CENTRAL BANK OF NIGERIA

THIRD ANNUAL MONETARY POLICY CONFERENCE

Conference Proceedings

ISSUES IN FISCAL MANAGEMENT: IMPLICATIONS FOR MONETARY POLICY IN NIGERIA

11th - 12th December, 2003

5, Zaria Street,
off Ladoke Akintola Boulevard
Garki, Abuja

ISBN 978-37024-2-4

A Central Bank of Nigeria Publication
First published in 2003

Printed by KAS ARTS SERVICE LTD.
15, Oshodi Street, Lagos Island, Lagos.

STEERING COMMITTEE
MONETARY POLICY FORUM

1.	Mr Ernest C. Ebi	-	*Deputy Governor (Chairman)*
2.	Prof. M. O. Kayode	-	*Board Member*
3.	Mr J.O. Aderibigbe	-	*Special Adviser to the Governor on Economic Matters*
4.	Mr O. I. Imala	-	*Director, Banking Supervision*
5.	Mrs O. A. Demuren	-	*Director, Trade and Exchange*
6.	Dr O. J. Nnanna	-	*Director of Research*
7.	Mr M. O. Owosela	-	*Deputy Director, Banking Operations*
8.	Mr F. O. Odoko	-	*Assistant Director of Research (Secretary)*

ACKNOWLEDGMENT

Over the years, it has been widely asserted that the success of monetary policy hinged among other things on the stance of fiscal policy. Indeed, most empirical studies confirm that fiscal deficits tend to be financed by borrowing from the banking system and tend to generate excess liquidity which usually spills over into inflationary, balance of payments and exchange rate pressures. In other words, lack of or poor coordination of fiscal and monetary policies could undermine sound macro-economic management. The theme of the Third Monetary Policy Conference was chosen in order to elucidate the issues and put forward suggestions for resolving them.

The Third CBN Annual Monetary Policy Conference was organized in order to achieve that objective.

The sub-themes covered were as follows:

- The Macroeconomic Framework: Issues and Challenges,
- A Framework for Assessing Fiscal Sustainability:

  Application to Nigeria,
- Fiscal Rule Insulating Nigeria's Financial Policy from Oil Price and Revenue Volatility,
- Fiscal Federalism and its Implication for Macroeconomic Stability,
- The Challenges of Monetary Management in An Environment of Fiscal Dominance, and
- Nigeria's options for Financing Fiscal Deficit and Implications on Monetary Policy.

I wish to thank the Governor for authorizing and financing the conference and for his participation throughout the duration of the conference. I also wish to place on record my sincere appreciation of the efforts of the resource persons, and my colleagues on the Steering Committee of the Monetary Policy Forum including the staff of the MPF Secretariat who worked tirelessly to ensure the success of the conference. Finally, my thanks go to the participants who made useful contributions during the plenary sessions.

Ernest C. Ebi

Deputy Governor

CENTRAL BANK OF NIGERIA

LIST OF CONTRIBUTORS

1. Prof. Akpan H. Ekpo, Professor of Economics and Vice-Chancellor, University of Uyo, Uyo

2. Dr(Mrs) Victoria Kwakwa, Lead Economist, The World Bank, Abuja

3. Dr Mack Ott, Consultant, Department for International Development (DFID), the United Kingdom

4. Prof. T. J. Agiobenebo, Professor of Economics, University of Botswana, Gaborone

5. Prof. T. Ademola Oyejide, Professor of Economics, University of Ibadan, Ibadan

6. Prof. Paul Collier, Professor of Economics, Oxford University, Oxford, England

7. Prof. Dotun Phillips, Professor of Economics and Former Director-General, Nigerian Institute of Social and Economic Research (NISER), Ibadan

8. Prof. Ibi Ajayi, Professor of Economics, University of Ibadan, Ibadan

CONTENTS

Steering Committee..... ii
Acknowledgment..... iii
List of Contributors..... iv

PAPERS

Introduction 1 - 10
The Macroeconomic Framework: Issues and Challenges
– *Prof. Akpan H. Ekpo* 11 - 44
A Framework for Assessing Fiscal Sustainability: Application to Nigeria
– *Dr Victoria Kwakwa* 45 - 73
The Fiscal Rule Insulating Nigeria's Financial Policy From Oil Price and Revenue Volatility
– *Dr Mack Ott* 74 - 125
Fiscal Federalism and its Implication for Macroeconomic Stability
– *Prof. T. J. Agiobenebo* 126 - 204
The Challenges of Monetary Management in An Environment of Fiscal Dominance
– *Prof. T. Ademola Oyejide* 205 - 230
Nigeria's Options for Financing Fiscal Deficits and the Implications for Monetary Policy
– *Prof. Paul Collier* 231 - 246

LUNCH AND DINNER TALKS

Reforms, Fiscal Transparency, Due Process and Accountability
– Prof. Dotun Phillips 247 - 265
The Challenges of Monetary Policy in a Developing Economy
– Prof. Ibi Ajayi 266 - 277

ANNEXES

Welcome Address
– Ernest C. Ebi 278 - 280
(Deputy Governor, Policy)
Keynote Address
– Chief (Dr.) J.O. Sanusi 281 - 284
(Governor, Central Bank of Nigeria)
Special Address
– Dr(Mrs) Ngozi Okonjo-Iweala 285 - 293
(Hon. Minister for Finance)

INTRODUCTION

The *CBN Annual Monetary Policy Conference* has the broad objective of helping to stimulate new thinking on achieving the sustainable growth and development of the Nigerian economy. Specifically, the *Conference* hopes to enhance the transparency of monetary policy by canvassing the views of other major stakeholders in the economy in the formulation and implementation of the CBN mandate.

The third in the series, held in Abuja on 11th and 12th December, 2003 on the theme Issues in Fiscal Management: Implications for Monetary Policy in Nigeria, considered various aspects of the subject during plenary sessions where technical papers were presented, as well as in group discussions where the papers were discussed. The resource persons were drawn from academia, The World Bank and the private sector, and the participants came mainly from Nigeria's government departments and the banking and financial sector.

The CBN's Deputy Governor (Policy), Mr Ernest Ebi gave the Welcome Address in which he observed that the effectiveness of monetary policy is a function of the complementarity of monetary and fiscal policies, as well as the extent of coordination between them. He then appealed to all tiers of government in Nigeria to tailor their expenditures to the absorptive capacity of the national economy and inculcate the habit of financing budgetary deficits from non-inflationary sources, rather than continue to rely on borrowings from the financial systems.

The Special Address was delivered by the Honourable Minister

for Finance, Dr (Mrs) Ngozi Okonjo-Iweala. The Address highlighted the efforts of the Federal Government aimed at striking a good balance in fiscal management by providing enough expenditure outlays to meet the needs of government and support growth, but not so much as to deny the private sector the required resources to invest and develop. Details of the three pillars of government's efforts in regard to: (a) the operation of fiscal policy, (b) the reform programme embarked upon under the National Economic Empowerment Development Strategy (NEEDS), and (c) the implications of (a) and (b) for monetary policy were then described. Specifically, the essential elements of NEEDS were provided as follows:

- Public expenditure and budget reforms,
- Public revenue reforms,
- Monetization of in-kind benefits and pensions reforms,
- Civil service reform and the re-professionalization of the civil service,
- Deregulation of key sectors of the economy, including petroleum,
- Privatization of public entities and private sector development, and
- Fighting corruption and increasing transparency.

The Minister was confident that as the benefits of government's reform programme began to be felt, and as macroeconomic stability improved, the challenges of monetary policy and its management would also become more manageable.

The Keynote Address by the CBN's Governor, Chief (Dr) J.O. Sanusi, made a number of fundamental observations on the causes, pattern and effects of Nigerian governments' fiscal deficits, especially

in the previous five years. Furthermore, the Governor highlighted the continuing efforts of the Central Bank to manage the situation, particularly by imploring all tiers of government to adopt fiscal prudence and urging the establishment of a stabilization fund to sterilize excess oil receipts when the world price rises above an agreed benchmark. Finally, he commended the Federal Government's ongoing measures to enthrone fiscal prudence, such as the establishment of a Debt Management Office, the institutionalization of the Due Process Mechanism, the adoption of a Medium-Term Expenditure Strategy, the proposal to enact a *Fiscal Responsibility Act,* and the pursuit of the Anti-Corruption Crusade. He then challenged Conference participants to discuss the issues he had raised and come up with policy proposals for ensuring effective and enduring macroeconomic policies in Nigeria.

Summary of Papers

A total of eight papers were presented at the Conference, six in plenary sessions and two during a new feature of the Conference called 'Lunch and Dinner Talks.' All papers were discussed in some detail in small groups comprising paper presenters and conference participants.

Akpan H. Ekpo's paper titled, “The Microeconomic Policy Framework: Issues and Challenges” raised and discussed major macroeconomic issues that the Nigerian economy would have to confront and successfully tackle to ensure that appropriate monetary policy would, indeed, result in its effective management. Such issues include: ensuring an appropriate policy environment, evolving the relevant macroeconomic policy mix, choosing between fixed and

flexible target approaches, and obtaining reliable data as a basis for policy making. To underline the urgency of tackling the macroeconomic issues he had raised and discussed, Ekpo produced empirical evidence to suggest that the use of policy instruments had not impacted positively on the Nigerian economy; that the performance of the real sector had been dismal; and that economic fundamentals seemed to be moving in the wrong direction. Finally, Ekpo suggested that implementing his package of recommendations might be best done by using the micro-modelling approach from the perspective of dis-equilibrium.

Victoria Kwakwa's paper was titled, “A Framework for Assessing Fiscal Sustainability: Application to Nigeria.” Key facts and figures in respect of Nigeria's fiscal performance from 1999 to 2003 were presented, with particular emphasis on fiscal balance, structure of fiscal accounts, public debt, external reserves, and growth. A conceptual framework for assessing fiscal sustainability was then presented and discussed, drawing out the implications for Nigeria's debt to GDP ratio, real growth, and real interest rate. The options available to Nigeria for strengthening its fiscal stance to ensure long-term fiscal sustainability and reducing undue costs of fiscal indiscipline to the economy were then presented and discussed in four packages as follows:

- Enhancing expenditure efficiency comprising five specific measures;
- Improving management of the oil revenue cycle;
- Strengthening institutional arrangements for fiscal policy coordination between tiers of government; and

- Raising more revenues through tax simplification and strengthening tax administration.

Finally, the paper observed that the Federal Government had put an improved fiscal management at centre stage of its economic reform agenda and had initiated action to address the underlying fiscal weaknesses. The measures would require determined implementation over the medium term to achieve the desired results, Kwakwa concluded.

Mack Ott presented a copiously illustrated paper titled, “The Fiscal Rule Insulating Nigeria's Financial Policy from Oil Price and Revenue Volatility.” It reviewed the two components of Nigeria's federal financial policy fiscal and monetary showing how each had been impacted by oil price and revenue volatility and how each could be made more efficacious by the fiscal rule. The utility of the fiscal rule in mitigating the impacts of revenue volatility on monetary policy was demonstrated and illustrated, as well as an empirical estimation of the effects of oil revenue volatility on Federal Government policy. The author concluded from the estimates he had generated and discussed and from *a priori* reasoning to sustain his recommendation that adopting a fiscal rule, based on a target oil price whether fixed or moving average would enhance fiscal stability, lower the pressure on monetary policy, as well as reduce the Central Bank of Nigeria's need to offset fiscal and oil export effects on the monetary base.

Tamunopriye J. Agiobenebo's paper, “Fiscal Federalism and Macroeconomic Stability” analyzed the interactions in the nature and practice of fiscal federalism, decentralization, the incentive system, fiscal competition, strategic behaviour, rent-seeking, fiscal indiscipline and fiscal deficits. The serious deficiencies highlighted and their short-

medium- and long-term implications for macroeconomic instability in Nigeria suggested that the *status quo ante* needed radical reform, the author concluded. A number of policy recommendations were then put forward, including the following:

> Nigeria should embark upon fiscal decentralization which had been shown to be workable in Argentina;
>
> Policy reform should concentrate on institution and capacity building to substantially reduce leakages in the revenue mobilization and procurement systems;
>
> Strengthening, as a matter of urgency, budget formulation and its execution procedures;
>
> Policy reform should improve and strengthen expenditure management and the production of high quality data for fiscal management, consolidate the automation of the budget implementation, monitoring and evaluation procedures, and strengthen the reporting of the fiscal operations of sub-national governments;
>
> Adoption and development of a comprehensive medium-term expenditure framework in which planning, programming and budgeting would be integrated within a rolling plan concept for all levels of government; and
> Urgently adopt explicit rules for strengthening the conduct of fiscal policy, including a constitutional provision for imposing fiscal discipline, especially regarding borrowing, on all tiers of government and on the financing of deficits.

T. Ademola Oyejide presented the paper titled, " The Challenges of Monetary Management in an Environment of Fiscal Dominance," in which the generalized pattern of conflict between monetary and fiscal policies was described as background to an examination of the links between fiscal dominance, fiscal deficits and monetary management challenges. Specifically, issues of monetary or fiscal dominance, financing of fiscal deficits, fiscal-monetary policy conflicts, and policy coordination were discussed. A synopsis of the relationship between monetary policy and fiscal behaviour in Nigeria since 1980 followed, with particular attention to the pattern and changes of fiscal behaviour; the incidence of fiscal dominance and its variation over time; the implications of the pattern of fiscal behaviour for monetary policy and its management; and why an apparently dysfunctional fiscal behaviour seemed to have persisted through time. A number of options were then proposed as the way forward for Nigeria, including the following:

- Designing and implementing appropriate mechanisms for building a more responsible fiscal behaviour, bearing in mind that it is often politically difficult for government to relinquish discretionary authority over fiscal policy;

- Finding non-inflationary means of financing fiscal deficits, perhaps through rules which limit access to the banking system, as an interim solution to the eventual restoration and maintenance of fiscal viability which could involve a substantial reduction of fiscal deficits, using appropriate fiscal restraint mechanisms; and

- Ensuring that the Central Bank of Nigeria initiate relevant research to demonstrate clearly why and how Nigeria's current fiscal behaviour may be dysfunctional, articulate the

mechanisms through which responsible fiscal behaviour can be induced, and disseminate the knowledge acquired in an effective way to help bring about the necessary institutional and policy reforms.

Paul Collier's paper, “Nigeria's Options for Financing Fiscal Deficits and the Implications for Monetary Policy” discussed first, Nigeria's fiscal stance and how it had been financed, drawing particular attention to the sensible decision rules that would have to be considered and the pivotal role of the CBN in the process. It then discussed capital flight and the exchange rate, noting that Nigeria's stock of flight capital, estimated at $107 billion, could transform the economy if it could be attracted back to Nigeria. Illustrating with the experiences of Indonesia and China, Collier emphasized that the reversal of capital flight required the reversal of two major policy errors of previous Nigerian governments fiscal volatility and an over-valued exchange rate. The policy recommendations emerging from the paper included the following:

The Central Bank of Nigeria must strengthen its capacity for playing the important role of an independent voice of authority for the economic policies of government by publicly giving advice and comment, especially when there is popular misunderstanding of, or illusions about, such policies;

Trying to sell large quantities of government debt during periods when government has a fiscal stance that is unsustainable is counter-productive. Such a strategy misleads both the government and the population because for years it can disguise the key fact of fiscal unsustainability;

In order to harness Nigeria's huge stock of flight capital, the exchange rate of the national currency would have to be addressed whether for government debt sales or private investment;

In a genuine government programme to tackle fiscal deficits, it would be legitimate to have a phase in which the fiscal deficit could be too high the phase during which smart investors would purchase government debt as a necessary phase for restoring credibility to sustainable fiscal management;

A genuine reforming government would be distinguishable from a weak government trying to disguise itself in lies by courage: that is, doing what the weak government is simply too frightened to do; and

The Central Bank of Nigeria, the debt market and Nigerian economists have a responsibility to judge the courage of government's ongoing economic reforms, not just as citizens involved in the consequences but as professionals who are obliged by their positions to form a view.

A novel feature of the *Third CBN Annual Monetary Policy Conference* was the presentation of two papers during the lunch and dinner sessions, and appropriately labelled 'Lunch Talk' and 'Dinner Talk' respectively.

Dotun Phillip's lunch talk titled, “Reforms, Fiscal Transparency, Due Process and Accountability” was structured into eleven discrete modules describing the inherent and persistent nature of Nigeria's fiscal management challenges and what must be done, especially by

the executive branch of government, to begin to realistically tackle them. The paper was premised on the view that Nigeria's ongoing reforms seemed to have ignored and diverted attention from the nation's fundamental problems which are listed and discussed as a basis for making thirteen specific policy recommendations to help improve fiscal management.

Ibi Ajayi's dinner talk titled, “The Challenges of Monetary Policy in a Developing Economy” described the general objectives of monetary policy, the differences in the conduct of monetary policy in developed and developing economies, and the associated challenges. He then posed and discussed whether inflation-targeting could be a framework for monetary policy first in developing countries and specifically in Nigeria. He concluded that Nigeria would be unwise to switch to inflation-targeting as a framework for monetary policy. Rather, the CBN was urged to stick to its present mechanism of control, refine it and tackle the issue of fiscal dominance proactively.

THE MACROECONOMIC POLICY FRAMEWORK: ISSUES AND CHALLENGES

Akpan H. Ekpo

1. Introduction

The Nigerian economy remains under-developed and backward. The situation is particularly disturbing, given the country's abundance of human and natural resources; nature has been so unkind to Nigeria! There are very few countries in the world that are so endowed as Nigeria. In the 1960s and early 1970s, Nigeria, Malaysia, Indonesia, Taiwan, Singapore and South Korea had similar incomes per capita, GDP growth rates, and under-developed political structures. Today, the “Asian Tigers” (as the south-east Asian countries are popularly known) have escaped under-development and poverty partly because of the way in which their economies have been managed.

The Nigerian economy has experienced all the phases of a typical business cycle: decline, depression or recession, recovery, and boom. However, none of the booms associated with the agriculture, oil and financial sectors has resulted in any significant restructuring or transformation of the economy as they were never linked to the real sector. The result is that Nigeria has been unable to maximize the benefits associated with economic booms.

Macroeconomic policy suggests that an economy, particularly a capitalist one, is being managed to ensure stability and growth. If left unmanaged, a capitalist economy would be subject to business

fluctuations that may even threaten the survival of the system. A good example is an economic recession or depression that is a common feature of capitalist style economies. Indeed, it was the great depression of the 1930s that has fundamentally altered economists' perception of the need to manage an economy.

Economists generally agree that an economy must be managed. However, they differ on the nature of the prescriptions according to various schools of thought and the degree of severity of the problem. For example, in a situation of severe economic depression, strict Keynesians would tend to proffer fiscal policy as the solution.

The essence of macroeconomic management underlines the importance of government as an important economic agent. In other words, qualitative government intervention, particularly as regards policy conceptualization and formulation, is crucial for the robust management of an economy. Such robust management would normally minimize the pains of an economic depression or recession.

Nigerian leaders and policy-makers have managed, and will continue to manage, the economy through the use of monetary, fiscal, trade (commercial), incomes, exchange rate and debt management policies. An appropriate and robust mix of these policies should provide an indication of how best the Nigerian economy has performed by using empirical evidence from the Nigerian economy to ascertain the effectiveness of the policies.

The objective of this paper therefore, is to examine the extent to which the macroeconomic policy framework has performed in the Nigerian context. In doing so, the challenges of the macroeconomic

policy environment in Nigeria will be analysed by considering the essential features of the economy. Arising from the fact that the Nigerian economy is under-developed with a high incidence of poverty, any analysis of the macroeconomic policy framework should normally proceed from the known structural bottlenecks and rigidities within the economy.

2. Theoretical Underpinnings

Macroeconomic theory involves the construction of models of the behaviour of certain economic variables of interest. It is concerned with the behaviour of the most aggregative variables, such as a country's output, the general price level, the overall unemployment rate, and the balance of payments situation. It is not always helpful to separate economic theory neatly into two boxes, labelled “macroeconomics” and “microeconomics”. Consistency dictates that the microeconomic propositions about the behaviour of firms- individually or as groups be reflected in the behaviour of macroeconomic aggregates which are generally derived from micro foundations. However, the questions that economists usually seek to answer at the empirical level have made the distinction between macroeconomics and microeconomics reasonable and helpful.

Macroeconomics includes the study of the determinants of other broad economic aggregates, such as consumption, savings, investments, exports, imports and government expenditures. A major objective of macroeconomic policy is the attainment of output stabilization in the short run and a diversified self-sustaining economic growth in the long run. Short-run macroeconomic stabilization implies the prevention of excessive expansion or contraction of incomes. The emphasis is usually to prevent big cyclical movements, or fluctuations,

in the levels of income and, by implication, in the levels of employment, prices and balance of payments.

In the long run, macroeconomic policy is directed at the following national goals:

- Full employment, that is, full utilization of all non-labour resources and the reduction of excess capacity to a minimum;
- Rapid economic growth to guarantee a rising standard of living and increased per capita income for the citizens;
- Price stability (i.e., moderation of the rate of inflation); and
- Balance of Balance of payments equilibrium, that is, the elimination of chronic current accounts and a balance of payments deficits.

For a developing country like Nigeria, other important economic goals should include:

- Debt management, that is, the management of external and internal debts to avoid serious debt-service problems;
- Equitable distribution of incomes;
- Elimination of economic dualism, that is, the promotion of rural development;
- Provision of basic needs, that is, ability to meet the basic needs of citizens through the provision of food, clothing, shelter, etc; and
- Environmental protection.

The implication of the above goals centers on the elimination or reduction of absolute poverty through the conceptualization, formulation and implementation of appropriate programmes and strategies to tackle them. In order to achieve the above goals, policy-makers utilize certain instruments of macroeconomic policy which are

now briefly described.

Instruments of Macroeconomic Policy

The two main instruments of macroeconomic policy are fiscal and monetary which may be supplemented with other instruments, such as: commercial or trade policy, incomes policy, exchange rate policy, and debt management policy.

Monetary policy (which includes credit and financial policy) is concerned with the use of changes in money supply and/or interest rates to influence the level of economic activity. It is anchored on the use of some or all of the following policies: Open market operations, Rediscount policy, Minimum reserve requirements, Liquidity rates, and Sectoral credit guidelines. In most developing countries, such as Nigeria, the use of these policy instruments may be sub-optimal on account of the undeveloped nature of money and capital markets.

Fiscal policy involves the use of taxes and changes in government expenditure to influence the level of economic activity. The undeveloped nature of money and capital markets in Nigeria means that more emphasis is placed on the use of changes in government spending. Consequently, budget deficits tend to be financed through domestic borrowing; in some developing economies, budget deficits are often financed by printing money. The monetization policy often results in inflation and engenders the dominance of fiscal over monetary policy. For a detailed analysis of the use of other instruments, see (Obadan and Iyoha, 1996, pp. 1-16).

It is important to state that the analysis of macroeconomic policy is based on the assumption that all markets do clear and that economic agents optimize and consider all available information

(rational expectations) in doing so. Theoretically, the new Keynesians, within the new macroeconomics school of thought, in attempting to justify policy intervention, have argued that the labour market may not clear, given the nature of contracts and available information in the market, for example. In other words, the new macroeconomics school of thought (new-classical and new-Keynesian) assumes the competitive nature of the market and attempts to justify whether government intervention (fiscal and monetary policy) can be effective, both in the short and long terms.

Economists who subscribe to the Kaleckian macroeconomic school of thought, however, examine an economic system from the perspective that markets are not competitive. They assume an oligopolistic market structure and proceed to analyse the impact of monetary and fiscal policy on the level of economic activity. Given the under-developed nature of the Nigerian economy, orthodox fiscal and monetary policies cannot be as effective as they are in developed industrialized countries. And since Nigerian markets are, for the most part not competitive, it may be reasonable to examine a mixture of policy instruments from the point of disequilibrium.

The Nigerian economy is characterized by the following features: structural bottlenecks and rigidities, underdeveloped money and capital markets, an oligopolistic market structure, economic dualism and fragmentation, an inadequate tax system, a high level of corruption, a high degree of external dependence, a primitive accumulative instinct, and a large informal sector. Building a macro model with these features will provide different results from that of a conventional (orthodox) general equilibrium system due to the adjustment process that will have to be made. First, disequilibrium models imply that, in the short run, the variable to be adjusted is not

price but quantity. Second, because of false trading, planned income may be different from realized income. Third, in arriving at the new equilibrium set of prices, individuals will take information costs into account. This means that information would no longer free because the opportunity to be able to trade must be foregone while gathering information.

All things considered, Nigerian policy-makers would need to start giving serious thought to macroeconomic modelling of the national economy from the perspective of disequilibrium.

3. Empirical Evidence from the Nigerian Economy

Based on the fact that the instruments discussed above have been utilized in influencing the level of economic activity in the Nigerian economy, we can now examine some empirical evidence.

3.1 *The Real Sector*

Table 1 shows that the period 1999-2001 witnessed a slow growth in all aspects of agricultural production; growth in real output depends on the performance of the agricultural sector.

The growth of the agricultural sector remained at 5.8% between 1990 and 1993 but declined to 3.5% between 1997 and 1998 and further declined to 1.8% during the period 1999 to 2001. During the period 1999 -2001, agricultural GDP showed an average growth rate of 2.6%. The growth of this sector is disturbing, given the fact that it employs about 70% of the nation's labour force and the availability of expansive and rich arable land all over the country. The agricultural sector must grow between 7% and 10% in order to have any meaningful impact on poverty reduction.

It would be necessary to re-examine the incentives package to farmers so as to increase productivity. The issues of subsidy regarding affordability of fertilizers, a credible price-support system, and the introduction of modern production technologies must be revisited if this sector is to contribute to sustained growth and development.

The performance of the industrial sector was also unsatisfactory. Available data (see Table 2) show that between 1990 and 1992, growth in the sector stood at 2.1%. Between 1993 and 1995, growth was 1.3%. However, between 1999 and 2001 growth rose to 6.1%. The slow growth in industrial production was mirrored in the sluggish growth in the key sub-sectors. For the period 1993 to 1995, the growth of manufacturing stood at 8.4%, mining at 3.2% and electricity at 3.1%. The mining sub-sector grew by 7.4% during the period 1999 and 2001, perhaps as a result of increased activity in the solid minerals sub-sector.

The disappointing performance of manufacturing should be taken seriously especially as manufacturing is supposed to be an "engine of growth" of the economy. Manufacturing capacity utilization, which averaged 75% in the mid-1980s, declined sharply to below 50% from 1983 and by 1995 it had reached a low of about 29%. In 1999, capacity utilization in manufacturing was about 30%, rising to about 40% in 2001. This marginal improvement, however, was not enough to contribute to increased real output in the economy.

There is little doubt that expansion of manufacturing in Nigeria has been constrained by a series of factors, such as: low effective demand for local manufactured goods; high cost of domestic production due to the high cost of investible funds and increased

tariffs on basic utilities; and poor infrastructure.

It is important that Nigerian small- and medium-scale businesses be encouraged. Evidence suggests that most of them are unable to access the credit facility created by the CBN due to the strict conditions specified by the banks. Since government has done well to intervene in the provision of credit to this sub-sector, it should complete the process by ensuring that the funds are actually disbursed by the commercial banks

Table 1
Nigeria: Growth in Agricultural Production, 1990 2001 (%)

	1990-1993	1992-1996	1997-1998	1999-2001
Aggregate	5.8	3.0	3.5	1.8
Crops	7.4	3.4	3.7	3.4
Staples	8.0	3.8	2.8	3.2
Other Crops	3.9	0.6	6.5	3.3
Livestock	0.9	2.5	0.5	2.7
Fishery	-13.2	3.1	6.8	3.8
Forestry	2.6	1.9	0.6	1.7

Source: Calculated from CBN Data.

Table 2
Nigeria: Average Growth Rate of Industrial Production (%)

Period	Manufacturing	Mining	Electricity	All Sectors
1990-1992	2.0	2.1	5.6	2.1
1993-1995	-8.4	3.2	3.1	-1.3
1996-1998	-1.7	2.3	-2.8	0.8
1999-2001	3.1	7.4	1.8	6.1

Source: Computed from CBN data

Table 3
Nigeria: Average Manufacturing Capacity Utilization Rates,1975 2001 (%)

Year Capacity	Utilization (CU)
1975	76.6
1976	77.4
1977	78.7
1978	72.9
1979	66.8
1980	70.1
1981	73.3
1982	63.6
1983	49.1
1984	42.0
1985	37.1
1986	38.9
1987	40.4
1988	41.5
1989	42.5
1990	39.0
1991	39.4
1992	40.4
1993	36.2
1994	30.4
1995	29.3
1996	34.7
1997	34.2
1998	32.4
1999	35.9
2000	36.1
2001	39.6

Source: CBN. *Annual Reports and Statements of Accounts*, Various Issues.

3.2 *The Monetary and Financial Sector*

The Nigerian monetary authorities have tried to control inflation over the last four years. The inflationary spiral is due to expansionary fiscal spending and the rapid growth of money and credit. The three tiers of government have spent exorbitantly during the last four years. During the period 1999 -2001, the growth in monetary aggregates had been excessive and grossly out of line with the prescribed targets. As Table 4 suggests, the expansion was induced by the monetization of excess crude oil receipts, savings and the monetary financing of Federal Government fiscal deficits.

Broad money supply (M2) increased by 27.0% in 2001 from 47.1% in 2000 as against the 12.2 per cent stipulated target for the fiscal year. Similarly, narrow money (M1) rose by 28.1% in 2001 from 62.2% in 2000 compared with the target of 4.3%. However, the observed growth between 2000 and 2001 indicated a significant deceleration the result of various measures taken by the monetary authorities to address the problem of excess liquidity in the banking system.

Credit to the domestic economy for the period 1993-2001 is presented in Table 4. Credit to government, which had been drastically reduced by 2000, jumped to almost 80% in 2001 due to the huge fiscal deficit financed by the Central Bank.

Increased credit to the private sector is encouraging, but it seems that the increase was caused by persistent demand pressure in the foreign exchange market. Normally, increased credit to the private sector ought to influence investment with positive results in real output of the economy.

The structure of interest rates can influence developments in the monetary and financial sector. For example, the Central Bank continues to fine-tune the rediscount rate to influence both the bank deposit and lending rates. In June, 2001 the rediscount rate was increased to 18.5%. (A detailed analysis of interest rates management in Nigeria is provided in Ekpo, 2001, pp. 1-23).

It is interesting to note that real interest rates remained negative for most of the period 1970-2001. From 1970 to 1984 (with the exception of 1972-74 and 1982), real interest rates were negative. During the period, the economy was characterized by an oil windfall and a reasonable growth in GDP. Between 1992 and 1996, a period of guided deregulation, real interest rates remained largely negative, ranging from 8.44 to 52.01. These episodes of negative real interest rates confirm the inconsistency between savings and investment in the Nigerian economy. In addition, it gives credence to the observation that interest rates have had little influence on savings and that policy should be directed at increasing incomes if savings are to be enhanced.

Table 4:
Nigeria: Growth of Money and Credit to the Economy, 1993-2001 (%)

Year	Net Domestic Credit	Net Credit to Govt.	Credit to the Private Sector	Narrow Money (M1)	Broad Money (M2)
1993	6.27	89.1	19.9	57.5	54.0
1994	34.3	21.6	72.8	46.7	36.3
1995	22.0	7.7	49.4	15.4	18.8
1996	-25.8	-61.6	23.3	18.0	19.1
1997	-2.8	-53.5	23.9	18.2	16.9
1998	46.8	144.9	27.4	20.5	23.3
1999	30.1	32.0	29.2	18.0	31.7
2000	-25.3	-170.1	30.9	62.2	48.1
2001	75.8	79.7	43.5	28.1	27.0

Source: CBN: *Annual Reports and Statements of Accounts*, Various Issues.

Table 5:
Nigeria: Nominal and Real Interest Rates and Rates of Inflation, 1970-2002(%)

Year	Nominal Lending Rate	Rates of Inflation	Real interest Rates
1970	7.5-8.0	13.8	-6.3
1971	10.00	15.6	-5.6
1972	10.00	3.2	6.8
1973	10.00	5.4	4.6
1974	10.00	13.4	-3.4
1975	9.00	33.9	-24.9
1976	10.00	21.2	-11.2
1977	6.00	15.4	-9.4
1978	11.00	16.6	-5.6
1979	11.00	11.8	-0.8
1980	9.50	9.9	-0.4
1981	10.00	20.0	-10.9
1982	11.75	7.7	4.5
1983	11.50	23.2	-11.7
1984	13.00	39.6	-26.6
1985	11.75	5.5	6.25
1986	12.00	5.4	6.6
1987	19.20	10.2	9.0
1988	17.60	38.3	-20.7

Contd.

