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EXCHANGE RATE POLICY AND THE STRUCTURAL ADJUSTMENT PROGRAMME IN AFRICAN COUNTRIES: CASE STUDIES OF ZAMBIA, KENYA, GHANA AND NIGERIA

By
S. E. OMORUYI *

A structural adjustment programme (SAP) refers to a set of comprehensive economic reform measures designed to correct imbalances in the economy, arising from unfavourable external factors as well as inappropriate domestic policies. Countries embark on structural adjustment programmes when their economies manifest imbalances or are in fundamental disequilibrium. An economy in such disequilibrium suffers from persistent current account deficits, rising external indebtedness, over-valued currency and distortions in relative prices leading to loss of international competitiveness. It is also afflicted by the impact of recession and slow growth in the industrial countries, compounded by protectionist attitude in those countries, leading to deterioration in terms of trade. Too often, rising inflation, declining or reduced economic growth and inefficient allocation of resources feature prominently in such an economy in fundamental disequilibrium.

Structural adjustment programmes may be undertaken by countries with or without the support of the International Monetary Fund (IMF) and the World Bank. Countries usually resort to IMF-World Bank supported adjustment programmes for greater access to foreign funds than would be possible otherwise. Since 1980, an increasing number of countries in Africa have adopted IMF/World Bank supported structural adjustment programmes.

PART I: SAP TARGETS, OBJECTIVES AND INSTRUMENTS: COUNTRY EXPERIENCE

In consideration of the similarity of problems afflicting countries in Africa embarking on SAP, it is not surprising to observe that SAP targets/objectives and instruments are broadly the same in such countries.

Objectives

The aim of SAP is to effectively alter and restructure the consumption and production patterns in the economy, as well as eliminate price distortions and heavy dependence on exports of single product as the main foreign exchange earner, and on imports of consumer and producer goods. Specifically, the major objectives of a structural adjustment programme are to:

- (a) restructure and diversify the productive base of the economy in order to reduce dependence on a single major foreign exchange earner and imports;
- (b) achieve fiscal and balance of payments viability over the period;
- (c) lay the basis for a sustainable non-inflationary or minimal inflationary economic growth; and
- (d) lessen the dominance of unproductive investments in the public sector, improve the sector's efficiency

The objective of an adjustment programme is to eliminate the imbalances delineated above through a variety of policy measures designed to achieve sustained improvement in the balance of payments, optimal pricing and utilisation of productive factors, domestic price and exchange rate stability and a sustained increase in real growth rate and movement towards full employment.

The purpose of this paper is to review the experiences of some selected countries in Africa—Zambia, Kenya, Ghana and Nigeria—that have implemented adjustment programmes supported by the use of IMF resources, focusing largely on the role of their exchange rate policies. The paper is divided into four parts. Part I highlights the policy targets/objectives and instruments of structural adjustment and discusses in some detail the role of exchange rate in the programmes of the countries under reference. In Part II, a theoretical analysis is undertaken of exchange rate concepts and the typology of the transmission mechanism linking exchange rate to some macro-economic variables in the economy. Part III dwells on the appraisal of policy measures, particularly the efficacy of exchange rate in the countries studied. This section also highlights the limitations of exchange rate as a policy instrument. Part IV contains the summary and conclusion, including implications for policy.

and encourage the growth potentials of the private sector.

Policy Instruments¹

A set of basic policy tools or strategies have been discerned in all Fund-assisted programmes, although different emphasis is placed on the principal policy tools in view of the diversity in the levels of economic development, social, political and institutional characteristics of countries undertaking the programmes. The instruments used in pursuit of the above policy objectives include:

- (i) adoption of a realistic exchange rate policy;
- (ii) trade and payments liberalisation;
- (iii) restructuring of tariffs to give effective protection to local industries;
- (iv) stimulating domestic production in order to broaden the supply base of the economy;

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- (v) strengthening demand management policies, i.e. fiscal and monetary policies;
- (vi) reduction of any complex administrative controls and greater reliance on market forces to direct economic activities; and
- (vii) removal of elements of subsidy on goods and services provided by public corporations and agencies.

