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**MACRO-ECONOMIC ADJUSTMENT, UNCERTAINTY AND DOMESTIC PRIVATE
INVESTMENT IN SELECTED AFRICAN COUNTRIES**

BY

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I. INTRODUCTION

During the late 1970s and early 1980s, many African countries embarked on economic policy reforms and adjustment programmes to correct macroeconomic imbalances, short-term internal disequilibria, and to meet the challenge of restoring long term economic growth.

Adjustment policies to restore macroeconomic balances focused on bringing the level of aggregate demand and its composition into line with the level of aggregate output and available resources. The key areas of macroeconomic policy stabilization are fiscal and credit restrictions.

In addition to demand-management policies, comprehensive supply-enhancing policy instruments have been initiated in many African countries since the late 1970s and early 1980s. The most common structural and sectoral reforms areas include: exchange rate and trade policy, agricultural policy, public enterprise reforms, and tax and expenditure policy. The focus, in the longer term, of the adjustment programmes adopted by these countries is on creating more appropriate incentives and the framework for domestic private sector development as the basis for achieving sustained growth.

However, restoring private investors' confidence poses a major challenge to African governments as the structural adjustment and policy reform efforts of most African countries have not been matched by a sufficient recovery of private investment. Private investment response remains weak and inevitably lags even when considerable progress has been made in reducing policy distortions, in correcting internal and external imbalances, and in restoring short-term growth. Without an adequate recovery of private investment, a sustained medium-to-longer term economic growth may be jeopardized. Thus, the sustainability of adjustment efforts in the region may be endangered.

II. MACROECONOMIC ADJUSTMENT IN SELECTED AFRICAN COUNTRIES: AN OVERVIEW

This section provides an overview of adjustment policies and macroeconomic performance in selected African countries. The discussion on macroeconomic adjustment and performance in the selected African countries draws on World Bank (1990C). This study only provides a macroeconomic view of the countries. The distributional effect of adjustment policies is beyond the scope of this paper. Table 1 presents data on key indicators of macroeconomic performance for eight African countries from 1970-1988. The countries consist of middle income countries: Morocco, Mauritius, Tunisia and Cameroon with average per capita GNP above US\$700 in 1988; and low income countries: Kenya, Malawi, Tanzania and Zimbabwe. The severity of economic crisis, intensity of adjustment programmes and macroeconomic outcome vary substantially among these countries.

TABLE 1
MACROECONOMIC INDICATORS FOR SELECTED AFRICAN COUNTRIES: 1970-88

Country	Real GDP Growth Rate	Per Capita GNP in US dollars	Inflation Rate	Gross Domestic Savings/GDP	Current Account Balance/GDP	Terms of Trade (1987 =100)	Foreign Debt-GNP Ratio	Debt Service Ratio
MOROCCO								
1970-79	5.2	634	6.8	14.0	- 6.1	111.3	24.0	10.6
1980-83	3.8	725	9.7	13.6	-10.3	98.0	80.6	31.9
1984-88	5.3	778	6.8	17.3	- 3.7	97.3	125.8	32.6
MAURITIUS								
1970-79	6.5	1118	11.0	20.2	- 3.1	103.4	12.0	2.0
1980-83	1.1	1145	18.4	14.5	- 8.6	83.1	50.4	17.1
1984-88	7.9	1456	5.1	24.4	- 4.3	92.0	51.1	18.4
TUNISIA								
1970-79	7.6	918	5.2	21.2	- 5.4	109.8	32.7	10.8
1980-83	4.3	1225	10.4	22.5	- 6.7	134.9	46.6	16.3
1984-88	3.4	1206	7.2	19.2	- 5.1	106.1	65.6	25.5
CAMEROON								
1970-79	5.5	691	1.3	16.1	- 3.7	138.0	19.4	5.5
1980-83	9.7	995	12.6	22.5	- 4.9	158.0	36.2	15.7
1984-88	1.4	1106	7.0	26.5	- 3.4	125.0	35.2	28.8
MALAWI								
1970-79	6.3	183	6.3	14.5	-14.5	116.5	40.4	9.6
1980-83	0.4	167	13.5	13.2	-16.9	136.8	74.0	31.5
1984-88	2.8	160	16.5	11.9	- 9.2	113.4	97.1	41.0
TANZANIA								
1970-79	3.4	206	11.6	15.8	- 8.3	133.0	26.9	6.3
1980-83	0.9	152	28.0	11.0	- 6.8	103.0	49.7	23.4
1984-88	4.2	138	32.6	3.1	-13.2	108.0	101.3	39.7
KENYA								
1970-79	7.3	227	10.9	20.2	- 7.7	128.3	21.0	5.2
1980-83	3.3	395	14.4	19.1	- 8.0	113.4	56.8	29.8
1984-88	5.2	334	8.2	21.1	- 5.3	115.0	71.9	41.2
ZIMBABWE								
1970-79	4.1	472	7.3	19.5	- 2.7	148.5	9.2	1.5
1980-83	6.8	830	13.1	14.9	- 9.0	108.5	25.6	15.1
1984-88	0.8	608	12.6	22.7	- 1.6	100.8	49.5	31.7

Source: 1) IMF, Yearbook of International Financial Statistics 1990; (Washington, D.C., International Monetary Fund, 1990).

2) World Bank, World Table 1991, (Washington, D.C., World Bank 1991).

3) World Bank, World Debt Tables, (Washington, D.C. Various issues)

Morocco experienced severe economic strains in the mid-1970s when the current account changed from a surplus of 3.1 per cent of GDP in 1974 to deficits of 14.6 per cent of GDP in 1976 and 16.5 per cent in 1977. As a proportion of GDP, the fiscal deficit increased from 4.0 per cent in 1984 to 18.1 per cent in 1976 before falling to 16 per cent in 1977 (Horton, 1990). By 1978, it was apparent that stabilization measures were needed to forestall a serious economic crisis. Nonetheless, it was not until 1980 that strong stabilization measures to reduce macroeconomic imbalances were instituted. These were followed by a comprehensive programme of structural adjustment in 1983. Adjustment programmes consisted of a comprehensive over-haul of the incentive structure, removal of price controls, increases in agricultural produces prices, tax reform, public expenditure reduction, trade liberalization, and real devaluation of the domestic currency.

Following the adoption of the stabilization and structural reforms in the first half of 1980s, 1984-88 has been an exceptional period for the Moroccan economy. During 1984-1988 real GDP growth averaged 5.3 per cent per annum. The external current account recorded small surpluses in 1987 and 1988 from a deficit of about 8 per cent of GDP in 1984. The performance of the fiscal account was even more remarkable: the budget deficit was reduced from double digits in the early 1980s to 4.5 per cent in 1988. This reduction was achieved in most part by a drastic cut in expenditures on public investment from 12 per cent of GDP in 1980/83 to 6.8 per cent in 1984-1988.