Contd.

Table 5:
Nigeria: Nominal and Real Interest Rates and Rates of Inflation, 1970-2002(%)

Year	Nominal Lending Rate	Rates of Inflation	Real interest Rates
1989	24.60	40.9	-16.3
1990	27.70	7.5	13.2
1991	20.80	13.0	7.8
1992	31.20	44.5	-13.5
1993	18.32	57.2	38.98
1994	21.00	57.0	-36.00
1995	20.79	72.8	52.01
1996	20.86	29.3	-8.44
1997	20.92	8.5	-12.42
1998	21.80	10.8	11.00
1999	27.20	6.6	20.60
2000	30.00	6.9	23.7
2001	24.00	18.9	5.1
2002	24.00	20.2	3.8

Source: *CBN Statistical Bulletin*, Various Issues.

3.2 *The External Sector*

The performance of the external sector since independence has been mixed. Since the favourable balance of trade position was reversed in the mid-1970s, the external sector has remained volatile to both internal and external shocks except during the 1999-2001 period. The pressure on the economy's external sector moderated in 1996 resulting in a lower deficit of ₦195,216.3 million. This development was due to a favourable merchandise trade account. During the period, the country's external reserves could accommodate import commitments for about four months.

In 2001, the external sector's performance was average. The overall balance of payments was in surplus to the tune of ₦51.1 billion (US $459 million); the available external reserves could finance 10.5 months worth of imports. The buoyant balance of payments situation was due to favourable external factors, such as the high world prices of petroleum , among others (Iyoha, 2002, p.17; CBN, 2001).

Another disturbing variable in Nigeria's development matrix is the high debt overhang. It has been difficult to obtain external debt relief partly due to the contention that Nigeria has not seriously addressed the need for economic reform. Although the country has met almost all the conditions to qualify for debt relief under the Heavily Indebted Countries Initiative, no progress has been made because of the huge oil resource and the unsatisfactory way the economy is being managed.

Table 6 provides data on significant debt measures. Before 1980, the country really did not have an external debt problem. Beginning in 1981, however, the debt situation had started to be a

source of concern. By 1989, the external debt/GDP ratio was almost 107%; it reduced to about 71% in 1994 and jumped to almost 81% in 1999. Subsequently, it has declined to almost 58% in 2001.

The situation must be reversed in order to free resources for national development, especially as the current favourable management of the debt is not expected to last for too long. The external debt stock should be reduced to about 5% of GDP. In this regard the reported progress in reconciling the country's external debt with the Paris Club appears to be a step in the right direction.

Table 6:
Nigeria: Domestic and External Debt As % of GDP,
1980 - 2001

Year	Domestic Debt/GDP	External Debt/GDP	Total Debt/GDP
1980	16.2	3.7	19.9
1981	22.1	4.6	26.7
1982	29.0	17.1	46.1
1983	38.9	18.5	57.4
1984	40.4	23.3	63.6
1985	38.6	23.9	62.5
1986	38.9	56.7	95.7
1987	33.8	92.6	126.4
1988	32.4	92.4	124.6
1989	20.9	106.9	127.9
1990	32.3	114.6	146.8
1991	35.9	101.2	137.1
1992	29.4	99.0	128.4
1993	37.5	90.8	128.3
1994	37.3	70.9	108.2
1995	17.2	36.2	53.5
1996	12.2	21.9	34.0
1997	12.5	21.0	33.5
1998	19.4	22.9	41.3
1999	22.9	80.7	105.6
2000	18.6	64.0	82.6
2001	18.5	57.9	76.4

Source: *CBN Annual Reports and Statements of Accounts*, Various Issues

4. *Trends of Key Economic Indicators*

The rate of inflation which stood at 70% in 1994 dropped to a single digit (8.5%) in 1997 and declined further to 6.6% in 1999. However, in 2001 inflation rose to almost 19% against the background of measures taken by the monetary authorities to mop up excess liquidity. The present inflation rate is being driven by both demand-pull and cost-push factors. The demand-pull factors include:

- The expansionary fiscal policy being pursued by all tiers of government;
- The rapid growth in money supply; and
- The large wage and salary increases.

The cost-push factors propelling inflation include:

- Fuel price increases and/or fuel scarcity leading to structural inflation;
- Inadequate and poor infrastructure services; and
- Supply constraints resulting from congestion in ports.

It is important that government shows fiscal prudence as uncontrolled fiscal activities, no matter how they are financed, will crowd out investment. There is also the need for effective co-ordination between the monetary and fiscal authorities. An uncontrollable inflation will result in macroeconomic instability which will further reduce the already low rate of economic growth, with serious negative implications for poverty reduction.

The rate of unemployment should be interpreted with caution.

Available data would seem to suggest a healthy employment rate, but there is a large pool of underemployed people. Moreover, not too many job seekers utilize the labour exchange facilities to register their status [1].

The investment/GDP ratio has been consistently low from 1989 to 2001. This is not surprising given the dearth of foreign private investment in the economy. The savings-investment gap must be narrowed if the economy is to be on the path of sustained growth and development. The data in Table 7 and conclusions from previous analyses suggest that the Nigerian economy has been in recession in the last four years. Most of the economic fundamentals are clearly moving in the wrong direction.

It is, therefore, important that measures be put in place to reverse the negative trend and put the economy on the path of sustainable growth and development with minimal inflation. This is one of the challenges of macroeconomic management in Nigeria.

1 The Office of Statistics has revised the data on unemployment; the present rate of unemployment stands at 18%

Table 7:
Nigeria: Selected Economic Indicators for Selected Years (%)

Year	P	U	Y	^{I}/GDP	^{DEF}/Y
1960	6.0	2.4	4.8	5.0	-1.53
1970	13.0	4.8	5.7	5.4	8.41
1971	15.6	5.3	6.2	6.3	0.50
1975	33.9	4.8	6.0	15.2	1.97
1979	9.9	10.4	1.6	16.5	6.6
1980	20.0	7.8	-0.8	17.9	3.9
1983	23.2	3.4	6.7	14.6	5.9
1985	5.5	8.2	-3.4	7.1	4.9
1987	10.2	7.1	4.2	6.2	5.4
1992	44.4	3.2	3.6	4.1	7.2
1993	57.2	5.4	2.9	3.8	15.5
1994	70.0	2.2	1.0	4.2	7.7
1995	72.8	1.8	2.7	5.1	0.1
1996	29.3	3.8	3.2	5.2	1.8
1997	8.5	3.6	3.8	5.4	-0.2
1998	10.0	3.2	2.4	5.3	-4.7
1999	6.6	3.0	2.6	4.9	-8.5
2000	6.9	3.6	3.8	5.4	-2.1
2001	18.9	3.5	3.9	6.3	-4.0

Notes:
P = rate of inflation; U = unemployment rate; Y = growth of GDP
^{I}/GDP = investment/GDP; ^{DEF}/Y = overall deficit/surplus/GDP

Source: Central Bank of Nigeria. *Annual Reports and Statements of Accounts*, Various issues

5. *Effects of Fiscal and Monetary Policy*

We have discussed the performance of the economy based on the utilization of policy instruments. Egwaikhide (2003) using a modified St. Louis framework investigated the relative potency of fiscal and monetary policy actions on economic activity. He regressed the growth of GDP on the distributed lags of the growth rates of government expenditure, money supply and exports for the period 1970-2001 (annual data). The results appear interesting. For the period, the cumulative effect of fiscal policy was negative, implying that government expenditure did not contribute to output. Egwaikhide's (2003:17) exact words are as follows:

> *The bulk of the government's expenditure during the period may have been wastefully substantial. Comparatively, monetary policy variable exerts a strong positive effect on economic activity and the summed impact of the monetary actions is significantly non-zero at the 5% level. Also, the spread effect of monetary policy lasts for a longer period. This suggests that monetary policy has a greater impact on national income than government expenditure in Nigeria…*

Thus, the result of Egwaikhide's analysis confirms the unhealthy dominance of fiscal policy over monetary policy. However, there is a strong link between fiscal policy and monetary developments in Nigeria. Theoretically, the link is derived from the method of financing budget deficits. It has been shown that substantial borrowing from the banking system by the Federal Government to finance its deficits has been largely responsible for the expanded growth of credit. From

Table A4 in the Appendices, it is clear that bank credit to government exceeded the targets in the various budgets. Therefore, monetary policy will always be in disarray in Nigeria so long as the fiscal authorities fail to adhere to budget discipline.

In addition, increased government spending increases the income of the private sector and hence the demand for goods and services. The growth in bank credit increases aggregate demand resulting in an increased price level. If expenditure is not checked, no matter how it is financed, it may result in uncontrollable inflation.

6. Selected Issues and Challenges in Macroeconomic Management

Macroeconomic policy management refers to the set of economic measures, policies and strategies adopted and implemented by an economy to move it from its present macroeconomic state to a more desirable one. This involves the formulation and implementation of measures and policies to achieve short-run macroeconomic stability as well as a rapid, diversified, self-reliant and sustainable growth in the long run.

According to Obadan and Iyoha (1996), the leading issues in macroeconomic management in Nigeria include:

- The macroeconomic policy environment;
- The macroeconomic policy mix;
- The choice between fixed and flexible target approaches; and
- Obtaining reliable data for macroeconomic policy making.

By “macroeconomic policy environment” is meant the nature and

content of the policy and institutional setting within which government can attempt to tackle the twin problems of short run macroeconomic stability and rapid growth and development in the long term. There must be a good macroeconomic policy setting which is dynamic. Such an environment should consist of an optimal mix of appropriate policies, strategies, programmes and institutions.

The macroeconomic policy mix involves the consideration of key macro and several policy issues and measures guiding the formulation and implementation of government policy. Consequently, the optimal combination of fiscal, monetary and financial, trade and commercial exchange rates, debt management and balance of payments policies to be adopted by government need to be determined. More often than not, an optimal mix of fiscal and monetary policy instruments is considered in trying to fine-tune the economy.

Considering the theory of policy, government could employ a fixed target rule in which instruments are paired with targets and all targets are achieved at the same time, bearing in mind that the number of targets equates the number of instruments. Alternatively, government could use the flexible target approach in which a preference function is specified with levels of target variables as arguments. The fixed target rule has the advantage of providing precise quantitative information about the structural parameters of the economic system which poses a formidable challenge to policy-makers who must understand and apply them.

Another challenge in the macroeconomic policy framework in Nigeria is the paucity of accurate, reliable and timely data, which seriously constrain macroeconomic policy analysis. It makes it

difficult to monitor projects and hampers proper implementation. It affects forecasting and overall fine-tuning of the economy. It should be noted, though, that there have been improvements in data collection and reporting in recent years.

One of the challenges of economic management in Nigeria is related to how to design and implement policies for rapid economic growth in both the medium and long term. If the economy does not grow in real terms by at least 7%, poverty eradication will remain an illusion. It is necessary to put in place policies that will increase savings and promote investment. In this regard, the recently announced national savings certificate is pertinent.

It seems apparent that a robust macroeconomic policy framework will thrive better in a deregulated environment. However, policy-makers need to be cautious in deregulating all aspects of the economy. Based on lessons of experience, it would be necessary to experiment with a guided de-regulation of certain aspects of the economy. For example, a policy of total trade liberalization would be of little benefit to the economy. Therefore, policy-makers must weigh all the practical issues before deciding one way or the other. The recent WTO experience confirms the importance of being cautious (Ekpo, 2003).

In summary, the following issues need to be examined in considering an appropriate macroeconomic policy framework for Nigeria:

(i) The relevant issues of an optimal de-regulation of the economy, particularly the external sector;
(ii) The issue of an appropriate or optimal exchange rate;

(iii) The question of appropriate interest rate levels;
(iv) The optimal size of the public sector and the rate of privatization;
(v) Environmental and ecological problems;
(vi) How to mobilize more revenue for sustainable development;
(vii) Examining the link between budgetary operations and monetary policy;
(viii) Public expenditure reforms;
(ix) The underground economy particularly informal finance;
(x) Poverty reduction being endogenized within any macroeconomic policy framework adopted;
(xi) Fiscal federalism: deficits at the lower levels of government may create problems for the whole economy;
(xii) Social capital: the impact of networking and community-based development organizations in economic growth;
(xiii) Relationships with the Bretton Woods Institutions (BWIs): we cannot deny the fact that the recommendations of the BWIs may not reflect the realities of our economy and yet we need their support, especially in seeking international credit for development;
(xiv) Budgetary processes: do we continue with the incremental budgetary system that does not emphasise input-output relationships?

6.1 *Is Policy Still Relevant?*

This question is examined in the context of the inflation cum unemployment trade-off. Using time series data for the a period 1970-2002, we estimated an extended Phillips equation of the form:

$$P_t = \alpha_1 + \alpha_2 U_t + \alpha_3 P_{t-1} \qquad (1)\ 20 \qquad 30\ (1)$$

Where:

P_t = rate of inflation
U_t = rate of inflation
P_t^x = expected rate of inflation
t = time period

Equation (1) implies that for a given expected inflation rate, there will be a negative trade-off between unemployment and inflation rate. When the expected inflation rate varies, then actual inflation rate (P) will be different for any unemployment rate, resulting in a shift in the short-run Phillips curve.

Using ordinary least squares, the estimated result is provided thus. (t scores are in parenthesis)

$$P_t = \underset{(2.564)}{2.183} - \underset{(-.806)}{0.3022U_t} + \underset{(2.072)}{.369P_{t-1}} \qquad (2)$$

$R_2 = .70; DW = 1.7$

The unemployment variable has the expected sign but statistically insignificant. A 1% decrease in unemployment would result in a 0.30% increase in the rate of inflation. Even in the long run, policy is still relevant the coefficient of the expected rate of inflation is less than one.

This would have policy implications. It would mean that government can decide the point it would like to be on the long-run Phillips curve by putting in place proper policies and strategies. (This result contradicts that of (Ekpo, 1992) in which an estimated Phillips curve for the period 1978 -1990 indicated that in the long run there was no trade-off between the rate of inflation and the rate of unemployment.)

7. *Conclusion*

We have examined in this paper the issues and challenges relating to the macroeconomic policy framework in Nigeria. The evidence suggests that the use of policy instruments has not impacted positively on the economy. The performance of the real sector has been dismal while economic fundamentals seem to be moving in the wrong direction. Leading issues in macroeconomic management in Nigeria include ensuring an appropriate policy environment, evolving the relevant macroeconomic policy mix, choosing between fixed and flexible target approaches, and obtaining reliable data for policy making. The challenges of the macroeconomic policy framework include an optimal size of the public sector, the underground economy, poverty reduction, establishing an appropriate exchange rate regime, achieving true fiscal federalism, and the question of an optimal deregulation of the economy, among others.

It is evident from the analysis that public expenditure has had a negative effect on output while monetary policy has impacted positively on output. The dominance of fiscal policy over monetary policy needs to be checked. Evolving a robust macroeconomic policy framework would have to examine the essential features of the Nigerian economy, perhaps by using the macro-modelling approach from the perspective of disequilibrium. It is hoped that the present National Economic Empowerment Development Strategy (NEEDS) would take into account some of the issues raised in this paper.

References

Burns, Arthur and W. Mitchell (1946). *Measuring Business Cycles*, New York, MBER. Central Bank of Nigeria. *Annual Reports and Statements of Accounts*, Various issues.

Egwaikhide, Festus (2003). *Fiscal Policy Management and Its Effects on the Nigerian Economy*. Nigerian Economic Society's One-day Seminar, May 22, p.19.

Ekpo, A. H. (1992). "Economic Development Under Structural Adjustment: Evidence from Selected West African Countries." *Journal of Social Development in Africa,* Vol.7, No.1, pp. 25- 43.

Ekpo, A. H (1992b). "Unemployment and Inflation During Structural Adjustment: The Nigerian Experience." *Eastern Africa Economic Review,* Vol.8, No.2, pp. 102- 113.

Ekpo, A. H. (1995). "Openness and Economic Performance in Nigeria: A Time Series Analysis" in: *External Trade and Economic Development in Nigeria*, Nigerian Economic Society, Ibadan.

Ekpo, A. H. (1997). "Foreign Private Investment in Nigeria: Evidence From True Series Data" *Economic and Financial Review,* Vol.35, No.1, pp. 59- 78.

Ekpo, A.H. (1999). "Public Expenditure and Economic Growth in a Petroleum-Based Economy: Nigeria, 1960-1992." *South African Journal of Economic and Management Sciences*, Vol.2, no. 3, pp. 374- 389.

Ekpo, A. H. (2002). *Poverty-Oriented Budget Design and Implementation*, AERC 5th Seminar Policy Seminar, Dar-es-Salaam, Tanzania, February.

Ekpo, A. H. (2001). *Managing The Nigerian Economy in the 21st Century,* IPPA Distinguished Lecture, University of Calabar.

Ekpo, A. H. (2001). "Interest Rate Management in Nigeria: Lessons From Conceptual and Empirical Reviews" *Policy Analysis Series*, NCEMA,vol.7, no. 2. pp. 1- 24.

Ekpo, A.H. (2003). *Government Revenue Implications of Trade Liberalization* in Africa, ECA-UN, Addis-Ababa, Ethiopia, September.

Iyoha, M. (2002). "Review and Appraisal of the 2002 Federal Government Budget Performance." *Bullion,* vol.26, No. 2. pp. 14-21.

Obadan, M. and M. Iyoha (1996). *Macroeconomic Policy Analysis,* NCEMA, Ibadan.

Onimode, Bade (2000). *Africa in the World of the 21st Century* Ibadan, Ibadan University Press.

Sobel, Joel (2002). "Can we Trust Social Capital?" *Journal of Economic Literature,* Vol. DL, NO.1, pp. 139-154.

APPENDICES

Table A1:
Nigeria: Social Indicators, 1991 2001

Year	YN	Pn%	LF	ALR%	HDI
1991	1069	2.1	51	54	0.328
1992	1066	3.2	52	554	0.328
1993	1069	2.1	52	55	0.389
1994	1060	2.1	52	55	0.384
1995	1041.5	2.1	52	57	0.402
1996	1051.8	2.1	52	57	0.400
1997	1048.4	3.0	53	57	0.400
1998	1041.0	3.0	54	57	0.400
1999	1038.8	3.0	54	57	0.400
2000	1046.8	3.0	54	57	0.400
2001	1062.5	3.1	54	57	0.400

Source: *CBN's Annual Reports and Statements of Accounts*, Various Issues

Notes:

Y_N = GDP per capita in Naira

P_n = Population growth rate

LF = Life Expectancy at Birth (year)

ALR = Adult Literacy Rate

HDI = Human Development Index

Table A2:
Nigeria: Average Growth Rate of GDP (%)

Period	GDP at 1984 Constant Price	Agric GDP
1960 - 1965	4.9	1.8
1966 - 1970	6.3	2.0
1971 - 1975	8.4	-1.5
1976 - 1980	4.0	2.9
1981 - 1985	-5.7	4.9
1986 - 1990	5.6	5.3
1991 - 1998	2.3	3.2
1999 - 2001	2.5	2.6

Source: Computed from data derived from the Federal Office of Statistics, Lagos.

Table A3:
Nigeria's Fiscal Indices, 1970-2001

Year	Federal Budget Balance	Deficit/GDP Ration %
1970	-0.5	-8.7
1971	0.2	2.6
1972	-0.1	-0.8
1973	0.2	1.5
1974	1.8	9.8
1975	-0.4	-2.0
1976	-1.1	-4.0
1977	-0.8	-2.4
1978	-2.8	-7.8
1979	1.5	3.4
1980	-2.0	-3.9
1981	-3.9	-7.7
1982	-6.1	-11.8
1983	3.4	-5.9
1984	-2.7	-4.2
1985	-3.0	-4.2
1986	-8.3	-11.3
1987	-5.9	-5.4
1988	-12.2	-8.4
1989	-15.1	-6.7
1990	-22.1	-8.5
1991	-35.8	-11.0
1992	-39.5	-7.2
1993	-107.7	-15.5
1994	-70.3	-7.7
1995	1.0	0.1
1996	32.0	1.6
1997	-5.0	-0.2
1998	-133.4	-4.8
1999	-285.1	-8.9
2000	-103.8	-2.1
2001	-221.1	-4.0

Source: Central Bank of Nigeria. *Annual Reports and Statements of Accounts*, Various Issues.

Table A4: Nigeria:
Monetary and Credit Growth Targets and Budget Out-Turns (%)

Year	M1 Target	M1 Out-turn	Aggregate Credit Target	Aggregate Credit Out-turn	Credit to Govt. Target	Credit to Govt. Out-turn	Credit to Private Sector Target	Credit to Private Sector Out-turn
1987	11.8	17.1	4.4	14.3	1.5	14.4	8.4	14.1
1988	15.0	43.6	8.1	22.2	2.5	30.0	13.3	21.6
1989	14.6	21.5	9.5	-14.1	8.3	-33.5	10.7	3.9
1990	13.0	44.9	13.5	17.1	10.9	14.9	15.8	78.4
1991	14.6	32.6	10.6	45.3	0.0	82.9	16.4	23.7
1992	24.3	6.4	13.2	73.6	14.5	109.7	20.0	34.6
1993	20.0	54.6	17.5	75.9	14.5	121.7	20.0	51.6
1994	21.0	47.8	9.4	29.2	0.0	9.5	32.2	32.2
1995	9.4	8.1	11.3	12.4	5.6	-8.6	21.9	51.8
1996	14.5	26.3	12.0	5.0	0.0	-10.1	29.5	21.9
1997	13.5	16.3	24.8	95.0	0.0	58.0	45.4	20.0
1998	10.2	20.5	24.5	46.8	0.0	144.9	33.9	27.4
1999	4.1	19.9	18.3	35.5	10.2	7.1	199	27.3
2000	9.8	62.2	27.8	-23.1	37.8	-162.3	21.9	30.9
2001	4.3	28.1	15.8	75.8	2.1	79.7	22.8	43.5

Source: Egwaikhide, Festus (2003). *Fiscal Policy Management and Its Effects on the Nigerian Economy*. Nigerian Economic Society's One-Day Seminar, May 22, p. 19.

A FRAMEWORK FOR ASSESSING FISCAL SUSTAINABILITY: APPLICATION TO NIGERIA

Victoria Kwakwa

1. Introduction

Nigeria has a long history of fiscal imbalances, including running large fiscal deficits. The imbalances have been costly to the economy, fuelling inflation (as observed over the last two years) and reducing the competitiveness of the non-oil sector, thus constraining economic growth.

Is this trend, and especially the current level of Nigeria's fiscal deficit or its public sector debt, sustainable? Can current fiscal policies be sustained for the foreseeable future? Or will they lead to a painful fiscal adjustment in the form of higher taxes, reduced public spending or outright default? The issue of sustainability of Nigeria's fiscal stance has become an important element of recent policy discussions. Since assuming office in July 2003, the Federal Government of Nigeria's new economic team has highlighted the centrality of sound fiscal management for achieving macroeconomic stability objectives and for ensuring that Nigeria's considerable resources are effectively channelled in support of growth and improved services for all Nigerians. The Federal Government's reform strategy, the National Economic Empowerment and Development Strategy (NEEDS), places considerable emphasis on new policies in the related areas of fiscal, budget and financial management. It also envisages a broad framework to enhance fiscal responsibility at all levels, through a *Fiscal Responsibility Act.*

This strong emphasis on strengthening Nigeria's fiscal policy stance is an indication that federal policy makers recognize the risks to the economy's short-term fiscal stability and to medium- and longer-term fiscal sustainability. This paper attempts to contribute to the discussion on the issues surrounding fiscal sustainability in Nigeria. Section 2 provides a quick overview of recent fiscal performance, highlighting areas of concern. Section 3 reviews two conceptual approaches to the analysis of fiscal sustainability in the economic literature and applies a simple formulation of one of these to the Nigerian case. Section 4 provides some suggestions for action to move Nigeria towards a path of fiscal sustainability.

2. Recent Fiscal Performance Key Facts and Figures

It is important to begin the paper with a quick overview of some of the key facts and figures on Nigeria's recent fiscal performance. It must also be noted from the outset that official fiscal data on Nigeria are far from comprehensive. First, the detailed fiscal data do not cover revenue and expenditure performance at state and local government levels---with the exception of inflows to states and local governments from federally collected revenues. It is assumed in constructing the consolidated fiscal accounts of the three tiers of government that states and local governments maintain balanced budgets thus their expenditures are taken as equivalent to their revenues. The partial data from states and local governments suggest that this assumption may not be justified since several state and local governments have considerable fiscal deficits. Within the federal government, the fiscal data reflect only the operations of federal government ministries and departments, excluding the operations of quasi-government bodies and paraststals, some of which (e.g., NEPA) receive considerable funding from government and are known to be in extremely poor fiscal

health. In addition, federal government accounts exclude several important elements, such as outstanding contractor and pensions obligations as well as contingent liabilities. Thus, only a partial picture is provided by the official fiscal accounts. Moreover, anecdotal evidence on the elements that are excluded would suggest that the true fiscal picture is probably a lot worse.

Fiscal Balance: The overall fiscal balance of a consolidated government improved from a deficit of about 7 percent of GDP in 1999 to a surplus of 5.9 percent in 2000, reflecting mainly the doubling of government revenues and the impact of external debt rescheduling. However, this improvement has not been sustained; deficits have re-emerged and in 2003 an overall fiscal deficit of about 6.3 percent of GDP is expected, almost identical to the situation in 1999. Thus, no appreciable improvement has been recorded in the fiscal balance outcome over the period. The primary surplus exhibits an even more pronounced deterioration. After improving to a healthy surplus of close to 12 percent in 2000, performance has worsened consistently and is projected to reach a deficit of 1.5 percent of GDP for 2003. Given the economy's heavy dependence on oil, it is also useful to consider trends in the non-oil deficit position. The non-oil balance, expressed as a share of GDP, has also worsened over the period and is expected to reach a deficit of about 31 percent of GDP in 2003.

The expected outcomes in 2003 reflect, in part, the costs of some of the reforms the federal government has begun implementingincluding the monetization of public sector in-kind benefits and government contribution towards the proposed contributory pensions scheme. Nevertheless, it is also striking to note that this generally worsening fiscal balance performance has occurred during a period in which Nigeria has enjoyed huge improvements in

government revenues due mainly to historically high international prices of oil and depreciation of the naira. Indeed, consolidated government revenues rose from under 1 trillion naira in 1999 to just over 2 trillion naira in 2002.

Table 1:
Nigeria: Key Fiscal Performance Data, 1999-2002
(In percent of GDP)

	1999	2000	2001	2002	2003
Primary Balance	0.8	11.8	3.6	1.0	-1.5
Overall Balance	-7.1	5.9	-2.7	-5.1	-6.7
Non-Oil Primary Balance		-30.3	-36.5	-28.2	-43.8
Non-Oil Balance		-22.4	-28.4	-24.1	-31.0

Source: IMF

Available data on recent fiscal trends at state and local government levels confirm these national trends and suggest an even more worrisome picture. Data from the CBN suggest that as a group, states recorded a small deficit of about 0.5 percent of GDP and 4 percent of their aggregate revenues on their fiscal operations in 2001. While relatively small, it is nevertheless of concern, given the strong revenue increases that states and local governments have enjoyed over the period. Moreover, data gapsespecially on local contractor obligations, pensions arrears and states' public enterprise debtsmean that several elements of government commitments are not fully captured in this data. More importantly, underlying structural imbalances mean that states have little or no headroom and could

face severe fiscal crises in the event of a sharp drop in world market oil prices. This would have strong implications for overall macroeconomic stability for the country.

A survey of states' finances carried out by the World Bank in 2002, also casts considerable doubts on the sustainability of the fiscal balance positions of several states despite revenue increases of about 300 percent over the review period. Most states are recording worsening fiscal balance positions and are funding less and less of their expenditures from their own revenues. Eight of twelve sampled states for which complete data could be assembled recorded, on average, an overall deficit position over the period, with levels over 10 percent of revenues in three cases. Cross-River State recorded an average deficit of over 56 percent of revenues between 1997 and 2000. Bauchi, Oyo and Lagos states recorded average annual deficits of 46 percent, 26 percent and 13 percent of revenues respectively (Fig 2). Much of these deficits are being financed through commercial bank borrowing and the accumulation of domestic arrears[6].

The recent trends at federal, state and local government levels also confirm the strongly pro-cyclical nature of fiscal management in Nigeria specifically, the tendency to be expansionary when times are good and revenues are rapidly increasing.

Consolidated expenditures at all three tiers is conservatively estimated at close to over 40 percent of GDP, a relatively high figure compared to other developing countries.

---

4. Commitment basis.
5. In percent of non-oil GDP
6. World Bank 2003: Nigeria States Finances Study

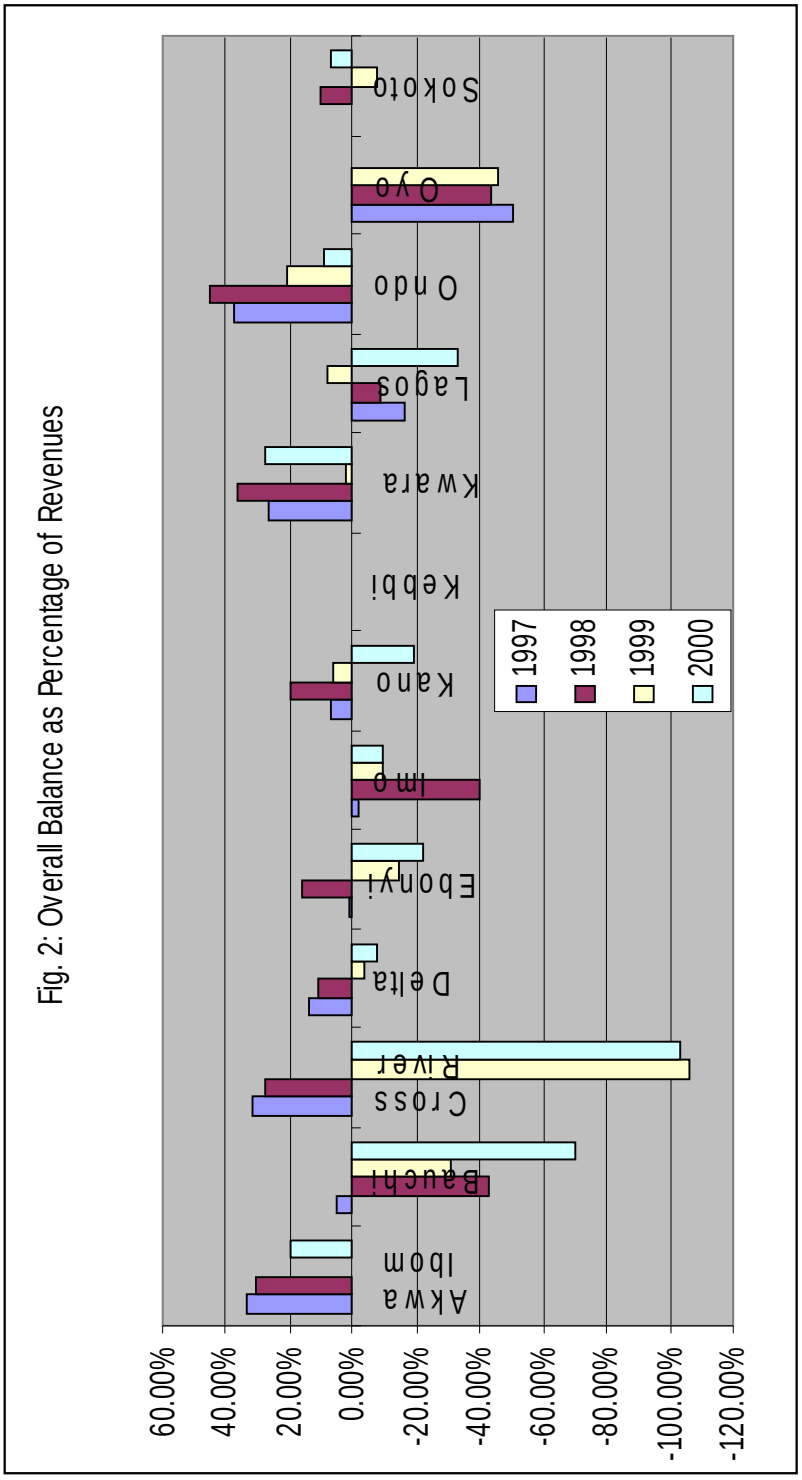


Fig. 2: Overall Balance as Percentage of Revenues

The recent trends at federal, state and local government levels also confirm the strongly pro-cyclical nature of fiscal management in Nigeria specifically, the tendency to be expansionary when times are good and revenues are rapidly increasing.