It is thus clear from the foregoing discussion that the major instruments of SAP are the expenditure-reducing measures in the form of restrictive monetary and fiscal policies (demand management policies) including privatisation, and expenditure-switching measure in the form of adjustment in relative prices through exchange rate adjustment.

Exchange Rate Policy

The exchange rate adjustment is perhaps the most controversial instrument in all Fund-supported programmes. It is an adjustment designed to make imports more expensive than domestic goods and so switch domestic expenditure from foreign to domestic goods. It is also to make exports more competitive and profitable. In most Fund-supported adjustment programmes, outright devaluation or depreciation of the domestic currency featured prominently. There were some adjustment programmes with multiple exchange rates. However, in such programmes provisions were often made for the eventual unification of exchange rate²

Exchange rate adjustment provides perhaps the thorniest aspect of the negotiations for a SAP, particularly the determination of the desirable magnitude of adjustment in the rate needed to correct the external disequilibrium. Sometimes, disagreements between the Fund and governments on this issue have led to a rejection or cancellation of Fund-supported programmes.

Monetary and Fiscal Policies

Demand management policies in the form of monetary and fiscal policies usually accompany exchange rate adjustment for purposes of stabilisation. These normally include the restoration of restrictive monetary and fiscal policies aimed at curbing inflationary pressures and inducing a more efficient financial system. Often, interest rates are deregulated, budget deficits as proportions of GDP have tended to reduce and many programmes contain plans to increase the ratio of revenue to GDP by at least one percentage point. Improvement or reform of tax administration usually plays a crucial role in SAP.

Other instruments related to the above include trade and exchange liberalisation, and privatisation and commercialisation.

COUNTRY EXPERIENCE IN THE ADOPTION AND USE OF INSTRUMENTS

ZAMBIA

Zambia adopted four Fund-supported programmes between 1976 and 1984. In those programmes exchange rate adjustments featured prominently. The key elements of the programmes included a cumulative 50 per cent depreciation

of the Kwacha exchange rate, upward adjustment in interest rates, reduction in budget deficit to 5.6 per cent of GDP, through limits on wage increases (5 per cent per annum on the average) and decreased consumer subsidies, in particular, maize and fertilizer. Other adjustments included lower targets for monetary and credit expansion.

GHANA

The Ghanaian economy suffered decline for over a decade from early 1970s to early 1980s. Real GDP declined by about 20 per cent between 1974 and 1983. In order to reverse this decline, the authorities in Ghana introduced the Economic Recovery Programme (ERP). The main objectives of ERP included the realignment of relative prices through exchange rate adjustment in order to promote economic growth and exports; the rehabilitation of economic and social infrastructure; the restoration of restrictive monetary and fiscal policies and the boosting of private savings and investment.

The major policy instruments included:

- (a) *Exchange rate adjustment:* The official cedi exchange rate was progressively devalued from ₵2.75 to the US dollar in April 1983 to ₵490 to the US dollar in January 1986. In September 1986 the Bank of Ghana established a weekly foreign exchange auction for all transactions except imports of oil, essential drugs and public sector debt service payments. The financing of those transactions was done at the official rate of ₵90 to the US dollar.
- (b) *Abolition of price controls:* Price controls were abolished. Prices were expected to reflect the higher import prices following the cedi devaluation.
- (c) *Rise in interest rates:* Interest rates were raised to foster the growth of domestic savings.
- (d) *Reduction in government expenditure:* The budget deficit was reduced to an average of 2–2½ per cent of GDP in 1983–1985 from 8 per cent of GDP in 1980/81.

KENYA

Given the fluctuations in the prices of coffee and tea in much of the 1970 decade, the Kenyan economy experienced sluggish growth in that period. The situation further deteriorated early in the 1980 decade as a result of inadequate demand management policies. Government had to adopt a Fund-assisted adjustment programme between 1983 and 1985 in order to correct the financial imbalances and improve the growth potential of the economy.

The main features of the programme included a flexible exchange rate policy, import liberalisation, adjustment in producer prices and a review of the interest rate structure. The Kenyan shilling, which was pegged to the SDR, was depreciated by about 42 per cent in terms of SDR. In real terms, the shilling depreciated by 19 per cent between 1980 and 1985. Advance import deposit requirements were abolished in 1983 and producer prices were raised to provide incentives to the agricultural sector. A rein was imposed on the growth of budget deficits.