The implementation of stabilization and adjustment programmes in the late 1970s and early 1980s in Mauritius has been striking. During the course of 1979, the Government perceived that its large macroeconomic imbalances and expansionary fiscal posture were not sustainable and embarked on comprehensive policy reforms. The adjustment programmes supported by multilateral institutions included devaluation of the exchange rate, liberalization of trade regimes, restrained public expenditures, restricted credit expansion and measures to enhance resource mobilization.

Over the period 1984-1988, the economy responded favourably to the improved macroeconomic policy environment. The real GDP grew by an average of 8 per cent in 1984-1988 compared with 1.1 per cent in 1980-1983. Gross domestic savings as a proportion of GDP increased substantially from 14 per cent during 1980-1983 to 24 per cent during 1984-1988. Internal balances improved as the overall fiscal deficit was reduced while inflation rate decelerated from an average of 18 per cent per annum to 5 per cent. The current account of the balance of payments changed from deficit to surplus.

In the 1970s, the economy of Tunisia recorded an average real growth rate of 7.6 per cent per annum. However, the country experienced severe macroeconomic crisis in the early 1980s and

suffered a loss in oil trade balance equivalent to 1.5 per cent of GDP between 1980 and 1984. By 1984 the current account deficit reached 11 per cent of GDP; resource gap was 12 per cent of GDP, and fiscal deficit stood at 6.7 per cent of GDP (World Bank, 1990).

By the end of 1984, the Government, which had delayed adjusting public expenditures, embarked on gradual policy reforms which has broadened to include strong measures that include expenditure restraining and import restrictions. The combined effects of these measures were a fall in the current account deficit to 8.3 per cent of GDP, and a fall in the resource gap to 7.6 per cent of GDP in 1986.

In 1986 the policy reform measures were broadened to include decontrol of domestic prices, removal of import restrictions and a real exchange rate realignment. This was accompanied by a cut in public expenditure from 17 per cent of GDP in 1980-1983 to 14 per cent in 1984-1988. Inflation rate fell from 10.4 per cent in 1980-1983 to 7.2 per cent in 1984-1988. Real growth rate, also fell by 0.7 per cent during the same period. Private investment rate fell substantially from 14.4 per cent to 11 per cent respectively.

Cameroon is relatively new on the long list of African countries that embarked on structural adjustment programmes in the 1980s. This was due in part to remarkable economic growth in the 1970s and early 1980s. Real GDP growth rate averaged 5.5 per cent per annum in the 1970s and 9.7 per cent during 1980-1983. The economy experienced a drastic fall in output in 1985 due to fall in the terms of trade and depreciation of the US dollar vis-a-vis the CFA francs. Between 1985 and 1987, Cameroon experienced a 47 per cent decline in the terms of trade leading to deficit in external current account that averaged 13 per cent of GDP in 1987. Real output growth fell by 7.3 per cent in 1987 and averaged 1.36 per cent during 1984-1988. The budget deficit reached a historical high of 12.8 per cent of GDP (World Bank, 1990C).

In 1987 Government launched an austerity programme to reduce its budget deficits and deal with its deteriorating external account. The Government succeeded in reducing the budget deficit to 5.8 per cent of GDP, in lowering inflation to 7 per cent, and in boosting private investment as well.

The 1970s was also a period of strong economic growth for Malawi, with real GDP growth averaging 6.3 per cent per annum. Malawi's period of strong economic growth, driven mainly by agricultural estate sub-sector, came to a halt in the early 1980s. Between 1980-1983, real GDP growth rate averaged 0.4 per cent due primarily to severe drought and sharp decline in terms of trade.

In 1981, Government introduced an adjustment programme, which aimed at encouraging diversification of production and exports. This was followed by a stabilization programme in 1982 designed to

reduce short-term fiscal and balance of payments disequilibria. In 1983 and 1985, the second and third phases of structural adjustment programmes respectively were launched. The long-term objectives were to improve the performance of the productive sectors, to improve resource mobilization and allocation, to strengthen key institutions, and to provide consistent investment incentives to the private sector.

During the early 1970s, Tanzania managed to achieve significant improvements in the social sectors through an ambitious growth in the size of the public sector. But by late 1970s, the country entered a period of economic decline and Tanzania's achievements in the social sector began to be eroded. The fiscal situation deteriorated sharply with deficits averaging 16 per cent of GDP. GDP growth averaged 3.4 per cent in 1970s but only 0.9 per cent during 1980-1983. Inflation accelerated from 11.5 per cent to 28 per cent. By 1982 import volumes were 24 per cent below the level of the early 1970s.

In 1982, the Government embarked on a structural adjustment programmes aimed at restoring financial viability, and economic stability, stimulating agricultural development, while protecting basic social services and incomes of the most vulnerable groups.

The positive impacts of the governments on the economy were rather negligible. Real GDP contracted in 1983, and although there was a marginal recovery in 1984 and 1985, GDP growth was well below population growth. The current account deficit declined from 10 per cent of GDP in 1982 to 8 per cent in 1984 but increased sharply to 12 per cent in 1986.

In light of the disappointing performance of the economy, the Government introduced a new Economic Recovery Programme in 1986 aimed at remedying the defects of earlier policies. The measures include increased budgetary and foreign exchange resources for agriculture to increase output of food and export crops; investment in rehabilitation of the fiscal infrastructure in support of productive activities; and monetary, fiscal and trade policies to restore macroeconomic equilibria.

Kenya enjoyed remarkable growth and structural change during the 1970s with an average real GDP growth of 7.3 per cent. A liberal attitude toward foreign investment, and an active government role in industrial and investment promotion fuelled the expansion of manufacturing growth. Agricultural growth was also stimulated through the conversion of high-potential land from extensive use to small holder cultivation.

During 1980-1983 period, GDP growth decelerated to 3.2 per cent due to erosion of fiscal discipline, political uncertainty, and adverse external terms of trade. This slump in economic activity necessitated the adoption of stabilization and adjustment

programmes which had evolved in three phases. In 1980, Government launched the first phase of the programme with a focus on exchange rate flexibility, and industrial promotion. In 1982, the adjustment measures were strengthened with policies directed toward trade reforms, liberalization of agricultural pricing and marketing, substantial real devaluation and stabilization measures.

The impacts of the programmes on the economy were quite impressive. The fiscal deficit was reduced from 10 per cent of GDP in 1981 to 4.5 per cent in 1984, mainly through cuts in development expenditure; inflation rate fell from more than 20 per cent in 1981 to 13 per cent in 1985. The current account deficit declined from 14 per cent of GDP in 1980 to 3.7 per cent in 1985, despite deteriorating terms of trade.