Structure of Fiscal Accounts: The structure of fiscal accounts highlights considerable vulnerabilities and raises concerns about medium- and longer-term sustainability. First, close to 75 percent of consolidated government financing comes from oil revenues. For most states and local governments, this share is even higher. In 2001 states raised only about 10 percent of their total revenues from non-oil sources, compared to 28 percent in 1997. This highlights the increased vulnerability of state government finances to oil price shocks. Second, non-discretionary expenditures including personnel, running costs of government and interest on debt, consume a high proportion of total expenditures: close to 65 percent at the federal level[7] and higher in states. This means government has somewhat limited options for effecting fiscal adjustment on the expenditure side in the event of any shocks. Finally, there is considerable imbalance between funding for acquisition of physical assets and funding for maintaining these assets. In the roads sector, the 2001 budget allocated almost three times as much resources to new construction as to rehabilitation and maintenance. Best practice from around the world suggests that spending for maintenance and rehabilitation of existing road networks should take about 60 to 80 percent of total highways spending with 20-40 percent allocated for new construction. This under-funding of maintenance has resulted in the loss of some parts of the road networks over the years. That government is unable to maintain its capital assets raises doubt about

7. *Data for 2002*

the appropriateness and sustainability of the current pattern of public expenditures.

Public Debt: Available data on public debt cover the external debt obligations of all tiers of government and the securitized domestic debt of the federal government. Domestic debts of states and local governments are not captured, neither is non-securitized debt, such as pensions and other personnel obligations, as well as domestic contractor obligations at all three tiers. The data available show public debt currently at 85 percent of GDP. But the missing elements are thought to be significant. For example, the outstanding pensions obligations of the federal government alone could be as high as N2 to N3 trillion!

Debt service obligations of the 85 percent of GDP recorded as public debt is considerable, and arrears are accumulating on both domestic and external debt obligations.

Table 2:
Nigeria External Debt Service Obligations $ Billion

	1999	2000	2001	2002
Debt Service Due	3.360	2.852	2.330	3.102
Debt Service Paid	1.725	1.716	2.128	1.168

Sources: CBN (Annual Report and Statement of Accounts); and DMO

Table 3:
Federal Government Debt Service on Securitized Domestic Debt Billion Naira

	1999	2000	2001	2002	2003
Interest	84.0	104.2	117.8	171.0	177.0
Amortization	434.8	-179.5	53.9	-399.0	0
Total	518.8	-75.3	171.7	-228.0	177.0

External Reserves: The fiscal trends are even more worrisome when considered with other important economic trends. External reserves (cash flow concept) have declined since the end of 2001 and stood at about $5.93 billion at the end of September 2003. Nigeria stands out as the only major oil producing and exporting country that has been losing significant reserves in the last few years when international market prices of oil have been at historically high levels. Recent foreign exchange reserve losses reflect the fiscal policy stance, combined with the policy of trying to contain the nominal depreciation of the naira. In the last few months, demand by independent importers of petroleum products following the deregulation of the downstream petroleum sector, is a key factor in the increased demand pressure on the naira.

Table 4:

Trends in Foreign Exchange Reserves of Major Oil Exporters $ Trillion

	1999	2000	2001	2002	2003 (September)
Algeria	4.41	11.91	17.96	23.11	28.49
Indonesia	26.25	28.28	27.05	30.75	32.72
México	30.99	35.14	44.38	49.89	54.19
Russia	8.46	24.26	32.54	44.05	60.68
Venezuela	11.71	12.63	8.83	8.04	11.39
Nigeria	5.45	9.91	10.45	7.15	5.93

Sources: IMF International Financial Statistics September 2003, and IMF Staff Estimates

Growth: Growth performance has picked up over the last four years, rising from an annual average of about 2 percent between 1995-1999 to about 4.1 percent between 2000-2003. There are also indications of stronger growth in the non-oil sector in the last two years. Nevertheless, it is also clear that it will take quite a while for a substantial and sustained pick-up in growth. Growth of 4 percent annually is still too low to have the desired impact on the incomes and welfare of Nigerians.

The issues thrown up by our analysis clearly raise justifiable doubts, on the one hand, about the sustainability of Nigeria's current fiscal stance. But, it could also be argued, on the other hand, that Nigeria has, for a long period of time, managed to maintain a fiscal policy stance that would appear unsustainable and seems to have gotten away with it. But, as discussed below, even if Nigeria manages to avoid explicit default, it is clear that the long-term costs of this fiscal stance for the economy are high. Not only does this weaken confidence in the Nigerian economy, it encourages considerable waste of public resources and limits the economy's ability to grow. The next section of the paper presents an analytical framework for assessing fiscal sustainability and applies this to the Nigerian case.

3. A Conceptual Framework For Assessing Fiscal Sustainability[8]

The adjective “sustainable” is often used to describe something that can be kept up, prolonged, borne, etc. Or, it could be used to describe a way of harvesting a resource so that it is not depleted or permanently damaged in the process, suggesting a

8. *This section draws heavily on Cuddington John T (1997) “Analyzing the Sustainability of Fiscal Deficits in Developing Countries”.*

concept of solvency, that is the ability of a government to service its debt obligations without explicitly defaulting on them. One concept of fiscal sustainability refers to government's ability to indefinitely maintain the same set of policies while remaining solvent, i.e., while remaining able to service its debt obligations without explicitly defaulting. A particular combination of fiscal and / or monetary policy, when indefinitely maintained, would lead to government explicitly defaulting and would be described as unsustainable. But often even when government is solvent and likely to remain solvent, its fiscal policies may be costly and a fiscal sustainability analysis should be able to point this out.

The Public Sector Financing Constraint

Analyses of fiscal policy sustainability begin with the public-sector financing constraint (PSFC) which links the evolution of total public-sector liabilities to the primary surplus. The PSFC is:

where is the real return on debt, and SURP = T- G, the difference between the public sector's total revenue T, and its non-interest expenditures, G.

Given the time paths for real return on debt and SURP, the government financing constraint above, describes the time path of the stock of debt as follows:

If government runs a primary surplus equal to zero, the stock of real debt will grow at a rate equal to the real interest rate;

If government runs a primary deficit, the stock of debt will grow at a rate exceeding the interest rate;

If government runs a primary surplus, the stock of debt will grow more slowly than the interest rate. If the surplus more than offsets interest payments on existing debt, the conventional surplus, is positive. In this case, the real debt will actually shrink over time[9].

Both the Present Value Constraint (PVC) tests of sustainability and the accounting approach begin from the PSFC provided above.

The Accounting Approach to Sustainability

This approach focuses on a particular debt ratio, typically debt to real GDP.

The PSFC can be rewritten in terms of ratios of GDP as follows:

$$b_t = (1 + r)/(1 + g_t)b_{t-1} - surp_t$$

Using the change in the debt/GDP ratio equals:

$$b_t = b_t - b_{t-1} = (r_t - g_t)/(1 + g_t)b_{t-1} - surp_t$$

It follows that:

If the primary balance to GDP is zero, the debt to GDP ratio will grow (or shrink) at the rate r-g; and

If government runs a primary deficit (surplus), the debt to GDP ratio will grow at a rate exceeding (less than) r-g.

In the accounting approach, a primary deficit (or surplus) is defined as sustainable if it does not generate an ever-increasing debt

9. The PSFC can easily be generalized to distinguish between domestic - and foreign currency-denominated debt.

to GDP ratio, given a specified real GDP growth target and a constant real interest rate. Thus, in the simple case where seigniorage revenue and foreign borrowing are ignored, the "sustainable" primary surplus to GDP ratio is determined by setting the change in the debt to GDP ratio equal to zero, thus:

$$Surp = (r-g)/(1+g)b$$

This is the level of the primary surplus that would be required each year to keep the debt/GDP ratio constant at its current level b. Applications of the accounting approach invariably consider the possibility of using seigniorage revenue as a source of fiscal finance. In this case, "surp" should be interpreted as the primary surplus, inclusive of sustainable seigniorage revenue. The main drawback of the approach is that it attempts to determine the financeable fiscal deficit by making assumptions that liabilities can continue to grow at the growth rate of the economy's GDP, as this implies that the debt to GDP ratios remain constant. This leaves rather vague the role that lenders ultimately play in determining what debt strategies are sustainable and which are not.

The Present Value Constraint Approach

This also begins with the PSFC in real level terms rewritten as:

$$B_{t-1} = B_t/1+r_t) + SURP_t/(1+r_t)$$

This can be iterated forward N periods and assuming constant interest rates and assuming that the present value of government's debt in the indefinite future converges to zero, which means that real debt must grow more slowly than the real interest rate. This gives in the end the condition that government debt at any point in time must

equal the present value of its expected future primary surpluses:

$$B_{t-1} = \quad SURP_{t+j}/(1+r)^{t+1}$$

This is the Present Value Constraint (PVC).
Thus the accounting approach focuses on steady states and assumes that a fiscal deficit (or surplus) that leads to unchanging debt/GDP ratios over time is sustainable. The data requirements to apply this approach are relatively modest. The PVC, on the other hand, begins from the premise that the sustainability of fiscal policy ultimately depends on what level of deficit is financeable. This, in turn, depends on the behaviour of lenders.

For the purposes of application to Nigeria, we provide a very simplified version of the accounting approach in which the sustainability rule is[10]:

$$Db = 0 = p + (i-g)b$$

or

$$-p = (i-g).b$$

Where p is the primary deficit as share of GDP; i is the rate if interest; g is the norminal growth rate; and b is the debt to GDP ratio[11].

In this presentation, the requirements for fiscal sustainability depend on the rate of interest and the rate of growth. This simple framework highlights the importance of the relationships between the economy's interest rate and growth rate for fiscal sustainability. It says, essentially, that if the economy is growing at a rate that is lower

10. *See* Cronic D and Daniel McCoy (2002)" *Fiscal Sustainability When Time is on Your Side"* for details of deriving this.
11. This formulation can be used with g and i both in real or nominal terms.

than the interest rate on government debt, then government needs to be running primary fiscal surpluses to prevent debt to GDP ratio and debt service obligations continuing to rise and eventually leading to insolvency or bankruptcy.

On the other hand, if the opposite situation is the case and the economy is growing at a rate exceeding the rate of interest on government debt, then government can carry primary deficits in the medium term, although these will not be sustainable in the long term. This formulation can be used with both growth and interest rates in real or nominal terms as long as they are consistently applied. This formulation is very simple, but it still highlights the importance of the relationship between the economy's interest rate and growth for fiscal sustainability.

What does this simple framework say about the sustainability of Nigeria's present fiscal stance?

The Debt to GDP ratio: The present level of public debt to GDP is around 85 percent of GDP.

Real growth: The trend of the real growth rate over the last twenty or so years in Nigeria, is around 3 percent. This is also similar to the levels attained in the more recent past so we can use this for the economy's real growth rate.

Real interest rate: With the nominal interest on government debt standing between 15 and 18 percent, and an inflation rate of about 10 percent, the real interest rate can be taken as between 5 and 8 percent . Using these numbers in the sustainability rule above gives two key results:

First, Nigeria should be running primary fiscal surpluses if it wants to avoid the possibility of explicit default over the longer term.

Secondly, these primary surpluses should be in the order of between 1.7 to 4.3 percent of GDP to move towards a path of fiscal sustainability. This is significantly different from the primary deficit of about 1.5 percent of GDP expected in 2003 and shows that considerable fiscal strengthening and adjustment is needed if fiscal sustainability is a desired policy goal of government. It is important to note here the sensitivity of the result to differing assumptions (observations) on interest rates, growth rates and debt.

4. *Achieving a Path of Fiscal Sustainability in Nigeria*

What options does Nigeria have for strengthening its fiscal stance to ensure longer-term fiscal sustainability and end undue costs to the economy of fiscal indiscipline? And can this be done in a way that does not compromise the achievement of broader development objectives? For example, it is clear that the infrastructure investment needed to support growth is considerable. While government is rightly trying to promote stronger private participation in this area, given the extent of need in this area, public contributions will also have to be sizeable. In addition, estimates of what it will cost to attain basic social development objectives in key areas, such as education and health, are also enormous.

Given this context, is it realistic to be discussing fiscal

sustainability? Can government make progress towards fiscal sustainability without putting at risk some of its social development objectives? Can the expected considerable costs of some aspects of the NEEDS initiative be adequately funded even as government tries to move towards fiscal sustainability?

Clearly, these questions will require much more detailed analysis with much more data than this paper has presented. However, this paper argues that several of the key actions that are needed to move the country on to a path of longer-term fiscal sustainability are fully consistent with achieving Nigeria's broader economic and social development objectives. Moreover, the actions discussed below are necessary and a pre-requisite for progress on the other objectives. Thus, working on fiscal sustainability also means working towards these other objectives and the two sets of objectives are, perhaps, inseparable. We focus on four inter-related broad areas for action, which are a combination of expenditures and revenues as well as institutional measures and reforms.

(i) Enhancing Expenditure Efficiency

Nigeria has one of the higher ratios of government spending to GDP amongst developing countries and yet does not have much to show for it. Government should be able to make each naira it spends work much harder towards achieving its development goals. Fiscal sustainability and the achievement of these broad development objectives cannot be delivered without marked or dramatic improvements in the efficiency with which public resources are used. The key issue in this regard is weak governance in public expenditure and budget management. Public expenditure programmes are poorly planned and often do not consider the cost-effectiveness of proposed programmes against other options; public contracts are

highly inflated; there are considerable leakages of public funds; and monitoring of execution and outcomes is extremely weak or, for all practical purposes, non-existent. These underlying issues need to be addressed to ensure that public resources are put to more efficient use. Concretely, what specific actions can be put in place?

(a) *Speed up the ongoing procurement reforms and set up a strong and well functioning Public Procurement Commission to oversee government procurement.* Procurement reforms have been dragging over the last two years. It is now time to re-invigorate the process and make sure that government procurement is fully competitive, open and transparent. The ongoing "due process" initiative has demonstrated clearly the kinds of savings that can be made by improving procurement practices. The gains from this first step need to be consolidated through a solid procurement legislation and institutional arrangements to ensure strict adherence to such legislation.

(b) *Address the weak quality of investment spending.* Nigeria undoubtedly needs considerable levels of investment to generate the levels of growth needed to reduce poverty. But the quality and efficiency of public investment is currently extremely low and simply expanding the existing investment programme will not take the country forward. The FGN's FY03 capital budget appropriation was about N382 billion, almost 40 percent of total FGN appropriations, equivalent to 6 percent of GDP and contains over 3,000 individual "projects". Between 2000 and 2002, on average, about N444 billion was appropriated and about N341 billion was released for capital spending annually. Several projects have been in the budget for extended periods, simply rolled over from one year to the next with no questions

asked on whether the programme fits government's priorities, is cost-effective and whether resources are being used efficiently. For several, there is no indication of when these activities are expected to end. One concrete step that government could take would be to carry out a comprehensive and objective review of the contents of its investment programme and ask the hard questions on whether each individual item merits continued public funding. This should help weed out those activities for which public funding cannot be justified; and modify the content or design of others to ensure that objectives can be achieved and impact can be delivered.

(c) *Adopt innovative ways of implementing public expenditure programmes in line with efficiency and accountability.* Government-funded programmes do not necessarily have to be implemented or delivered by the public service. Different forms of public/private/community partnerships could be explored that can enhance efficiency and good use of public resources. There are increasing examples of such arrangements, not only in infrastructure provision but also in such areas as education and health.

(d) *Strengthen payroll management and controls*. Nigerian governments at all levels need to get a better handle on their personnelincluding pensions obligations and expenditures. Payroll audits are needed, followed by the computerization of payrolls. This would be important for weeding out ghost workers and for better monitoring of personnel expenditures.

(e) *Set up a system of public expenditure tracking, monitoring and evaluation to ensure that resources are being efficiently used.*

For such a system to have impact, findings would have to be publicized, acted on and followed up including taking appropriate disciplinary action, or commendation of staff as the case may be.

All of these actions would have to be set in the context of more fundamental medium-term structural reforms to budget and financial management institutions and processes to promote proper planning of public expenditure programmes. Such comprehensive budget reforms often take a long time to achieve.

(ii) Improving Management of the Oil Revenue Cycle

Better management of the oil revenue cycle will have to be a central element of any effort to put Nigeria on a path of fiscal sustainability. Historically, fiscal policy in Nigeria has been extremely pro-cyclical, with expenditures ratcheting out of control on the upswing of the oil price cycle. This has contributed to the observed deficit bias in the conduct of fiscal policy. One option is to put in place a fiscal policy rule. A fiscal policy rule makes sense in Nigeria, given the complete absence of a tradition of fiscal discipline. Because a fiscal rule commits government to a certain level of conduct in fiscal and budgetary management, it will help begin to build government credibility in fiscal management and, over time, promote strong fiscal discipline across all tiers of government. A rule, based on oil prices, will also help address the issue of the vulnerability of all tiers of government to oil price swings and reduce the pro-cyclicality in the budget. This will allow savings to build up financial assets in periods with high oil prices that can be used to finance the desired expenditure programmes when oil prices are low. An important issue would be the establishment of a proper savings mechanism that, ideally, would

extend to all levels of government. An oil price-based rule, which targets a fiscal balance at a trend price of oil, would seem appropriate in Nigeria's case. Any revenues in excess of this trend price are saved for a rainy day. (See Mack Ott's paper-Ed.)

A decision would have to be made on where to keep the oil savings. The overriding objective should be an institutional setup that maximizes accountability, safeguards, and transparency. Currently, the Federal Government deposits some oil revenue into three excess proceeds accounts, prior to depositing the remaining oil revenue in the Federation Account for distribution to the three tiers of government. The actual amount of oil revenue saved in any month is not bound directly by a rule, but is a result of a more discretionary decision-making process, taking into account progress in achieving the budget targets in an indicative manner. Moreover, even when the realized oil price is above the budget oil price, government can draw down from the excess proceeds accounts to finance spending as happened in both 2002 and 2003. One savings account could be operated, with one sub-account each for the Federal Government and each participating sub-national government.

Any fiscal policy rule will require strong political support from both the executive and the legislature, as well as from sub-national governments. The absence of this is already to constraining government. In principle, the Ministry of Finance is being guided by a price rule when preparing the budget. In practice, however, this rule has not been adhered to as: (i) the budget is not balanced at the targeted price; and (ii) when executing the budget, the excess revenue (the difference between the budget reference price and the actual price) is not consistently saved in line with the movement in the oil price differential. Without strong political commitment, no fiscal rule

can be successfully implemented, regardless of how well it is designed.

The extent to which inter-governmental reforms can be agreed upon to support a fiscal rule is unclear. Undoubtedly, getting political agreement on a fiscal rule across all levels of government would be a challenge. A mechanism to transparently save excess oil revenue at various levels of government would increase the confidence of the states contributing to a fiscal rule that their savings, accumulated during times of high oil prices, could be drawn on during times of low oil prices and, hence, increase the likelihood that they would agree to participate in the implementation of a fiscal rule.

(iii) Strengthening Institutional Arrangements for Fiscal Policy Coordination Between Tiers of Government

One of the main challenges in attaining sound fiscal management is weak coordination between the three tiers of government on what the broad macroeconomic objectives should be and the role and responsibility of each federating unit in achieving such objectives. The difficulties in managing oil revenue windfalls over the last couple of years is a glaring example of this and have demonstrated clearly that a mechanism for fiscal and macroeconomic coordination between tiers of government is urgently needed. Such a mechanism exists and functions well in several other federations and would provide the needed institutional underpinning for measures to strengthen state budget constraints, budget processes and institutions. The obvious place to begin in setting this up would appear to be to amend the 1999 constitution to establish the basic principles and institutions for cooperation and coordination of fiscal and budget policy amongst the three tiers of government.

However, amending the Nigerian constitution will not be easy. In the interim, a political process for reaching consensus on the need for a coordinated fiscal and budgetary policy, and on the central role of the Federal Government in the process is necessary. While such an agreement would be largely informal and not backed by law, the inclusion of sub-national governments in the process of setting a national agenda could engender a sense of ownership and instill discipline into the process. This forum could be used to discuss and agree on appropriate incentives to promote a commitment to prudent fiscal management at all levels of government.

The National Economic Council (NEC)[12] could assume this coordinating function. The overall macroeconomic agenda, economic targets and the implications for the fiscal behaviour of individual federating units could be discussed, agreed and implemented through this mechanism. A technical and professional agency, comprising technocrats from key federal economic agencies (CBN, Ministry of Finance, Debt Management Office) and state ministries of finance and planning, could be jointly set up by the three levels of government to take responsibility for the technical work to inform and underpin recommendations for the discussion and agreement by the NEC. This technical body could also regularly obtain and widely publish economic and fiscal performance data and indicators from all the governments of the federation to help improve accountability and transparency at all levels of government.

The forum could also be used to discuss and agree the reform agenda between states and the Federal Government. In several

12. Consists of Vice President as chairman, all 36 states governors, and the Governor of the Central Bank of Nigeria.

aspects, the Federal Government faces similar issues as the state governments in the management of its finances and will also have to consider similar measures as the states may be undertaking at their level. The consistency in reforms across all levels of government needed for ensuring success and appreciable impact on overall macro stability objectives could also be promoted through this forum. In areas where the Federal Government has already initiated reform, states could learn from the federal process, and in instances where reform is yet to begin at the federal level, the reform agenda at both levels could be defined together. States could also learn form each other's experiences.

Another important issue that could be addressed through this forum is whether and how a fiscal policy rule could be implemented in Nigeria's federal context. The coordination mechanism could allow for in-depth analysis of the issues and agreement between the three tiers on what fiscal rule could be instituted and how it could be implemented.

Finally, it is also clear that in Nigeria's current socio-political context, any measures taken at the federal level to promote fiscal discipline in states should also aim at building trust in the centre by states and avoid perpetuating the undue dominance of the states by the federal level that had existed under the military. The Federal Government will need to signal clearly to the states that it fully believes in the merits of fiscal federalism in Nigeria and seeks to ensure its effective implementation. A heavily top-down approach, allowing little room for understanding and awareness amongst states of the fundamental issues, is unlikely to build such trust and hence achieve much. Moreover, the Federal Government lacks a strong constitutional and legal cover for such an approach. A more

consensual approach in which the Federal Government seeks to raise awareness and convince state governments on the importance of fiscal prudence at all levels would seem to have a greater chance of success.

(iv) Raising More Revenues Through Tax Simplification and Strengthening Tax Administration.

Fiscal adjustment towards a sustainable path could also come through enhancing government revenues. Policy makers could improve non-oil revenue intake in order to expand the volume of resources available to government and also reduce the vulnerability of public finances to oil price movements. There is already evidence from the work of the EFCC that considerable tax revenues are being collected and diverted to bank accounts of private citizens. Higher revenues will, however, not help Nigeria move towards fiscal sustainability if it draws attention and effort away from addressing expenditure issues along the lines discussed above. In fact, it could have the perverse effect of simply expanding government spending and debt and, therefore, moving the economy further away from its fiscal sustainability objectives.

4. *Conclusion*

This paper has attempted to demonstrate that Nigeria faces considerable fiscal risks and that its current fiscal stance may not be sustainable over the medium and longer term. It is, nevertheless, possible for Nigeria to move towards a more sustainable fiscal path through measures to enhance the efficiency and quality of public expenditures, improve management of the oil revenue cycle, strengthen arrangements for fiscal policy coordination and

collaboration between the three tiers, and strengthen revenue collection.

The new federal administration has put an improved fiscal management at the centre stage of its economic reform agenda and is already beginning to implement several steps to address underlying fiscal weaknesses. These measures would require determined implementation over the medium term to achieve the desired results.

REFERENCES

Central Bank of Nigeria, (2000, 2001, 2002). *Annual Reports*.

Chalk N., and Richard Hemming, (2000). *Assessing Fiscal Sustainability in Theory and Practice*. (IMF Fiscal Affairs Department Working Paper WP /00/81).

Cronin D., and Daniel McCoy. (2000). "Fiscal Sustainability When Time is on Your Side". In: *Fiscal Sustainability Proceedings of 2nd Banca D'Italia Workshop on Public Finances,* pp 681-723.

Cuddington John T. (1997). *Analyzing the Sustainability of Fiscal deficits in Developing Countries*. (World Bank Working Papers on Macroeconomics and Growth No. 1784).

Goldfajn Ilan. (2002). *Are There Reasons to Doubt Fiscal Sustainability in Brazil?* (BIS Papers N0. 20).

Hemming R., and Murray Petrie. (2000). *A Framework for Assessing Fiscal Vulnerability. (* IMF Working Paper Fiscal Affairs Department WP/00/52).

International Monetary Fund (2002). *Assessing Sustainability.* Washington, D. C.

International Monetary Fund (2003). *Nigeria: 2002 Article IV Consultation Staff Report.* Washington, D. C.

International Monetary Fund and the World Bank (2003). *Aide Memoire* of September 2003 Technical Assistance Mission to

the Budget Office.

Mahinda Siriwardana K.M. (1997). *An Analysis of Fiscal Sustainability in Sri Lanka*. Central Bank of Sri-Lanka Staff Studies, Vol 27-28.

Olekalns N. and Cashin Paul (2000). *An Examination of the Sustainability of Indian Fiscal Policy. (*Department of Economics University of Melbourne Paper 748).

Talvi E., and Carlos A. Vegh. (1998). *Fiscal Policy Sustainability: A Basic Framework*.

The World Bank (2003). *Nigeria States Finances Study.* Washington, D. C.

The Fiscal Rule Insulating Nigeria's Financial Policy from Oil Price and Revenue Volatility*

Mack Ott

Introduction

Nigerian exports of crude petroleum and natural gas recently have comprised 98 percent of its total exports, and the Federal Government of Nigeria (FGN) obtains well over 70 percent of its federally collected revenue from oil export and domestic sale revenues and royalties[13]. The revenues that are derived from oil exports and royalties are highly variable, in part due to the variability of oil prices and of changes in the production level prescribed by OPEC. However, the variability of oil revenues is also due to the variability of domestic prices and the exchange rate of the naira. Thus, the high variability of expenditures financed by oil revenues is only partly due to external causes; much of the variability is home-grown, a result of inappropriate fiscal finance and complicit monetary policy. That is, revenue volatility not only impacts fiscal policy, but it impacts monetary policy as well through encashment of federal receipts of foreign exchange and through monetization of federal deficits, both driven by revenue volatility. For this feedback from fiscal policy to monetary policy to be attenuated, it is necessary for the Central Bank to be independent and to engage its policy focused on price stability through constrained monetary expansion.

---

* The views, estimates and conclusions set out in this paper are those of the author and should not be attributed to the Department for International Development (UK).

[13]From 1991 through 2002, the share of petroleum in total exports averaged over 97 percent. In 2001 total federally collected revenue was N2.231 trillion of which gross oil revenue was N1.708 trillion or 76.6 percent. From 1997 to 2001, the average share of gross oil revenues was 75 percent (CBN Statistical Bulletin, December, 2001, Table 1.1).

It has been proposed that Nigeria's volatile fiscal policy could be stabilized by a "fiscal policy rule," under which it would save revenues in excess of a target level based on a benchmark oil price. Tying expenditures to a steady oil revenue stream would reduce expenditure variability. A serious problem with this proposal is that it would not constrain state expenditures funded by revenues passed through to the states [14]. The Federal Government lost a key court challenge to its attempt to sequester state funds, and it has also been stymied by forces for free spending in the assembly. However, there are elements of the macroeconomic framework that could be implemented and for which enabling legislation has been passed namely, monetary policy based on targeting a low level of inflation through constrained monetary expansion. The key to this policy is Central Bank independence, an innovation implemented by the institution of the Debt Management Office (DMO).

Fiscal policy itself will remain a challenge, perhaps requiring constitutional changes to solve, given the complexities of the federal system which impede changes to the revenue pass-through to the states. However, there are changes in federal budget and expenditure policies that could improve the effectiveness of monetary policy, and these are set out after the mechanics of the money supply process are reviewed.

In this paper, we review the two components of Nigerian federal financial policy-fiscal and monetary showing how each has been impacted by oil price and revenue volatility and how each can be made more efficacious by the fiscal rule. The fiscal rule would directly reduce fiscal volatility, but it would also, by reducing fiscal pressure, make an

14. This is a smaller problem for constraining monetary expansion than the federal expenditure as the state and local share of the monetary base as the CBN claims on state and local government and their offesetting deposits are relatively miniscule. See *CBN Statistical Bulletin,* December 2001, Table 1.2.

independent monetary policy feasible and efficacious. In the near term, there are issues complicating Nigeria's implementation of a fiscal policy rule, principally the constitutional impediments to constraining state revenue pass-through. Nevertheless, the implementation of the DMO has made Central Bank independence feasible and, hence, made it possible that a workable monetary policy *could be* insulated from oil revenue volatility. This will still require the government's cooperation and moderation and, for greatest efficiency, a shift to expenditure disbursements from a single treasury account at the CBN.

This paper assesses the issues, arguing for a systematic constraint on the federal budget and the need for avoiding monetization. The proposed fiscal policy rule is the centre of such a policy and, indirectly, it could free monetary policy to focus on lowering inflation and developing the financial sector1[15]. The rule also would enhance CBN independence, facilitating its focus on a monetary policy that can lower inflation, engender stronger capital markets and private investment, and impose a hard budget constraint on fiscal policy. The key to the argument is the demonstration that oil revenue volatility is transmitted directly to government revenues and thence to expenditures and, further, that it also infects monetary policy. The monetary impact results from the tension between the FGN's encashment (into naira) of oil revenue dollars and the CBN's efforts to constrain the growth of money to attain (and maintain) a stable and low inflation rate. Removing the volatility of oil revenues from fiscal policy and blocking its transmission to the money supply could offer the potential for curing the Dutch disease, opening the way for faster

15. As in most developing countries, with a historical (for contemporaneous) problem with inflation, the financial sector, particularly commercial banks, hold primarily government securities as only the government can afford to pay (and is credible to repay) borrowing at positive real interest rates. This not only impedes development of private sector finance, but reduces the demand for domestic bank money. This latter effect can be seen in Nigeria in terms of the relatively small use of bank deposit mediation and, more generally, the high velocity of money - M1 or M2.

domestic growth in the non-oil sector and for non-oil exports.

The Utility of the Fiscal Rule and Mitigating the Impacts Of Revenue Volatility on Monetary Policy

Discussions in the most recent (2002) Article IV consultation with the IMF placed a primary focus on Nigeria's need to tighten and regularize its fiscal policy over the medium term[16]. The Fund proposed a "fiscal policy rule" which would constrain government expenditures over a multi-year time frame to conform to revenues implied by a benchmark oil price."Windfall revenues would be saved and, conversely, the budget would run a deficit when the actual price fell below the benchmark price…. Applying such a rule…would greatly enhance Nigeria's prospects for achieving and maintaining a stable macroeconomic environment." [*Staff Report,* par. 33, p. 25] As explained in the Executive Summary, the justification for this is macroeconomic stability:

> *The immediate challenge is to arrest the growing macroeconomic instability. This implies containing expenditure in the remainder of 2002 and preparing a 2003 budget that is consistent with macroeconomic stability….A key aspect of this is the introduction of a fiscal rule based on a benchmark price of oil, so as to stabilize public expenditure in the face of volatile oil prices. Implementing this will require the cooperation of sub national governments. [Staff Report, p. 4]*

16.See *Nigeria- Staff Report for IMF Article IV Consultation, October 2002.*

The Fund noted that the Government agreed with the thrust of the proposal that is, regularizing expenditures over a multi-year horizon to constrain the deficit and had introduced into the National Assembly draft legislation, "The Nigerian Fiscal Responsibility Bill" to establish a fiscal policy rule and to harmonize relations among the three levels of government [17]. [*Staff Report,* par. 31, p.24] Yet the Federal Government effort is handicapped by the constitutional requirement to pass through a large share of oil revenues, and the states and localities have corresponding constitutional responsibilities for essential social services (primary education, primary health, and rural infrastructure). As the latter is ill-defined, there is a political incentive to be expansive in determining what capital expenditures should be funded. The Federal Government has already lost a challenge in the courts over the pass-through requirement, and it is mandated to finance certain state and local expenditures, including primary education and basic health. Thus, actual share over which the Federal Government has free rein is less than half, and that share is itself challenged by the parochial interests of members of the National Assembly who have incentives to seek expenditures for their constituents and special interests.