NIGERIA

With the collapse of the oil boom in Nigeria in 1981, the Nigerian economy experienced deterioration generally. The real gross domestic product declined and unemployment, inflation and large fiscal deficits held sway. On the external sector, the naira exchange rate was overvalued and severe balance of payments pressures and an unsustainable external debt burden persisted. Underlying these adverse economic trends were many fundamental structural deficiencies which needed to be corrected, the most important being the heavy dependence on crude oil both as a source of foreign exchange earnings and of government revenue, the excessive dependence on imports and the perennial weakness of the agricultural sector.

It was against this background that Nigeria adopted the Structural Adjustment Programme (SAP) in July 1986 to correct the economic malaise and re-orientate the economy towards self-reliance. Policy measures and instruments were adopted under SAP in four important areas of the economy. First, a Second-tier Foreign Exchange Market (SFEM) was introduced to evolve a realistic and market-determined ex-

change rate for the naira. Second, restrictive trade and exchange controls were abolished. Commodity Boards, which previously enjoyed a monopoly in the purchase and marketing of scheduled agricultural produce, were dissolved. Import and export licensing as well as exchange control on all current transactions were abolished. Exporters were allowed to retain 100 per cent of their earnings which they are expected to keep in their domiciliary accounts.

Third, the Federal Government aimed at pruning down its budget deficits which, in 1986 and 1987, for example, were limited to 1.5 and 2.3 per cent of GDP, respectively compared with 7.4 per cent in 1985, the year preceding the introduction of SAP. Finally, a number of restrictive monetary and credit policy measures were also put in place. For example, the 1986 ceiling of 10 per cent imposed on the rate of credit expansion by the big and medium-sized commercial banks was reduced to 8 per cent for the rest of 1986 and 1987. But with effect from August 1, 1987, the 8 per cent ceiling on commercial banks credit expansion was revised to 7.4 per cent for the last three quarters of 1987. The ceilings for 1988, 1989 and 1990 were 12.5, 10.0 and 12.5 per cent, respectively.

PART II: THEORETICAL NEXUS

The foregoing section has sought to highlight the SAP policy objectives and instruments adopted in each of the four countries under review. It would be observed that exchange rate adjustment featured prominently in the reform arsenals of those countries. In this section, attempts will be made to give a theoretical content to the policy preoccupation by those countries with exchange rate adjustment. However, it is not intended to implement the model that is discussed in this paper; such an exercise will be undertaken soon in a separate study based on Nigerian data.

Definitions

An exchange rate is the price of one currency in terms of another. Given two currencies, the naira and the US dollar, for example, the exchange rate between the naira and the dollar is equal to the units of naira needed to purchase one unit of the US dollar. The value of naira in terms of dollars, in this case, is the reciprocal of the N/\$ exchange rate.

However, in the current situation in which the currencies of the major trading nations are floating, the movement of the exchange rate so defined may not give an accurate idea of the real changes in the international purchasing power of any given currency. Thus, for that purpose, the concept of effective exchange rates has been developed as the standard technique for dealing with a group of floating currencies. There are both the nominal and "real" versions of effective exchange rates. The former refers to the index of the weighted average of the exchange rates of the country's trading partners, relative to its own exchange rate. The latter refers to the nominal effective exchange rate deflated by (or adjusted for) indices of relative prices³ and adjusted by share in world trade. That is,

$$REER = \sum_{i=1}^m S_i \left\{ E \left\{ \frac{P^f}{P^d} \right\} \right\}$$

where	
REER	= Real Effective Exchange Rate
E	= Nominal Exchange Rate
$\frac{P^f}{P^d}$	= Index of relative prices
S_i	= Share in world trade.