Fluctuations in the terms of trade, however, significantly affected output growth in the late 1980s. In 1986, GDP growth increased by 7 per cent and the balance of payments strengthened following increases in coffee prices that raised coffee revenue by almost 70 per cent. In 1987, the improvements in the external accounts were not sustained as both coffee and tea prices drop sharply. The current account deficit and fiscal deficit increased to 8 per cent and 7.6 per cent of GDP respectively in 1987. In the same year, Government launched the third phase of adjustment programmes focusing on agriculture, industry and financial sector. The stabilization measures introduced in 1987 helped to sustain real GDP growth at 6 per cent in 1988 while the budget deficit fell to 6.4 per cent of GDP.

At independence in 1980, Zimbabwe inherited a well-diversified economy and a well-developed physical infrastructure, with good potential for growth. However, a combination of rapid growth in domestic demand and worsened external circumstances led to the emergency of macroeconomic imbalances from 1981 onwards. Balance of payments pressures, which had developed shortly after independence, intensified as exports stagnated, while imports and service outflows rose rapidly. The current account deficit increased sharply from 2.5 per cent of GDP in 1979 to 11.5 per cent in 1981. Furthermore, the rapid expansion of government consumption expenditures and financed mainly by expansion of domestic credit resulted in a marked increase in inflation from 7.3 per cent during 1970-79 to 13.1 per cent during 1980-1983.

By 1982, it was clear that a strong stabilization programme would be necessary in order to restore macroeconomic balances. The key policy instruments of the stabilization programme included comprehensive foreign exchange overhaul, real depreciation of the domestic currency, and export stimulation measures.

The Government effected a reduction in current account deficit, from 11.5 per cent of GDP in 1981 to a near balance in 1988. Inflation however remained high at about 13 per cent while

the budgetary deficit slightly moderated, from 9 to 8 per cent. There were also major costs as much of the burden of adjustment fell on investment in the productive sectors, where both significant replacement and new investments would be required for future growth.

IV. RECENT TRENDS IN DOMESTIC PRIVATE INVESTMENT IN AFRICA

This section provides a preliminary evidence on domestic private investment behaviour in the selected African countries. Table 2 presents data on private investment and public investment for eight African countries from 1970-1988. This data reveal two distinct patterns. For middle-income African countries in our sample, private investment rates fell in the early 1980s but subsequently increased during the period 1984-1988. In Cameroon, private investment decreased slightly from 9.05 per cent of GDP during 1970-1979 to 8.51 per cent in 1980-1983 but recovered to 10.5 per cent in 1984-1988. In Mauritius, private investment rate fell from a historical high of 17.4 per cent during 1970-1979 to 13 per cent during 1980-1983, but increased slightly to 14 per cent during 1984-1988. In Morocco, private investment remained steady at 10 per cent between 1970-1979 period and 1980-1983; and subsequently increased to 13.6 per cent during 1984-1988. Tunisia is the only exception to this observed pattern in private investment rates among middle-income countries. Private investment rate increased from 10.5 per cent in 1970-1979 to 14.4 per cent in 1980-1983; but declined to 10.9 per cent in 1984-1988 in Tunisia.

Private investment rates fell substantially during the 1980s among low income African countries in our sample -- Malawi, Tanzania, Kenya and Zimbabwe. Private investment rate fell from 9.07 per cent during 1970-1979 through 5.31 per cent in 1980-1983 to 4.37 per cent in 1984-1988 in Malawi. In Tanzania the same declining trend is observed as private investment rate fell from 11.6 per cent in 1970-1979 through 9.2 per cent in 1980-1983 to 6.2 per cent in 1984-1988. The comparable figures for Zimbabwe are 11.24 per cent in 1970-1979, 10.62 per cent in 1980-1983 and 7.5 per cent in 1984-1988.

TABLE 2
TRENDS IN PRIVATE AND PUBLIC INVESTMENT IN
SELECTED AFRICAN COUNTRIES (PER CENT OF GDP)

	Morocco		Mauritius		Tunisia		Cameroon	
	Private	Public	Private	Public	Private	Public	Private	Public
1970	9.2	5.7	8.9	4.9	8.5	11.9	7.6	8.4
1971	9.8	5.1	11.4	4.5	7.7	12.1	8.5	8.1
1972	8.5	5.1	11.4	4.6	8.8	11.0	9.3	8.9
1973	8.8	4.7	20.4	5.5	10.7	9.8	8.4	11.5
1974	8.0	6.7	17.4	5.9	10.5	10.3	8.7	8.4
1975	12.6	12.2	24.9	8.4	12.3	13.4	8.5	11.5
1976	9.9	19.8	25.4	9.9	11.6	17.4	10.8	6.8
1977	11.2	20.7	18.9	8.8	10.9	19.8	8.4	13.4
1978	12.9	12.0	18.3	10.0	11.7	19.2	10.5	12.2
1979	9.5	14.5	17.4	8.0	12.0	18.5	9.8	11.9
1980	9.6	11.5	14.9	8.4	13.3	15.1	8.4	10.5
1981	9.8	12.1	13.5	8.5	14.8	16.3	7.6	17.1
1982	10.0	13.4	11.5	6.4	15.4	18.6	9.0	14.4
1983	11.2	10.5	11.7	6.4	14.2	17.6	9.1	15.4
1984	13.0	8.5	12.4	5.8	13.6	17.1	8.7	12.1
1985	13.5	7.4	12.7	6.0	12.3	14.5	12.6	12.3
1986	15.4	4.1	12.8	7.0	10.5	13.5	11.2	19.6
1987	13.3	6.8	14.4	7.3	9.0	11.3	9.4	14.7
1988	12.8	7.2	18.3	8.3	9.1	12.4	10.5	5.2
1970-79	10.1	10.1	17.4	7.1	10.5	14.3	9.1	10.1
1980-83	13.2	11.9	12.9	7.4	14.4	16.9	8.5	14.4
1984-88	13.6	6.8	14.1	6.9	10.9	13.8	10.5	12.8

- Source:
- 1) G. Pfefferman and A. Madarassy, "Trends in Private Investment in Developing Countries," IFC Discussion Paper No.6 (Washington, D.C. : World Bank; 1989).
 - 2) B. Horton, Morocco : Analysis and Reform of Economic Policy. EDI Development Case Series, Analytical Case Studies No.4 (Washington, D.C. : The World Bank, 1990).
 - 3) Various national sources.

TABLE 2 (Contd.)