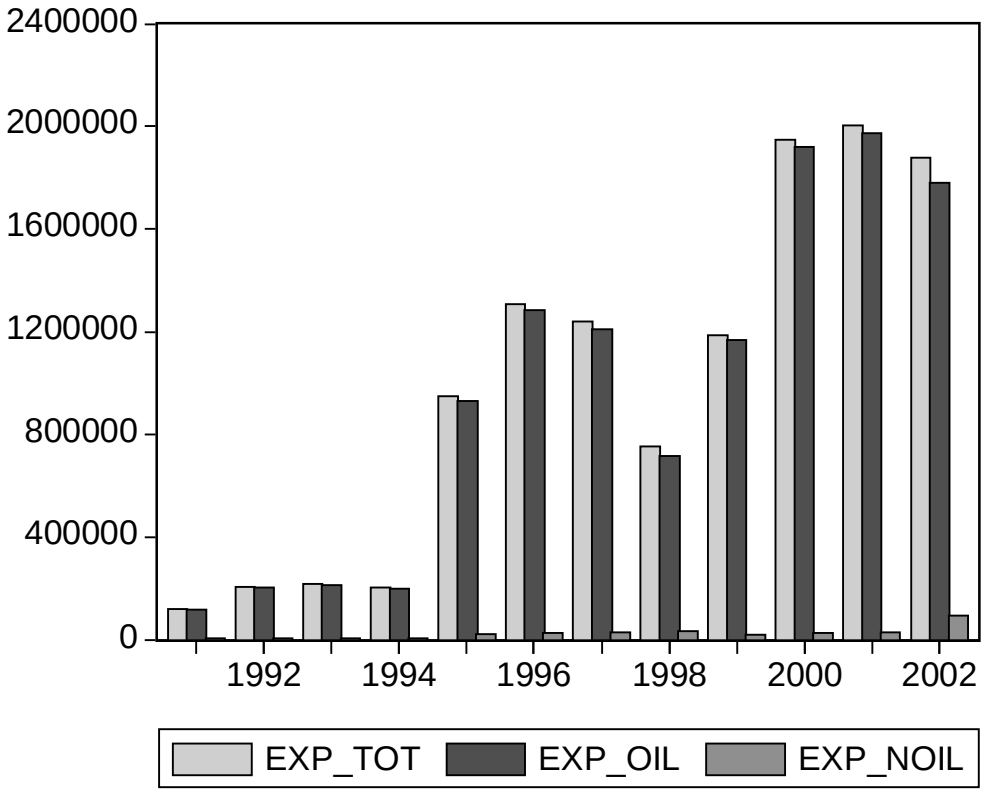
17. See "The Nigerian Fiscal Responsibility Draft Bill," Abuja, Nigeria, April 2002. In particular, Section 17. (1) provides for revenue forecasts to guide the budget, and Article 48. (3) mandates that "The share of each Government in the Federation in excess of the projected national revenue approved by the National Assembly shall be deposited in a separate account to be maintained at the Central Bank of Nigeria...."

The Domination of Nigeria's Exports and Fiscal Policy by Petroleum Exports

As noted in the Introduction, petroleum products comprise the overwhelming share of Nigeria's exports. As shown in Figure 1, non-oil goods and services have been a negligible component of exports since the 1980s, a characterization that is made stark in Figure 2 which shows petroleum's percentage share of total exports. Since 1970 this share has exceeded 60 percent, and, except for one year, it has been over 90 percent since 1974 [18]. This dominance of exports is also reflected in the finances of the Nigerian government with oil revenues contributing an average of 71 percent of FGN total revenues since 1970. As might be expected from these high shares, these key macroeconomic elements oil exports, FGN revenues and expenditures are highly correlated. Table 1 shows that from 1970 to 2002, the correlations between FGN fiscal aggregates and oil exports have been well over 90 percent, while Figure 3 illustrates both their high correlations and their variability.

[18] The petroleum share of exports was 89 percent in 1978

Figure 1:
NIGERIAN EXPORTS, NAIRA MILLIONS



Key:

EXP_TOT.....Total exports
EXP_OIL.....Exports of petroleum products
EXP_NOIL.....Exports of non-oil goods and services

Figure 2:
PERCENTAGE SHARE OF OIL PRODUCTS IN NIGERIA EXPORTS

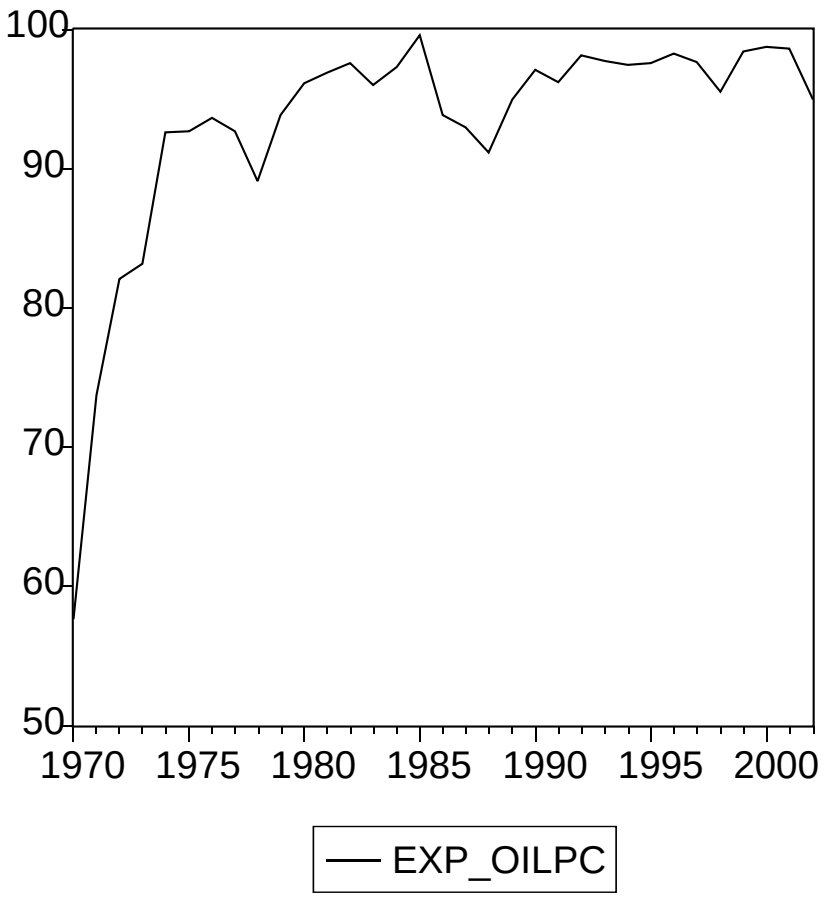


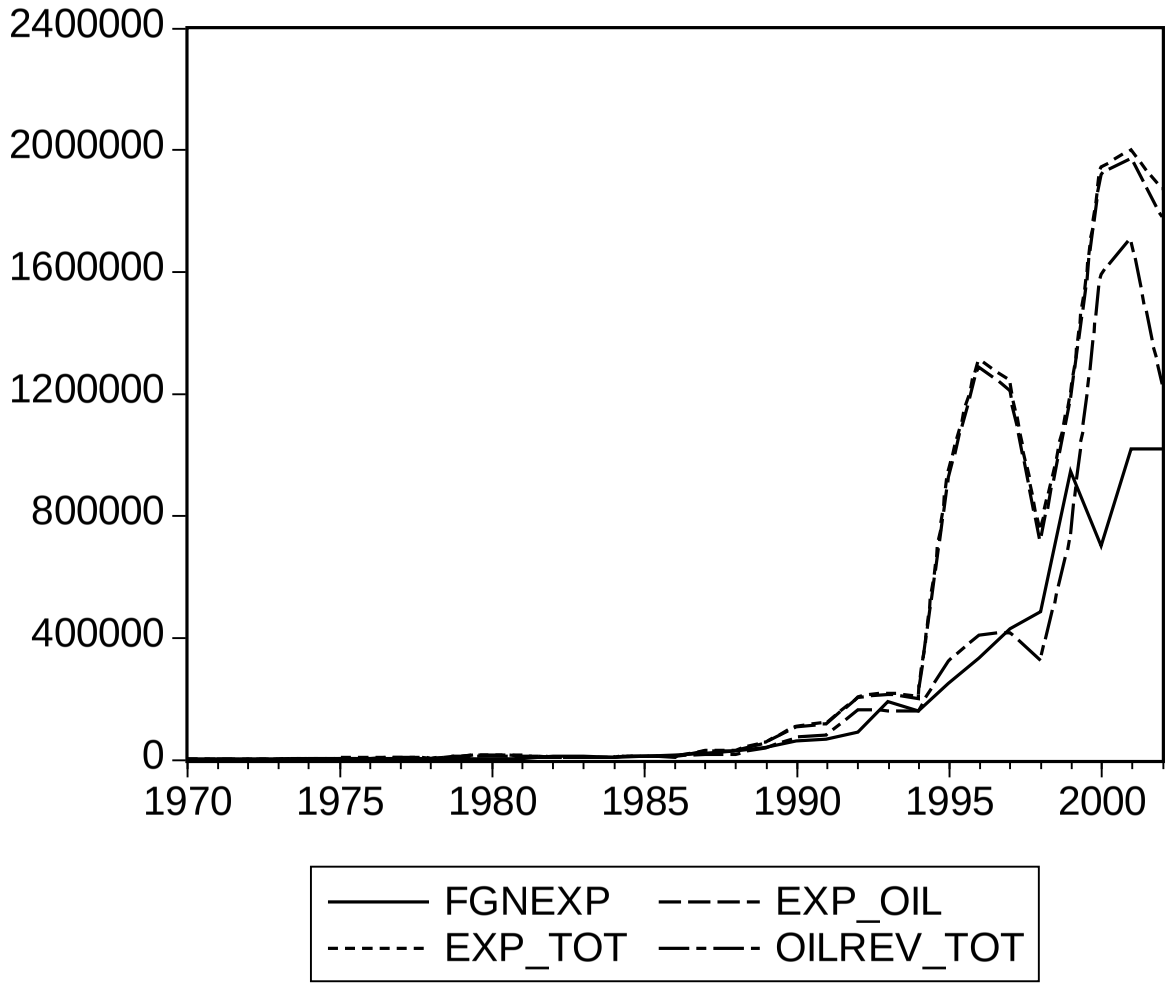
TABLE 1:
CORRELATIONS AMONG NIGERIA'S OIL EXPORTS AND FGN REVENUES AND EXPENDITURE, 1970-2002

	EXP_OIL	EXP_TOT	FGNEXP	FGNREV	OILREV_TOT
EXP_OIL	1	0.999689	0.86572	0.920199	0.911316
EXP_TOT	0.999689	1	0.869441	0.919601	0.909058
FGNEXP	0.86572	0.869441	1	0.890143	0.864821
FGNREV	0.920199	0.919601	0.890143	1	0.996276
OILREV_TOT	0.911316	0.909058	0.864821	0.996276	1

Key:

EXP_OIL.....exports of crude oil
EXP_TOT.....total exports
FGNEXP.....FGN expenditure
FGNREV.....total Federally collected revenues
OILREV_TOT.....FGN oil revenues

Figure 3:NIGERIA'S EXPORTS AND FGN EXPENDITURES



Indeed, it is the variability of oil exports and revenues that is the key problem for which the fiscal rule is proposed as an ameliorative. That is, since FGN revenues and, more importantly, FGN expenditures are highly correlated with oil exports, the variability of these exports carries over into Nigeria's fiscal structure. The fiscal rule would reduce that fiscal variability and the resulting increased macroeconomic stability would provide a better environment for investment, both public and private. Still, correlation is not causality, so the question is open as to whether the variability of oil exports carries over into the FGN revenues and expenditures.

Table 2 provides evidence that this variability does carry over. The table reports *Granger Causality* tests for exports and the FGN fiscal variables[19]. For example, it shows that past variation in exports does predict the subsequent variation in FGN expenditures, even when past variation in FGN expenditures is taken into account. Each of the export and revenue measures is highly significant in Granger causing FGN expenditures, so that prima facie, there is support for a fiscal rule that would reduce the variability of oil export revenues. Two further observations about the test statistics reported in the table are worth commenting on:

Oil exports (EXP_OIL) neither Granger cause nor are Granger caused by total exports (EXP_TOT). These two variables are so highly correlated that given either variable's own past values there is not any statistically significant additional information in the other variable to explain its variation.

For the other five pairwise Granger Causality tests reported in

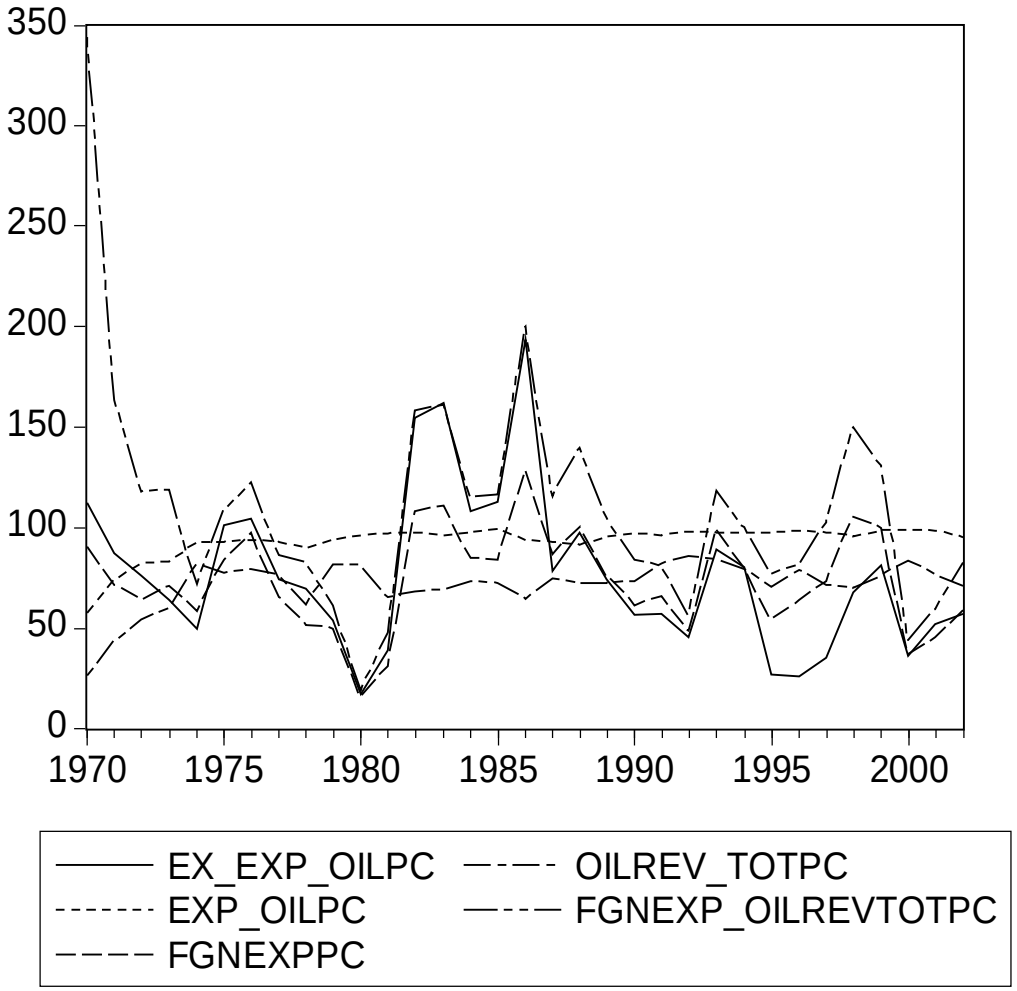
19. Granger causality is a statistical technique that regresses variable X on past values of X and Y; if the past values of Y are significant (F-statistic), Y is said to Granger Cause X. More precisely, the null hypothesis, "Y does not Granger Cause X," is rejected.

the table, there is bi-directional causality; however, the stronger Granger causality in terms of significance levels runs from exports to expenditures.

Thus, there is sound statistical evidence to support the characterization of fiscal variability being introduced from the variability in oil export revenues and, as the section title implies, inefficiently impelling fiscal policies through its impacts on FGN expenditures.

This is further illustrated in Figure 4 which shows that the percentage shares of FGN expenditures relative to various measures of revenues have similar variations, while the share of oil in total exports has nearly none and the share of FGN oil revenues in total revenues has comparatively moderate variability. Before turning to the task of assessing the potential benefit of a fiscal rule for damping this variability, it is useful to show how this variation in revenues is also passed along to the money supply and, hence, exacerbates inflation.

Figure 4:
PERCENTAGE SHARES OF FGN EXPENDITURES AND REVENUES



EX_EXP_OILPC……(FGNEXP/EXP_OIL)*100
EXP_OILPC……(EXP_OIL/EXP_TOT)*100
FGNEXPPC……(FGNEXP/FGNREV)*100
OILREV_TOTPC……(OILREV_TOT/FGNREV)*100
FGNEXP_OILREVTOTPC……(FGNEXP/OILREV_TOT)*100

Table 2:
Pairwise Granger Causality Tests -
Expenditures, Oil Exports and Revenues

Sample: 1970 2002
Lags: 5

Null Hypothesis:	**Obs**	**F-Statistic**	**Probability**
FGNEXP does not Granger Cause EXP_TOT	28	10.2084	1.20E-04
EXP_TOT does not Granger Cause FGNEXP		134.252	4.80E-13
EXP_OIL does not Granger Cause EXP_TOT	28	2.18437	1.04E-01
EXP_TOT does not Granger Cause EXP_OIL		2.05222	1.22E-01
OILREV_TOT does not Granger Cause EXP_TOT	28	32.9534	3.60E-08
EXP_TOT does not Granger Cause OILREV_TOT		22.6623	5.80E-07
EXP_OIL does not Granger Cause FGNEXP	28	136.675	4.20E-13
FGNEXP does not Granger Cause EXP_OIL		10.772	8.60E-05
OILREV_TOT does not Granger Cause FGNEXP	28	106.1	3.30E-12
FGNEXP does not Granger Cause OILREV_TOT		18.2564	2.70E-06
OILREV_TOT does not Granger Cause EXP_OIL	28	30.6462	6.20E-08
EXP_OIL does not Granger Cause OILREV_TOT		23.9383	3.90E-07

The method of monetary policy to targeting inflation is simple and direct: control the rate of expansion of the money supply by controlling the rate of expansion of the monetary base[20]. The monetary base is the sum of commercial bank reserves and currency circulating outside banks. The CBN increases (decreases) the monetary base by purchasing (selling)

securities of the government,

securities of financial institutions, or

foreign-currency denominated assets.

For example, as shown in Table 3, the balance sheet of the Central Bank of Nigeria as of the end of 2001, the monetary base is the Central Bank's net assets less capital. The CBN controls the level of the monetary base by open market operations and by its purchases or sales of foreign currencies and other securities. The Central Bank creates (destroys) naira (the monetary base) in carrying out these purchases (sales). For the CBN, as the table indicates, the most important net asset backing the monetary base is its net foreign assets of which the greatest share is held as deposits in foreign commercial and central banks.

[20]This policy regime was once a very monetarist doctrine, but it is now part of policy orthodoxy. See for example, World Bank (2003) or Kuijs and Katz (1998).

Table 3:

The Central Bank's Balance Sheet: Sources and Uses of the Monetary Base, Dec 2001 Naira, Billions; December 2001

Sources		% of Sources	Uses		% of Uses
Net Foreign Assets	1,040.1	181.9%	Currency in Circulation	403.5	70.6%
Net Claims on FGN	(179.0)	-31.3%	Banks Deposits	138.4	24.2%
Net Claims on Other Govt	1.1	0.2%	Private Sector Deposits	30.0	5.2%
Claims on Financial Inst	26.9	4.7%			
Claims on Private Sector	3.1	0.5%			
Net Unclassified Claims	(17.6)	-3.1%			
Less: CBN Capital	(302.7)	-52.9%			
Total Sources:	571.9	100.0%	**Total Uses:**	571.9	100.0%

Adapted from *CBN Statistical Bulletin,* December 2001, Table A.1.2

Several features about the monetary base in Nigeria can be seen in this illustrative balance sheet:

- Net foreign assets are the most important source of reserve money;
- Net claims on the government are the second most important source;
- Although not shown separately, FGN deposits are substantially larger than the monetary base and at 156.6% of the base, comprise the largest Central Bank liability.

Thus, the CBN can control the base by purchasing (increase base) or selling (decrease base) assets through its unique power to create or destroy money. Unfortunately, this control can be thwarted, countered or at least hindered by the actions of the FGN in three ways:

- By FGN converting foreign currency into domestic currency which is then spent;
- By FGN reduction of its deposits at the Central Bank;
- By FGN impelling the Central Bank to buy its securities.

The first two of these FGN impacts on the monetary base can be offset by CBN sales of foreign exchange or FGN securities.
Nevertheless, there is a timing problem with FGN expenditures from commercial bank accounts which the CBN can learn about only with a lag[21]. These lags reduce the precision of the CBN's control of the monetary base, increasing its fluctuations around the target trajectory

[21]The timing problem is exacerbated by the lack of a single treasury account through which all government expenditures and payments would be effected. Since each of FGN agencies and ministries has its own current accounts in commercial banks through which its authorized expenditures are realized, the CBN learns about these with a lag depending on the reporting cycle of the banks or the treasury agent in the MoF. In most countries, ministers do not hold individual payments accounts, but rather all government payments are made through a single treasury account held at Central Bank when a warrant authorizing the payment is issued by the ministry of finance. Consequently, debits and credits are contemporaneously known by the Central Bank as an attribute of its acting as the custodian of the government's treasury account.

for monetary expansion and, *inter alia*, raise the volatility of the inflation rate.

The third impediment, compulsion of the CBN to monetize FGN overdrafts or to finance its deficit, has been *de jure* removed by the institution of the DMO which precludes the CBN from purchasing FGN securities in the primary market[22]. The DMO is responsible for authorizing the payment of servicing of Nigeria's debt, and for authorizing the sale of new securities. Its function is not only to track Nigeria's sovereign debt and to administer its servicing but also to act as a buffering agency to ensure Central Bank independence. It is a semi-autonomous agency, a necessary status in order to be able to carry out these responsibilities among which are to ensure that government borrowing is done through markets for bonds and short-term instruments rather than through non-market monetization by the CBN. In other words, DMO provides a legal footing for the Central Bank of Nigeria to be independent and to formulate its monetary policy in terms of target inflation and financial provision for the banking system and not to act as the government's financier. With the enactment of the legislation creating the DMO, the CBN can only facilitate government deficit finance through its provision of liquidity via purchases in the secondary market.

Still, pressures can be brought to bear on the CBN to purchase FGN securities in the secondary market to effect the same monetization. Thus, for effective monetary policy, fiscal cooperation and support is required. Fiscal policy also can promote financial

---

[22]See also Section 45, pp. 22-23, of the "The Nigerian Fiscal Responsibility Draft Bill" under which the CBN is prohibited from"...(1) (a)...purchasing fresh issues of government securities on the date of its primary issue in the market, export for the provisions of subsection (3) of this section:"....(2) The Central Bank of Nigeria may only underwrite securities issued by the Federal Government which are rolled-over to refinance maturing securities, (3) The operations mentioned in subsection (2) of this section shall be offset through a public auction at market-determined prices".

development through efforts to achieve price stability and through a moderate degree of taxation. Both policies promote an increased demand for domestic money, raising the size of the financial sector as a share of GDP. Efforts to support tax effort through efficient enforcement and collection efforts that maximize taxpayer compliance are perhaps more important than the size of the tax rate itself[23].

Through its control of the base (MB), the CBN can control the money supply whether measured as narrow (M1) or broad (M2) money. Faster (slower) monetary growth leads to faster (slower) inflation[24]. This control is effected via the monetary base multiplier (m) with control being better the more stable is the multiplier, providing for this indirect control of money:

$$M_i = m_i * MB, \quad i = 1,2$$

Note that this further implies a relationship between the growth of money (M1 or M2) and the growth of the monetary base:

$$G(M_i) = G(m_i) + G(MB), i = 1,2,$$

which if the multipliers are reasonably stable can be approximated by

$$G(M_i) = G(MB), i = 1,2.$$

The monetary base multipliers (m1 and m2) have not been stable but have risen rather persistently since 1992 as shown in Figure 5. If it is a persistent trend and not simply a random fluctuation, this would be an encouraging sign as it would suggest that the public

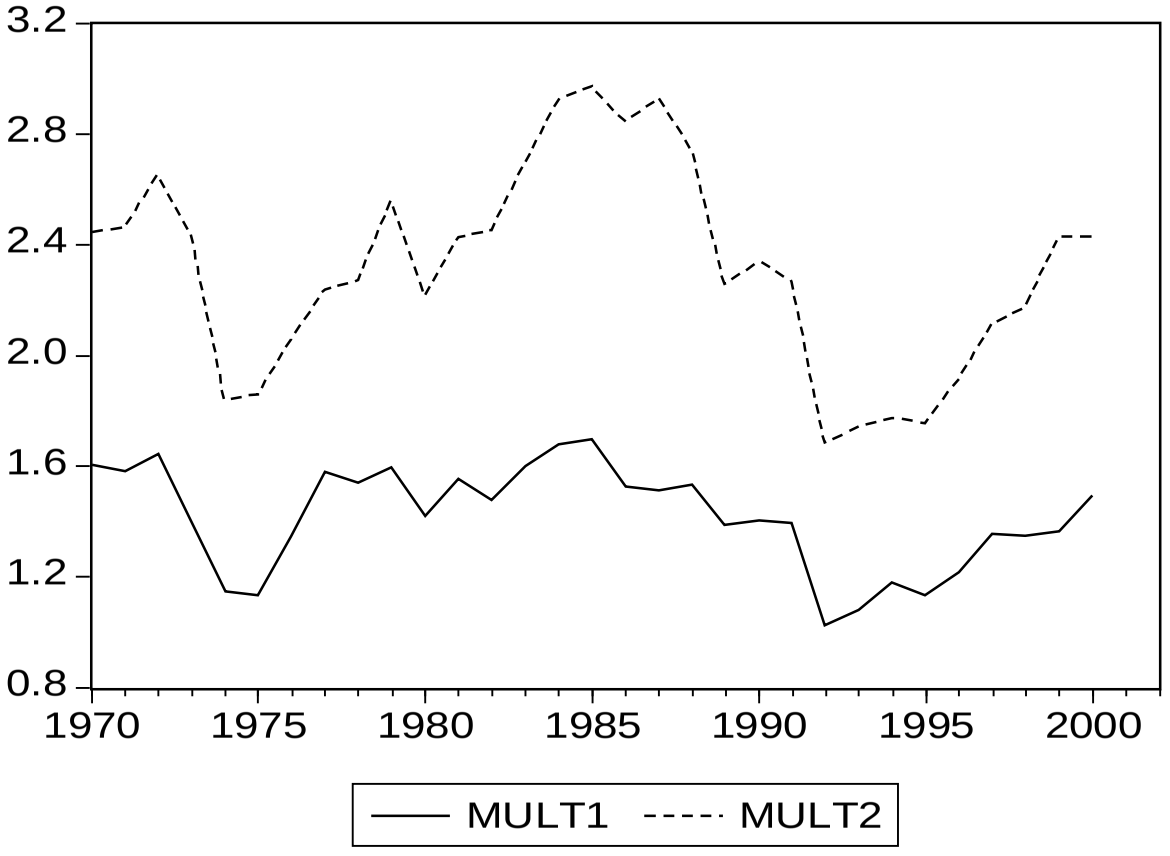
[23]The author has separately shown the beneficial impacts on financial sector development in LDCs of *increasing tax effort,* taxation is the basis of a legal tender approach to money demand and hence to the development of a financial system that produces and distributes financial assets based on domestic money.
In this sense, taxation forms the institutional basis for money demand. See "Money and Taxes- the Relation Between Financial Sector Development and Taxation," working paper, April 2002 (revised 2003) with Professor John A. Tatom, De Paul University.

[24]What will become clear in the relation between the price level, as measured by the CPI, and monetary expansion is that there are substantial lags between changes in money growth and changes in inflation. In separate research, this lag has been shown to be between two and three years, consistent with the Granger causality tests reported in the next table.

private enterprise and households is beginning to make greater use of commercial bank intermediation, an expression of confidence in the financial system[25].

[25]An obvious caveat should be inserted here: The rise in the multipliers instead could reflect larger deposit holdings by government agencies in light of the lack of a single treasury account (see footnote 7). If so, the rise in the multipliers simply indicates larger inactive government bank balances rather than a broader use of commercial bank intermediation. This is inefficient and reflects the lack of a single treasury account at the CBN. This is an analytic question that can be answered, but that the author has not yet investigated.

Figure 5:
Monetary-Base Multipliers, Rising Since 1992



Given the possibility of the FGN impacting the monetary base through its expenditures particularly encashment (into naira) of dollars from oil exports there is a direct pass-through into monetary instability from the fiscal sector. In order to assess this, an easy initial step is to perform Granger causality tests pairing government revenues and expenditures with the monetary base, the CPI and the exchange rate. These tests are reported in Table 4.

Table 4 shows that the revenue variability does affect the monetary base, the CPI and the naira and reinforces standard monetary relationships as well. Beginning with the latter, the monetary base is shown to Granger cause the CPI at a confidence level indicating that the likelihood of a mistaken attribution of a relationship is 54 in 1,000,000. Similarly, the relationship between the naira and the monetary base is shown to be statistically strong and bi-directional. Since these standard monetarist relationships hold, all that is necessary for the variability of oil revenues to disrupt monetary policy is for there to exist a strong causal relation between oil revenues and the monetary base.

Table 4:
Pairwise Granger Causality Tests-Money, Price and Naira

Sample: 1970 2002
Lags: 5

Null Hypothesis:	Obs	F-Statistic	Probability
CPI_90 does not Granger Cause MONBASE	27	6.20241	0.00222
MONBASE does not Granger Cause CPI_90		17.584	5.40E-06
NAIRA does not Granger Cause MONBASE	27	29.1774	1.70E-07
MONBASE does not Granger Cause NAIRA		52.3972	2.40E-09
FGNEXP does not Granger Cause MONBASE	27	7.48901	0.00086
MONBASE does not Granger Cause FGNEXP		30.9341	1.10E-07
FGNREV does not Granger Cause MONBASE	27	7.40413	0.00091
MONBASE does not Granger Cause FGNREV		5.78463	0.0031
NAIRA does not Granger Cause CPI_90	28	11.5462	5.60E-05
CPI_90 does not Granger Cause NAIRA		195.351	2.10E-14
FGNEXP does not Granger Cause CPI_90	28	44.1084	3.80E-09
CPI_90 does not Granger Cause FGNEXP		81.7978	2.80E-11
FGNREV does not Granger Cause CPI_90	28	6.3629	0.00167
CPI_90 does not Granger Cause FGNREV		2.59232	0.06424
FGNEXP does not Granger Cause NAIRA	28	20.4681	1.20E-06
NAIRA does not Granger Cause FGNEXP		26.7539	1.70E-07
FGNREV does not Granger Cause NAIRA	28	46.4399	2.60E-09
NAIRA does not Granger Cause FGNREV		6.2195	0.00188
FGNREV does not Granger Cause FGNEXP	28	326.667	2.90E-16
FGNEXP does not Granger Cause FGNREV		8.87241	0.00027

As the third and fourth pairs in the table indicate, these relationships do exist and are statistically robust. While the relationship between the monetary base and FGN revenues is bi-directional, it is stronger from revenues to monetary base than from monetary base to revenues. This same ordering exists for the relationship between FGN revenues and FGN expenditures (last pair in the table). This is consistent with the characterization that the driving force is from revenues to expenditures, an assumption underlying the posited beneficial effects of a fiscal rulenamely, to control revenues would be to control expenditures. It might seem that the opposite ordering of the statistical robustness of the Granger causal relationship between the monetary base and FGN expenditures belies this interpretation, but this would be incorrect. Recall from the discussion following Table 3 that the largest component of the monetary base (on the sources side) is government deposits and that reductions (expenditures) of thes deposits increase the monetary base. Thus, government expenditures (if not sterilized by offsetting open market sales) increase the monetary base.

The Utility of a Fiscal Rule

By removing or at least substantially reducing the volatility of fiscal policy, a great source of volatility in the economy could be constrained. As was shown in Table 2, FGN expenditures are strongly driven by lagged oil revenues or oil exports (at lags of up to five years); hence, if revenues were smoothed by a fiscal rule, then so would be expenditures and, thus, the deficit. By reducing the deficit's variability and perforce its magnitude more private sector finance can be accommodated by commercial banks. The attendant reduction in pressure by the FGN on the CBN to monetize the deficit would also be reduced, thereby facilitating control of the monetary base and,

therefore, the CBN's efforts to reduce inflation.