Concept of Equilibrium Exchange Rates

Underlying variations in these effective exchange rates are the differentials in rates of inflation between countries. It is thus possible through these relative inflation rates to derive the equilibrium exchange rate, either in the short or medium-to long-term. While the short-term equilibrium exchange rate refers to one that would be established at a given time by the interplay of market forces, the long-term equilibrium rate is the rate that would equilibrate the balance of payments in the medium and long-term and facilitate the achievement of certain structural adjustment objectives. An approach to determining such equilibrium exchange rate is the so-called purchasing power parity (PPP)⁴. The PPP between two countries is defined as either the ratio of the countries' price levels (absolute PPP) or the product of the exchange rate in a base period and the reciprocal of the absolute PPP (relative PPP).

The central tenet of all PPP theories (absolute or relative) is a tendency for the short-run equilibrium exchange rate to approach the PPP. By definition,

$$PPP_{t \text{ abs}} = \frac{P_t^d}{P_t^f} \dots\dots\dots(1)$$

$$PPP_{t \text{ rel}} = \frac{E_0 P_t^f}{P_t^d} \dots\dots\dots(2)$$

where
 P_t^f = current price level in home country

P^f = current price level in foreign country

PPP_t^{abs} = absolute PPP

PPP_t^{rel} = relative PPP

$$\hat{E}_t = PP^{rel} = E_0 \frac{P_t^f}{P_t^d} \dots\dots\dots(3)$$

and

\hat{E}_t = equilibrium exchange rate

E_0 = exchange rate in the Base Year

Thus the equilibrium exchange rate is derived from the base year official exchange rate adjusted by the inverse of PPP ratio.

On the basis of equation (3), a measure of over-valuation, V , can easily be determined. V represents the percentage difference or variation of official exchange rate from its equilibrium value, that is

$$V = \frac{E_t - \hat{E}_t}{\hat{E}_t} \times 100$$

where V = magnitude of over-valuation, and where + indicates over-valuation, - indicates under-valuation.

E_t = official exchange rate in the current period

\hat{E}_t = equilibrium exchange rate.

The concept of equilibrium exchange rate is a useful one for policy makers. Apart from providing guides to exchange rate management, such rates also help in determining the degrees of over-valuation or under-valuation of a particular currency.

It is important to note, at this point, however, that despite its popularity the PPP theory suffers from many defects, notably, the assumption that only relative national price levels affect the exchange rate; the existence of non-traded (purely domestic) goods whose prices have no close connection with the exchange rate although they do enter the general price levels used to compute the PPP. Besides these conceptual problems measurement problems also loom large.

The Exchange Rate Model ⁵

The building blocks of the model of determination of exchange rate take the demand for money function for the essential analytical points. The function is of the form:

$$\frac{M}{P} = m(r, y) \dots\dots\dots(1)$$

where

M = money stock

P = price level

r = interest rate

y = the level of real income

The other building blocks are two international arbitrage relations. These are a law of one price or purchasing power parity (PPP) equation,

$$P = eP^f \dots\dots\dots(2)$$

and an open-interest arbitrage condition

$$r^d = r^f \dots\dots\dots(3)$$

where

P^f = world price level

e = exchange rate

r = domestic interest rate

r^f = foreign/world interest rate

If P^f and r^f are exogenous, equations (2) and (3) convert equation (1) into an exchange rate equation:

$$M = eP^f m(r^f, y) \dots\dots\dots(4)$$

Taking the logarithm,

$$\ln M = \ln e + \ln P^f + \ln m(r^f, y) \dots\dots\dots(5)$$

That is,

$$\ln e = \ln M - \ln P^f - \ln m(r^f, y) \dots\dots\dots(5a)$$

$$\text{But } \ln P = \ln e + \ln P^f \text{ (PPP equation 2) } \dots\dots\dots(6)$$

Substituting equation (6) in equation (5), we can re-write equation (5) as an equation for the domestic price level:

$$\ln P = \ln e + \ln P^f = \ln M - \ln m(r^f, y) \dots\dots\dots(7)$$

It is thus obvious from equation (5a) that movement of exchange rate is positively related to movement in money supply (an increase in money supply depreciates the exchange rate), and negatively related to output and foreign price level (i.e. an increase in these latter variables appreciates the exchange rate). Also in equation (7) we observe that the rate of inflation is positively related to growth in the money stock, depreciation of the exchange rate and growth of inflation abroad but inversely related to growth of output.

