TOWARDS ECONOMIC CONVERGENCE IN WAMZ: EFFECTS OF FISCAL DOMINANCE ON MACROECONOMIC STABILITY

-*O. J. NNANNA (Ph. D).*

Abstract

This article discusses the threat posed by fiscal dominance and measures that could be adopted to contain it in order to foster macroeconomic convergence in the WAMZ. The presentation is organised around two elements: the boom and burst cycle of capital expenditure, adjudged to be the root cause of fiscal dominance, and an empirical analysis of the implication of fiscal dominance for macroeconomic stability in the WAMZ. While the empirical and anecdotal evidences of the adverse effect of fiscal dominance is overwhelming, the paper went further to propose a fiscal rule that would contain the destabilising effect of large revenue swings.

1. Overview

Effort to create a second monetary zone and a free trade area has gathered momentum since the West African Monetary Zone (WAMZ) protocol was signed in 1991. The WAMZ project is predicated on the proposition that economic integration can indeed, enhance the prosperity and welfare of the citizens of the member states. First, it would facilitate the pooling of risks between otherwise vulnerable economies, and enable the region exploit complementarities and attract the levels of investment required for the development of modern industries, enjoy more specialisation, economies of scale and better access to technological

[1] The author is the Director of Research at the Central Bank of Nigeria. The views expressed in this paper are those of the author and do not necessarily represent the views of the organisation with which he is affiliated. He gratefully acknowledges the research assistance of Mr. E. A. Essien in the preparation of this paper.

spillovers (Essien and Egbuna, 2002). Second, the monetary union would encourage the mobilisation and improved management of human and financial resources (Ojo, 2001). Third, the formation of the monetary union would help hasten the process of macroeconomic stability, ensure strict budget discipline via peer group pressure, sustain exchange rate and price stability, and promote better growth performance (Nnanna, 2000).

The WAMZ convergence criteria are divided into four primary and six secondary criteria, with various targets and dates set for the different criteria. Under the "Convergence, Stability, Growth and Solidarity Pact" adopted by the member countries, all WAMZ member countries are required to fully meet the criteria at the stipulated dates.

The primary criteria, which is central to this paper consist of four pillars:

* *Inflation:* Under the treaty, member countries are expected to achieve single digit inflation by end-2002 and specifically, 5 per cent by end-2003.
* *Overall Budget Deficit:* A restriction of the overall budget deficit as a ratio of the gross domestic product of not more than 3 per cent. This is a key pillar aimed at gauging government commitment to fiscal prudence.
* *Central Bank Financing of Deficit:* In order to ensure sustained fiscal prudence, a ceiling was placed on the financing of fiscal deficit at 10 per cent of previous year's tax revenue.
* *Foreign Exchange Reserves:* The stock of foreign exchange reserves that is capable of financing 6 months of imports by 2003.

While recognising that the harmonisation and convergence of policies is a precondition, compliance is even more crucial. Empirical

evaluation of compliance suggests that member countries have not made sufficient effort to meet the macroeconomic convergence criteria. From Nigeria to Sierra Leone, the story is the same. According to Nnanna (2002), large swings have characterised the macroeconomic performance of the WAMB countries. Policies in member states have been implemented in fits and starts and in ways that have sustained divergence rather than convergence. The result is that few member countries have met some, but not all of the criteria. While some countries have achieved a single digit inflation rate and the prescribed target of external reserves, fiscal deficit has posed the greatest challenge to convergence. Fiscal dominance has therefore been recognised as a major clog in the wheel of convergence. Indeed, a growing body of evidence, both anecdotal and empirical suggests that macroeconomic stability in the sub-region is undermined by fiscal dominance.

Simply put, fiscal dominance is a term used to express a situation where the conduct of monetary policy is dominated by fiscal shocks. Fiscal dominance has two key elements. These are: the size of the deficit and the mode of financing the deficit. According to fischer and Easterly (1990), the size highlights the effects of deficit on domestic saving and investment, the current account and the links between the budget deficit and the ultimate goal of monetary policy. The mode brings to light the different kinds of distortions the deficit can cause, namely: excess liquidity, which causes demand-pull inflation, foreign exchange demand pressure, which leads to balance of payment crisis and exchange rate depreciation, external debt overhang, which includes high real interest rates and crowding out of the private investment.

While the world economic depression of the 1930's led to the

thinking that there was need for government intervention, the keynesian revolution popularized deficit financing. Keynes encouraged the resort to deficit financing in order to jump-start an economy in a state of depression. Empirical studies have provided some evidence to support the Keynesian view of the role of government, although the jury is not yet out. However, evidence from the WAMZ countries, arising from the prevalence of unsustainable deficits has given the indication that also supports the fact that Keynes prescription has been misused. This is because Keynes prescription did not suggest that government should finance the deficit by printing money, a situation that has induced the macroeconomic imbalance observed in the WAMZ.