The relationships structuring the fiscal and monetary policy variables that would be affected by the implementation of the fiscal rule can be estimated by a regression technique called vector autoregression (VAR). VAR allows for the estimation of statistical relations between endogenous variables by utilizing lagged observations to infer effects and significance. Using the VAR estimates, the benefits of a fiscal rule can be inferred by using the estimated VAR to show the magnitude of disturbances that follow from a one-standard deviation shock to the oil revenues of the FGN on expenditures, the monetary base, the CPI and the exchange rate. These statistical tasks are undertaken in the next section of the paper and are followed in the last section by conclusions and recommendations.

Empirical Estimation of the Effects of Oil Revenue Volatility on FGN Policy

The statistical relationships between the oil revenue and policy variables were estimated using VARs covering the period 1970-2002 on annual data. After some experimentation, three lags were selected as a compromise between the lag length selection criteria which always selected longer lags and the need to preserve degrees of freedom in a time series of modest length (32 annual observations)[26]. The best results, reflecting inclusion of variables consistent with the Granger causality tests, were obtained for VARs including six variables:

[26]Quarterly data would have greatly enhanced the statistical power of the estimates, but only annual observations are available for Nigerian macro data other than monetary.

FGN oil revenues OILREV_TOT

FGN expenditures FGNEXP

Monetary base MONBASE

Non-oil exports EXP_NOIL

Naira-dollar exchange rate NAIRA

CPI price index CPI_90

In addition, estimates were obtained both with and without the dollar spot price of oil, but this was never significant. The outputs for these VARs are included in the APPENDIX (Figs. A1 & A2).

Illustrative Discussion in a 3-variable VAR

To explain the results obtained in a more manageable length (the Appendix-reported VARS have 108 coefficients), a three-variable VAR is estimated, reported and discussed in this section. This will illustrate the method and, in general, the results, and will enable a less cumbersome discussion of both the VAR estimation and the Impulse Response Functions (IRF) that are obtained from the estimates. These are projections of what would be the effect in the estimated VAR models using the sequence above of a one-standard deviation shock to each of the variables as the effects are worked out over the succeeding five years[27]. The VAR estimates for this three-variable model with three lags are reported in Table 5.

[27]The sequence of the variables is unimportant for the VAR, but crucial for the IRFs. This dependency is because the first variable shocked then impacts the next variable (and is itself not initially effected by feedback) so that the second variable in the sequence receives both the effects of the first variable's shock and its own shock. The third and later variables' behavior then are induced by corresponding cumulative prior shocked variables' impacts. Correspondingly, the last variable shocked does not contemporaneously impact the earlier-sequenced variables but does so in subsequent periods.

Table 5 shows each of the three variables in the current period, listed across the column headings; the rows (labelled on the left) show the respective lags (one, two and three years) of the lagged endogenous explanatory variables. In the body of the table, the cells indicate the value of the estimated coefficient, its standard error (parentheses), and the t-statistic (the ratio of the coefficient to its standard error in brackets)[28]. For example, the coefficients of lagged OILREV_TOT in the MONBASE equation are each positive, but not significant; however, the first coefficient on lagged FGNEXP in the MONBASE equation is positive and significant while neither of the other two second positive, third negative is significant. Conversely, all three of the coefficients on lagged MONBASE in the FGNEXP equation are highly significant, alternating in sign, but summing to a strong positive impact. The upshot of an examination of the table of coefficients in a VAR is as here typically confusing as to the overall effect and relationship. Fortunately, the IRF aptly summarizes the total effect of the interaction between the variables when they are shocked ie, when they each have a one-standard deviation movement. These summary graphic descriptions of the effects of variations for the VAR are reported in Table 6 and in Figures 6a and 6b. These IRFs differ only in the first being non-cumulative and the second cumulating the shocks period by period over the five years provided for their effects.

Figure 6a shows the non-cumulative impact of the shocks period by period and the key results demonstrated in the graphs are that FGNEXP is significantly (positively) displaced by each of the shocks of OILREV_TOT while the shocks of MONBASE alternate in sign[29]. MONBASE, like FGNEXP, is strongly and positively impacted by OILREV_TOT in each period but negatively displaced by FGNEXP. OILREV_TOT, in the IRF, behaves almost like an ……..

[29]Significance is indicated by the lower 2-standard deviation bound not going below zero.

Table 5:
Vector Autoregression Estimate--FGN Oil Revenues, FGN Expenditures and Monetary Base

Sample (adjusted): 1973 2001
Included observations: 29 after adjusting endpoints
Standard errors in ( ) & t-statistics in [ ]

	OILREV_TOT	FGNEXP	MONBASE
OILREV_TOT(-1)	-0.72453	-1.60886	0.059043
	-0.21133	-0.12965	-0.05126
	[-3.42845]	[-12.4096]	[1.15172]
OILREV_TOT(-2)	-1.835042	0.788472	0.019864
	-0.2378	-0.14589	-0.05769
	[-7.71670]	[5.40467]	[0.34434]
OILREV_TOT(-3)	-2.453406	-2.942882	0.201708
	-0.54666	-0.33537	-0.13261
	[-4.48801]	[-8.77515]	[1.52107]
FGNEXP(-1)	1.611178	0.483323	0.179922
	-0.17899	-0.10981	-0.04342
	[9.00154]	[4.40157]	[4.14378]
FGNEXP(-2)	2.310798	0.635518	0.024509
	-0.27167	-0.16667	-0.0659
	[8.50582]	[3.81311]	[0.37190]
FGNEXP(-3)	0.620589	2.248569	-0.136634
	-0.53086	-0.32567	-0.12878
	[1.16903]	[6.90441]	[-1.06101]
MONBASE(-1)	5.057507	7.836966	1.379394
	-1.37422	-0.84306	-0.33336
	[3.68026]	[9.29581]	[4.13781]
MONBASE(-2)	-6.090857	-12.50152	-0.545998
	-2.43538	-1.49406	-0.59078
	[-2.50099]	[-8.36746]	[-0.92420]
MONBASE(-3)	4.027081	9.112534	-0.486535
	-2.03447	-1.24811	-0.49353
	[1.97943]	[7.30105]	[-0.98583]
C	-4180.906	-6659.82	1908.591
	-6319.41	-3876.85	-1532.98
	[-0.66160]	[-1.71784]	[1.24502]
R-squared	0.997403	0.997738	0.998592
Adj. R-squared	0.996173	0.996666	0.997925
Sum sq. resids	1.36E+10	5.13E+09	8.02E+08
S.E. equation	26774.78	16425.89	6495.108
F-statistic	810.7278	931.0358	1497.112
Log likelihood	-330.679	-316.5096	-289.6031
Akaike AIC	23.49511	22.5179	20.66228
Schwarz SC	23.96659	22.98938	21.13377
Mean dependent	217734.5	169817.6	89973.23
S.D. dependent	432783.2	284476.3	142581
Determinant Residual Covariance		1.90E+24	
Log Likelihood (d.f. adjusted)		-934.0649	
Akaike Information Criteria		66.48723	
Schwarz Criteria		67.90168	

Figure 6a:
IMPULSE RESPONSE FUNCTIONS, NOT CUMULATIVE

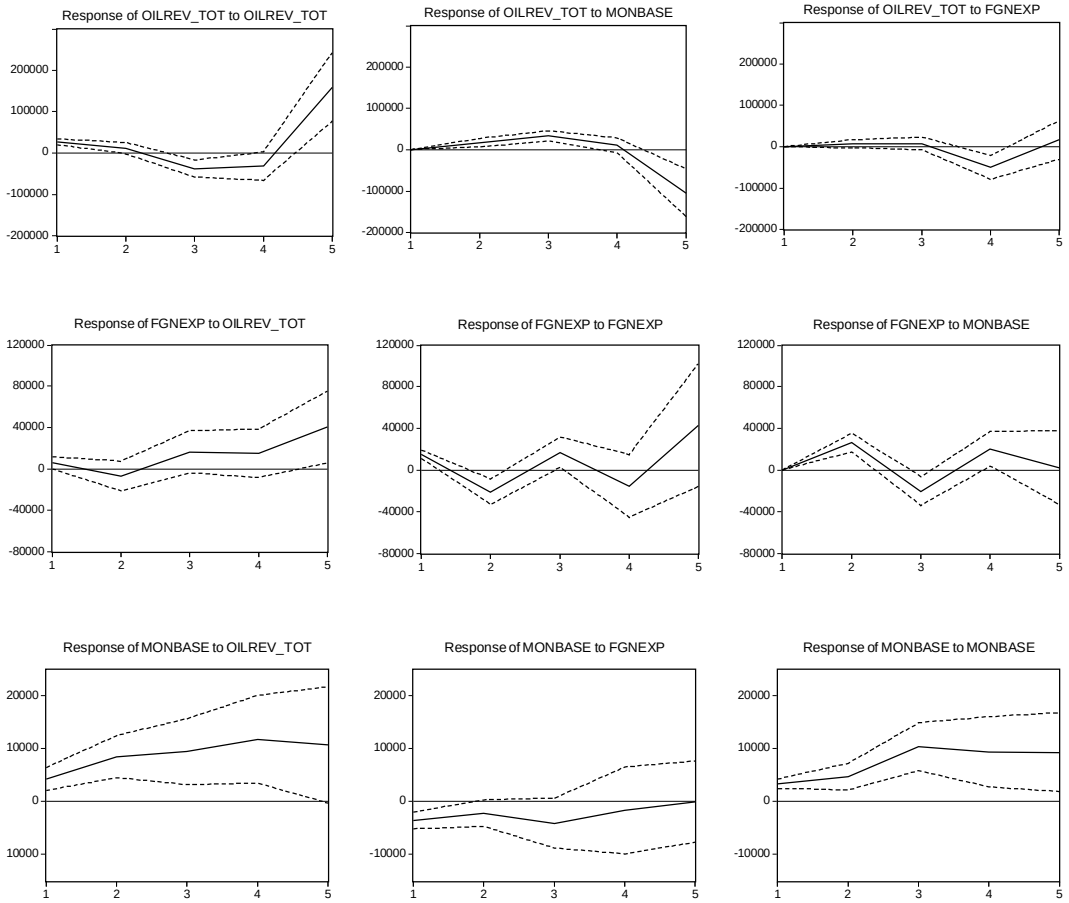
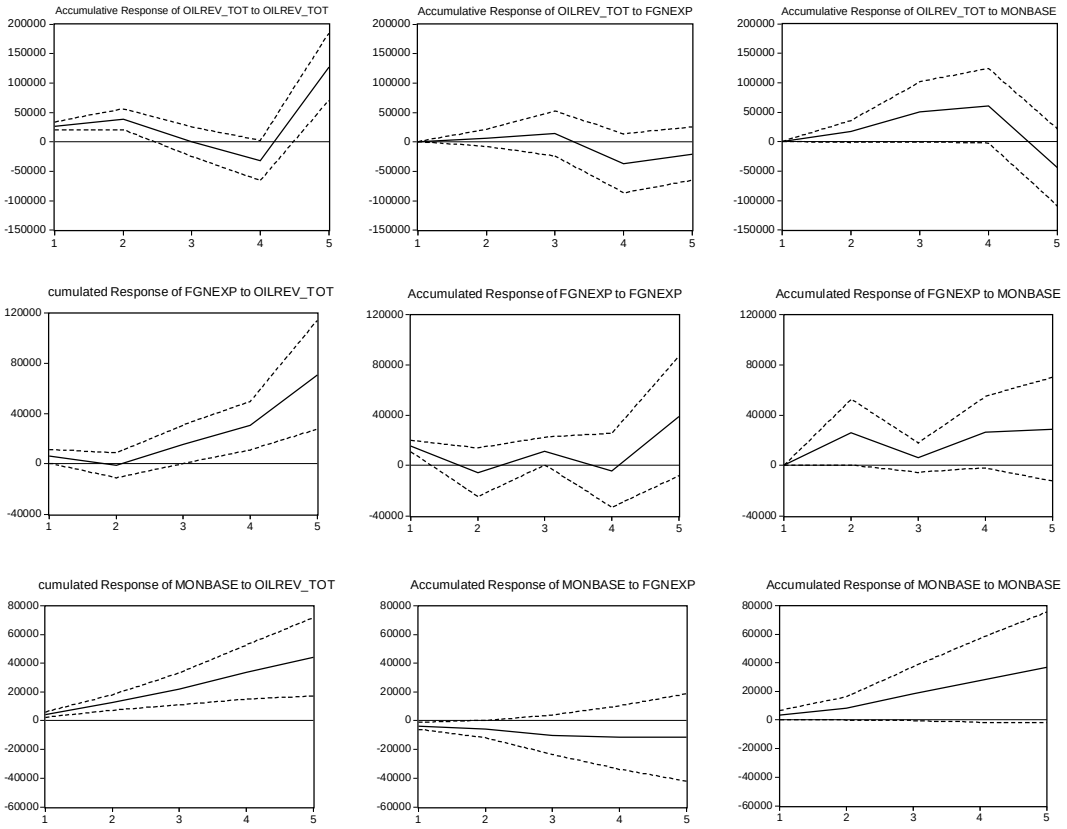


Figure 6b:
IMPULSE RESPONSE FUNCTIONS, CUMULATIVE



Note: Response to Cholesky-one-standard-deviation innovation with ± 2 standard errors indicated by dashed lines.

---

exogenous variable, by being displaced significantly from zero only in year four FGNEXP, but narrowly positive by MONBASE in the first three years and then negatively in the fifth year. Particularly for OILREV_TOT, then, the implicit question is what is the cumulative effect of these year-by-year shocks. This question is answered by Figure 6b.

The cumulative effects of the shocks of FGNEXP and MONBASE on OILREV_TOT are not significantly different from zero as shown by the 2-standard deviation bounds straddling the zero axis in Figure 6b, but its own shock cumulates to significant positive effect through years 1-2 and again in the last year. In marked contrast, MONBASE is strongly, consistently and positively driven by the OILREV_TOT shock, while FGNEXP is strongly driven by both OILREV_TOT and MONBASE, but does not become statistically significantly displaced until after year three and never for its MONBASE response.

Summary of Implications of 6-variable VARs

What Table 5 and Figures 6a and 6b show is that oil revenue shocks do significantly displace policy variable shere, FGN expenditures and the CBN's monetary base. While the discussion has been illustratively confined to a narrow VAR, the broader VARs in the APPENDIX, along with their IRFs, tell an even more persuasive story with a strong implication for the social and economic utility of adopting a fiscal rule. The evidence is acceptable for the individual IRFs, but not statistically significant for the cumulative IRFs. Nevertheless, the results are indicative and consistent with the results discussed in the 3-VAR model:

> Oil revenues collected by the government positively impact expenditures, the monetary base and, thereby, the price level.
>
> Expenditures and the monetary base interact through the FGN's deposits and the latter's encashment of oil revenues received in dollars.

The price level is strongly affected by monetary base expansion with substantial lags so that oil revenue effects on prices are persistent and robust.

Naira depreciation is significantly driven by oil revenue and expenditure shocks occurring years earlier.

Since the available data base is annual, there is a problem of degrees of freedom when estimating the six-variable VAR[30].

Nevertheless, the results are indicative, frequently of unassailable significance (particularly the Granger causality tests), and consistent with both *a priori* reasoning and common sense. A fiscal rule or other means of reducing revenue volatility would greatly enhance the effectiveness of Nigeria's fiscal and monetary policy.

Conclusions and Policy Recommendations

Evidence has been presented step by step that oil revenue volatility impacts on key Nigerian fiscal and monetary variables:

Granger causality tests have shown that oil revenues and oil exportsdrive both FGN expenditures, the monetary base and the CPI;

VARs have shown that appropriate sign patterns exist with substantial significance among lagged variables suggesting sustained disturbances; and

IRFs have illustrated that oil price and revenue shocks specifically impact policy variables, not only raising expenditures (and

30. In fact, lag length selection criteria consistently indicated an optimal lag length that was infeasible given the number of observations, 33 years, of annual data.

deficits) but increasing monetary expansion and, *inter alia*, inflation.

The estimates are quite demanding in the number of observations required - the 6-VAR with three lags (and a constant) and requires 19 coefficients to be estimated so that with 32 observations, the low number of degrees of freedom can deliver only limited statistical robustness. Thus, a follow-up study would be well advised to investigate methods of generating quarterly data using surrogates or synthetic estimates of the annual observations employed in this study.

Still, there is adequate evidence from the estimates and from *a priori* reasoning to sustain the view that adopting a fiscal rule based on a target oil price - whether fixed or moving average - would enhance fiscal stability, lower the pressure on monetary policy as well as reducing the CBN's need to offset fiscal and oil export effects on the monetary base. In this regard, although it is outside the direct focus of this study, adoption of a unified treasury system with a single account at the CBN would also enhance monetary policy precision. The bottom line in this paper and in the policy discussion is simple: Find a means of reducing oil revenue volatility, and the simplest and most direct method of doing this would be to adopt the fiscal rule.

REFERENCES

International Monetary Fund (2002): *Nigeria Staff Report for IMF Article IV Consultation*, October.

Kuijs, Louis and Menachem Katz (1998): "Determinants of Inflation, Exchange Rate and Output in Nigeria," International Monetary Fund, working paper.

Nigeria Federal Parliament (2002): "The Nigerian Fiscal Responsibility Draft Bill," Abuja, Nigeria, April.

Ott, Mack and John A. Tatom (2003): "Money and Taxes the Relation Between Financial Sector Development and Taxation," working paper, April.

The World Bank (2003): *Nigeria: Policy Options for Growth and Stability*, June.

APPENDIX: VAR Output (Figs. A1 & A2)

Table A1: **Vector Autoregression Estimate--six variables, not adjusted**
Sample(adjusted): 1973 2001
Included observations: 29 after adjusting endpoints
Standard errors in ( ) & t-statistics in [ ]

	OILREV_TOT	FGNEXP	MONBASE	NAIRA	EXPBAL_NOIL	CPI_90
OILREV_TOT(-1)	1.644794	0.365107	-0.01432	7.04E-06	0.667334	-0.001731
	-0.49638	-0.19558	-0.07139	-1.50E-05	-0.75411	-0.00029
	[3.31359]	[1.86679]	[-0.20059]	[0.45628]	[0.88493]	[-5.88446]
OILREV_TOT(-2)	-2.067768	-0.085658	0.316009	3.88E-06	2.464936	-0.000563
	-0.63737	-0.25113	-0.09167	-2.00E-05	-0.96831	-0.00038
	[-3.24420]	[-0.34108]	[3.44738]	[0.19572]	[2.54561]	[-1.49145]
OILREV_TOT(-3)	-0.32536	2.169316	-0.319875	4.87E-05	1.098625	-0.00174
	-0.88687	-0.34944	-0.12755	-2.80E-05	-1.34735	-0.00053
	[-0.36686]	[6.20799]	[-2.50787]	[1.76722]	[0.81540]	[-3.31107]
FGNEXP(-1)	0.658222	0.037106	0.078323	6.68E-05	1.70044	-0.000838
	-0.50859	-0.20039	-0.07314	-1.60E-05	-0.77265	-0.0003
	[1.29422]	[0.18517]	[1.07081]	[4.22436]	[2.20078]	[-2.78184]
FGNEXP(-2)	-0.25718	-0.015344	-0.14378	-3.80E-05	-1.427276	0.000734
	-0.86025	-0.33895	-0.12372	-2.70E-05	-1.3069	-0.00051
	[-0.29896]	[-0.04527]	[-1.16214]	[-1.42204]	[-1.09211]	[1.44077]
FGNEXP(-3)	0.533205	-0.091061	0.342522	3.83E-05	0.534731	-5.45E-05
	-0.84986	-0.33486	-0.12223	-2.60E-05	-1.29113	-0.0005
	[0.62740]	[-0.27194]	[2.80237]	[1.44816]	[0.41416]	[-0.10816]
MONBASE(-1)	-3.920685	1.06887	0.836213	0.000102	-0.730803	0.003789
	-1.32189	-0.52084	-0.19011	-4.10E-05	-2.00823	-0.00078
	[-2.96598]	[2.05220]	[4.39853]	[2.47554]	[-0.36390]	[4.83668]
MONBASE(-2)	6.558126	-2.21182	-0.324791	-0.000216	-5.366349	-0.000736
	-2.34663	-0.9246	-0.33749	-7.30E-05	-3.56503	-0.00139
	[2.79470]	[-2.39218]	[-0.96238]	[-2.95884]	[-1.50527]	[-0.52943]
MONBASE(-3)	-0.207594	-3.318387	1.551875	-8.07E-05	-2.67062	0.004961
	-2.07743	-0.81854	-0.29877	-6.50E-05	-3.15607	-0.00123
	[-0.09993]	[-4.05404]	[5.19415]	[-1.24900]	[-0.84619]	[4.02997]
NAIRA(-1)	-5257.406	-3532.946	1496.93	-0.039111	-7056.748	11.98067
	-3863.34	-1522.21	-555.62	-0.12012	-5869.25	-2.28932
	[-1.36085]	[-2.32093]	[2.69416]	[-0.32560]	[-1.20233]	[5.23329]
NAIRA(-2)	79.89816	2643.365	-959.9576	0.291158	-5897.793	5.253361
	-4628.14	-1823.55	-665.613	-0.1439	-7031.15	-2.74252
	[0.01726]	[1.44957]	[-1.44222]	[2.02335]	[-0.83881]	[1.91552]

Contd.

Table A1: Vector Autoregression Estimate--six variables, not adjusted
Sample(adjusted): 1973 2001
Included observations: 29 after adjusting endpoints
Standard errors in ( ) & t-statistics in [ ]

	OILREV_TOT	FGNEXP	MONBASE	NAIRA	EXPBAL_NOIL	CPI_90
NAIRA(-3)	31413.79	-4200.498	5368.161	0.728493	-23100	0.950265
	-5856.24	-2307.44	-842.237	-0.18208	-8896.89	-3.47026
	[5.36416]	[-1.82041]	[6.37370]	[4.00087]	[-2.59641]	[0.27383]
EXPBAL_NOIL(-1)	1.0048	0.260602	0.058215	4.90E-05	0.388247	-0.000891
	-0.42488	-0.16741	-0.06111	-1.30E-05	-0.64548	-0.00025
	[2.36491]	[1.55669]	[0.95269]	[3.70847]	[0.60148]	[-3.53877]
EXPBAL_NOIL(-2)	-0.801495	0.096297	-0.047432	9.19E-06	1.167101	-0.000423
	-0.36173	-0.14253	-0.05202	-1.10E-05	-0.54954	-0.00021
	[-2.21574]	[0.67565]	[-0.91174]	[0.81715]	[2.12377]	[-1.97260]
EXPBAL_NOIL(-3)	-0.399152	0.780659	-0.026773	9.87E-05	0.814483	-0.000397
	-0.34628	-0.13644	-0.0498	-1.10E-05	-0.52608	-0.00021
	[-1.15267]	[5.72159]	[-0.53758]	[9.16617]	[1.54821]	[-1.93711]
CPI_90(-1)	359.9546	866.9493	-246.9634	0.043132	2143.698	-0.537754
	-545.018	-214.745	-78.3838	-0.01695	-828	-0.32296
	[0.66045]	[4.03711]	[-3.15070]	[2.54526]	[2.58901]	[-1.66506]
CPI_90(-2)	-3552.529	-304.3538	-346.432	-0.140928	-1295.075	0.853481
	-819.228	-322.788	-117.82	-0.02547	-1244.58	-0.48545
	[-4.33644]	[-0.94289]	[-2.94034]	[-5.53274]	[-1.04057]	[1.75811]
CPI_90(-3)	3275.865	913.3775	276.2467	0.244798	109.3876	-0.625019
	-831.71	-327.706	-119.615	-0.02586	-1263.55	-0.49285
	[3.93871]	[2.78719]	[2.30946]	[9.46639]	[0.08657]	[-1.26817]
C	-14892.5	156.7315	-2851.118	-0.489674	16743.19	-6.304911
	-3985.27	-1570.26	-573.157	-0.12391	-6054.49	-2.36158
	[-3.73688]	[0.09981]	[-4.97441]	[-3.95182]	[2.76542]	[-2.66979]
R-squared	0.99991	0.999967	0.999983	0.999983	0.999571	0.999972
Adj. R-squared	0.999749	0.999907	0.999952	0.999951	0.998799	0.999923
Sum sq. resids	4.71E+08	73075623	9735968	0.455043	1.09E+09	165.2858
S.E. equation	6860.791	2703.25	986.7101	0.213317	10423.02	4.065536
F-statistic	6189.264	16685.14	32480.49	31893.21	1294.419	20200.96
Log likelihood	-281.8847	-254.875	-225.6478	19.09335	-294.0123	-66.38473
Akaike AIC	20.75067	18.88793	16.87226	-0.006438	21.58706	5.888602
Schwarz SC	21.64648	19.78375	17.76808	0.889376	22.48287	6.784417
Mean dependent	217734.5	164296.1	89973.23	17.18821	-183151.1	310.6092
S.D. dependent	432783.2	279972.7	142581	30.54472	300733.3	463.3051

Determinant Residual Covariance	6.64E+25
Log Likelihood (d.f. adjusted)	-1109.032
Akaike Information Criteria	84.34703
Schwarz Criteria	89.72192

Table A2: **Vector Autoregression Estimate--Six variables, data adjusted to means**
Sample(adjusted): 1973 2001
Included observations: 29 after adjusting endpoints
Standard errors in ( ) & t-statistics in [ ]

	AMOILREV_TOT	AMFGNEXP	AMMONBASE	AMNAIRA	AMEXPBAL_NOIL	AMCPI_90
AMOILREV_TOT(-1)	1.644794	0.483859	-0.034654	0.089206	0.793343	-1.213322
	-0.49638	-0.25919	-0.17276	-0.19551	-0.8965	-0.20619
	[3.31359]	[1.86679]	[-0.20059]	[0.45628]	[0.88493]	[-5.88446]
AMOILREV_TOT(-2)	-2.067768	-0.113518	0.764739	0.049133	2.930376	-0.394876
	-0.63737	-0.33282	-0.22183	-0.25104	-1.15115	-0.26476
	[-3.24420]	[-0.34108]	[3.44738]	[0.19572]	[2.54561]	[-1.49145]
AMOILREV_TOT(-3)	-0.32536	2.874889	-0.774096	0.617302	1.306073	-1.219788
	-0.88687	-0.4631	-0.30867	-0.34931	-1.60176	-0.3684
	[-0.36686]	[6.20799]	[-2.50787]	[1.76722]	[0.81540]	[-3.31107]
AMFGNEXP(-1)	0.496677	0.037106	0.143023	0.638522	1.525389	-0.443461
	-0.38377	-0.20039	-0.13357	-0.15115	-0.69311	-0.15941
	[1.29422]	[0.18517]	[1.07081]	[4.22436]	[2.20078]	[-2.78184]
AMFGNEXP(-2)	-0.194061	-0.015344	-0.262551	-0.363566	-1.280345	0.388486
	-0.64912	-0.33895	-0.22592	-0.25567	-1.17236	-0.26964
	[-0.29896]	[-0.04527]	[-1.16214]	[-1.42204]	[-1.09211]	[1.44077]
AMFGNEXP(-3)	0.402343	-0.091061	0.625467	0.365776	0.479683	-0.028813
	-0.64128	-0.33486	-0.22319	-0.25258	-1.15821	-0.26638
	[0.62740]	[-0.27194]	[2.80237]	[1.44816]	[0.41416]	[-0.10816]
AMMONBASE(-1)	-1.620123	0.585342	0.836213	0.532596	-0.359008	1.097448
	-0.54624	-0.28523	-0.19011	-0.21514	-0.98655	-0.2269
	[-2.96598]	[2.05220]	[4.39853]	[2.47554]	[-0.36390]	[4.83668]
AMMONBASE(-2)	2.709978	-1.211251	-0.324791	-1.130058	-2.636227	-0.213252
	-0.96968	-0.50634	-0.33749	-0.38193	-1.75133	-0.4028
	[2.79470]	[-2.39218]	[-0.96238]	[-2.95884]	[-1.50527]	[-0.52943]
AMMONBASE(-3)	-0.085783	-1.817237	1.551875	-0.422303	-1.311946	1.437048
	-0.85845	-0.44825	-0.29877	-0.33811	-1.55042	-0.35659
	[-0.09993]	[-4.05404]	[5.19415]	[-1.24900]	[-0.84619]	[4.02997]
AMNAIRA(-1)	-0.415026	-0.369606	0.285969	-0.039111	-0.662256	0.662975
	-0.30498	-0.15925	-0.10614	-0.12012	-0.55081	-0.12668
	[-1.36085]	[-2.32093]	[2.69416]	[-0.32560]	[-1.20233]	[5.23329]
AMNAIRA(-2)	0.006307	0.276541	-0.183387	0.291158	-0.553491	0.290706
	-0.36535	-0.19077	-0.12716	-0.1439	-0.65985	-0.15176
	[0.01726]	[1.44957]	[-1.44222]	[2.02335]	[-0.83881]	[1.91552]

Contd.

