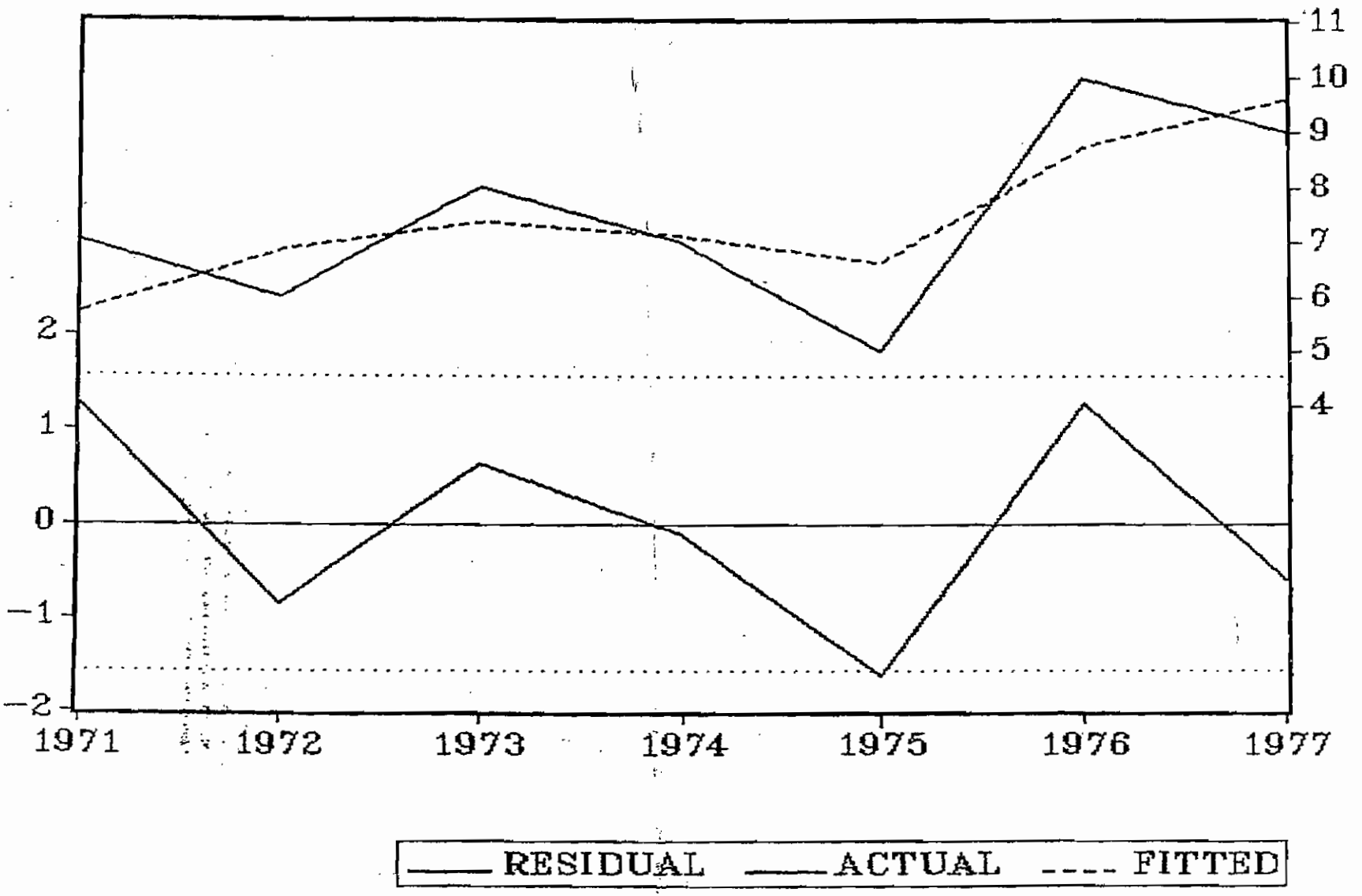
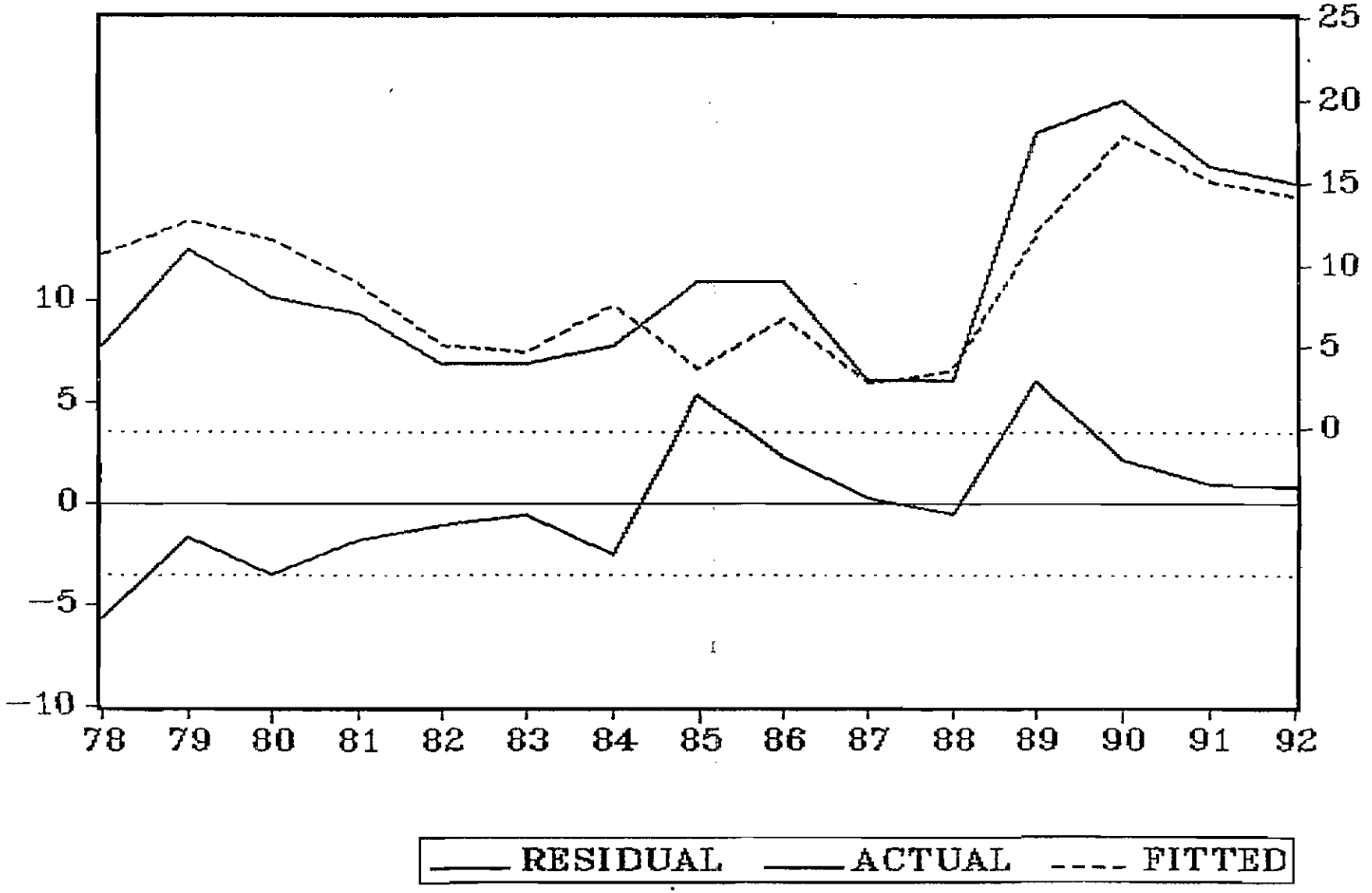