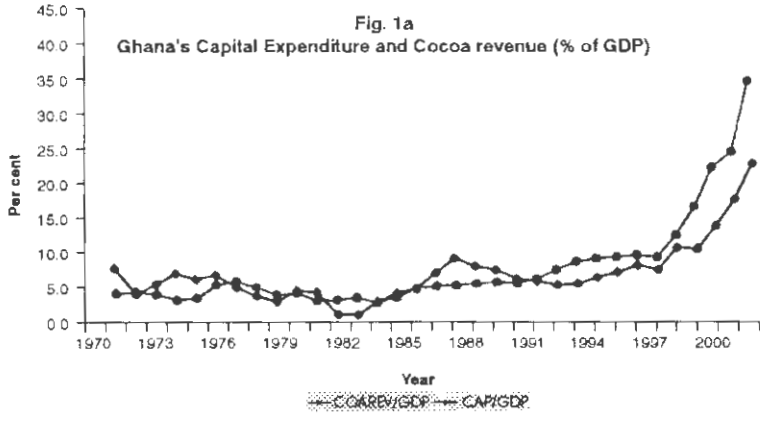
Despite the overwhelming empirical and anecdotal evidence on the adverse consequence of fiscal dominance, it has remained attractive in all WAMZ countries. This paper therefore focuses on the macroeconomic effects and consequences of inflationary financing. Following this overview, the next section discusses the 'Boom and Burst' cycle of capital expenditure in the WAMZ, with particular reference to Nigeria. In section III, an empirical analysis of the impact of fiscal deficit on key macroeconomic variables is carried out. The need for fiscal adjustment forms the focus of section IV, while section V concludes the paper.

2. The Boom and Burst Cycle of Capital Spending in the WAMZ: The Nigeria Case Study and Lesson Learned.

The term boom and burst have been used to describe the severity or the procyclicality of revenue and expenditure over time. A boom therefore is the top or peak of the cycle, when there is a big jump in revenue, which is accompanied by expenditure. When economic performance begins to

decline from that peak there is a downturn and if it persists, at least theoretically, for more than two quarters, a recession is said to set in. A large recession is called a depression and burst means that the economy is in a depression. In this paper, the same terminology is used to describe the cycle of capital expenditure in the WAMZ, including Nigeria.

Historical antecedents indicate that the boom for WAMZ countries began with the sudden rise in the prices of oil and other primary export commodities in the early 1970's. As with all resource-based economies, such as those dependent on primary commodities (oil in Nigeria, cocoa in Ghana, diamond in Liberia and Sierra Leone, etc), revenue is uncertain and highly volatile because the prices of these commodities are uncertain. Thus, a positive (negative) terms of trade shock resulting from a rise (fall) in prices is capable of exerting considerable positive (negative) impact on capital expenditure, resulting in a boom (burst). Figures 1a and b are graphs depicting trends in revenue-to-GDP and capital expenditure-to-GDP ratios for Ghana and Nigeria[2]. The graphs show that capital expenditure has been moving in sympathy with commodity revenue.



[2]As a result of data constrain the graph for other WAMZ countries could not be shown. Data for Ghana was obtained from International Financial Statistics of the IMF.

The case of Nigeria is very instructive. Capital expenditure grew by over 1000 per cent between 1970 and 1975, largely owing to the need to finance post war reconstruction and the oil price hike of 1973, which resulted in a sharp rise in government revenue. The upward trends in revenue and capital expenditure persisted until 1978. With the drop in the oil revenue in the early 1980's, which eclipsed the investment potentials of the boom of the 1970s, a larger current deficit was created as imports continued to grow faster than exports. However, the period of boom was quickly followed by a burst, from 1980 until 1984 following the adverse terms of trade shock. During this period, the growth in capital spending was dismal, and substantial budget deficits were recorded.

Following the economic crisis, most capital projects were abandoned and an urgent federal action was required. Thus in 1983, the government embarked upon an 'austerity' programme. The austerity policy brought severe hardship to the populace, and undermined good governance and distributional equity. Ultimately, it provided the alibi for a military intervention in the Nigerian government.