TRENDS IN PRIVATE AND PUBLIC INVESTMENT
IN SELECTED AFRICAN COUNTRIES (PER CENT OF GDP)

	<u>Malawi</u>		<u>Tanzania</u>		<u>Kenya</u>		<u>Zimbabwe</u>	
	Private	Public	Private	Public	Private	Public	Private	Public
1970	7.5	12.7	14.4	7.4	13.7	6.0	9.6	6.5
1971	7.5	10.4	13.8	7.4	14.0	8.8	11.2	6.6
1972	9.6	12.7	14.3	5.7	13.6	8.5	11.4	6.7
1973	7.8	12.6	13.6	5.8	11.4	9.4	13.4	7.9
1974	7.4	11.6	13.2	6.3	10.5	8.7	14.2	8.4
1975	7.8	17.1	10.7	6.6	11.7	8.4	13.7	9.7
1976	8.5	13.6	9.6	9.5	11.6	8.5	11.2	8.6
1977	9.4	12.8	7.6	10.2	12.1	8.8	10.1	7.1
1978	12.3	18.6	8.9	10.1	15.6	9.4	8.4	6.1
1979	11.2	15.7	10.0	12.0	12.8	10.9	9.2	4.8
1980	4.8	17.5	9.8	9.0	12.9	10.6	10.6	4.7
1981	4.9	10.2	10.7	10.4	13.4	10.7	13.4	5.4
1982	6.2	8.4	9.8	11.0	10.6	8.7	10.1	10.0
1983	5.4	8.3	6.5	7.2	11.6	7.2	8.4	11.6
1984	3.3	9.8	5.7	8.3	10.7	7.6	10.6	7.9
1985	5.1	8.3	4.9	10.8	10.9	7.0	7.3	10.0
1986	1.9	9.2	6.5	9.4	11.8	8.6	7.8	9.9
1987	4.8	7.4	7.0	8.8	12.6	7.6	7.2	9.5
1988	6.9	7.9	6.9	8.9	11.5	8.1	4.6	7.2
1970-79	9.1	13.8	11.6	8.1	12.7	7.9	11.3	7.3
1980-83	5.3	11.1	9.2	9.4	12.1	9.3	10.6	7.9
1984-88	4.4	8.5	6.2	9.3	11.5	8.0	7.5	8.9

Sources: Pfefferman G. and A. Madarassy (1989); various national sources.

In the middle income countries, public investment rate increased from 10.4 per cent in 1970-1979 to 12.7 per cent in 1980-1983 before falling to 10 per cent in 1984-1985. This pattern is observed for all the countries in the middle income categories. Among the low income countries, public investment rates increased in the early 1980s and subsequently fell during 1984-1988 period in Kenya and Tanzania. In Malawi, public investment rate fell from 13.8 per cent in 1970-1979 through 11.1 per cent in 1980-1983 to 7.05 per cent in 1984-1988. On the other hand, public investment rate increased from 7.24 per cent through 7.9 per cent to 8.9 per cent respectively in Zimbabwe.

The share of private investment in total investment fell slightly from 53 per cent during 1970-1979 to 51.4 per cent during 1984-1988 for the eight countries in the sample. The share of private investment in total investment was generally higher in Kenya, Mauritius and Zimbabwe in both periods. A higher share of public investment in total investment is observed in Tunisia, Malawi and Tanzania. Average resource balance deficit for the eight countries, defined as the difference between domestic investment and domestic savings, increased from 2.8 per cent of GDP in 1970-1979 period to 4.4 per cent of GDP in 1980-1983 before declining to 2 per cent of GDP during 1984-1988. Domestic savings rates increased substantially in Mauritius and Zimbabwe during 1984-1988; while Tanzania savings rate fell from 16 per cent of GDP in 1970-1979 through 11 per cent of GDP in 1980-1983 to 3.1 per cent of GDP in 1984-1988.

There appears to be a positive relationship, from the preliminary evidence in Table 3, between private investment and GDP growth rates. Private investment was discouraged by the slower economic growth in most countries in the sample between 1970-1979 and 1980-1983. However, the increase in real GDP growth during the 1984-1988 period has not been matched by strong private investment recovery in either the middle-income countries or the low income countries. Indeed, as observed earlier, private investment declined further in low-income countries.

TABLE 3
CORRELATION COEFFICIENT BETWEEN PRIVATE INVESTMENT
AND SELECTED MACROECONOMIC VARIABLES

Variables	All Countries	Middle Income	Low-income
GDP growth rate	0.2074	0.0284	0.2919
Public Investment	-0.0907	-0.1451	-0.2219
Credit to private sector	0.1886	0.8363	0.3373
Inflation	-0.1084	0.2343	0.2924
Terms of Trade	-0.0466	-0.0194	-0.0658
Debt Service ratio	-0.3574	-0.1767	-0.4784

The slow response of private investment to economic recovery during 1984-1988 in the countries in the sample may partly reflect continued underlying macroeconomic uncertainties. First, inflation remains high for most of the countries in the sample and is negatively correlated with private investment rate in low income countries (Table 3). Second, the ratio of external debt to GNP was more than doubled compared to the 1970s. Indeed, for the low-income countries in the sample, the debt service ratio increased by a factor of more than 5. Further, the terms of trade, though recovered slightly during the 1984-1988 period, remained substantially depressed compared to the historical high levels observed in the early 1970s for most countries. Both the debt service ratio and the terms of trade are negatively correlated with private investment in the low income countries as well as the middle income countries (Table 3). Finally, private investors' fear about the credibility and sustainability of structural adjustment programmes adopted in these countries may be undermining private investment.

In the following two sections we examine this evidence in a more systematic way, first by reviewing several hypotheses about private investment, and second by testing these hypotheses on data.

III. REVIEW OF LITERATURE AND HYPOTHESES ON INVESTMENT

The theoretical literature on private investment is quite rich and diverse. The accumulation of real fixed capital stock and capital formation by the private sector have been afforded extensive detail in formal models based on the experience of developed countries. The major strands of investment behaviour include the simple accelerator (Harrod, 1939), the neoclassical (Jorgenson, 1967), the Tobin's Q (Tobin, 1969), the financial

(Fazzari, et.al., 1988). Empirical tests of these models, most especially the neoclassical theory, using data from several industrial countries have been widely applied. However, the empirical literature on private investment behaviour in developing countries seems to have focused, due to institutional and data constraints, on testing simple hypotheses advanced to explain variations in private investment in these economies (Serven and Solimano, 1991; Greene and Villanueva, 1990; Khan and Reinhart, 1990; Blejer and Khan, 1984; Tun Wai and Wong, 1982). In this section we draw on both the theoretical and empirical literature to establish the impacts of adjustment policies and macro-economic uncertainty on private investment in Africa.

Adjustment policies, output changes and investment

Adjustment programmes involve, among other things, restrictive monetary policies, specifically ceilings on the rate of domestic credit expansion by the banking system. The direct relationship between private investment and domestic credit need to be underscored. Changes in the volume of bank credit is suggested to have a positive impact on private investment activity among developing countries. Unlike the well-established firms in developed countries, whose investment activities tend to depend more on retained earnings and equity financing, bank credit remains the most important source of investment financing among private enterprises in developing countries. In these economies, where financial markets are generally repressed, credit policy affects investment directly through the stock of credit available to firms rather than through the indirect interest rate channel. The direct impact of credit availability on private investment in developing economies is confirmed in several empirical studies (Blejer and Khan, 1984; Tun Wai and Wong, 1982; Lim, 1987).