CHART 3 - INVESTMENT BEHAVIOUR 1978-92



Bacha, E L (1984) "Growth With Limited Supplies of Foreign Exchange: A Reappraisal Of The Two Gap Model," in M Sysquin, L Taylor and L Westphal (eds) **Economic Structure And Performance, Essays In Honour of H B Chenery**, New York: Academic Press.

Bacha, E L (1990) "A Three Gap Model Of Foreign Transfers And The GDP Growth Rate In Developing Countries," **Journal of Development Economics**, Vol 32, pp 279-296.

Blejer, M and Khan, M (1984) "Government Policy And Private Investment In Developing Countries," **IMF Staff Papers**, Vol 31, No 2, pp 379-403.

Bliss, C (1989) "Trade And Development", in H B Chenery and T N Srinivasan (eds) **Handbook Of Development Economics**, Vol II, North-Holland: Elservia Science Publishers BV.

Commonwealth Advisory Group (1989) **Guyana: Economic Recovery Programme And Beyond**, London, August.

Dornbusch, R (1982) "Stabilisation Policies In Developing Countries - What Have We Learned?," **World Development**, Vol 10, No 9, pp 701-708.

Dornbusch, R (1991) "Policies To Move From Stabilisation To Growth" in **The Proceedings Of The World Bank Annual Conference On Development Economies, 1990**, Washington DC: The World Bank.