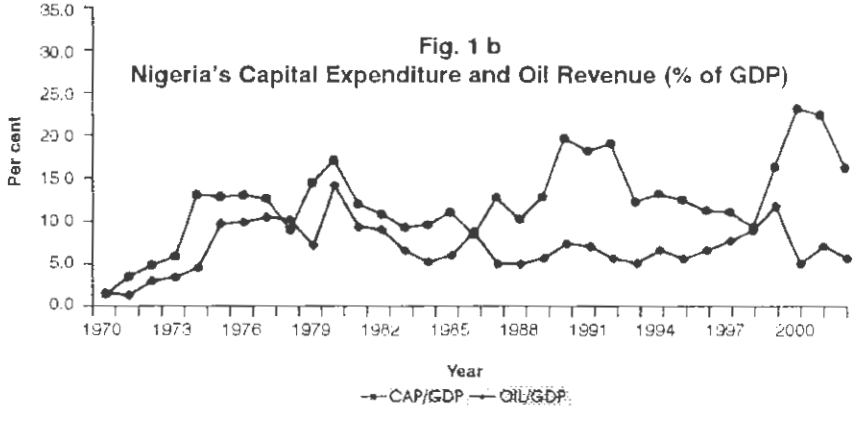


Fig. 1 b
Nigeria's Capital Expenditure and Oil Revenue (% of GDP)

The period 1987 and 1998 witnessed considerable decline in capital expenditure. Two factor were responsible for this trend. The first was the

economic crisis that necessitated the introduction of the Structural Adjustment Programme (SAP) in 1986. The second was the deliberate strict control over capital expenditure during the Abacha administration (1994-1998). This was the longest burst in capital expenditure in Nigeria since 1970.

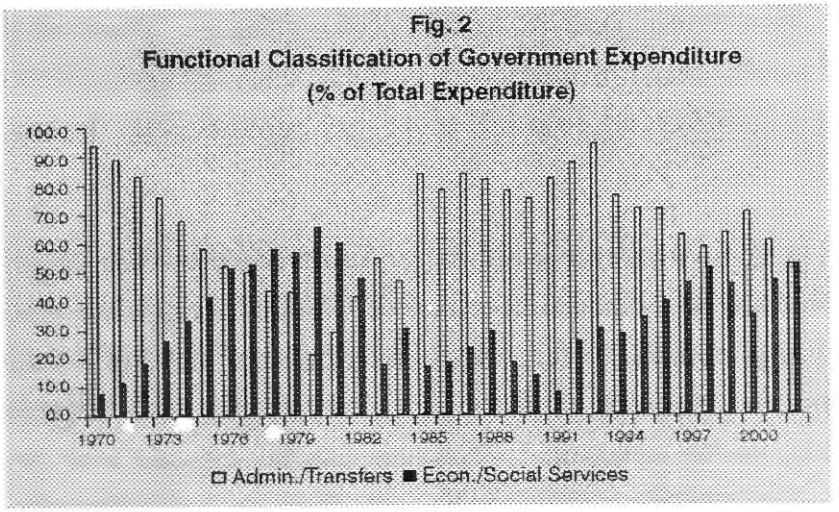
Data from 1996 showed an upturn and sharp increase in capital expenditure. The effect of improved oil revenue and the preparation for a change to democratic rule were the driving forces. There was another episode of capital expenditure boom, which continued up until 1999, before another burst in 2000, when it fell to 4.8 per cent of GDP, the lowest in 16 years.

The large swings in capital expenditure arising from volatile export product revenue have characterised all the WAMZ countries. Even though the underlying causes differ, the consequences are very similar with obvious macroeconomic consequences. Typically, the dependence on volatile commodity revenue to finance capital expenditure beyond the economy's absorptive capacity has resulted to unsustainable budget deficits during the period of revenue burst. This is because, once committed, it is difficult to lower the level of capital expenditure from its peak, in the face of declining revenue. In all the WAMZ member countries, the empirical fact of the political economy is the downward stickiness of recurrent and capital expenditure.

Beyond the above argument , government expenditure has to be efficient and targeted towards productive ventures before it can impact positively on the economy. This has not been the case for WAMZ countries. In Nigeria, for instance, an examination of the classification of capital

expenditure shows that the expenditure priority has been skewed towards on-lending to parastatals and transfers, while a very small proportion goes to economic and social services as Figure 2, below shows. Often these expenditure result in colossal waste. The net effect is the reduction in resources available for future public investment, social programmes and the increase in additional deficits.

Fig. 2
Functional Classification of Government Expenditure
(% of Total Expenditure)



There are obvious political economy lessons to be learnt from the boom and burst cycle of capital expenditure in the WAMZ. Prominent among them is the need to address the effects of the distortions arising from fiscal deficits on the economy. Critical areas of concern include inflation, exchange rate stability, and external reserve loss. Volatility in capital expenditure gives rise to abandonment of public projects during the periods of revenue burst. The non-execution of public projects generally gives the false impression of corruption, which often trigger governance problems.