Fiscal contraction is also a key instrument of expenditure-reducing policies aimed to restore macro-economic balances. At the theoretical level the impacts of government investment on private investment activity is ambiguous. On the one hand, public sector investment that result in large fiscal deficits may crowd out private investment through high interest rates, credit rationing, and a high current or future tax burden on the household. On the other hand, most developing countries have a large component of government investment concentrated on infrastructure projects (transport, communications, irrigation, etc.) which may be complementary with private investment. The empirical studies on this issue are also controversial. Serven and Solimano (1991), Greene and Villanueva (1991), Blejer and Khan (1984) found a complementary relationship between public sector investment and private investment. On the other hand, Belassa (1988) and Laumas (1990) indicate a negative relationship between public and private investment activities.

It has been suggested that private investment is positively related to the growth of real output. Theoretically, this relationship can be readily derived from an accelerator model with the assumption that the underlying production function has a fixed relationship between the desired capital stock and the level of real output (Blejer and Khan, 1984). This relationship between output growth and private investment is very important in the context of adjustment programmes. The restrictive demand management - monetary and fiscal - policies are likely to impact negatively on output growth in the short-run, therefore impairing private investment. On the other hand, supply-side policies in adjustment programmes are intended to enhance the allocation of resources and response of private investment.

A key component of policy reforms that contains elements of both demand side and supply side measures is the real devaluation of the domestic currency. Since it is simultaneously an expenditure-reducing and expenditure-switching policy, real devaluation affects both domestic demand and domestic supply, and thus impact on private investment through several channels.

In the short-run, a real devaluation will reduce private investment through its negative impact in domestic absorption. On the demand side, the expenditure reducing effect of exchange rate policy is unambiguously clear. The main demand side effects are a reduction in private sector real wealth and expenditure, due to the impact of the rise in the overall price level on the real value of private sector financial assets, and on real wages (Khan and Knight, 1985). For these reasons, real devaluation decreases domestic demand and when firms face sales binding constraints the slump in aggregate economic activity may induce firms to reduce investment spending.

On the supply side, the impact of the expenditure-switching aspect of exchange rate policy on private investment may be uncertain. A real devaluation increases the level of foreign prices measured in domestic currency and thus the price of traded goods relative to non-traded goods in the domestic economy. Thus, devaluation will have a stimulative impact on private investment in the tradeable goods sector, while it will depress investment in the non-traded goods sector.

In general, if the price of domestic factors of production - including capital goods - rises less than proportionately to the domestic currency price of final output, devaluation will have a stimulative impact on aggregate supply and private investment. However, in an economy with a high dependence on non-competitive imported capital goods and intermediate goods, a real devaluation may impact negatively on private investment through a rise in the real cost of imported capital goods (Buffie, 1986).

Further, when exchange rates are grossly misaligned as in many African countries, the fear of devaluation may discourage investment. Private investors may be reluctant to take offshore loans because they are uncertain about the size of future repayments they will have to make in domestic currency. For firms which had already contracted debt in foreign exchange, real devaluation raises the burden of debt which may cause financial distress that reduces internal funds available for investment.

Trade liberalization is another major component of adjustment programmes. Often combined with devaluation as a trade policy reform, it involves lowering export and import restrictions, and replacement of quantitative quotas on imports by equivalent tariffs. The immediate impact of trade liberalization is to expose the domestic private sectors - import competing and export producing - to foreign competition. However, like devaluation the ultimate effect of trade liberalization that is perceived to be permanent on total investment is ambiguous. A permanent trade liberalization measures will encourage private investment in the export sector and reduce investment in the protected import competing sector.

Instability, uncertainty and investment

The irreversible nature of long-term private investment expenditures has been emphasized in recent literature on investment behaviour. The relevance of this literature to developing countries is well documented in Serven and Solimano (1990). The irreversible nature of investment suggests that installed capital can seldom be put to productive use in a different sector or economic activities, at least without incurring a substantial cost. In this context, private investors will be reluctant to commit large expenditures on fixed investments when they are uncertain about the future political, social and economic environment.

The uncertainty associated with the speed, credibility and sustainability of macro-economic adjustment and policy reforms may largely influence private investment behaviour. There is a substantial controversy regarding the speed of adjustment; most especially regarding the relative appropriateness of 'shock treatments' and 'gradualist' approaches to adjustment. Killick et al (1984) assert that a gradualist approach allows a fairly rigid structural parameters time to adjust, and avoids the welfare losses of harsh and rapid dislocation. Krueger (1981) recommends a 'shock treatments' approach because it reduces the risk of political failure of policy reforms. Nowzad (1984) argues that a series of shorter term programmes may provide greater flexibility over time than a single longer term programme. Moreover, Michalapolous (1987) maintains that the credibility of a reform package might be enhanced by including policies aimed to speed up the adjustment called for in the reforms.

The role of policy credibility and sustainability in private investment decisions has been emphasized by Dornbusch (1988) and Rodrick (1990). They argue that the policy measures of a structural adjustment programme can easily be reversed while private investors cannot undo their fixed capital decisions without incurring substantial losses. Thus, the larger the perceived probability of an unsustainable current adjustment programme, and of a future policy reversal, the less willing private investors will be to undertake long-term fixed investment projects. Expectations about the adjustment programme's unsustainability may be self-fulfilling when lack of credibility leads to a low private investment response, policy reform becomes difficult to sustain. Credibility is therefore fundamental to successful stabilization and structural adjustment programme.

The discussion on speed and credibility of policy reforms is particularly relevant to African countries where private investors may have adopted a "wait and see" attitude because of past history of frequent coup d'état accompanied by complete policy reversal and "go-stop-go" measures. Investment recovery, therefore depends not only on getting most policies reasonably right, but also on sustaining a credible and consistent enabling environment for private sector development in the region.

High and unpredictable inflation is an indicator of macro-economic instability which can have adverse impact on private investment. High and unpredictable inflation distorts the information content of relative prices and increases the riskiness of all investment decisions. Entrepreneurs face high levels of uncertainties on future returns on investment when inflation rates are very erratic and long-term investment become more risky. Thus, inflation may inhibit private sector investment in projects with a long-term gestation. Greene and Villanueva (1991) found that a higher inflation rate had negative effect on private investment for 23 developing countries in their pooled time series?cross sectional study.

The terms of trade is one of the most important indicators of external shock to the economy. Adverse movement in the terms of trade will increase the cost of imports relative to income, and also reduce the purchasing power of exports. Depressed terms of trade, therefore, may worsen the ratio of current account deficit to GDP - an indicator of external balance and macro-economic stability, with adverse consequences on private investment. Fluctuating world prices will not only induce macro-economic uncertainties, but will also exert impact on inflation, real exchange rates, resource allocation and overall investment outlook. An increase in the price of an imported good with large weight in the cost of living index will have a direct impact on consumer prices. Depressed export prices in the agricultural export sub-sector will draw resources away from the sector, reducing export earnings and discouraging investment in the sector. Foreign price

shocks have accounted for large fluctuations in real exchange rates, resulting in massive real devaluations in some countries and significant appreciations in others, especially oil exporters. Capacity to import and changes in foreign reserves may also serve as proxies for external shock to the economy.