Thus, if the objective of monetary policy is to stabilise the domestic price level in the face of exogenous variation in P^f , r^f , and y , the prescription from the monetary model of equation (4) is as follows:

- (i) Vary the nominal money stock, M , to offset variation in real money demand as r^f and y move.

That is, from equation (7),

$$\frac{dM}{M} = \frac{dm}{m}; \text{ and}$$

- (ii) permit movement in the exchange rate, e , to offset variation in P^f :

$$\frac{de}{e} = \frac{-dP^f}{P^f} \text{ (see = ns 5 and 7)}$$

However, it must be cautioned that the above prescriptions of model seem simplistic. Stabilising the money stock around its trend may prove ineffective in stabilising the price level as P^f , r^f or y vary.

Formulating the Link between Price and Exchange Rate

An empirical version of the above equations linking the price level with the exchange rate can be formulated as follows: The exchange rate enters the scene through imports. The home-currency price of imports is given by a PPP equation with the world price exogenous:

$$P^m = eP^f \dots\dots\dots(8)$$

or

$$\ln P^m = \ln e + \ln P^f \dots\dots\dots(9)$$

This is the import price version of equation (2). The price of goods produced at home, P , is assumed to depend on the money stock and the import price.

$$\ln P = \alpha_0 + \alpha_1 \ln M + \alpha_2 \ln P^m \dots\dots\dots(10)$$

In equation (10), P is the price of goods produced at home, represented by the wholesale price index (WPI). Finally, the export price index, P^x depends on movements in the WPI and on competitive world prices, converted into home currency:

$$\ln P^x = B_0 + B_1 \ln P + B_2 \ln (P^f) \dots\dots\dots(11)$$

Equations (10) and (11) may be estimated, using quarterly data, and including several dynamic and lag specifications of both equations. Some of these may be as follows:

$$\ln P = C_0 + C_1 \ln M + C_2 \ln P^m + C_3 \ln P_{t-1} \dots\dots\dots (12)$$

$$\ln P^x = d_0 + d_1 \ln P + d_2 \ln P^f + d_3 \ln (P^x)_{t-1} \dots\dots\dots (12)$$

$$\ln P^x = d_0 + d_1 \ln P + d_2 \ln (P^f) + d_3 \ln (P^x)_{t-1} \dots\dots\dots (13)$$

Substituting equation (10) into equation (11), we have

$$\ln P^x = p_0 + p_1[\alpha_0 + \alpha_1 \ln M + \alpha_2 \ln P^m] + p^2 \ln (eP^f) \dots\dots\dots (14)$$

Thus, the effect of an increase in the exchange rate, e , may be given by:

$$\frac{dP^x}{de} = B_2 + B_1 \alpha_2 \dots\dots\dots (15)$$

where

B_2 = substitution effect from equation (11).

B_1 = import prices and WPI.

PART III: APPRAISAL OF POLICY MEASURES

In the preceding section attempts have been made to delineate the major building blocks in the relationships linking exchange rate to macro-economic variables such as money supply, relative price levels and output. The preoccupation with the management of the exchange rate in Fund-supported adjustment programmes is thus understandable, particularly in view of the pervasive influence of changes in exchange rate on the national economy.

This section seeks to appraise the mix of policies under the adjustment programmes without necessarily isolating the separate effects of changes in exchange rate on the economies of the countries reviewed. That is a subject for future study. The effects of exchange rate changes worked in concert with those of other instruments of SAP to produce the economic performance under the programmes.

ZAMBIA

The authorities in Zambia have experienced considerable difficulties in implementing the macro-economic stabilisation and structural reforms undertaken with the support of the Fund since 1976. The reforms were all aimed at reducing dependence on copper and raising economic growth by mobilizing savings and investments and reducing distortions in relative prices. Output growth rate recorded persistent declines between 1981 and 1984 although at a slower rate before recovering marginally by 1.5 per cent in 1985.

However, with the cancellation of the stand-by arrangement in May 1987 and the subsequent inauguration of major re-orientation of economic policies under the New Economic Recovery Programme (NERP) in 1987, recovery was recorded in output growth in 1988, the first full year under the NERP. Favourable weather conditions coupled with increases in agricultural prices and higher copper prices contributed to a rise of 6 per cent in real GDP.