3. The impact of Fiscal Deficit on Key Macroeconomic Indicators

In order to propose remedial measures for addressing poor fiscal management, we need to understand the linkages between fiscal dominance and key macroeconomic variables, such as inflation, exchange rate, growth, external reserves, and liquidity or money supply.

It is quite straightforward to relate government spending that is not financed by tax or non-tax revenue to excess aggregate demand. For instance, when government spending is financed by central bank, it increases the monetary base, and thus the **money supply**. This is generally a source of inflationary pressure in the economy. **Inflation** is therefore likely when government spending is financed through money creation, not matched by increased production of goods and services. The failure to adjust the fiscal position may give rise to expansionary monetary policy or in the crowding out of the private sector.

When government increases its spending, without taxes or other measures to restrain private sector demand, imports are liable to grow relative to exports of goods and services, and the current account tends to deteriorate. This relationship can be derived via the familiar national income identity that

$$S-I=CAB \quad \ldots\ldots(1)$$

Where,

I = Gross Investment; S= Gross National savings; and CAB = Current Account Balance Expressing (1), the economy wide saving-investment gap, in terms of the gaps of the private and government sector gaps, we get,

$(Sp - Ip) + (Sg - Ig) = X - M$, where X and M are exports and imports, respectively. The government sector deficit (revenue minus expenditure, T-G) is equal to the savings-investment gap of government,

$$(Sp-Ip)+(T-G)=X-M \text{ or } CAB \quad \ldots\ldots(2)$$

Equation (2) shows that the external current account balance has the counterpart of the sum of the private sector's saving-investmant gap and the government deficit. Thus, any fiscal deficit must be matched by a domestic private sector that saves more than it invest and/or by an external current account deficit. When current account deficits result from fiscal expansion, it has to be financed either through foreign borrowing, investment by foreigners in domestic stocks and bonds, or by drawing down international reserves. Since the current levels of debt for most countries in WAMZ are too high and the capital markets are undeveloped, the logical policy option is to draw down the reserves to finance current account deficits. Thus, fiscal dominance has a negative impact on **inflation** and **external reserves.** It is worth noting at this point that the relationship between fiscal deficit and current deficit may not be causal. The extent of the linkage depends on the impact of fiscal policy on private sector savings and investment behavior.

The impact of fiscal dominance also depends on the economic fundamentals. In countries with flexible exchange rate regime, like most WAMZ countries, fiscal dominance affects and is affected by **exchange rate.** In particular, fiscal dominance is likely to lead to exchange rate depreciation even in the short run. Also, because imports increase with fiscal expansion, the real exchange rate is likely to appreciate, making the economy less competitive internationally.

In the short run, fiscal dominance may increase **growth,** especially during a recession. However, capacity constrains, low responsiveness of domestic supply, and the inability to contain an adverse balance of payment position are likely to limit the positive effects of deficit financing in most

countries, including WAMZ. It is therefore likely that fiscal dominance may lead to distortions in the economy and ultimately to a reduction in output growth. For instance, financial market participants may quickly raise interest rates in response to expected higher rate of inflation and the prospect of monetary instability. Overall, to the extent that government is a major source of disaving in the economy (that is, its consumption exceeds its current revenue), fiscal dominance may have adverse impact on growth. This is more likely if consumption is unrelated to the production of human capital and/or maintenance of physical infrastructure.

Empirical Analysis

Using the vector error correction modeling (VECM) technique, we estimated the impact of fiscal dominance on the key macroeconomic variables, mentioned above, using Nigeria as a case study. Recall that a vector error correction model (VECM) is a restricted vector autoregression. (VAR), designed for use with non-stationary series that are known to be cointegrated. It has cointegration relations built into the specification such that the long-run behavior of the endogenous variables is restricted to converge to their cointegrating relationships while allowing for short-run adjustment dynamics. In this framework, the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustment.

In addition, the interpretation of the parameters of such models has limited economic significance, in most cases, as it may not conform to theoretical expectations. However, the impulse responses derived from the VAR analyses have been found to be very useful in tracing the effect of one standard deviation shock to one of the policy innovations on current and

future values of the endogenous variables in the VAR. These effects in the VECM are shown using the graphs produced by the impulse responses. The x-axis of the graphs shows the response period, while the y-axis show the respective Cholesky (degree of freedom adjusted) one standard deviation shocks due to fiscal dominance.

Major Findings from the VECM

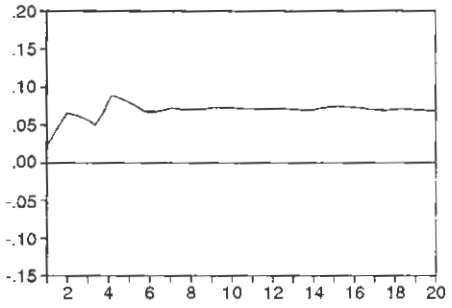
The cointegration analyses revealed the presence of one cointegrating equation following the maximum-eigen value test. The impulse response graphs are presented below using data spanning the period 1970 -2002. The results from the impulse responses are discussed below.