Table A2: **Vector Autoregression Estimate--Six variables, data adjusted to means**
Sample(adjusted): 1973 2001
Included observations: 29 after adjusting endpoints
Standard errors in ( ) & t-statistics in [ ]

	AMOILREV_TOT	AMFGNEXP	AMMONBASE	AMNAIRA	AMEXPBAL_NOIL	AMCPI_90
AMNAIRA(-3)	2.479841	-0.439443	1.025517	0.728493	-2.167869	0.052585
	-0.4623	-0.2414	-0.1609	-0.18208	-0.83495	-0.19203
	[5.36416]	[-1.82041]	[6.37370]	[4.00087]	[-2.59641]	[0.27383]
AMEXPBAL_NOIL(-1)	0.845205	0.290509	0.118502	0.522025	0.388247	-0.525358
	-0.35739	-0.18662	-0.12439	-0.14077	-0.64548	-0.14846
	[2.36491]	[1.55669]	[0.95269]	[3.70847]	[0.60148]	[-3.53877]
AMEXPBAL_NOIL(-2)	-0.674191	0.107348	-0.096553	0.09793	1.167101	-0.249321
	-0.30427	-0.15888	-0.1059	-0.11984	-0.54954	-0.12639
	[-2.21574]	[0.67565]	[-0.91174]	[0.81715]	[2.12377]	[-1.97260]
AMEXPBAL_NOIL(-3)	-0.335754	0.870246	-0.054499	1.051602	0.814483	-0.234383
	-0.29128	-0.1521	-0.10138	-0.11473	-0.52608	-0.121
	[-1.15267]	[5.72159]	[-0.53758]	[9.16617]	[1.54821]	[-1.93711]
AMCPI_90(-1)	0.513493	1.639001	-0.852577	0.779432	3.635535	-0.537754
	-0.7775	-0.40598	-0.2706	-0.30623	-1.40422	-0.32296
	[0.66045]	[4.03711]	[-3.15070]	[2.54526]	[2.58901]	[-1.66506]
AMCPI_90(-2)	-5.067861	-0.575393	-1.195966	-2.546717	-2.19634	0.853481
	-1.16867	-0.61024	-0.40674	-0.4603	-2.11071	-0.48545
	[-4.33644]	[-0.94289]	[-2.94034]	[-5.53274]	[-1.04057]	[1.75811]
AMCPI_90(-3)	4.673186	1.726775	0.95367	4.423765	0.185512	-0.625019
	-1.18648	-0.61954	-0.41294	-0.46731	-2.14287	-0.49285
	[3.93871]	[2.78719]	[2.30946]	[9.46639]	[0.08657]	[-1.26817]
C	-0.068398	0.000954	-0.031689	-0.028489	0.091417	-0.020299
	-0.0183	-0.00956	-0.00637	-0.00721	-0.03306	-0.0076
	[-3.73688]	[0.09981]	[-4.97441]	[-3.95182]	[2.76542]	[-2.66979]
R-squared	0.99991	0.999967	0.999983	0.999983	0.999571	0.999972
Adj. R-squared	0.999749	0.999907	0.999952	0.999951	0.998799	0.999923
Sum sq. resids	0.009929	0.002707	0.001203	0.00154	0.032387	0.001713
S.E. equation	0.03151	0.016453	0.010967	0.012411	0.056909	0.013089
F-statistic	6189.264	16685.14	32480.49	31893.21	1294.419	20200.96
Log likelihood	74.55525	93.39844	105.1629	101.5758	57.41162	100.0328
Akaike AIC	-3.831396	-5.130927	-5.942271	-5.694886	-2.649077	-5.588469
Schwarz SC	-2.935582	-4.235113	-5.046457	-4.799071	-1.753263	-4.692654
Mean dependent	1	1	1	1	-1	1
S.D. dependent	1.987665	1.704068	1.584705	1.777074	1.641996	1.491601

Determinant Residual Covariance	6.70E-24
Log Likelihood (d.f. adjusted)	526.8161
Akaike Information Criteria	-28.47007
Schwarz Criteria	-23.09519

Figure A1 -
Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

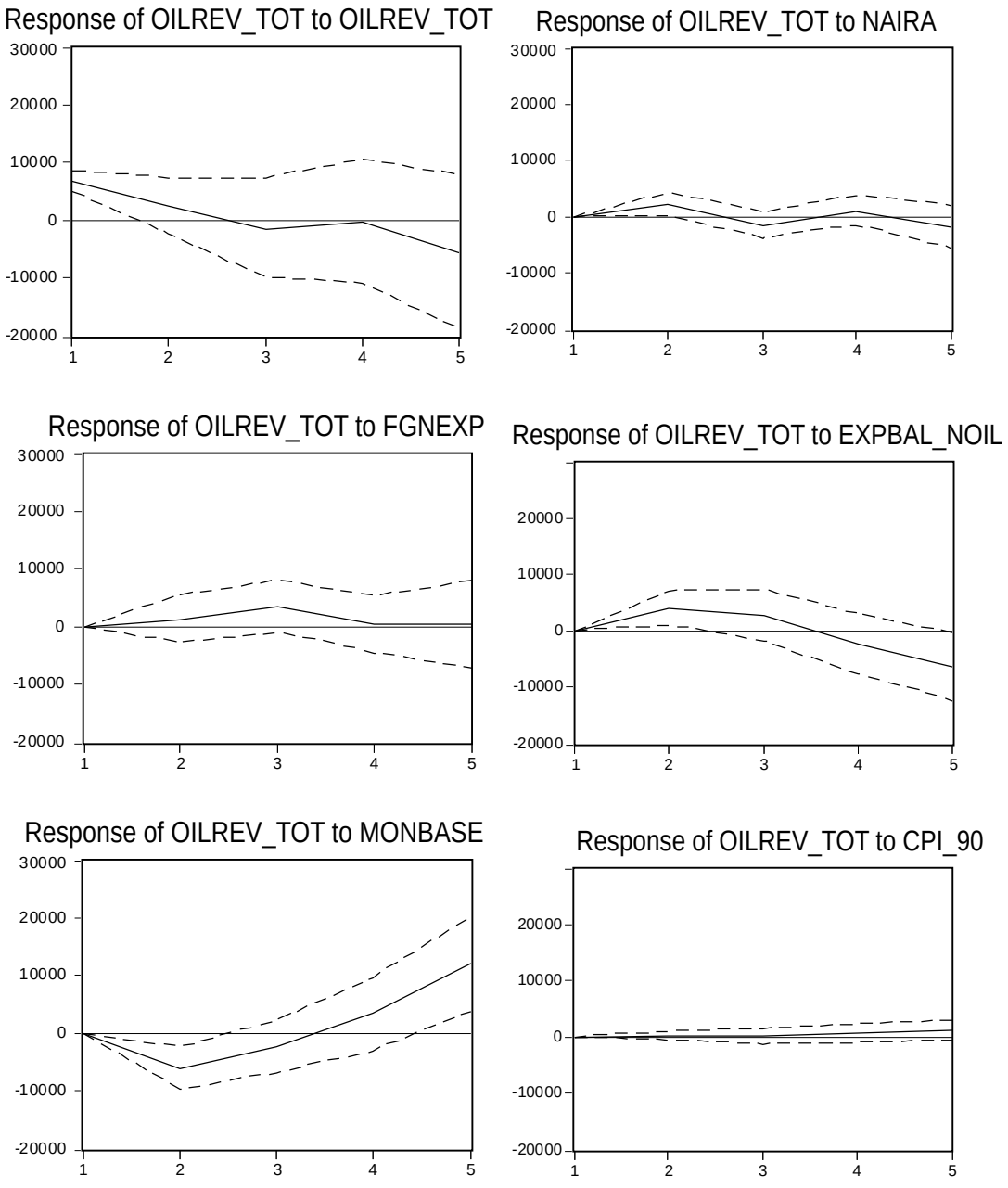


Figure A1 - *Contd.*

Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

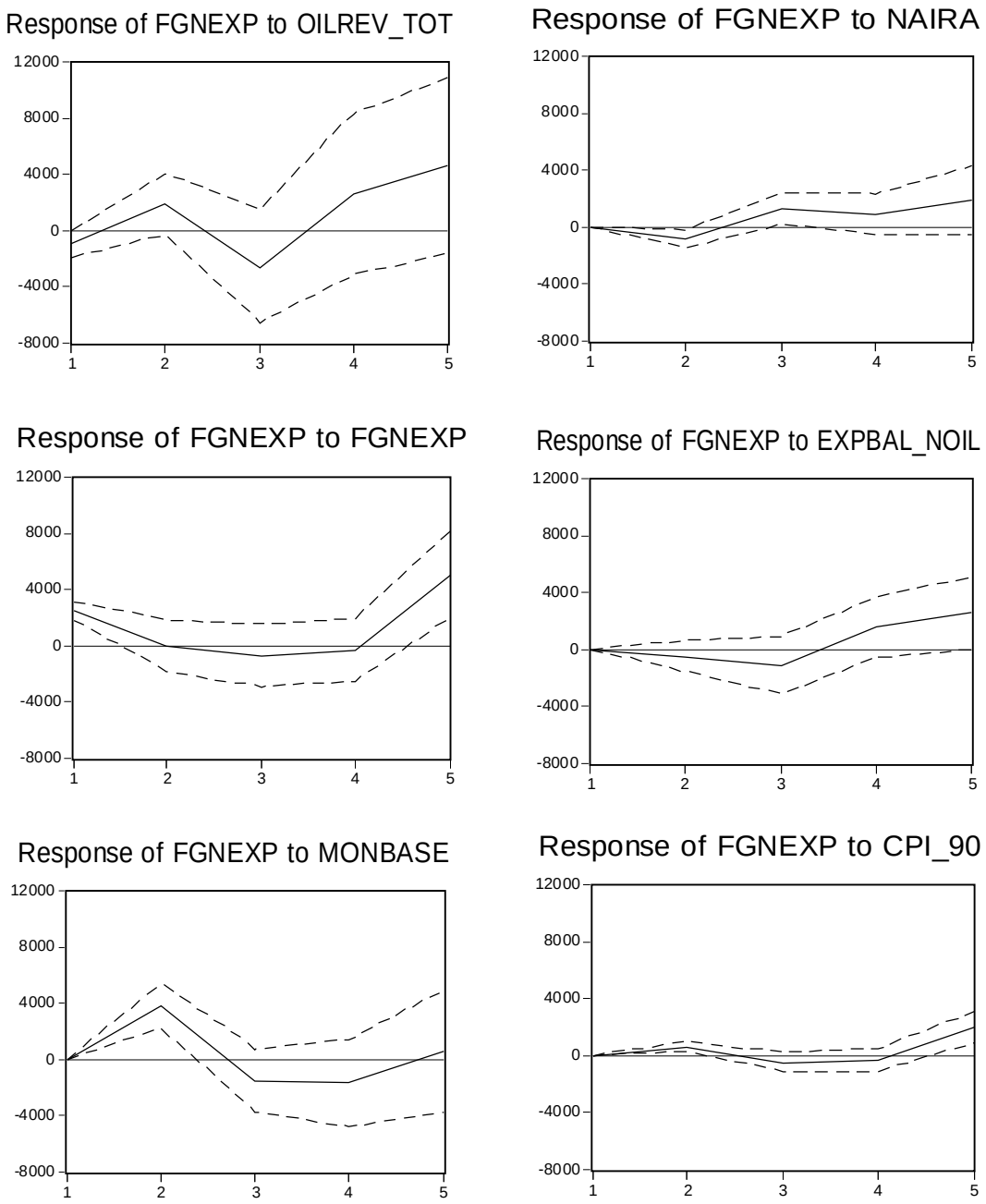
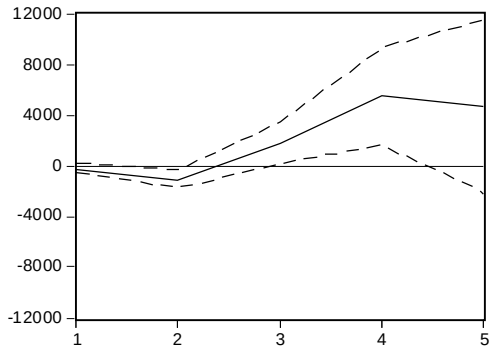


Figure A1 - *Contd.*

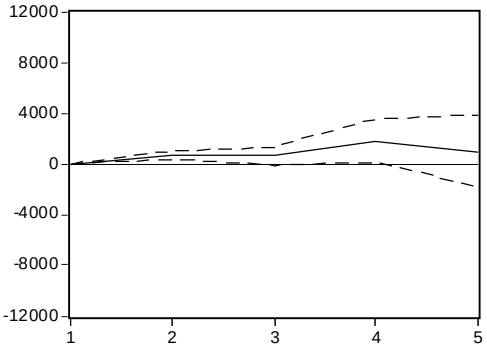
Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

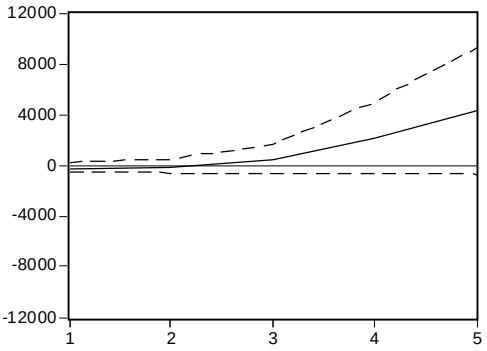
Response of MONBASE to OILREV_TOT



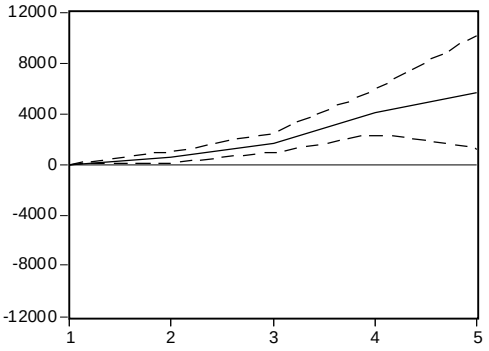
esponse of MONBASE to NAIRA



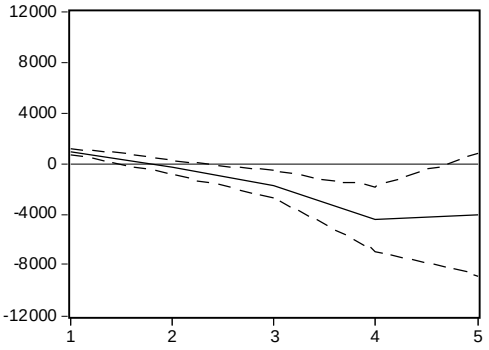
Response of MONBASE to FGNEXP



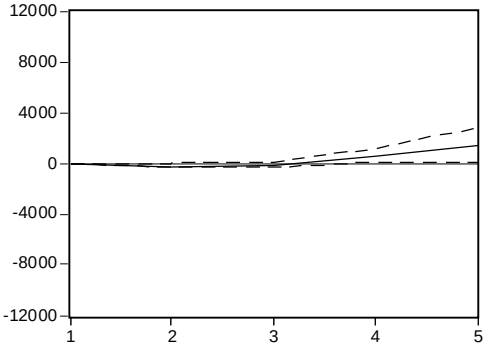
Response of MONBASE to EXPBAL_NOIL



Response of MONBASE to MONBASER



Response of MONBASE to CPI_90

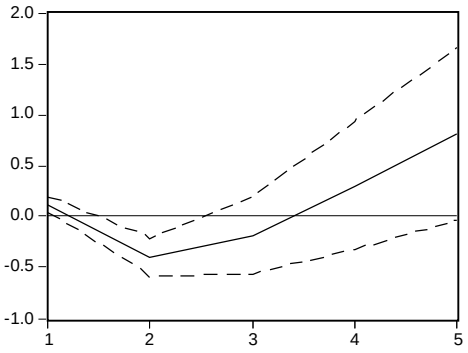


Contd.

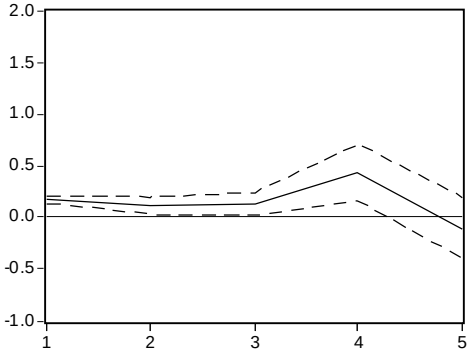
Figure A1 -
Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

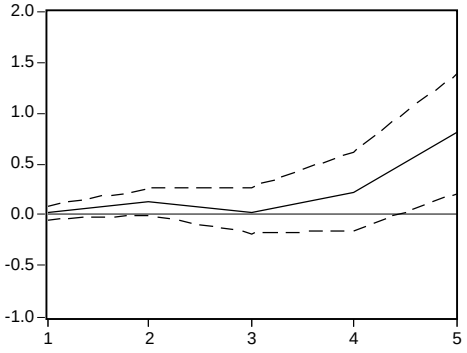
Response of NAIRA to OILREV_TOT



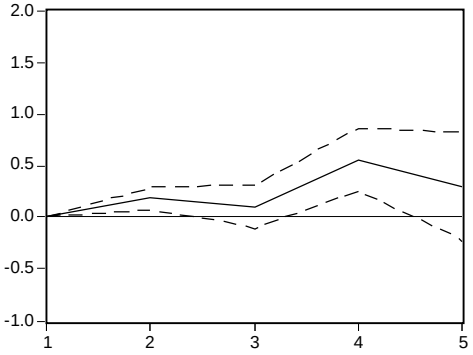
Response of NAIRA to NAIRA



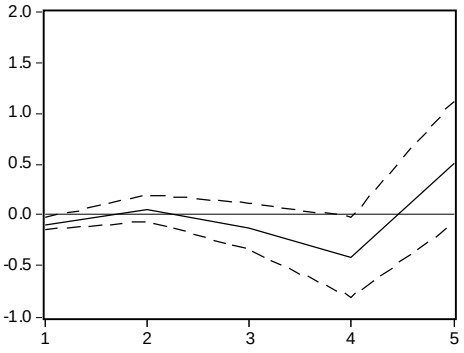
Response of NAIRA to FGNEXP



Response of NAIRA to EXPBAL_NOIL



Response of NAIRA to MONBASE



Response of NAIRA to CPI_90

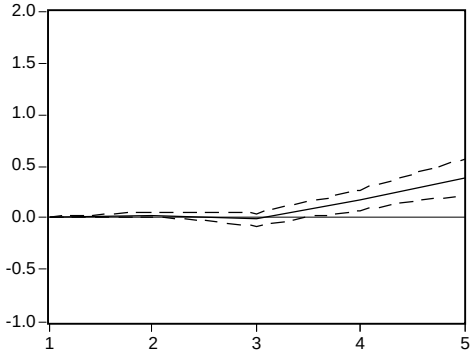


Figure A1 - *Contd.*

Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

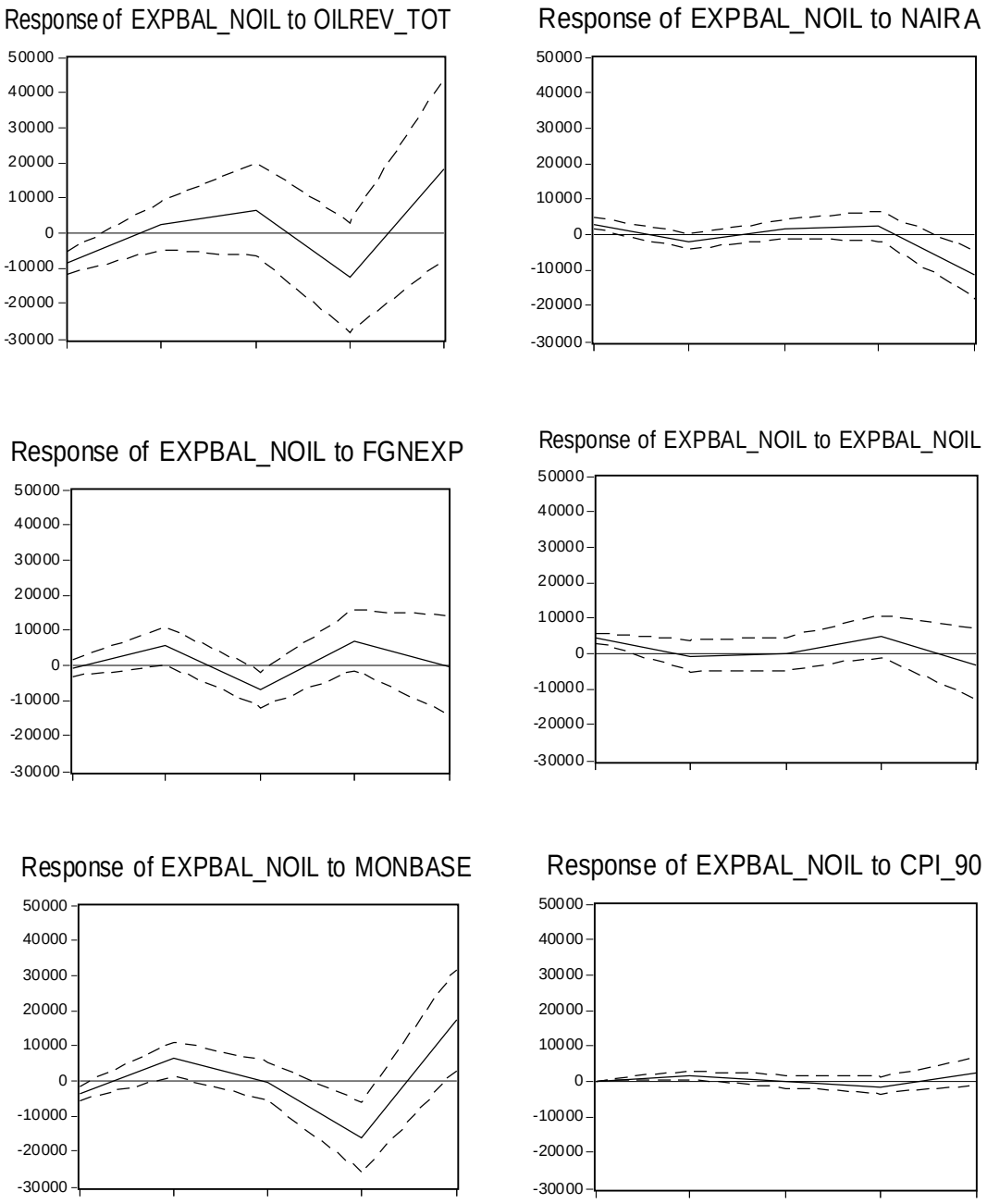
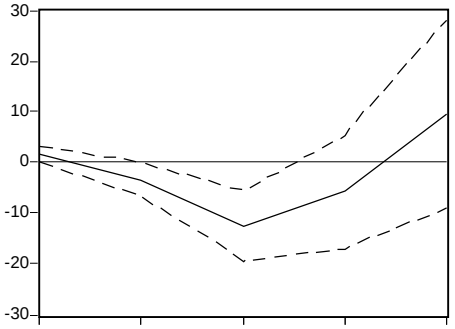


Figure A1 - *Contd.*

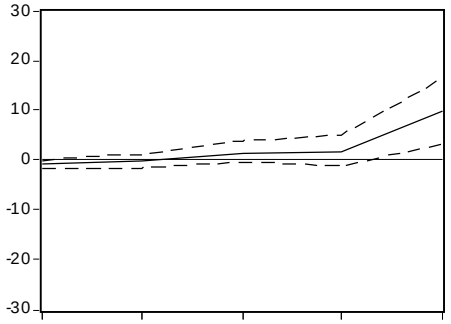
Non: IRF for 6 - VAR, not mean adjusted, not cumulative

Response of Cholesky One S.D. Innovations ± 2 S. E.

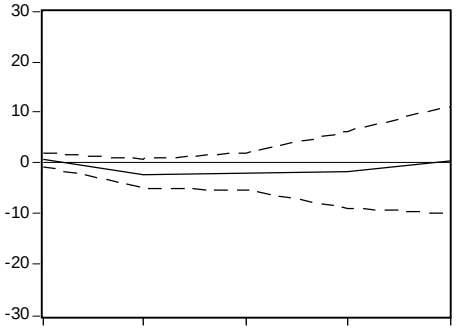
Responseof CPI_90 to OILREV_TOT



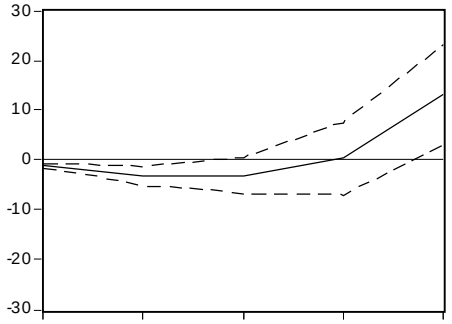
Response of CPI_90 to NAIRA



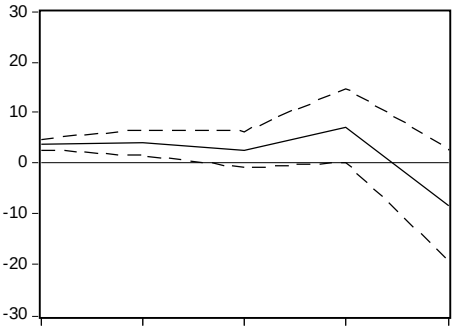
Response of CPI_90 to FGNEXP



Response of CPI_90 to EXPBAL_NOIL



Response of CPI_90 to MONBASE



Response of CPI_90 to CPI_90

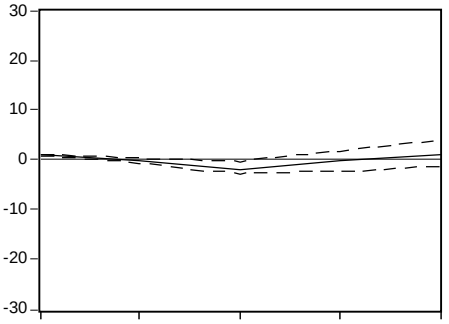


Figure A1-cum:
IRF 6-VAR NOT MEANS ADJUSTED, CUMULATIVE

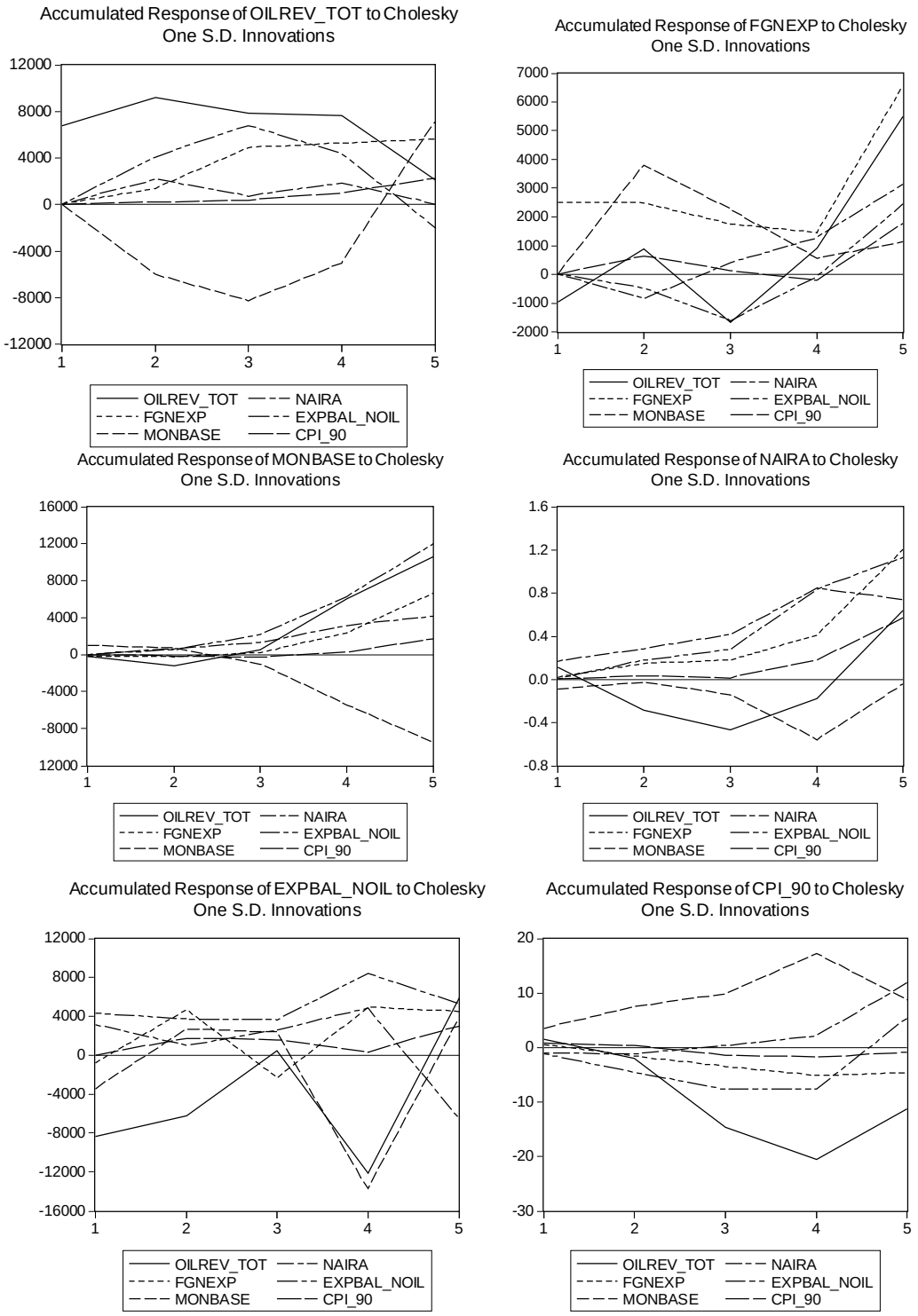


Figure A2 - Non:
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

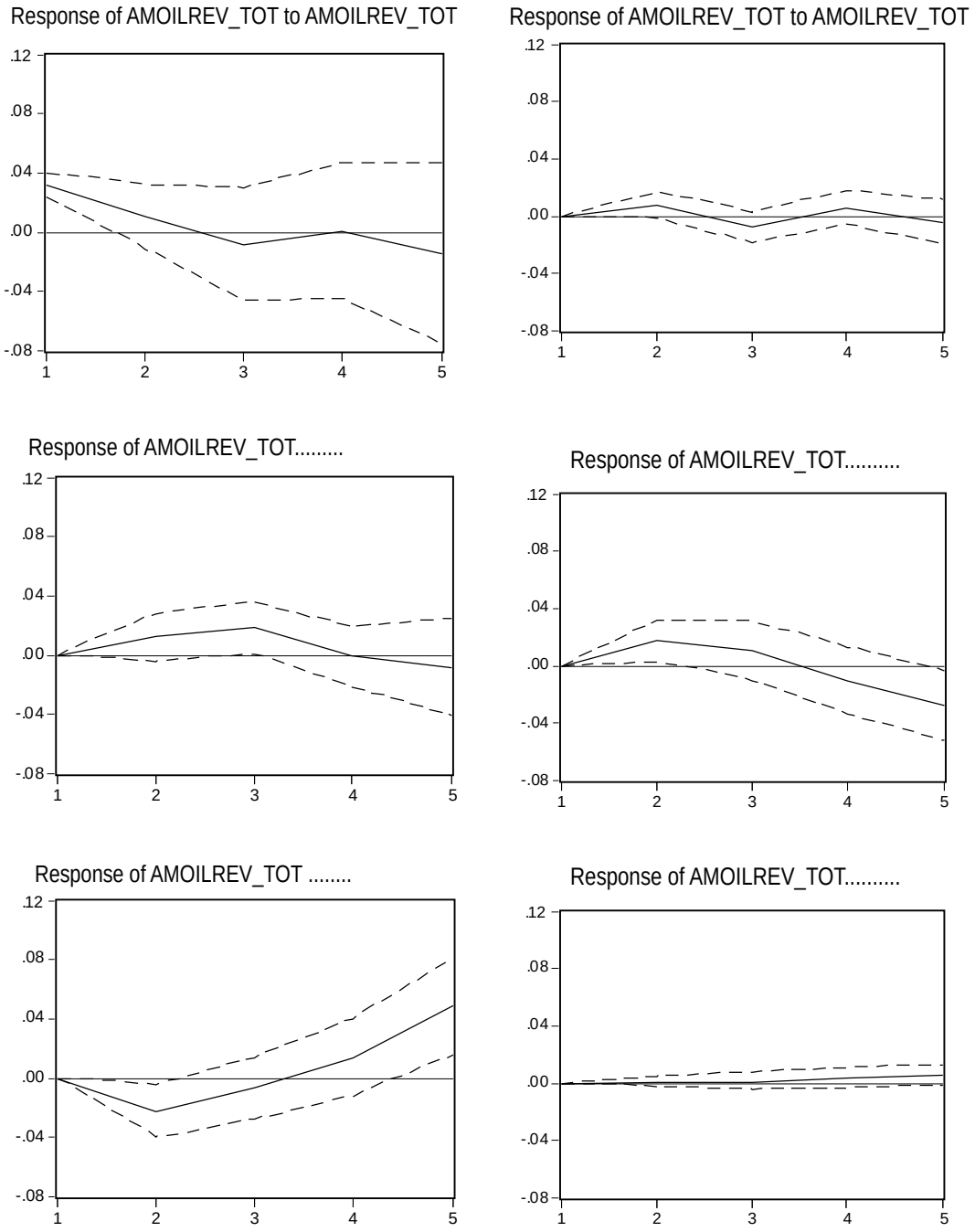
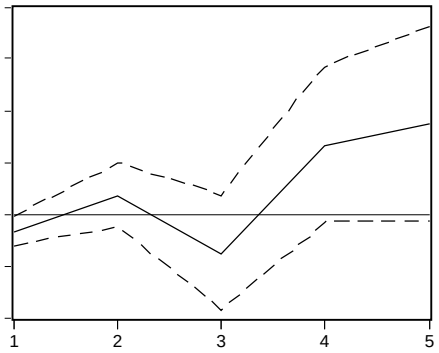
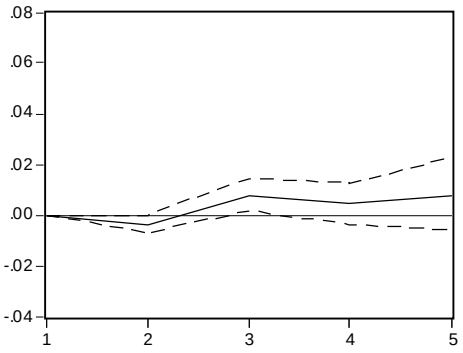