As NERP unfolded, major obstacles to sustained recovery soon became manifest. Sluggish growth of revenue and rising expenditure, especially maize and fertilizer payments, contributed to widening fiscal deficits that were financed largely by money creation. Monetary expansion was fuelled further by an increase in international reserves resulting from a build-up of external payments arrears and strong copper prices. Inflationary pressures mounted. Inflation, which averaged 13.3 per cent in 1981-82 worsened to an average of 21.0 per cent between 1983 and 1985 and to 74.4 per cent between 1986 and 1989.

On the external sector, exports rose by 12.7 per cent in 1987 through 19.7 per cent in 1988 to 35.5 per cent in 1989. In 1990, however, exports were projected to decline by 29.7

per cent. Zambia's external debt, which averaged 90.6 per cent of GDP between 1981 and 1982, rose to 151.2 per cent between 1984 and 1985, and her debt service ratio rose from 42.4 per cent to 67.5 per cent in the same period. In the period 1986-1989, the debt service ratio declined from 109.9 per cent in 1988 to 57.1 per cent in 1989.

Accounting largely for the poor performance of the external sector is the persistent decline in the price of copper in the world market. Thus, until a more sustainable balance of payments position is achieved, there will be little prospect of durable growth in Zambia.

GHANA

The implementation of the Economic Recovery Programme undertaken in Ghana since April 1983 represents a success story. The economy recorded impressive growth.

Government revenue recorded considerable boost. At 5.6 per cent of GDP in 1983, government revenue rose to 14.4 per cent of GDP in 1986, rising further to 17.4 per cent in 1987, and averaged 16.9 per cent in the period 1988-1989. The increases in revenue reflected increases in international trade taxes, world cocoa prices and improved tax collection. Real growth rate rose sharply from -4.5 per cent in 1983 to 10.7 per cent in 1984 but slowed down to an average of 5 per cent between 1986 and 1989. In 1989 the growth rate was an impressive 6.1 per cent.

Agricultural output benefitted tremendously from improved weather conditions during 1984-86 and from pricing incentives. Recording an average annual percentage growth of -1.1 between 1978 and 1983, agricultural output grew by 3.7 per cent in the post reform period 1983-1988. The growth of manufacturing and mining sectors was remarkable and contributed substantially to the increase in growth rate. In the pre-adjustment period, 1978-83, the sectors recorded a negative growth rate of -14.1 per cent, compared with 13.4 per cent recorded in the post-reform period, 1983-88. Inflation rate declined appreciably from 123 per cent in 1983 to 31 per cent in 1988. The inflation performance, while significant, fell short of initial expectations, however, reflecting the operations of a flexible exchange rate policy which has facilitated real increases in producer prices and the expansionary monetary and fiscal policies adopted in 1986.

The balance of payments was strengthened as export volume increased by 4.2 per cent between 1983 and 1986, and by an average of 10.0 per cent in the 1987-1988 period. The export performance is substantial compared with the -27.9

per cent decline in exports in 1983, the year the reform started.

KENYA

Substantial improvement has been recorded by the Kenyan economy since it adopted the structural adjustment in 1982. Real output growth which averaged 2.5 per cent in 1981/82 increased to an average of 2.9 per cent in the 1983–85 period and to 5 per cent between 1985 and 1989. Inflation averaged 17.3 per cent in 1981/82 but fell to 10.5 per cent in 1986/89. The current account deficit as a percentage of GDP averaged –10.6 per cent in the 1981–82 period but this fell to –5.6 per cent in 1983/85 and further to –5.3 per cent in 1988 following the recovery achieved in the export sector as a result of the effective implementation of the adjustment programme. The overall balance of payments was in surplus in 1989, although the current account deficit widened to 5.9 per cent of GDP, 0.6 percentage point above the 1988 ratio. Accounting largely for the deterioration in the current account was expanded trade deficit that accompanied a 10 per cent deterioration (in shilling terms) in the terms of trade. The deterioration reflected the slowdown in exports and faster growth in imports. However, the deficit on the current account was more than offset by a strong capital account. Net capital inflows rose by 72 per cent in 1989 compared with 30 per cent in the preceding year.