Response of Inflation and money supply to fiscal dominance

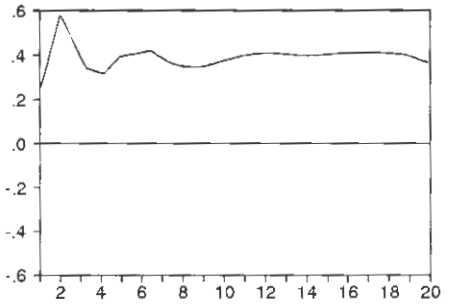
The change in the general price level was found to respond instantaneously to a fiscal shock and the effect was persistent, particularly in the short to medium term. This effect was also found to be positive and very significant. The effect on money supply was even more significant as fiscal shock tended to increase money supply. The impact was much more in the medium term than in the short-term. This result confirms the fact that fiscal dominance in the WAMZ is biased towards money creation and that this mode of financing has inflationary consequences and could be the root of high inflation episodes in the zone. Indeed, the analysis confirms the famous Milton Friedman's statement that inflation is always and everywhere a monetary phenomenon. Accordingly, rapid monetary growth is inconceivable without fiscal dominance.

Response to Cholesky One S. D. Innovations in Fiscal Deficit of Key Macroeconomic Variables.

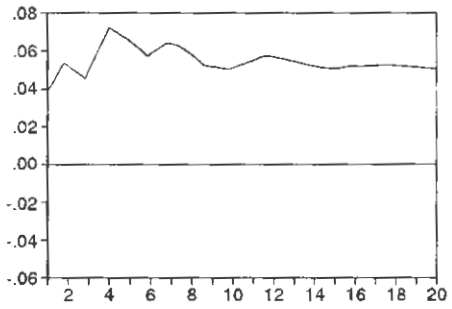
Response of Inflation to Fiscal Deficit



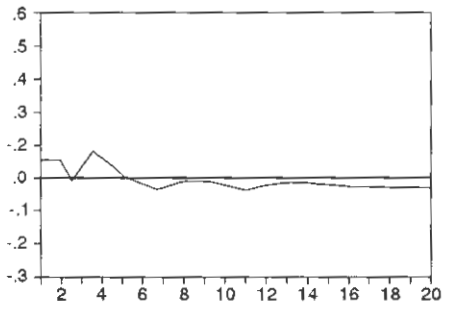
Response of External Reserves to Fiscal Deficit



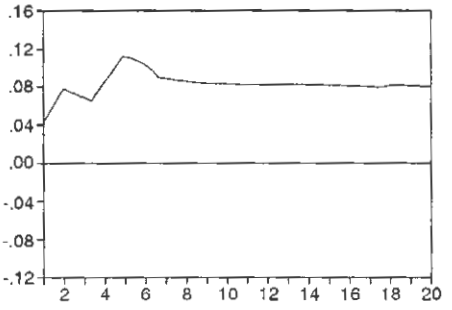
Response of Growth to Fiscal Deficit



Response of Exchange Rate to Fiscal Deficit



Response of Money Supply to Fiscal Deficit



Response of exchange rate and external reserve to fiscal dominance

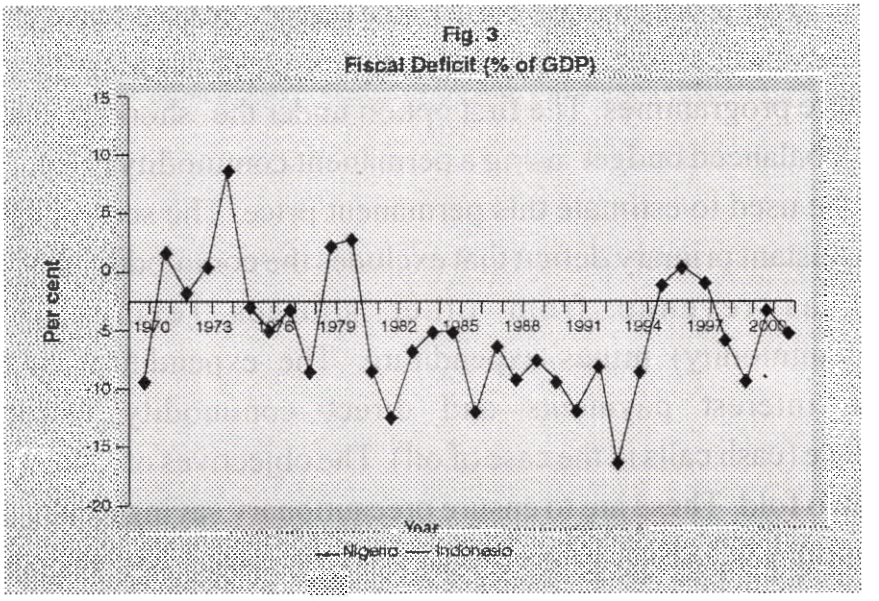
An increase in the nominal value of the exchange rate is regarded as