Figure A2 - Non: *Contd.*
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

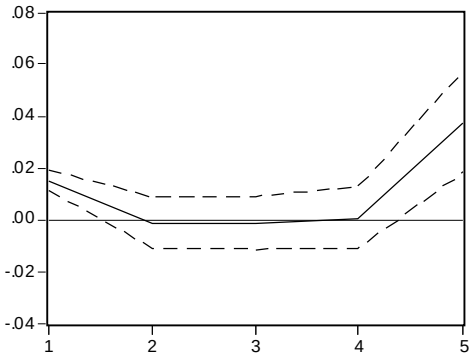
Responseof AMFGNEXP to AMOILREV_TOT



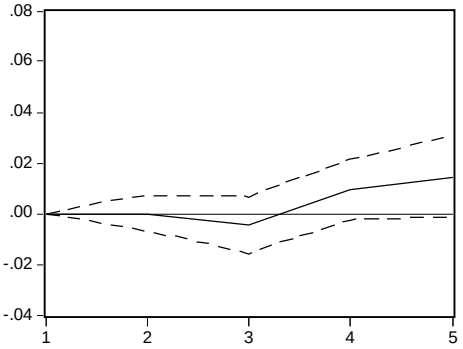
Response of AMFGNEXP to AMNAIRA



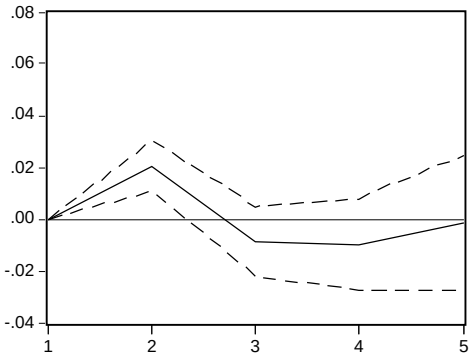
Response of AMFGNEXP to AMFGNEXP



Response of AMFGNEXP to AMEXPBAL_NOIL



Response of AMFGNEXP to AMMONBASE



Response of AMFGNEXP to AMC

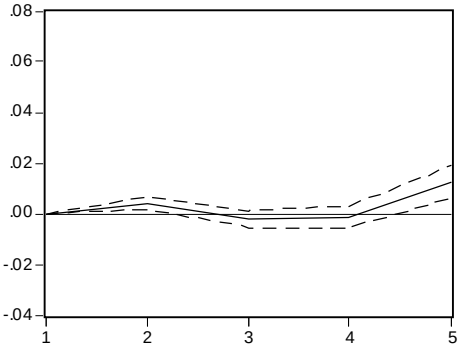


Figure A2 - Non: *Contd.*
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

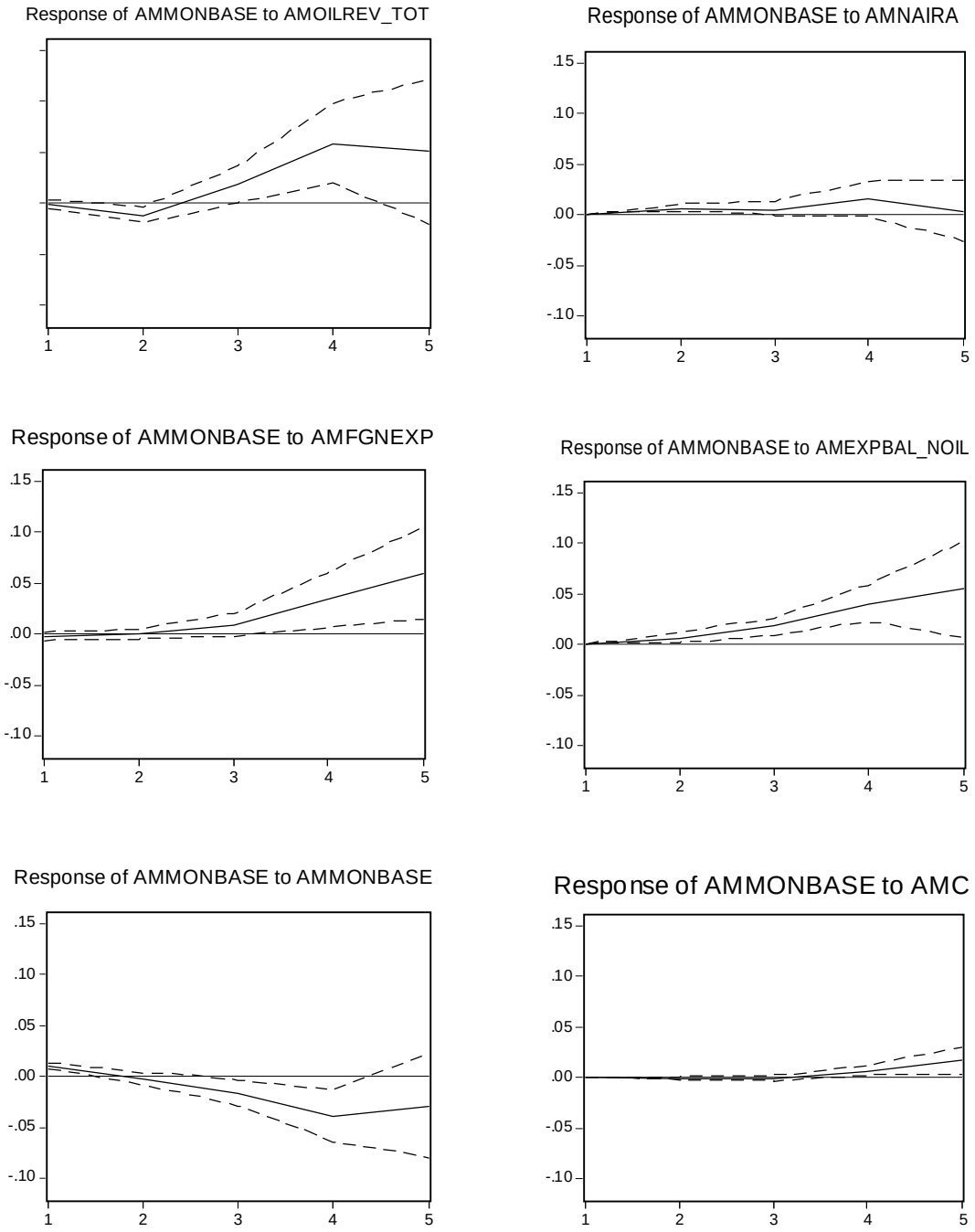


Figure A2 - Non: *Contd.*
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

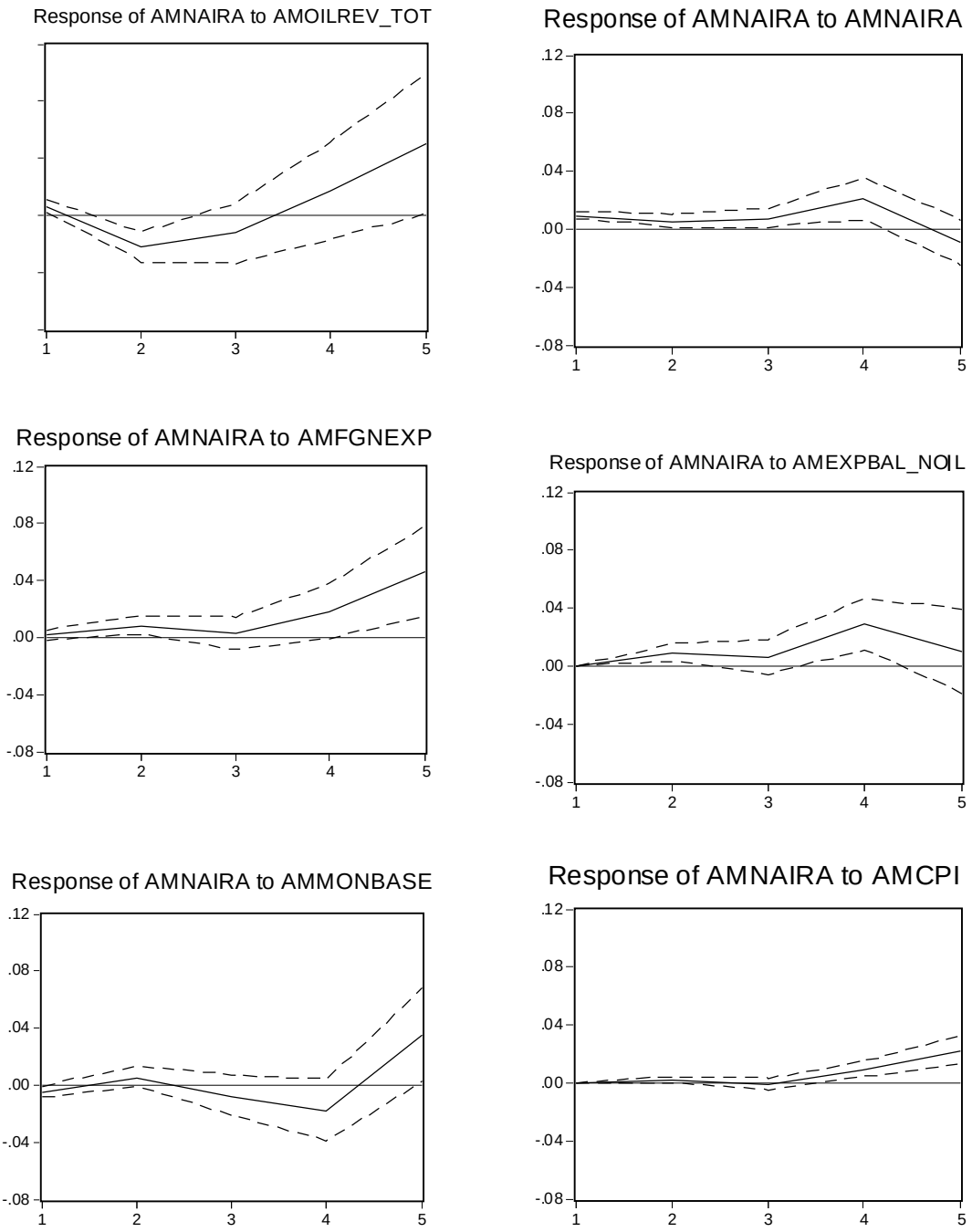
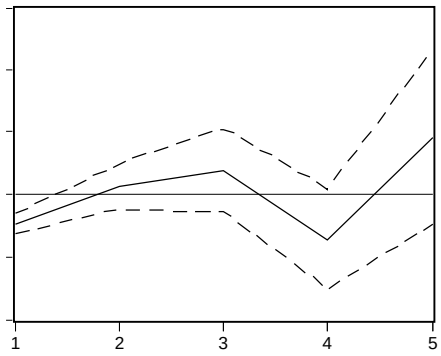
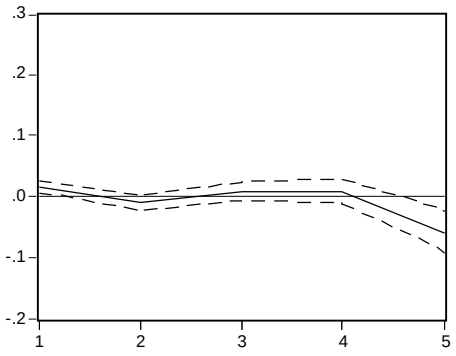


Figure A2 - Non: *Contd.*
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

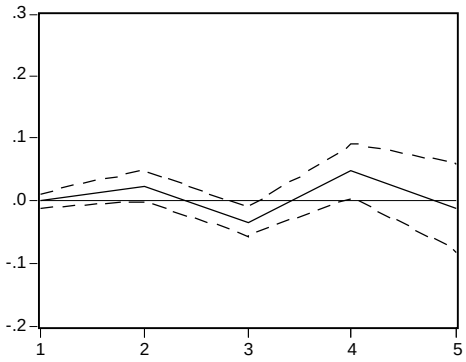
Response of AMEXPBAL_NOIL to AMO LREV_TOT



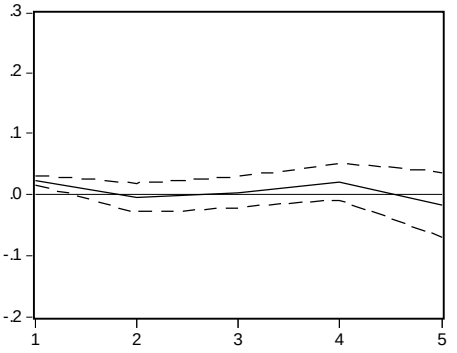
Response of AMEXPBAL_NOIL to AMNAIRA



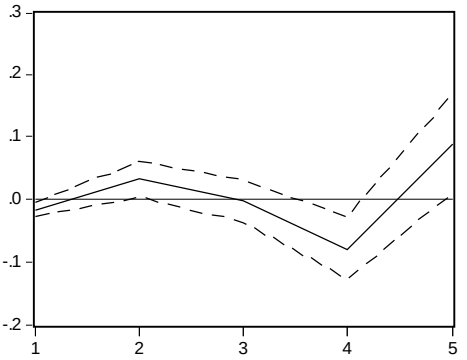
Response of AMEXPBAL_NOIL to AMFGNEXP



Response of AMEXPBAL_NOIL to AMEXPBAL_NOIL



Response of AMEXPBAL_NOIL to AMMONBASE



Response of AMEXPBAL_NOIL to A

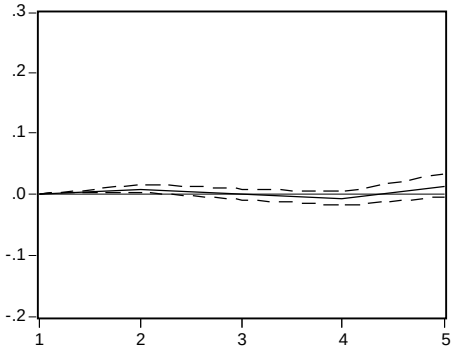


Figure A2 - Non: *Contd.*
IRF for 6 - VAR, Adjusted in Meals, Non cumulative

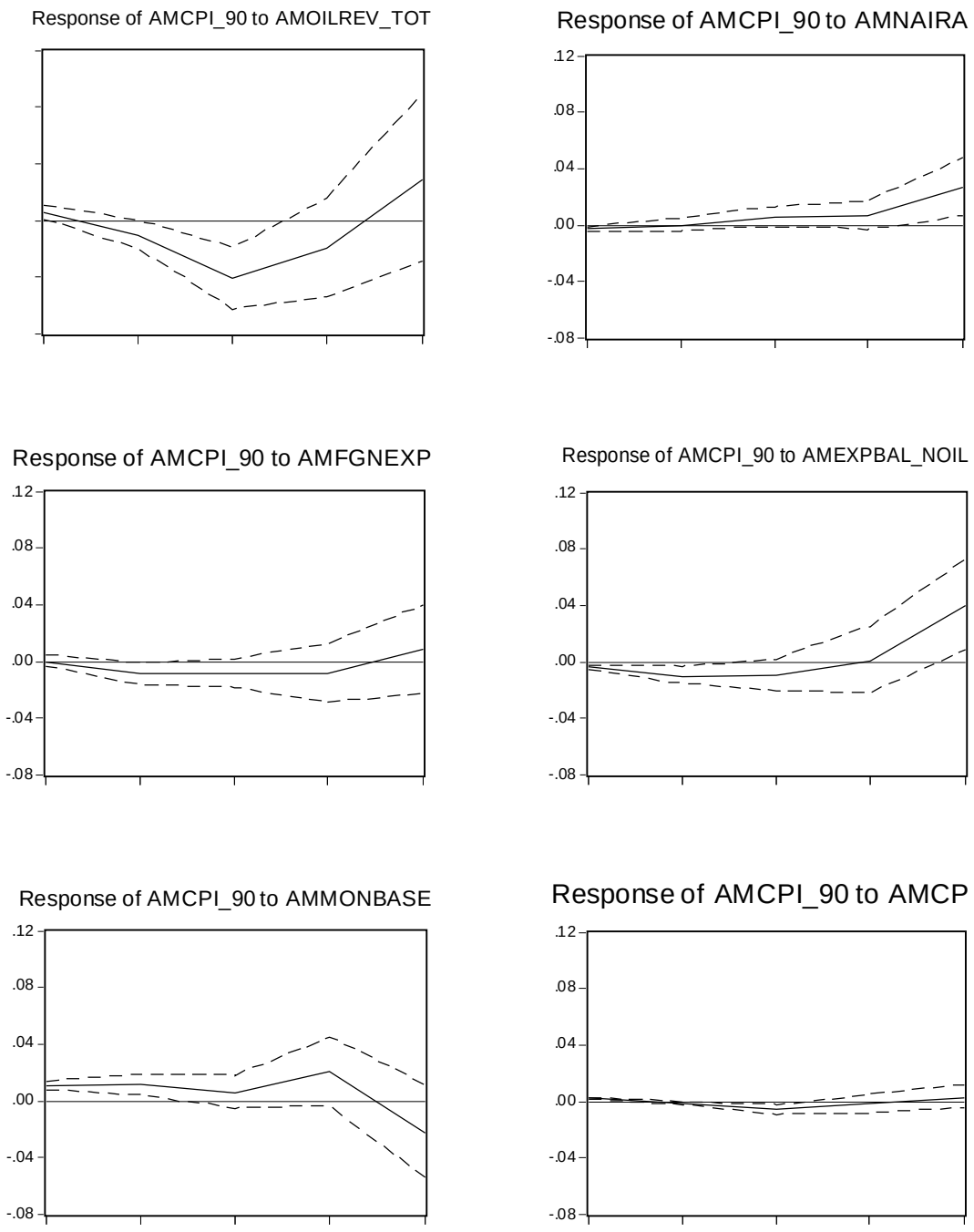
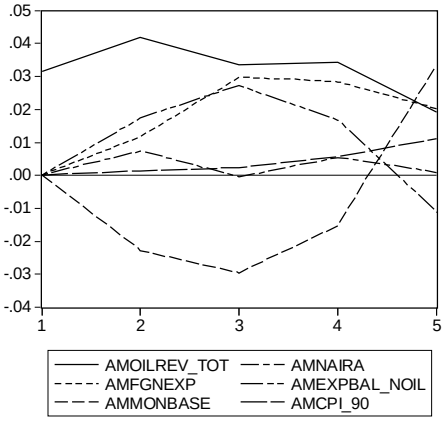
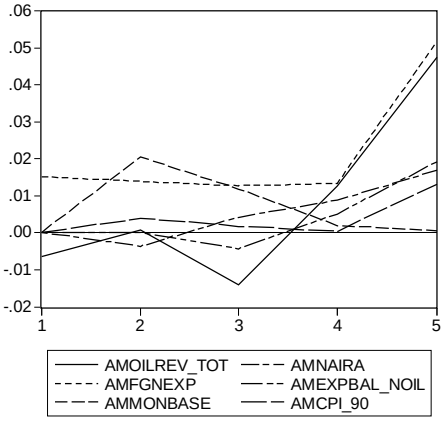


Figure A2 - Cum:
IRF 6-VAR, ADUSTED BY MEANS, CUMULATIVE

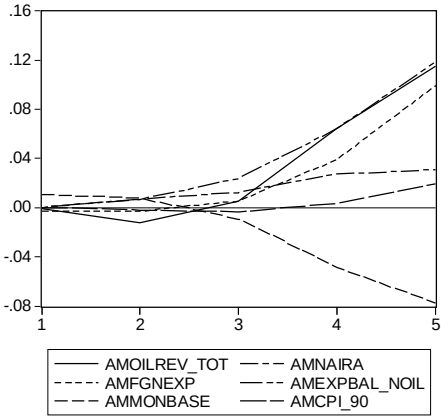
Accumulated Response of AMOILREV_TOT to Cholesky
One S.D. Innovations



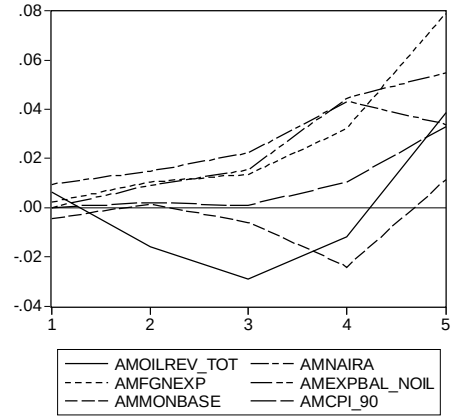
Accumulated Response of AMFGNEXP to Cholesky
One S.D. Innovations



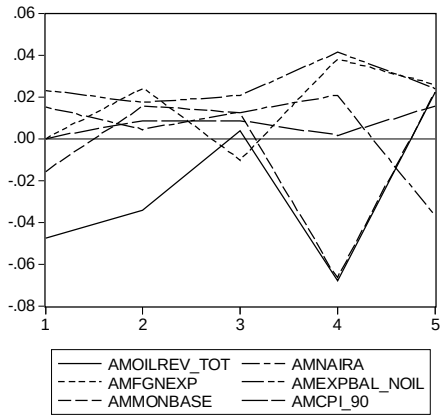
Accumulated Response of AMMONBASE to Cholesky
One S.D. Innovations



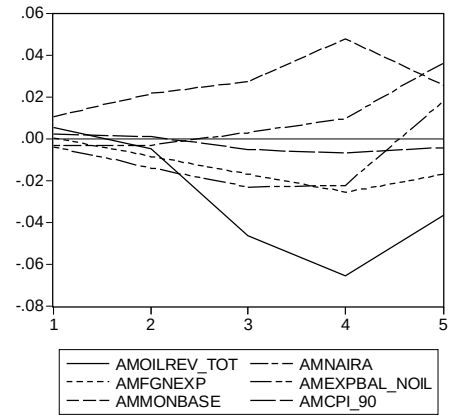
Accumulated Response of AMNAIRA to Cholesky
One S.D. Innovations



Accumulated Response of AMEXPBAL_NOIL to Cholesky
One S.D. Innovations



Accumulated Response of AMCPI_90 to Cholesky
One S.D. Innovations



FISCAL FEDERALISM AND MACROECONOMIC STABILITY*

Tamunopriye J. Agiobenebo

I. Introduction

A mixed economy is characterized by dual decision-making processes featuring complex reaction functions. The two major sectors or branches of a mixed economy, namely, the public and private sectors, are open sub-systems that receive and transmit information and, therefore, influence each other in an intensively interactive manner.

The channels of the transmission mechanism are many and detailed. At the aggregate level, the first glimpse of such detail is found in the national income identity, following the expenditure or aggregate approach which may be expressed as:

$$Y = C + I + G + (X - M)^{31}, \qquad (1)$$

which is elaborated by the circular flow of income, output and expenditure that is descriptive of both the micro foundations of the transmission process and the macroeconomic relationships that manifest the effects. The above identity announces, even if implicitly,

---

* The initial drafted of this paper was presented at the 3rd CBN Annual Monetary Policy Conference on "Issues in Fiscal Management: Implications for Monetary Policy in Nigeria" held from Thursday 11th to Friday 12th December 2003. This edition of the paper has benefited from the discussions during that Conference.

31. Where Y is gross national (domestic) product (GNP or GDP), depending on the most relevant concept to the context under investigation); C = aggregate private consumption expenditure: I = gross aggregate private domestic investment expenditure; G = public expenditure consisting of government consumption (recurrent expenditure and gross government investment (capital expenditure); and X-M = Net Exports, which may be positive, negative or Zero; X = Total Exports and M = Total imports.

that whatever happens to G will not only influence Y but also all the constituents of the identity, including G itself. The latter part of this submission is seemingly subtle and, perhaps, not immediately obvious. But, once we elaborate and take into account the dynamic elements of the multiplier and accelerator principles and the lock-in character of public expenditure explicit in many of the public expenditure hypotheses, it becomes self-explanatory.

The link with the money supply and hence the relevance of monetary management to the process is that in the monetary economy all transactions and their identity are indexed in monetary units, such that money is a passive slave working in a vicious cycle except liberated by some exogenous force which may be hard to find. The link with and hence the relevance of fiscal federalism is that it is a core institution that determines the character of fiscal operations with far-reaching consequences such that all the tools of repair, adjustment, correction and management are nearly always, if not always, called in to help. The purpose of this brief introduction is to take notice of the fact that the focus of this discussion the Nigerian economy is an open, mixed economy and as a federal union cannot escape decentralization and hence fiscal federalism and its implications for macroeconomic stability. Further, it tells us of where we are coming from to suggest where we should be going to.

II. *The Methodology*

There are certainly many perspectives and approaches to the study of fiscal institutions and their behaviour as well as the evaluation of the outcomes of fiscal operations. Given the policy relevance of this paper, it would be expected that the key relationships would be modelled and measured to provide quantitative evidence on the

directions of causation, as well as the signs and magnitudes of the intensity factors. This expectation is quite understandable and deeply appreciated, but on account of binding constraints could not be responded to in this presentation. Given the complexity of the character of the transmission process of fiscal impulses through the anatomy of the macroeconomy as illustrated in Fig. 2, modelling requires a properly adapted Computable General Equation (CGE) model. Thus, a minimum requirement would be a systems model, given the extensive simultaneity characterizing the relationships, again as illustrated in Fig. 2. Time for the construction of such a model was not available to the author, neither were computational resources nor even the data to feed the necessary estimations. For these reasons, the quantitative approach was abandoned for a qualitative analysis that relates government budget constraints to a model of the economy that adequately encapsulates the characteristics of the open, dependent economy of Nigeria in order to generate results that can inform policy engineering.

III. *The Circular Flow and the Microfoundations of the Transmission Process*

The microfoundation of an aggregate economy is described by the circularity of the flow of income, output and expenditure, a variety of which is provided in Figure 1. It is descriptive of a four-sector open economy with four broad categories of agents, namely, the rest of the world, households, government and firms, in which firms are further sub-divided into financial and non-financial agents that participate in three basic market arenas in different capacities. The three markets are the commodities market, the factor market and the financial market, each of which is highly differentiable. The directions of the arrowheads illustrate the flow of both injections into and leakages out

from the agents' cash flows and markets, with implications for monetary policy.

Fig. 1 also provides a pictorial description of the ways households, firms, government and the rest of the world relate to each other in an open, mixed economy. Of course, what Fig. 1 shows are the usual or traditional areas of interaction among the agents and who supplies and buys what in each of the these markets. The relevance of Fig.1 for the purposes of this paper is that it highlights the implications of fiscal operations for each of these markets and agents alike, as well as the macroeconomy that will require stabilization actions or responses. It shows why the fiscal operations of government must affect the private sector of the domestic economy and itself, and even the external sector. So, it is descriptive of the micro foundations of the

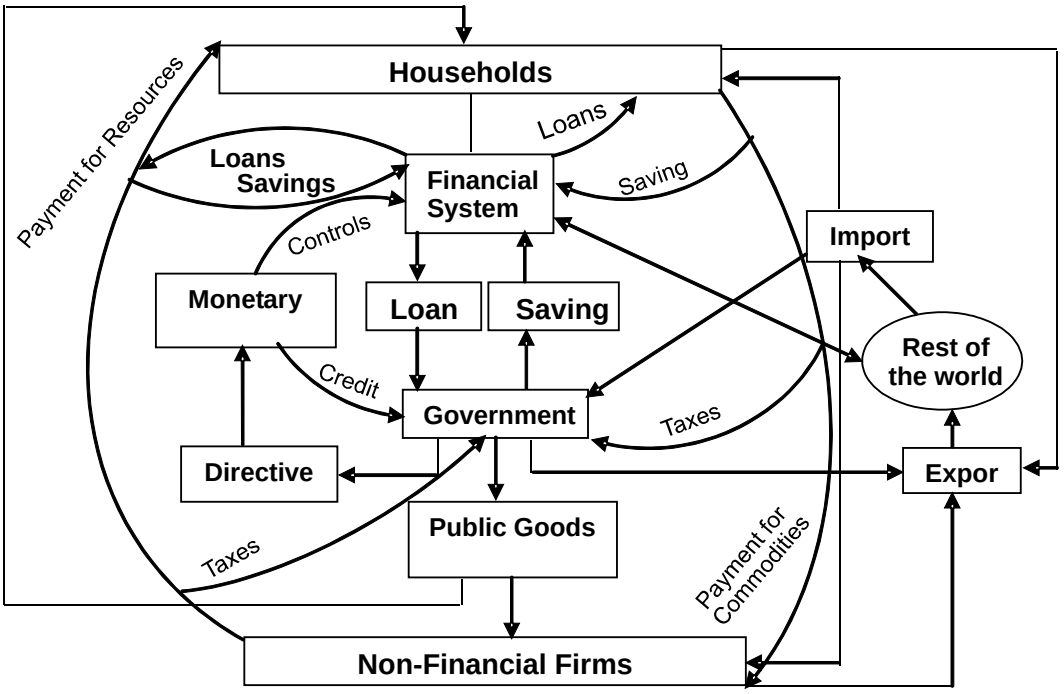


Figure 1: The Circular Flow, Microfoundations and Points of

macroeconomic developments in an open, mixed economy.

An overview of the essence of this paper is presented in Fig. 2. If this conceptualization is sensible and the scenario valid, then, Fig. 2 would be an eloquent testimony of the intensely complex character of the functions in the transmission process. It reveals the weak or missing links in a partial equilibrium approach to the stability problem. It shows that there is an extensive network of simultaneity and feedback loops that propagate higher order effects which linearity cannot adequately describe. Government being what it is can exogenously initiate spending but before long the economy would have to support it, if it must be sustained. However, the stubbornness of a government may not come to terms with this reality with the result that the economy and society can be burnt many times over thereby creating anxious moments for the monetary authorities. But, where does it all start?

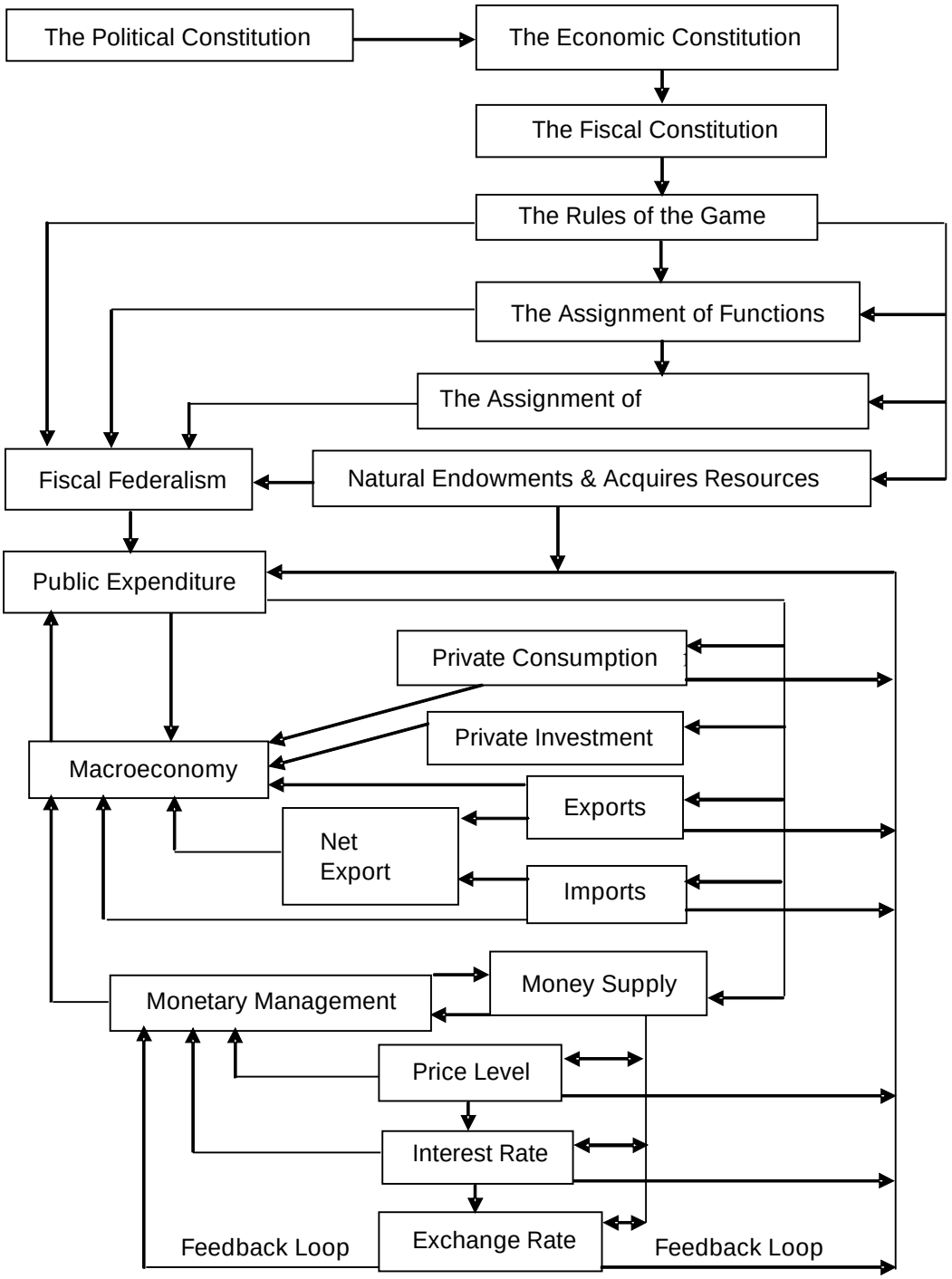


Figure 2: Fiscal Institutions and the Transmission process.

It all began with what economists know and call 'market failure,' which rationalizes government intervention in an otherwise market-driven economy. Market failure in history is best exemplified by the Great Depressions of 1929-33 which inspired Keynesian macroeconomics whose diagnosis of the Great Depression was that the fiscal operations of government could be used as economic stabilization tools. Government intervention in an economy is effected through policy and strategic options, such as direct participation in production and distribution and redistribution, indirect provisions of services, regulation and control, and precipitate public expenditure that motivates revenue mobilization with implications for global and intra-sectoral allocative efficiency and equity. The institutional character of this type of intervention is what is referred to as fiscal federalism. Therefore, the design of fiscal institutions, and fiscal federalism in particular, is of direct relevance to our discussion.