The presence of large external debt burdens constitutes another source of uncertainty in the macro-economic environment. Foreign debt may affect private investment in several ways. First, the size and timing of external transfers to the country's creditors may be uncertain as it depends on future level of world interest rates, terms of trade, the purchasing power of exports, and the ability to reschedule debt. Thus, the level of the real exchange rate and the timing of demand management policies consistent with the required transfers also become uncertain (Serven and Solimano, 1991). Second, funds available for investment will be reduced where a higher debt service payments is involved. Third, many developing countries face liquidity constraints in international capital markets because of large arrears on debt service obligations (Borenzstein, 1989).

Finally, several papers, (see for example, Krugman, 1988; Corden, 1988; and Sachs, 1989), have emphasized that a heavy debt overhang reduces the incentive to invest because of the anticipated foreign tax on future income and returns on investment. A high external debt to GDP ratio signifies that part of the future returns on any investment must be used to service the existing stock of debt. Empirical results based on studies done by Greene and Villanueva (1991) and Serven and Solimano (1991) have confirmed that high debt to GDP ratio has a strong negative impact on the private investment rates in developing countries.

V. EMPIRICAL RESULTS

Various hypotheses on the factors that affect domestic private investment were outlined above. In this section, we examine empirically to what extent these factors contribute to explaining the observed performance of private investment in selected African countries. The discussion in section III suggests the following equation to estimate:

$$IP = f(GR, GI, BC, CPI, TOT, DSR, DGR, V) \quad (1)$$

where

- IP = the ratio of private sector investment to GDP
- GR = the percentage change in real GDP
- GI = the ratio of public sector investment to GDP
- BC = the change in credit to the private sector
- CPI = the percentage change in consumer price index
- TOT = the change in terms of trade
- DSR = the lagged ratio of external debt-service payments to exports of goods and services

DGR = the lagged ratio of external debt to nominal GDP
V = the coefficient of variation of key policy and macro-economic variables.

Based on the previous discussion, we postulate that real output growth, change in bank credit to the private sector would have positive effect on the domestic private investment rate. In contrast, an increase in the degree of economic instability/uncertainty proxied by an increase in the debt service ratio; the ratio of external debt to output; or an increase in inflation; and an adverse terms of trade shock; or increased variability of policy instruments would exert a negative influence on domestic private investment rate. On the other hand, the effect of public investment rate is, on a priori basis, ambiguous.

TABLE 4

ESTIMATES OF DOMESTIC PRIVATE INVESTMENT FUNCTION: 1970 - 1988

Variable	I ^a	II ^a	III ^a	IV ^b
Intercept	9.5360 (12.2650)	9.7935 (13.1914)	9.1036 (13.1850)	9.7974 (10.9326)
GR-1	0.0865 (2.1485)	0.0888 (2.2078)	0.0923 (2.3055)	0.0947 (2.0305)
GI-1	0.1418 (2.4166)	0.1412 (2.4043)	0.1458 (2.493)	0.1393 (2.1653)
CPI	0.0142 (-1.4866)	-0.0167 (-1.8042)	-0.0148 (-1.6355)	-0.0249 (-1.8369)
TOT	-0.0142 (-1.0994)	-0.0088 (0.9390)		
DSR-1	-0.0721 (-3.2568)	-0.0538 (-3.6594)	-0.0532 (-3.6221)	-0.0474 (-2.8835)
DGR-1	0.0121 (1.1062)			
BC				0.0009 (1.7993)
R ²	0.5097	0.5089	0.5091	0.5526
SEE	2.461	2.463	2.462	2.518

Note: The dependent variable is the ratio of private investment to GDP, in percent. t-statistics are in parentheses. R² is the adjusted R² and SEE is the standard error of the estimate. (a) The number of observations is 152. (b) The number of observations is 133.

The domestic private investment function is estimated using data on eight African countries whose experiences with macro-economic adjustment and trends in private investment were outlined above. Given the small number of observations on any single country, we have pooled the data to investigate private investment behaviour in the empirical context of eight African countries during 1970-1988. From 1970-79 period, we encountered data problem on credit to private sector in Zimbabwe. Two set of estimates were therefore obtained as follows: the first estimate excludes Zimbabwe from the sample; the second estimate includes Zimbabwe but exclude the credit availability variable. The estimated results should be interpreted cautiously given the paucity of reliable and consistent data on private investment in African countries.

Columns I-III in Table 4 provide the estimate for 1970-88 where Zimbabwe is included, but change in bank credit variable is excluded. The total observation number is 152. With the pooled data, most of the hypotheses put forward in section 3 were confirmed by the empirical results. Real output growth has a strong positive effect on private investment after a one-year lag. Real growth rate of GDP has a positive sign that is statistically significant at the 5 per cent level. Further, public investment has a strong positive impact on private investment after a one-year lag at the 1 per cent significance level. The result suggests that complementarity between public investment and private investment dominate in our sample.

The estimated results indicate that inflation rate is negatively related to private investment at the 5 per cent level of significance. Changes in the terms of trade has a negative, but moderate impact on private investment; the coefficients of the terms of trade are not statistically significant.

The debt-service ratio has a strong negative impact on private investment activity as suggested above. The debt service ratio has a negative and highly statistical significant sign, at the 1 per cent level. In contrast, the debt-GNP ratio has a positive, but insignificant, sign.

The results provided in Column IV, derived from the pooled data on 133 observations from 1970-1988 are basically similar to those in Column III. The estimated results confirm that credit availability has a strong positive impact on private investment activities in the selected African countries in our sample. The coefficient of the change in bank credit to private sector is positive and statistically significant at the 1 per cent level.

As previously hypothesized, uncertainty may have a very strong impact on private investment. From a policy perspective, instability of the overall economic environment as well as the credibility of policy stance may be as important as the level of available credit, public expenditure, tax incentives or interest rate in influencing private investment behaviour.

In Table 5 we have reported estimates of the impact of uncertainty in the overall macro-economic environment and instability of key policy measures on the private investment ratio. The proposed measures of uncertainty and instability are the coefficients of variation of the real output growth, nominal exchange rate, and money supply growth. Real GDP growth variability serves as a proxy for uncertainty in the overall economic climate; while the volatility of exchange rate and money supply growth proxied the stability, consistency and credibility of policy stance of the government.

The sample for the estimated results in Table 4 is only 8 observations. Nevertheless, suggestive remarks on the impact of uncertainty on private investment in selected African countries can be inferred from the estimated results.