depreciation. Our graph shows significant increase in the nominal exchange rate, at least in the first two years following a fiscal shock. This is also in conformity with the theoretical prediction. However, this effect tends to taper off after the sixth period. Assuming there is no change in both domestic and foreign prices, it is expected that the real exchange rate will also appreciate during this period. By implication therefore import becomes cheaper and hence the demand for imports increases and exerts pressure on the current account, resulting in a deficit. This perhaps explains why the impulse response graph for external reserve shows a sharp significant decline in the medium term. It could also be inferred that fiscal shocks affects the external reserve, negatively, and with a lag, long enough for the real exchange rate to appreciate.

Response of economic growth to fiscal dominance

The relationship of growth to fiscal dominance summaries a well-know conclusion regarding the fact that high fiscal deficits inhibit growth, which further worsens the fiscal stance. This is seen by the volatile pattern exhibited by the graph. Since fiscal deficits crowd out private investment, potential output and growth are affected.

The significance of the results of this analysis can be appreciated when it is considered that the major objectives of economic policy for WAMZ in the short to medium term are to achieve high growth, low inflation and a sustainable balance of payments. Our results tend to indicate that these objectives may not be attainable in an environment of volatile expenditure and fiscal dominance. There is therefore a compelling need for fiscal stabilisation and structural reforms. It has the advantage of ensuring macroeconomic stability by altering the level and composition of aggregate



demand and checking the growth of monetary aggregates.

At the micro level it impacts on the efficiency of resource utilisation in the economy, good governance and fiscal transparency. Accordingly, this paper recommends the adoption of a fiscal rule within a broader framework of fiscal adjustment, by the WAMZ member states.

The above recommendation is also based on the experiences of other resource based countries that have adopted this rule. Indonesia is a notable example, which explains why her fiscal deficit has been stable over time compared to Nigeria as the figure above shows.

4. The Need for Fiscal Rule

The destabilising effects of large revenue swings and pro-cyclical fiscal policy with deficit bias are clear evidence of poor fiscal management

in WAMZ. This situation calls for a fiscal rule in order to assist in ensuring sustainable fiscal policy. A fiscal rule in the short run aims at stabilising expenditure programmes. The first option under the short run fiscal rule is to target a balanced budget using a permanent commodity price. Historical data can be used to estimate this permanent price. The second option is to target a constant primary deficit that excludes the commodity export. This is defined as revenue from other sources (excluding export product/commodity) minus expenditure. The expenditure in this case excludes interest payments and direct commodity export-related expenditure (cash calls in the case of oil). The objectives of a short run fiscal rule are two fold. These are to ensure precautionary savings and a reduction in expenditure volatility. Precautionary saving means that excess revenue today is saved to make up for future shortfalls in revenue.

The establishment of a 'Stabilisation Fund' represents the best method of implementing the fiscal rule and thus managing the uncertainty associated with volatile commodity revenue. However, its implementation requires an efficient institutional arrangement. There are two possibilities. First, the 'Stabilisation Fund' can be set up within the central bank, where the excess revenue can be kept and then expended when there is a slump in revenue. The use of hedging instruments can also complement this strategy. The second, is the establishment of an independent agency to manage the excess revenue. In this arrangement, when prices are high (above a predetermined threshold) for a specified period, the government transfer excess proceeds to the independent agency/fund. When the prices are low, the independent agency transfers funds directly to the various tiers of government. If properly managed, we believe that the creation of a stabilisation fund may not be inconsistent with fiscal federalism as currently

practiced in Nigeria.

If these rules are to be implemented with a big bang, large fiscal adjustment will be required and how much is required will depend largely on the economic objectives, like inflation, growth, and external balance, it is intended to address. The adoption of a fiscal rule can lessen the government's agony resulting from deviation of actual revenue from budgeted revenue since there is no way of knowing whether the emergence of terms of trade shock would be permanent or transitory.

5. Conclusion

Lessons of experience have shown that successive government in the WAMZ countries be it military or elected democracy have short-term time horizon. Consequently, they have the tendency of engaging in conspicuous consumption-never caring to save for "the rainy day". The establishment of a stabilisation Fund represents the anti-dote for revenue volatility and the best strategy to ensure that the spending spree does not come to an abrupt stop during the period of revenue burst.