NIGERIA

The Nigerian economy has responded positively, by and large, to the Structural Adjustment Programme (SAP) which was adopted in July 1986. The real gross domestic product (GDP) trended upward during the programme period, 1986–1989. Real output increased yearly, averaging a 3 per cent growth rate. By contrast, in the quinquennium preceding SAP (1981–85), national output fluctuated widely, averaging 0.8 per cent only. The improvement in the growth rate of GDP reflected increased output of the agricultural and industrial sectors. During the programme, agricultural production recorded an annual growth rate of 2.6 per cent as against an average growth rate of 0.4 per cent in the 1981–1985 period. The corresponding figures for manufacturing production were 14.5 and 1.4 per cent. Average capacity utilisation in manufacturing which had declined from a peak of 73.3 per cent in 1981 to a trough of 37.1 per cent in 1985, rose progressively to 44.5 per cent in 1988.

With the deregulation of the naira exchange rate and the substantial depreciation which accompanied it, the wide margins between the parallel and the official exchange rates narrowed down from 238 per cent in the period immediately preceding the introduction of the Foreign Exchange Market in September 1986 to about 5 per cent in December 1987. The parallel market premium has, however, edged upward, reaching 24.0 and 16.7 per cent in December 1989 and December 1990, respectively.

The deregulation of interest rates has engendered competition among banks for deposits. Savings mobilization has been boosted by higher interest rates. Inflation rate however rose, weakening the effectiveness of the increase in the deposit rates to mobilize deposits. Also, the liberalisation of exchange and trade regimes as well as the financial system

has led to the phenomenal increase in the number of new commercial banks, from only 4 in the three years preceding SAP (1984–86) to 18 in the period, 1987–89, that is, in three years of the operation of the programme. Similarly, while only 12 merchant banks were established in the period, 1987–89.

On the external sector, there has been a substantial return of the economy to international credit worthiness. The SAP has provided a favourable environment for the rescheduling of external debt, including refinancing arrangements. The balance of payments improved considerably as reflected in the movement of external reserves. External reserves held by the Central Bank, for example, rose from US\$611.4 million at the end of December 1988 to US\$1,759.1 million at the end of November, 1989.

Limitations to the Analysis

Although the various economies reviewed responded positively, by and large, to the policy measures under the adjustment programmes, this is not to suggest that exchange rate adjustment alone moved the economies around. There were other demand management policy measures (monetary and fiscal policy measures) and supply side measures which worked in concert to achieve the overall results for the economies. Beside the partial nature of the analysis, it is a truism that exchange rate stimuli are not always uni-directional; they could produce mixed results such as inflationary pressures and expectations.

Nor is that all. The efficacy of exchange rate as a policy instrument depends on the proper alignment of the mix of other policies, notably monetary and fiscal policies. Nevertheless, the exchange rate remains the most potent policy instrument in most World Bank/IMF-supported adjustment programmes.

Summary and Conclusion

This paper has reviewed the experiences of some selected countries in Africa – Zambia, Kenya, Ghana and Nigeria – that have implemented adjustment programmes supported by the use of IMF stand-by arrangements, focussing largely on the role of their exchange rate policies. It was noted that SAP targets/objectives and instruments are broadly the same in all the African countries embarking on SAP, given the similarity of the problems afflicting them.

The major objectives of SAP are to restructure and diversify the productive base of the economy; achieve fiscal and balance of payments viability over the programme period; lay the basis for a sustainable, non-inflationary or minimal inflationary economic growth; and lessen the dominance of unproductive investments in the public sector. The policy instruments designed to achieve those policy objectives include: realistic exchange rate policy; trade and payments liberalisation; restructuring of tariffs; demand management policies; removal of subsidies on goods and services provided by public corporation and agencies and privatisation/commercialisation. It was observed that the exchange rate adjustment, either in the form of outright devaluation or depreciation of the domestic currency, is perhaps the most

controversial instrument in all Fund-supported programmes. It is an adjustment designed to make imports more expensive than domestic goods and so switch domestic consumption from foreign to domestic goods. It is also designed to make exports more competitive and profitable.