Between 1970-88, the variability of output, exchange rate and money supply have negative effect on private investment. But the coefficients of the uncertainty measures are not statistically significant and the overall explanatory power of these variables is small.

However, the estimated results improved considerably when the equation was re-estimated for two sub-periods: 1970-79 and 1980-88. Between 1970-79, the uncertainty measures, in all cases, have positive and significant impact on private investment. The results suggest that the nominal exchange rate volatility, which was very small in the 1970s, impact positively on private investment.

The results contrast sharply with the estimated results for the sub-period 1980-88. During the 1980s, changes in nominal exchange rate, which exhibit wide swings and high volatility, influence private investment negatively. Moreover, the uncertainty surrounding the overall economic climate in the selected countries was heightened in the 1980s. The variability of real output has a strong negative impact on private investment.

On the other hand, the variability of money supply growth was minimized through stabilization policies and this tended to have positive, albeit weak, impact on private investment in the 1980s.

V. POLICY IMPLICATIONS

We acknowledge that broad generalization on policy implications of the empirical results for all African countries should be avoided. Only eight of 51 countries in Africa are included in our sample owing to data constraints. Further research on private investment behaviours could be carried out on a larger sample of African countries as more data become available in future. Nevertheless, the empirical results do shed some light on policy discussions on domestic private investment behaviours in the region.

Stable and Credible Macroeconomic Environment

The empirical result suggests that a high degree of price stability that provides a consistent incentive structure to entrepreneurs is needed to ensure a strong recovery of domestic private investment in several African countries. High and erratic domestic inflation rate, an important indicator of macroeconomic instability, is negatively related to private sector investment in the study. Macroeconomic policies aimed at sustaining moderate rates of inflation may have a salutary and positive impact on private investment and promote long-term growth. However, policies that result in erratic and unpredictable inflation rates may compound macroeconomic instability with consequential adverse effect on private investment activity. An adjustment package may itself increase instability and uncertainty, and undermine investors' confidence in the short-run if the perceived probability of a future policy reversal is strong. A predictable and credible macroeconomic policy environment is, therefore, a sinequanon for recovery of private investment and long-term growth restoration.

Sustaining Adjustment Programmes

The econometric results obtained in this paper confirm that real output fluctuations is a major determinant of domestic private investment in African countries. This empirical result has an important policy implication for the sustainability of structural adjustment programme. On the one hand, structural adjustment reforms, often proceeded by absorption reducing monetary and fiscal policies, are likely to have an adverse short-run effect on private investment because of the initial decline in output growth and slowdown in economic activity. On the other hand, without a sufficient recovery of investment, the resumption of long-term growth in many African countries may be jeopardized if the

structural adjustment programme adopted by many countries in the region are not sustainable.

In general, structural adjustment programmes and policy reforms require a comprehensive approach. However, experiences suggest that an appropriate sequencing of reforms must take into account the limited and specific institutional capacity, different speeds of adjustment in goods, factor and financial markets of individual African countries. The adjustment strategy and lending should concentrate on measures to restore sustainable long term growth in regional member countries that have made substantial progress in removing distortions, in creating a stable macroeconomic framework, and in ensuring a credible policy and enabling environment.

Further, the refinement of adjustment strategy to increase its contribution to investment and growth recovery will be appropriate. The transition from adjustment to production growth requires a sustained recovery of the level and productivity of investments. In addition to providing economy-wide structural adjustment lending, sectoral adjustment loans from the multilateral financial institutions to key sectors will be appropriate. In the past, trade, agriculture and industry sectors have been the main beneficiaries of such sectoral adjustment loans. The findings of this study suggest that sectoral lending to support public expenditure restructuring and financial sector rehabilitation will be essential for recovery of private investment.

Public Expenditure Restructuring

A positive impact of public sector investment on domestic private sector investment is confirmed by the empirical results. This suggests that for most countries in the sample public investment is complementary to private sector investment. In an attempt to achieve fiscal balance and external account balance many African countries curtailed public expenditures in the 1980s. Several African governments were reluctant to reduce public expenditures on consumption because of political constraints and the perceived immediate short-term consequences. Fiscal adjustment, therefore, often takes the form of reduced expenditures on public sector investment. However, public sector investment in human capital and infrastructural facilities that are complementary to private sector investment is required to put these economies back on higher long-term growth paths. Expanded public sector expenditures restructuring for institutional and infrastructural development may also be required to achieve this goal. The efficiency of resource use in the public sector is also as important as the level of investment.

Financial Sector Rehabilitation

The direct role of credit availability on private investment in several African countries is confirmed in the empirical study. Two distinct policy implications are suggested by this result. First, credit restrictions are often required as part of macroeconomic stabilization programme. In the context of African countries, credit restriction policy should be designed to limit the banking system net claims on the public sector and to prevent the private sector from bearing a disproportionate effect of overall credit restrictions. Both the theoretical hypothesis and the empirical evidence provided in this paper suggest the squeezing of credit to the private sector will result in a reduction in the level of private investment with adverse impacts on the long-term productive capacity of the private sector.

Further, the institutional structure of financial markets in African countries affect the financial intermediation process and the transmission mechanisms of credit policy in these countries. Indeed, the financial sector in several African countries is in deep crisis: the banking system has become virtually illiquid in some countries. The pressing need in these countries is to reestablish an operational banking system. In other countries, the financial intermediation process need to be deepened through the strengthening of the fiscal, legal and institutional framework conducive to mobilizing and allocating financial resources. In most countries, domestic commercial banks with traditional emphasis on short-term trade finance are reluctant to lend for long-term investments. Changes in their perceptions will need to be induced. In well developed banking system, such as in Kenya, Morocco and Nigeria, innovative financial instruments that ensure a diversity of money and capital markets should be deepened.

External Resources Transfer

Sustained domestic private investment recovery requires mobilizing domestic financial resources as well as external financial resources. Thus the macroeconomic uncertainty associated with a high debt burden among African countries need to be underscored. Lower private investment is associated with increased external resource transfer from African countries in this study. High debt service payments reduce the funds available for investment and financing of essential capital goods imports. Total debt service payments on medium - and long-term external debt for regional member countries was more than US\$20 billion in the 1980s. The ratio of debt service payments to exports of goods and services was about 30 per cent in the late 1980s.

The Continent is saddled with a stock of debt in excess of \$270 billion, representing, on average, over 90 per cent of GDP. Reducing the debt burden and its adverse impact on private investment depends on several internal and external factors:

increased debt relief through appropriate debt rescheduling and forgiveness mechanism, lengthening debt maturities, lower world real interest rate, favourable terms of trade increase in purchasing power of exports, stable real exchange rate, and competitive trade policies. Adequate external financial support will also lend credibility to adjustment programmes aimed at laying the foundation for private sector development.