The achievement of forced changes in efficiency in fiscal and monetary policy implementation represents the utmost benefit, which the WAMZ countries will gain if and when the WAMZ monetary union finally crystallizes. Arising from this is a major concern about the lack of sustained macroeconomic convergence. Available data indicated that in all member countries, huge fiscal deficits, arising from revenue volatility and sticky expenditure represent the fundamental cause for divergence.

The major challenge is on how to achieve sustainability in fiscal policy in the region. As a way forward the paper proposes the implementation of a fiscal rule that will stabilize fiscal programmes as well

as ameliorate the effects of fiscal shocks. While these proposals will go a long way in promoting a strong fiscal position and help reenforce the credibility in monetary policy, it must be recognised that there are no substitute to prudent fiscal policy. Nigeria's proposed Fiscal Responsibility Bill is a step in the right direction. The key to macroeconomic convergence in the WAMZ is predicated on eliminating the boom and burst cycles in government fiscal operations.

Reference:

Essien, E. A. and E. N. Egbuna., 2002. "Regional integration, Spill Over Effect and Markets Size: Implication for Growth in the ECOWAS sub-region. West African Monetary Institute Journal of Monetary Integration. June 2002.

Fisher, S and W. Easterly, 1990. "The Economic of the Government Budget Constraint".

The World Bank Research, Observer, Vol. 5. No. 2.

International Monetary Fund, 1995. Guidelines for Fiscal Adjustment. Pamphlet Series No. 49. IMF. Washing D.C.

Kuijs, L., 1998. "Determination of Inflation, Exchange Rate, and Output in Nigeria." IMF Working Paper, 160. IMF, Washing D. C.

Nnanna, O. J. 2002. "The West African Monetary Zone (WAMZ) Convergence or Divergence: Which Way Forward? Central Bank of Nigeria Economic and Financial Review Vol. 40 No 4.

Ojo, M. O., 2001. "The Rationale for Monetary Integration". Bullion. Vol. 25 No.2.

Stiglitz, J. E., 1997. "The Role of Government in Economic Development". Proceedings:

The Annual World Bank Conference on Development Economics 1996. The International Bank for Reconstruction and Development/The World Bank.

APPENDIX

The model assumes that random macroeconomic disturbances are associated with shocks arising from fiscal dominance. The dynamic impact of these disturbance on the macroeconomic system is analysed using a VECM. It therefore treats the endogenous variables, budget deficit (BDG), inflation (CPI), money supply (M2), exchange rate (ER), external reserves (RES), and output growth (GDPR) as a function of the lagged values of all of the endogenous variables in the system

The result from the VECM estimation is presented below.

Vector Error Correction Estimates
Date: 04/01/03 Time: 16:34
Sample(adjusted): 1973 2002
Included observations: 30 after adjusting endpoints
Standard errors in ( ) & t-statistic in [ ]

Cointegrating Eq:	CointEq 1
BDG(-1)	1.000000
LOG(ER(-1)	-91.72181 (20.1692) (-4.54762)
LOG(M2(-1)	44.18062 (27.2012) (1.62422)
LOG(GDPR(-1)	323.2787 (70.7383) (4.57007)
LOG(RES(-1)	-136.1149 (17.5912) (-7.73768)
LOG(CP1(-1)	179.0536 (47.4434) (3.77405)
C	-3678.157

Error Correction:	D(BDG)	D(LOG(ER))	D(LOG(M2))	D(LOG(GDPR))	D(LOG(RES)	D(LOG(CPI))
CoinEq1	0.045271 (0.03480) (1.30077)	0.002362 (0.00176) (1.34505)	-0.001526 (0.00070) (-219158)	-0.001389 (0.00045) (-3.08816)	0.000142 (0.00589) (0.02417)	0.000518 (0.00075) (0.69471)