Dutt, A K (1984) "Stagnation, Income Distribution And Monopoly Power," **Cambridge Journal Of Economics**, Vol 8, pp 25-40.

Erb, R D (1986) "Adjustment, Growth And The Fund's Role," **Finance And Development**, Vol 23, No 1, March, pp 2-5.

Guitián, M (1989) "Adjustment And Economic Growth: Their Fundamental Complementarity," in V Corbo, M Goldstein and M Khan (eds) **Growth Oriented Adjustment Programmes**, Washington DC: IMF/World Bank, pp 63-94.

Harrigan, Jane (1991)

Inter-American Development Bank — **Annual Report**, 1985 and 1993, IADB, Washington DC.

International Monetary Fund (1987) — **Theoretical Aspects Of The Design Of Fund-Supported Adjustment Programmes**, Washington DC, September.

Khan, M S (1989) — "Macroeconomic Adjustment In Developing Countries: A Policy Perspective," **World Bank Research Observer**, Vol 2, January, pp 23-42.

Khan, M S (1990) — "Macroeconomic Effects Of Fund-Supported Adjustment Programmes," **IMF Staff Papers**, Vol 22, No 2, pp 195-231.

Khan, M S and Montiel, P J (1989) — "Growth-Oriented Adjustment Programmes: A Conceptual Framework," **IMF Staff Papers**, Vol 36, No 2, June, pp 279-306.

Khan, M S, Montiel, P J, and Haque, N H (1990) — "Adjustment With Growth: Relating The Analytical Approaches Of The IMF and The World Bank," **Journal of Development Economics**, Vol 32, pp 155-179.

Killick, T (1987) — "Unsettled Questions About Adjustment With Growth," in UNCTAD (ed) **International Monetary And Financial Issues For The Developing Countries**, Compendium of Studies, New York: United Nations, pp 207-258.

Lewis, A W (1958) — "Economic Development With Unlimited Supplies Of Labour," in A M Agarwala and S P Singh **The Economics of Underdevelopment**, London: Oxford University Press.

de Melo, J and Faini, R (1990) — "Adjustment, Investment And The Real Exchange Rate In Developing Countries," **Economic Policy**, October.

Montiel, P J (1990) — "Orthodox Models For Adjustment And Growth," Ld'A-BEH, **International Development Centre, University of Oxford, Development Studies Working Papers**, No 28, September.

Pastor, H (1987)

Reinhart, C M (1991) "A Model of Adjustment and Growth: An Empirical Analysis" in M S Khan et. al. (eds) **Macroeconomic Models For Adjustment In Developing** Countries, IMF, Washington.

Ricardo, F, de Melo, J Senhadji-Semlali, A, and Stanton, J (1989) "Growth-Oriented Adjustment Programmes: A Statistical Analysis," Ld'A-QEH, **International Development Centre, University of Oxford, Development Studies Working** Papers, No 14, September.

Robinson, Sherman (1991) "Sources of Growth in Less Developed Countries: A Cross-section Study," **Quarterly Journal of Economics**, August, pp 391-408.

Shapiro, H and Taylor, L (1990) "The State And Industry," **World Development**, Vol 16, No 6, pp 861-878.

Tanzi, V (1990) "Fiscal Issues In Adjustment Programmes In Developing Countries," Ld'A-QEH, **International Development Centre, University of Oxford, Development Studies Working Papers**, No 26, September.

Taylor, Lance (1983) **Structuralist Macroeconomics: Applicable Models For The Third** World, New York: Basic Books Inc Publishers.

Taylor, Lance (1990) "Foreign Resource Flows And Developing Country Growth: A Three Gap Analysis," Chapter 3 in Desmond F McCarthy (ed) **Problems Of Developing Countries In The 1990's,** Vol 1 - **General Topics**, World Bank Discussion Papers, No 97, Washington DC: The World Bank.

Taylor, Lance (1991a)

Taylor, Lance (1991b) **Varieties of Stabilisation Experience, Towards Sensible Macroeconomics In The Third World,** Oxford: Clarendon Press.

Thomas, Clive Y (1982) **Income Distribution, Inflation, And Growth, Lectures On Structuralist Macroeconomics Theory,** Massachusetts: The MIT Press.

Thomas, Clive Y (1988)

Vines, David (1990) "Growth-Oriented Adjustment Programmes: A Reconsideration," **Centre For Economic Policy Research** (CEPR), Discussion Paper Series, No 406, March, London.

Williamson, John (1987) "Comments" in V Cordo, M Goldstein and M Khan (eds) **Growth Oriented Adjustment Programmes**, Washington DC: IMF/World Bank, pp 87-104.