The paper dwelt on country experience in the use of adjustment instruments. Zambia, Ghana, Kenya and Nigeria have anchored their adjustments on the exchange rate, with cumulative depreciation of their national currencies by not less than 50 per cent, at least in nominal terms. While adopting restrictive monetary and credit policies, all the four countries put in place measures to reduce budget deficits to between 1.5 and 2.3 per cent of GDP. These proportions have, however, edged upward recently to about 4–5 per cent.

In the appraisal of country experience, it was noted that the economies reviewed fared better under the SAP, with output growth averaging about 5 per cent. Ghana's growth rate was remarkable. In Ghana, real growth rate rose sharply from -4.5 per cent in 1983 to 10.7 per cent in 1984 but slowed down to an average of 5 per cent between 1986 and 1989. In 1989 the growth rate was an impressive 6.1 per cent. Kenya and Nigeria achieved noteworthy growth rates as well. The balance of payments profile of the countries reviewed also indicated substantial improvement, especially the current account positions.

A notable negative side effect of adjustment measures has been the inflationary pressures observed in spite of the restrictive demand management policies adopted.

In conclusion, the economies of the four countries reviewed have made considerable strides in meeting some of the objectives of SAP. However, concerted efforts are still required to establish sustainable exchange rates. In this pursuit, government fiscal actions must be seen to complement the restrictive monetary and credit policies; otherwise the attainment of a realistic exchange rate would ever remain a mirage.

NOTES

1. For the policy content of adjustment programmes, see IMF, "Fund-Supported Programmes, Fiscal Policy, and Income Distribution", Occasional Paper 46 (September 1986), pp. 42–53. IMF "External Adjustment and Growth in Fund-Supported Programmes—Recent Experience". EBS/87/47 (March 2, 1987) pp. 65–67. IMF, *Theoretical Aspects of the Design of Fund-Supported Adjustment Programmes* op. cit. IMF, "Formulation of Exchange Rate Policies in Programmes Supported by the Fund." EBS/84/227 (Nov. 7, 1984), M. R. KELLY, "Fiscal Adjustment and Fund-supported Programmes", *IMF Staff Papers* (Dec. 1982), pp. 250–84.
2. J. S. Lizondo, *Unification of Dual Exchange Markets*, IMF DM/85/21 April, 1985.
3. Maciejewski, E. B. "Real Effective Exchange Rate Indices", *IMF Staff Papers*, 1983.

4. The PPP approach to calculating the equilibrium exchange rate is popular because of its simplicity and operational tractability. The other less attractive approaches are the Underlying Payments Disequilibrium (UPD) and the Asset Market Disturbances (AMD). The UPD focusses on the underlying balance of payments position of a country rather than on its price level. Under this approach, the researcher has to make a number of discretionary adjustments for the effects of cyclical variations in domestic output and employment on the current account position before deriving, with an appropriate world trade model, the exchange rate that would lead to both domestic and external equilibrium. The UPD is thus very complex, involving a sizeable dose of discretionary manipulation. The AMD focusses on the effects of short-term market disturbances, principally interest rates, so as to determine the equilibrium exchange rate. Again, this method, which assumes that the exchange rate is generally influenced by developments in the money and capital markets, is best suited for advanced economies for obvious reasons. For further details, see J. R. Artus, "Methods of Assessing the Long-run Equilibrium Value of an Exchange Rate", *Journal of International Economics*, Vol. 8, 1978, pp. 289–295.
5. The model draws heavily on the work of Branson, W. H. "Monetary Stability and Exchange Rate Objective in Singapore". *Papers on Monetary Economics*, 1981.

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4. IMF, "External Adjustment and Growth in Fund-Supported Programmes—Recent Experience", EBS/87/47, March 2, 1987.
5. "Fiscal Adjustment and Fund-supported Programme", *IMF Staff Papers*, December, 1982 CTAD/MFD/TA, April 16, 1982.
6. Ogbe, N. E., "The Experiences of other Developing Countries Under Structural Adjustment Programme", Unpublished mimeo, being a lecture delivered at the seminar organised by the Nigerian Economic Society, Obafemi Awolowo University, Ile Ife, May 3–7, 1988.
7. World Bank, *World Development Report 1989*, Oxford University Press.