D(BDG(-1))	-0.651455	-0.012585	0.003118	0.002591	0.035402	-0.000512
	(0.27454)	(0.01385)	(0.00549)	(0.00355)	(0.04644)	(0.00589)
	[-2.37287]	[-0.90857]	[0.56785]	[0.73022]	[0.76228]	[-0.08690]
D(BDG(-2))	-0.317734	-0.031072	-0.006515	-0.003565	-0.002591	-0.007162
	(0.26782)	(0.01351)	(0.00536)	(0.00346)	(0.04530)	(0.00574)
	[-1.18638]	[-2.29960]	[-1.21635]	[-1.03011]	[-0.05718]	[-1.24703]
D(LOG(ER(-1)))	4.912540	0.270060	-0.108585	-0.162693	-0.909513	0.135027
	(5.45805)	(0.27537)	(0.10917)	(0.07053)	(0.92328)	(0.11704)
	[0.90005]	[0.98073]	[-0.99468]	[-2.30671]	[-0.98509]	[1.15370]
D(LOG(ER(-2)))	-0.509254	0.120504	-0.100184	-0.072519	-0.274597	0.094159
	(4.61200)	(0.23268)	(0.09224)	(0.05960)	(0.78016)	(0.09890)
	[-0.11042]	[0.51789]	[-1.08608]	[-1.21681]	[-0.35197]	[0.95210]
D(LOG(M2(-1)))	4.402618	0.384944	-0.013589	-0.493411	-2.028720	0.763281
	(15.4621)	(0.78009)	(0.30925)	(0.19980)	(2.61556)	(0.33156)
	[0.28474]	[0.49346]	[-0.04394]	[-2.46947]	[-0.77564]	[2.30211]
D(LOG(M2(-2)))	10.11899	-0.205362	-0.720231	-0.683914	-3.573253	-0.063711
	(18.9463)	(0.95587)	(0.37894)	(0.24483)	(3.20494)	(0.40627)
	[0.53409]	[-0.21484]	[-1.90064]	[-2.79345]	[-1.11492]	[-0.15682]
D(LOG(GDPR(-1)))	15.04999	0.516286	0.220291	0.134482	3.616879	0.015482
	(17.1015)	(0.86279)	(0.34204)	(0.22099)	(2.89287)	(0.36671)
	[0.88004]	[0.59839]	[0.64405]	[0.60855]	[1.25027]	[0.04222]
D(LOG(GDPR(-2)))	11.13935	-0.062890	0.289478	0.102591	1.879038	0.029664
	(15.0440)	(0.75899)	(0.30089)	(0.19440)	(2.54483)	(0.32259)
	[0.74045]	[-0.08286]	[0.96207]	[0.52773]	[0.73837]	[0.09196]
D(LOG(RES(-1)))	1.535352	0.229356	-0.088381	-0.092123	-0.239004	0.016714
	(3.31229)	(0.16711)	(0.06625)	(0.04280)	(0.56030)	(0.07103)
	[0.46353]	[1.37249]	[-1.33408]	[-2.15231]	[-0.42656]	[0.23533]
D(LOG(RES(-2)))	-0.134995	0.305191	-0.043456	-0.023000	0.055004	0.002419
	(1.68724)	(0.08512)	(0.03375)	(0.02180)	(0.28541)	(0.03618)
	[-0.08001]	[3.58527]	[-1.28773]	[-1.05491]	[0.19272]	[0.06686]
D(LOG(CPI(-1)))	-10.26525	0.009859	0.735932	0.911141	5.584157	0.279312
	(19.7036)	(0.99407)	(0.39409)	(0.25461)	(3.33304)	(0.42251)
	[-0.52098]	[0.00992]	[1.86743]	[3.57853]	[1.67539]	[0.66108]
D(LOG(CPI(-2)))	1.193740	0.160288	-0.058337	0.068329	-2.022621	-0.203564
	(11.8821)	(0.59947)	(0.23765)	(0.15354)	(2.00997)	(0.25479)
	[0.10047]	[0.26738]	[-0.24547]	[0.44502]	[-1.00629]	[-0.79894]
C	-3.724255	-0.138100	0.346194	0.178274	1.041944	-0.029279
	(4.85693)	(0.24504)	(0.09714)	(0.06276)	(0.82159)	(0.10415)
	[-0.76679]	[-0.56359]	[3.56378]	[2.84046]	[1.26820]	[-0.28113]
R-squared	0.458405	0.581383	01.597905	0.535630	0.505286	0.642617

Adj. R-squared	0.018360	0.241256	0.271202	0.158329	0.103330	0.352243
Sum sq. resids	486.2026	1.237555	0.194496	0.081188	13.91262	0.223561
S.E. equation	5.512501	0.278114	0.110254	0.071234	0.932491	0.118206
F-statistic	1.041722	1.709312	1.830120	1.419635	1.257069	2.213066
Log likelihood	-84.34958	5.252736	33.00993	46.11467	-31.04214	30.92085
Akaike AIC	6.556638	0.583151	-1.267328	-2.140978	3.002809	-1.128057
Schwarz SC	7.210530	1.237043	-0.613436	-1.487086	3.656701	-0.474164
Mean dependent	-0.207889	0.173678	0.242269	0.021026	0.282759	0.197428
S.D. dependent	5.563812	0.319282	0.129149	0.077645	0.984755	0.146870

Determinant Residual Covariance	4.91E-08
Log Likelihood	53.60596
Log Likelihood (d.f. adjusted)	-2.968821
Akaike Information Criteria	6.197921
Schwarz Criteria	10.401551