References

- Arrow, K. 1968, "The Optimal Capital Policy with Irreversible Investment", in Value, Capital, and Growth: Essays in Honour of Sir John Hicks, (ed) J. Wolf (Edinburgh University Press)
- Aschauer, D.A. 1989, "Does Public Capital Crowd out Private Capital?" Journal of Monetary Economics 24, No. 171-88
- Belassa, B. 1988, "Public Finance and Economic Development," PPR Working Paper No. 31, The World Bank.
- Bernanke, B. 1983, "Irreversibility, Uncertainty, and Cyclical Investment", Quarterly Journal of Economics
- Bischoff, C.W., 1971, "Business Investment in the 1970s: A Comparison of Models", Brookings Papers on Economic Activity (The Brookings Institution: Washington, D.C.), 13-58
- Blejet, M.I. and M.S. Khan, 1984, "Government Policy and Private Investment in Developing Countries", IMF Staff Papers, 31, No.2, 379-403
- Borenstein, E., 1990, "Debt Overhang, Credit Rationing and Investments", Journal of Development Economics, 32, No. 2, 315-335
- Buffie, E. 1986, "Devaluation, Investment and Growth in LDCs", Journal of Development Economics, 16
- Clark, P.K., 1979 "Investment in the 1970s: Theory, Performance, and Prediction", Brookings Papers on Economic Activity (The Brookings Institution, Washington, D.C.) 73-113
- Corden, W.M. 1988, "Debt Relief and Adjustment Incentives", IMF Staff Papers, 35, No. 4., 628-643
- Dixit, A., 1991, "Irreversible Investment with Price Ceilings", Journal of Political Economy, 99, No. 3, 541-557
- Dornbush, R. , 1988, "Balance of Payments Issues", in The Open Economy: Tools for Policy-makers in Developing Countries, ed. by R. Dornbusch and F.L. Helmers, (Oxford University Press, London).
- Fazzari, S. R. G. Hubbard and B.C. Petersen, 1988, "Investment, Financing Decisions and Tax Policy", American Economic Review
- Greene, J. and D. Villanueva, 1991, "Private Investment in Developing Countries: An Empirical Analysis", IMF Staff Papers, 38, No. 1, 33-58

- Grier, K.B. and G. Tullock (1989), "An Empirical Analysis of Cross-National Economic Growth, 1951-80", Journal of Monetary Economics, 24, 259-276
- Harrod, R.F., 1939, "An Essay in Dynamic Theory", Economic Journal 14-33
- Hines, A.G. and G. Catephoros, 1970, "Investment in U.K. Manufacturing Industry 1956-67", in the Econometric Study of the United Kingdom: Proceedings, (ed.) Kenneth H. and D. Heathfield (Macmillan: London) 203-24
- Hofman, B. and H. Reisen, 1990, "Debt Overhang, Liquidity Constraints and Adjustment Incentives", OECD Development Centre Technical Papers 32 (Organization for Economic Cooperation and Development, Paris)
- Horton, B., 1990, "Morocco: Analysis and Reform of Economic Policy", EDI Development Policy Case Series 4 (World Bank, Economic Development Institute)
- Jorgenson, D.W., 1971, "Econometric study of Investment Behaviour: A Survey", Journal of Economic Literature, 9, 1111-47
- _____, 1967, "The Theory of Investment Behaviour", in Determinants of Investment Behaviour, (ed.) R. Ferber (National Bureau of Economic Research, New York)
- Khan, M.S. and C.M. Reinhart, 1990, "Private Investment and Economic Growth in Developing Countries", World Development, 18, No. 1, 19-27
- Khan, M. and M. Knight, 1985, "Fund-Supported Adjustment Programs and Economic Growth", IMF Occasional Paper 41 (International Monetary Fund, Washington, D.C.)
- Killick T. (ed), 1984, The Quest for Economic Stabilization: The IMF and the Third World (Heinemann, London)
- Krueger, A., 1991, "Interaction Between Inflation and Trade Regime Objectives in Stabilization Program" in Economic Stabilization in Developing Countries (ed.) W. Cline and S. Weintraub (The North-South Institute, Washington, D.C.)
- Krugman, P. 1988 "Market-Based Debt Reduction Schemes", NBER Working Paper No. 2587 (National Bureau of Economic Research, Cambridge, Mass)
- Laumas, P.S., 1990, "Monetization, Financial Liberalization and Economic Development", Economic Development and Cultural Change, 38, 377-390

London, A., 1989, "Money, Inflation and Adjustment Policy in Africa: Some Further Evidence", African Development Review, 1, No. 87-111

Lim. J. 1987, "The New Structuralist Critique of Monetarist Theory of Inflation", Journal of Development Economics

Pfefferman, G. and A. Mandarassy 1989, "Trends in Private Investment in Thirty Developing Countries," IFC Discussion Paper 6 (The World Bank Group, Washington, D.C.)

Pindyck, R., 1988, "Irreversible Investment, Capacity Choice, and the Value of the Firm", American Economic Review, 78, 969-85

Michalopoulos, C. 1987, "World Bank Programs for Adjustment and Growth", in Growth-Oriented Adjustment Programs (ed.) V. Corbo, M. Goldstein and Khan (IMF and The World Bank, Washington, D.C.)

Nowzad, B. , 1984, "The IMF's Role in Developing Countries", Finance and Development, Vol. 21, No. 3

Ojo, O.O., 1991, "Trade, Finance and Development in Africa: Issues in Debt Management", African Development Bank Economic Research Papers No. 15, (African Development Bank, Abidjan)

Rodrick, D., 1990, "How should Structural Adjustment Programs be Designed? World Development, Vol. 18

Sachs, J., 1988, "The Debt Overhang of Developing Countries," in Debt, Stabilization and Development: Essays in Memory of Carlos Diaz Alejandro (Oxford: Basil Blackwell, 1988).

Serven, L. and A. Solimano, 1991, "Adjustment Policies and Investment Performance in Developing Countries: Theory Country Experiences and Policy Implications", Working Papers Series 606 (The World Bank, Washington, D.C.)

_____, 1992, "Private Investment and Macroeconomic Adjustment: A Survey", The World Bank Research Observer, Vol. 7, No. 1, 95-114.

Tun Wai, U. and C; Wong, 1982, "Determinants of Private Investment in Developing Countries", Journal of Development Studies, 19, 19-36

United Nations Economic Commission for Africa, 1989, African Alternative Framework to Structural Adjustment Programmes for Socio-Economic Recovery and Transformation, (ECA, Addis-Ababa)

World Bank, 1990a, "Adjustment Lending Policies for Sustainable Growth", Policy and Research Series 14 (World Bank, Washington, D.C.)

_____, 1990b, World Development Report 1990 (Oxford University Press, New York).

_____, 1990c, Trends in Developing Economies (World Bank, Washington, D.C.)

_____, (1989) Sub-Saharan Africa: From Crisis to Sustainable Growth: A Long-Term Perspective Study (World Bank, Washington, D.C.)

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