IV. *Fiscal Federalism*

The political constitution of any mixed economy always contains an economic and, hence, a fiscal constitution, but whether the true nature of that constitution is operationalized or not is a function of many intervening variables. The political decentralization of socio-economic responsibilities, functions and powers always results in a number of interesting relational and fiscal issues. Decentralized systems of government, including unitary systems, give rise to a set of fiscal exigencies. The institutional and relational practices of and responses to such exigencies is referred to as fiscal federalism. It refers to the scope and structure of the various tiers of government and their involvement in the delegation and/or devolution of governmental responsibilities and functions, and the allocation of resources and/or means within a nation state. Therefore, fiscal federalism always

involves some form of fiscal decentralization which gives rise to two dimensions of inter-governmental fiscal relations, namely, vertical and horizontal fiscal arrangements. Simply put, fiscal federalism is the miscellany of financial arrangements and relations among tiers and units of government that are driven by developments in the fiscal constitution, itself acting more or less in harmony with developments in political and economic activities of a nation state.

These realities motivate a number of probing questions. First, why should there be more than one level and unit of government? Second, which level of government should perform which functions? The answer to the first question is contained in the second, which is referred to as the assignment problem, which also raises the issue of resource allocation which, in turn, may be reduced into a number of related questions. For example, how would the assignment be financed once agreed upon? In other words, what should be the means of resource mobilization by the public sector and by each tier and unit of government? What should be the nature of the fiscal relations among the various levels and units of governments? That is, what should be the vertical and horizontal fiscal relations among the tiers and units of government? What are the socio-economic and even political and cultural consequences of the accepted arrangement? This paper examines these issues in the context of the practice of Nigeria's fiscal federalism.

4.1 The Rationale for Decentralization

The fact that even unitary systems of government are stratified generalizes the federal principle and also poses the vital questions of why there should be multi-level or multi-unit governments in a nation state as well as what should be the optimal level of decentralization. In

Nigeria, this question has been asked over and over again: how many states and local government areas must be created to achieve a stable federal equilibrium? The answer , it seems, is still blowing in the wind!

Decentralization is justified by political, economic and socio-cultural considerations. Politically, decentralization could arise as a dynamic application of constitutional development in the process of nation building, emerging as a functional arrangement among states or, more accurately, among communities, Ramphal (1979). Viewed in this broad sense, decentralization is a process of unifying power within a cluster of states (communities) and decentralizing power within the unified state founded on the philosophy of unity in diversity within a spectrum of two extremes. The extremes refer to, on the one hand, a cluster of states (communities) without any systematic arrangement for unified action and, on the other, is the fully unified state in which sovereignty is indivisible, yet decentralized. But, once decentralization is involved, fiscal federalism is inherent.

The economic reason for the existence of a multi-level or multi-unit government is the existence of public goods and services with an even geographical spread of benefits. Based on this notion, the functions of government can be classified into the provision of national, regional (state) and local public goods and services[32]. In this sense, decentralization is a consequence of the spatial limitations of the benefits of public goods and services, a conception that justifies the definition of public goods as non-excludable and/or non-rivalrous, or even indivisible in consumption subject to capacity constraints. The benefits of some public goods and services spread across the length and breadth of the entire nation (e.g., national defence, medical research findings, macroeconomic stability, national pride, etc., but

32. The concepts of regional and local geo-political areas are relative in scope.

not the police force) while others are much more spatially limited (e.g., local fire service or street lights). For the latter services, the benefits are clearly limited to residents within the areas in which the facilities are located.

Some commodities have spillover effects in the context of open geo-political systems such that a larger unit of authority may be required to co-ordinate their supply. Good examples of these include inter-state and inter-local government roads and bridges and the control of effluent discharges into tidal waters. Thus, from the economic point of view, the rationale for a multi-level or multi-unit government is the existence of benefit regions for public goods and services of diverse geographical sizes or scope. This also relates to the issue of the optimal community size. Once this is settled, the assignment problem and the allocation function become much easier to handle as the efficiency and equity criteria would lead to and suggest the financing mechanisms which, in turn, would lead to and suggest the core principles for fiscal federalism.

The political basis for the existence of a multi-unit government arises from the historical evolution of societies while the economic justification derives from the concept of the optimal population with respect to the consumption of public goods as well as due regard for local preferences. Furthermore, the concept of an optimal population is interpreted to allow for the provision of the same quantity and quality of public goods and services to be enjoyed by all members of society and not just by a segment of it. Thus, it satisfies the equity criterion which is founded on the principle of “equal treatment for equals.”

Another relevant concept is the optimal quantity of the public good or service for the optimal population. These concepts are

intimately related. Both the efficiency and equity requirements for the determination of the optimal quantity are met by a modified Samuelson's condition for the optimal provision of public goods. It states that the sum of the marginal benefits generated by a public good be equal to the average cost of its provision if it is a pure public good since the marginal cost of a pure public good is zero. If equality between marginal cost and benefit is to be used, then, each and every consumer of a pure public good must consume it up to the point of zero marginal benefit.

A number of observations can be made on this proposition. First, this is not a practicable proposition, that is, assuming individuals are allowed their freedom to choose. Second, when marginal benefits are zero, the basis for extracting bids and quotations vanishes. Third, a fundamental contradiction is inherent in this situation whereby the optimum condition becomes a condition for debasement. So, in general, the equilibrium condition is the sum of the marginal benefits equal to the average cost. This condition also implicitly defines the optimal population, too.

Musgrave and Musgrave (1959) have, however, observed that the concrete problems of fiscal federalism are embedded in their historical settings. Yet, we believe it makes sense to investigate the possibility of other meaningful conceptions and principles that offer additional advantages regarding the formation of multilevel or multiunit political systems with a view to maximizing efficiency and equity. The resolution of the assignment problem on the basis of benefit regions may involve discretionary devising rather than getting along with a miscellany of historical exigencies. Furthermore, the evolution of the Nigerian system has been driven more by discretionary devising within its historical setting, anyway. At any rate,

our proposed framework would be capable of resolving the assignment problem within the dynamic evolution of society.

4.2 *The Assignment Problem*

The assignment problem (sometimes referred to as public expenditure assignment) deals with the division of responsibilities, powers and authority on issues of centralization as against decentralization. In practice, this question is usually resolved within the political system of a given society. It matters whether the political system is a unitary or federal variety since structures of government differ in their degrees of centralization or decentralization of authority and powers. In general, however, a central government exists to co-ordinate the activities of the lower and smaller units of jurisdiction on agreed matters.

The foregoing suggests that, in practice, the accepted political arrangement is relevant to the realized assignments. Therefore, a consideration of the implications of political systems and their probable effects on the character of realized assignments would be in order.

Unitary System of Government and The Assignment Problem

In a unitary system of government, there is one predominant central government for the whole country which creates subordinate levels of government called local authorities that may be provincial in scope, which may be further reduced into districts or mere municipalities and townships created through statutes or decrees, (Ramphal, 1979). Thus, what exists is delegation of powers to the local authorities by the central government. The local jurisdictions, however,

are free to determine the structure of the vector of public goods and services to supply as well as the tax schedules within the authority delegated to them. The degree of autonomy they exercise varies inversely with the degree of centralization since they are executing only delegated functions, authority and powers.

Even within this system, the assignment problem can be easily resolved by the scope of the spatial incidence of public goods (benefit region). The national government is assigned functions with nation-wide benefits; the provincial authorities would handle those with province-wide benefits and so on. Frequently, however, the benefits of certain public goods do spill over geo-political boundaries. In cases involving spillover effects between or among provinces, the national government would normally intervene to ensure efficiency and equity in the allocation of resources in the national interest. Such intervention could be in the form a complete take-over of functions, the joint provision of services (not in the competitive sense, which may lead to wasteful duplication), or the granting of appropriate subsidies, or the imposition of taxes or through regulation and/or legislation. It is also possible for the affected entities to jointly provide the good(s) involved under a merger principle. This, indeed, is usually the first or best solution. However, it may involve bargaining and, hence, transaction costs which if substantial may have disincentive effects. But, how spillovers are controlled is important since the different strategies will give rise to different incentive structures, behaviours and reactions.

Federalism and the Assignment Problem

Decentralization seems inherent in the nature of federalism. The pertinent question, therefore, is: What are the advantages and

disadvantages of varying degrees of decentralization and which level of government should perform which functions? The core principle for resolving this composite question is the scope of the benefit regions for the public goods and services which any government is supposed to provide to society. One of the advantages ascribed to fiscal decentralization is that it offers a wide variety of choice between different amounts and varieties of public goods and services (Tiebout, 1956). Since individuals differ in their preferences for levels and varieties of public goods consumption, the capacity of a decentralized governments to diversify public goods and services in accordance with local preferences should improve resource allocation in the public sector.

Confederation and the Assignment Problem

Confederation refers to the linking together (i.e. the union or association) of sovereign (independent) states in which each component unit is free to carry out all governmental functions, (Ramphal, 1979). Even here, there is a wide spectrum of actual practices, with the weakest being a little more than a diplomatic arrangement in which there is a linking together of sovereign states by treaty for particular purposes while internal sovereignty is preserved and external sovereignty is limited to only a very minor degree for component states. It is an arrangement which emphasizes the plurality rather than the unity of the members of the confederation such as in a customs union. Thus, confederation tends to have the greatest scope for the decentralization of all the major categories of governmental structures.

For the confederal systems the assignment principle is to allocate to the union government only matters of confederal interest.

This list would include activities with international spillover effects among union members; all other matters would be reserved for national and sub-national jurisdictions. We may note, in passing, that the world government - the United Nations Organization (UNO) is a good example of a confederation. Other examples include the Commonwealth of Nations and the Organization of African Unity (OAU), now the African Union (AU).

Pure (Classical) Federalism

In classical federalism, communities accept to live and work together nationally on a limited number of matters and for those matters only, but are determined at the same time, to preserve their separate identities and to remain the competent authority in their own territories for the regulation of other matters (Ramphal, 1979). Here, federalism is seen as a consequence of the practical necessity of engaging in experimentation and innovation towards the achievement of a convenient and, perhaps, functional arrangement among the constituent communities. So, the assignment problem is resolved for all practical purposes on the anvil of the political reality of national exigencies. Yet, it is still possible to apply the core assignment principle inherent in our taxonomy through the innovative mechanism of periodic constitutional development assemblies. The vision is that members will consider the characteristics of the matrix of public goods and services to be supplied in the nation and use the benefit region to decide the assignment. Thus, within this framework, the resolution of the assignment problem becomes defined in the dynamic evolution of society.

Where written constitutions are adopted, the distribution of the governmental responsibilities, powers and authority is sometimes

enumerated in broad outlines. The list of responsibilities, powers and authority of the central (national or federal) government is called the *exclusive list* with an implicitly attached "*exclusive economic zone*"[33]. This list, in principle, would include all public goods and services, with the nation as a benefit region in such matters as defence, foreign policy and international relations, the national currency, the money supply, and the stabilization function, among others. The exclusive list may also include public goods and services, with externalities across regions. Other items which may also belong in this list include public goods characterized by lumpiness and increasing returns to scale and those in which duplication would be wasteful of scarce resources. For these reasons railways, sea and air-ports would have to be nationally organized.

Certain matters usually overlap and are enumerated in what is called the *concurrent list*. Both the federal and regional (state) governments are free to participate simultaneously in items on such a list, with the proviso that in the event of conflict arising between the two levels of government, the federal interest or regulation would supersede. Items on this list may be characterized by inter-regional externalities and lumpiness, resulting in significant or substantial scope of increasing returns to scale, etc. The problem with this list, however, is that it is liable to wasteful duplication under conditions of unbridled proliferation.

There are items on the concurrent list in Nigeria and suggestions have been made that either such items be made part of the exclusive list or be consigned to a residual list, with the proviso that the central government can intervene with appropriate subsidies or

33. See the Supreme Court of Nigeria's judgement on the Resource Control Suit 2002 and in particular, the judgement on off-shore oil revenues.

taxes, or by regulation or legislation to ensure their efficient and equitable provision. Alternatively, the joint supply approach might be used, i.e., the federal and state governments supply such goods and services in partnership. Such arrangement already obtains in respect of university education in Nigeria, with federal and state governments sharing responsibility. The result is not ideal; the consolidation of efforts with the same quantum of resources would give Nigeria world-class universities as was the case up until the 1970s.

It is important to understand that whatever is not on the *exclusive or concurrent lists* is assumed to have been assigned to the regional (state) governments. Hence, the resulting list is called the *residual list*. A similar power-sharing formula exists between the state and local governments. In the 1979, 1989 and 1999 versions of the Nigerian Constitution, there has been a three-layered division of functions resembling, but not perfectly consistent with, the core principles espoused here.

Fig. 3 provides, using a flowchart model the assignment of public goods and services to the various tiers of government as proposed in this paper. The criterion for allocating a particular function to a particular tier of government is the geographical size of its benefit region. Since geo-political entities are defined by historical, political and cultural circumstances, benefits in the real world often spill over geo-political boundaries. Such situations call for larger units to provide the good or service with the spillover effects. This is why we have indicated that goods with externalities across state boundaries may belong in the exclusive list. However, the central government need not participate directly in the provision of such goods, except for the clear cases of natural monopoly. The states should be empowered to provide such goods, with the federal government providing lump-sum

subsidies to the states for goods that generate external economies or provide lump-sum taxes for those that generate external diseconomies. Another option is the joint participation of the federal and state governments in a partnership sense. It is also possible for the affected states to jointly supply the goods in question. As observed earlier, this option may involve bargaining and hence incur transaction costs which, if substantial, may have disincentive effects. In this prescription, simultaneous provision by the different tiers of government would not be permitted. So, there would be no "*concurrent list.*" The same principles are prescribed in the case of local public goods with externalities across local government areas.

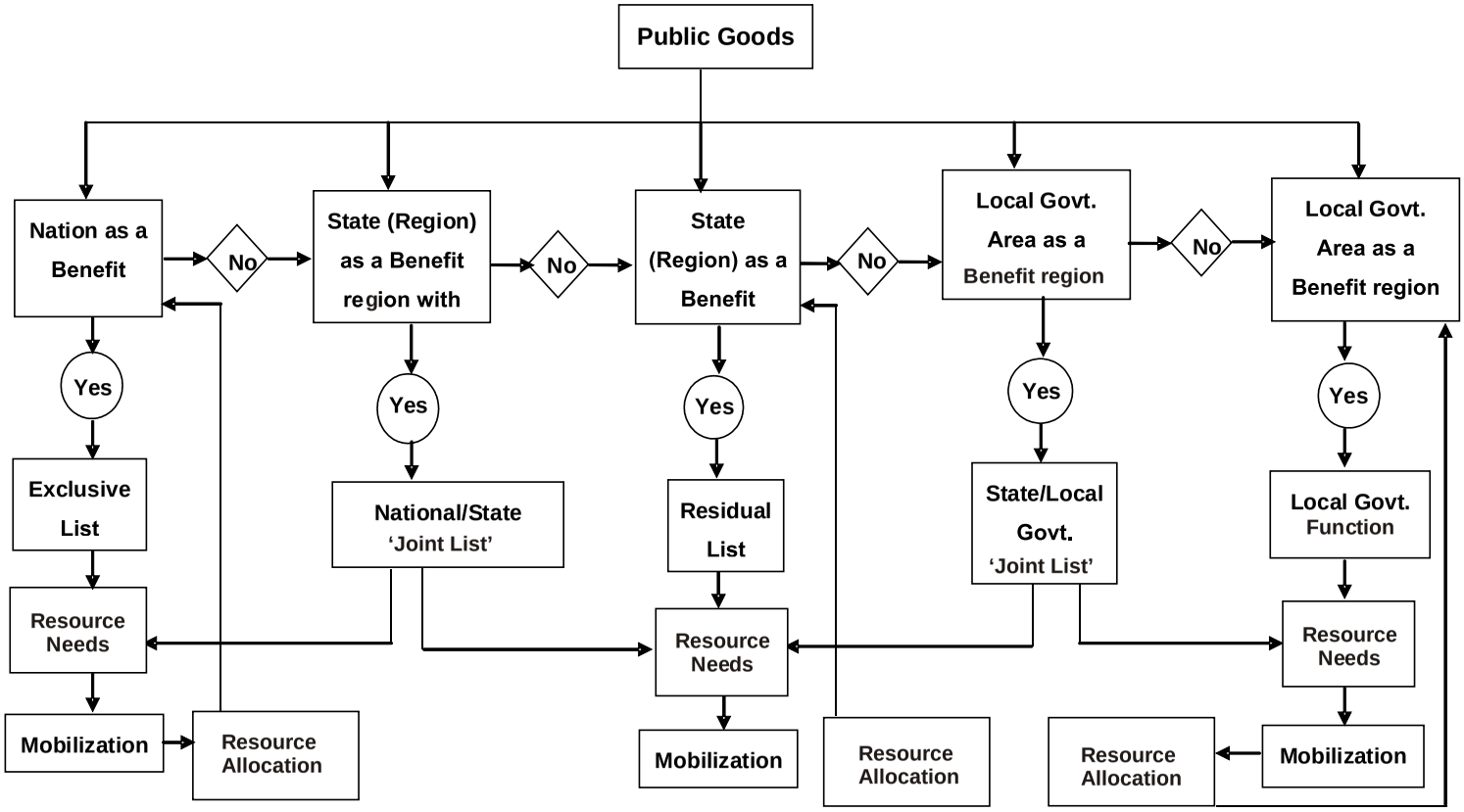


Figure 3: The Assignment of Public Goods By Benefit Regions – The Basis of the of the Draft Assignment Bill

In the USA, the functions of the federal government are listed in the constitution with residual powers assigned to the states. In Nigeria, the constitution delimits the functions of the Federal Government as well as the items on the concurrent list and also the functions of the local governments. This is, perhaps, because national government deals with general matters which are easier to identify than the functions of regional (state) governments that are much more varied and, therefore, more difficult to enumerate accurately. Under the 1989 and 1999 versions of the Nigerian Constitution, however, a decree delimiting the powers, functions and duties of the state governments during the transition to democratic governance was promulgated by the military regime of the time.

4.3 Forms of Fiscal Federalism

All political systems are more or less decentralized, with an inherent fiscal decentralization. The extent of fiscal decentralization is, however, a function of national historical experiences. Happily, the rather wide spectrum of possibilities can be narrowed down into two broad bands. One is 'decentralized fiscal federalism,' a variety of which has been vaguely called 'resource control' in the recent history of Nigeria's fiscal federalism. The other is 'centralized fiscal federalism.' Depending on the practice, both types can lead to serious macroeconomic stress and inflict pangs of pain on the monetary system because they affect the incentive system, especially in the decentralized mode.

Decentralized Fiscal Federalism

The limit of fiscal decentralization may be perceived as perfect fiscal decentralization in which the member states of a federal union

mobilize and retain their earnings but agree to pay optimal benefit taxes to sustain the national functions net of federal revenues generated from the exclusive economic zone. Also, since the central government has the responsibility for stabilizing the macroeconomy, it has regulatory powers on the spending of the constituent units in particular *ex ante* constraints on borrowing and deficit spending, such that aggregate spending, would be consistent with full-employment, non-inflationary output growth with viable and sustainable balance of payments. Effective controls on sub-national governments are, of course, a function of the political autonomy of the units and this makes for a variety of possibilities.

Centralized Fiscal Federalism

The limit of centralized fiscal federalism is complete centralization wherein the national government mobilizes resources for the public sector and distributes them according to some rule which dispenses spending autonomy to sub-national governments whose expenditures would be largely financed by transfers.

Mixed Fiscal Federalism

None of the pure systems described above exists in practice. According to Musgrave and Musgrave (1995), the standard economic dimensions for evaluating public finance policy are macroeconomic stability, equity and efficiency. The critical issue in macroeconomic management for stability, in the context of fiscal federalism, is the institutionalization of hard budget constraints on all governments. The destabilizing elements of fiscal operations are fiscal deficits sustained

by high-powered money beyond the limits permissible by deficiency in aggregate demand and fiscal drag beyond the limits permissible by shortage in aggregate supply[34]. Efficiency and equity require that within the centralized framework, the central government would have perfect information on the minimum amount of resources that each unit of government requires to discharge its assigned functions in the optimal quantity and quality desired. A decentralized system requires the perfect matching of assigned functions and resources (revenues) and/or means. Any violation of these rules would mean only one thing, namely, fiscal disequilibrium and hence stability problems.

A major problem with centralized fiscal federalism is that it does not have an internal mechanism or incentives to enforce the efficient use of resources. Since expenditures are financed largely by transfers, the opportunity cost of such transfers is zero, so there is no incentive to minimize cost. Furthermore, the situation breeds strategic behaviour. Both factors can collectively induce bogus governments, given that political and expenditure autonomy expenditures can be incurred in anticipation of bailouts that foster strategic competition for resources. These tendencies are quite evident in the Nigerian experience. Decentralized fiscal federalism has the advantage of bringing spending decisions closer to taxpayers which, in an enlightened society and proactive population could police public expenditure. But it could lead to disastrous consequences in a rent-seeking society like Nigeria's. The emphasis on the minimum amount of resources for public functions or cost minimization in the discharge of the social assignments in general is both important and strategic, given that the rationale for government intervention is not to replace market failure with government inefficiency now being glorified in the form of the 'second best option.'

34. This submission is acutely aware that the central government, which is assigned the stabilization function, cannot be pinned to a hard budget constraint all the time, irrespective of the prevailing economic conditions, Furthermore, this realization is fully accommodated by the submission.

The historical evolution of Nigeria's fiscal federalism can be divided into four time periods as follows: before 1948, the 1948 1965 period, the1966 1969 period, and 1970 to date. Not much can be said about the period before 1948, given the historical evolution of Nigerian State. History tells us that Nigeria is a creation of the British, starting with the island of Lagos, which was declared a British colony in 1861 and culminating in 1885 when European powers met in Berlin and shared the entire African continent among themselves. Before 1885, the British had, by force of arms or by treaties with traditional rulers, established themselves firmly in authority over the country. They later declared the northern and southern parts as the Protectorates of Northern and Southern Nigeria respectively which essentially became an independent state in 1960. By January 1914, they had created a single administration for the two Protectorates and Lagos had amalgamated the two Protectorates, apparently out of economic and fiscal exigencies. This marked the beginning of experimentation with centralized fiscal federalism in Nigeria, even if it may not have been so realized or recognized.

The amalgamation of the Northern and Southern Protectorates in 1914 was followed by a series of political and constitutional developments, culminating in the introduction of the Richards Constitution in 1947 which formalized the unitary political system that had been practised since the amalgamation. Then came the Macpherson Constitution which set the stage for political decentralization and experimentation with fiscal decentralization. In theory, fiscal decentralization is tied in with the coordinates of the assignment problem which is inherent in allocational issues requiring efficiency and equity. In practice, the issues implied by both the

assignment and allocation problems are reduced to a set of principles or formulas for resource allocation (revenue sharing) and/or the assignment of means of resource mobilization.

Nigerian federal constitutions have always made provisions for revenue allocation among the component units of the Federation. The 1960 Constitution, which ushered in independence, made elaborate provisions in sections 130 to 139 for revenue allocation, wisely and reasonably based on the principle of derivation. For example, section 134(6) made it possible for revenue derived from the continental shelf contiguous to a Region to be payable to that Region. This has recently become a rather contentious issue and the subject of what has become popularly known as the “Resource Control Suit” (Suit number SC.28/2002) in which the Federal Government was the Complainant against the 36 states of the Federation. The provisions of section 134(6) were carried over to section 140(6) of the 1963 Federal Republican Constitution of Nigeria. Thus, there had been no change in the system of revenue allocation between independence and the incursion of the military in governance with the first coup on January 15, 1966 which put an end to constitutional rule in Nigeria. Not much can be said about the a 'revenue allocation system' in the crisis years of 1966 to 1969, given the confused state in which the Nigerian State found itself, the social upheavals arising from the military coup, culminating in a 30-month civil war. The constitutional provisions relating to revenue allocation were either suspended or inoperative during this period.

The civil war ended in January 1970 and the emphasis was on Reconciliation, Rehabilitation and Reconstruction the 3 R's. From 1971, the constitutional provisions relating to revenue allocation with respect to derivation, and to a lesser extent other principles, moved

forwards and backwards through several decrees until the introduction of the 1979 Constitution. All the time, however, Nigeria's fiscal federalism was travelling increasingly towards a centralized fiscal federalism under the military. The military had systematically applied its culture of a unified command to all aspects of Nigeria's public life, including fiscal federalism.

Also, by the end of the civil war in 1970, political and social analysis were prescribing the creation of a strong centre and weak constituent units to prevent a repeat of the Biafran secessionist experience. The idea was to empower the Federal Government with appropriate and sufficient resources which could be used as stick and carrot to put the constituent units of the Federation in line. Unfortunately, the strategy would seem to have been financed by a dispossessive and deprivative approach with resource diversion characterized by odious dysfunctionalities, both in its design and practice, especially in regard to the incentive system. Furthermore, the strategy led to enormous surpluses of resources at the centre that allowed greed to take over in the context of pervasive poverty. The result was massive looting of the public treasury, a practice that has continued on an increasing scale for more than 30 years.

The provisions of section 149 of the 1979 Constitution were amended by Decree 106 of 1992 to provide the formula for revenue allocation before the coming into effect of the 1999 Constitution. Since then, the Revenue Mobilization, Allocation and Fiscal Commission, a permanent fiscal institution, has been prescribing the formulas for revenue sharing without the National Assembly enacting the necessary legislation as specified under the provisions of section 162(2) of the 1999 Constitution. It is not yet clear, even after the Supreme Court ruling on the Resource Control Suit if the National

Assembly has discharged its constitutional responsibility to the Nigerian State on this important subject, or even set an agenda for doing so. The 1999 Constitution requires that the National Assembly make proposals for revenue allocation from the Federal Account, including determining the formula, by constantly reflecting and taking into account the principle of derivation of "not less than 13% of the revenue accruing to the Federation Account directly from any natural resources shall be payable to a State of the Federation from which such natural resources are derived". The other principles that must count include those of population, equality of States, internal revenue generation, land mass, and terrain as well as population density.

4.4 Principles of Fiscal Federalism

The principles that have been evolved to guide inter-governmental fiscal relations in practice include:

1. *The Principle of Diversity*: One of the arguments for the federal system is its ability to accommodate a large variety of diversities. So, the fiscal system must provide scope for variety and differences to accommodate adequately the supply of national, regional (state) and local public goods.

2. *The Principle of Equivalence*: The geographical spread of various public goods differs. Therefore, allocative efficiency requires the equalization of locational advantages arising from inter-jurisdictional differences with a combination of taxes and public goods and services.

3. *The Principle of Centralized Stabilization*: This principle requires the use of fiscal instruments for achieving macroeconomic

policy objectives (stabilization, growth, etc.) at the national level.

4. *Correction of Spillover Effects*: The efficiency of fiscal federalism requires that inter-jurisdictional externalities be corrected for by the system. Spillover effects or inter-jurisdictional externalities refer to externalities (both benefits enjoyed and harm suffered) by residents of different geo-political units because benefit regions for many public goods and services are open entities. This requirement is intended to control for what, in the fiscal decentralization literature, is referred to as the "central city exploitation thesis", that is, exploitation of economies of scale and the rationale for inter-governmental grants. For example, effluent discharge into a tidal river joining a number of local government areas or states will impact negatively on the welfare of the residents of all the states or local government areas joined by the river and not just the residents of the state discharging the effluent. Efficiency and equity considerations require that the emitting entity should internalize the costs of the external diseconomy. In the alternative, if this external diseconomy is across states, then the national government should intervene; if it is confined to a state but across several local government areas, then the state government should intervene. The important requirement is that the fiscal system should internalize the cost to achieve allocative efficiency and equity in the use of resources.

5. *Minimum Provision of Essential Public Goods and Services*: This principle requires that fiscal federalism would assure Nigerian citizens that, irrespective of where they reside they would be provided with a minimum level of certain essential

public goods and services.

6. *Fiscal Equalization Principle*: The existence of sharp regional differences in resource endowment and similar differences in the fiscal capacity of state and local governments suggests that some degree of fiscal equalization among the various levels and units of government would be required in order to ensure the availability of a minimum level of public goods and services to citizens, irrespective of where they reside.

7. *The Efficiency Principle*: This principle has two dimensions in a two-step sequence. At the first level, it requires that, collectively, the set of criteria directing fiscal federalism would ensure efficiency in the allocation of resources in the Paretian sense. The efficiency criterion in practice is implemented partially and loosely through the criterion of absorptive capacity, which is not adequate. At the second level, it requires that the collective principles of inter-governmental fiscal relations would ensure that each level of government maximizes its internal revenue earnings with minimum tax efforts and optimal distortion.

8. *The Principle of Derivation*: It requires that the component units of a federation be able to control some of their preferences in their own way with their own resources.

9. *Principle of Locational Neutrality*: Inter-regional fiscal differences tend to influence locational choices both of individuals and firms. Given the natural differences in resource endowment, as well as differences in tax capacity and effort, some degree of locational interference appears to be an inevitable cost of fiscal federalism. The focus of policy therefore

is to minimize the distortions arising from such interference. Consequently, it is usually recommended that differential taxes, which cause locational distortions, be avoided as much as practicable.

10. *The Principle of Centralized Redistribution*: The redistribution function of fiscal policy, through progressive taxation and expenditure programmes, should be centralized at the federal level. This principle is mutually consistent with that of the principle of locational neutrality. In other words, if the re-distribution function were decentralized it could lead to distortions in location decisions.[4]

These principles are not all mutually consistent. Consequently, they are difficult to adhere to simultaneously. Some of them conflict, so that trade-offs become necessary. For example, the principle of diversity may conflict with that of locational neutrality with attendant socioeconomic costs. Also, the principle of equalization of fiscal position in an attempt to achieve horizontal equity may conflict with the efficiency criterion because of the disincentive effects of the former on labour mobility and productivity. The list of similar trade-offs can be easily increased, but the cases noted would suffice. Further, these principles can be grouped into efficiency and equity criteria.

4.5 Nigeria in Search of Workable Fiscal Federalism

Nigerian fiscal federalism has evolved as the country progressed from the amalgamation in 1914 to a unified structure and increasing decentralization all of which have been reflected in fiscal operation. The major development of the principles of Nigerian fiscal federalism are summarized in Table 1.

An evaluation of the general principles of fiscal federalism

Table 1

Summary of Developments in Revenue Allocation Principles In Nigeria

Year/Political System	Fiscal Commissioners	Recommendations	Accepted Principles
1947/48 Unitary System	Sir Sydney Phillipson and S. O. Adebo		Derivation Even Progress
1952/53 Quasi Federal System	Prof. J. R. Hicks, Sir Sydney Phillipson and D. Skelton		Derivation Need National Interest
1954/58 Federal System (3 Regions, later Cameroon became a separate region)	Sir Louis Chick		Derivation Fiscal Independence
4. 1959/60 Federal System (4 Regions)	Sir J. Raisman and Prof. R. C. Tress		Derivation National Unity Fiscal Independence
1964/67 Fed. System (4 regions, Cameroon inclusive & Midwest)	Mr. H. Binns	Regional Financial Comparability Continuity of service Minimum Responsibilities	Derivation Fiscal Independence National Interest East 30% North 42% Mid-West 8% West 20%

Cont'd

5. 1968 Fed. System	Chief. O. Dina	Minimum National Standard of Basic Needs Population Tax Efforts Financial Prudence Fiscal Adequacy Balanced Development Independent Revenue Derivation National Interest	a) Equality of States 50% b) Population 50% c) Derivation
6. 1975/76	F. M. G.		Equality of States Population Derivation
7. 1977	Prof. A. O. Aboyade	Equality of Access to Dev. Opportunities (25%) National Minimum Std. For Nat. Integration 22% Absorptive capacity 20% Independent Revenue and Minimum Tax Effort 18% Fiscal Efficiency (15%) Federal 57% States Joint A/s 30% Local Govt. 10% Special Grants A/c 3%	Equality of Access to Dev. Opportunities (25%) National Minimum Std. For Nat. Integration (22%) Absorptive capacity (20%) Independent Revenue and Minimum Tax Effort (18%) Fiscal Efficiency (15%) Federal 60% States Joint A/s 30% Local Govt. 10% Special Grants A/c 0%

Cont'd

8. 1979	Dr. Pius Okigbo		Declared ultra vires by the Supreme Court
9. 1981	Fed. Govt. Revenue Act of 1981/82		Federal 53% States 35% Local Govt. 10% Sharing of Sates' Share Minimum Responsibility Equality of States Population Social Development Internal Revenue Effort Derivation Ecology
10. 1988/89	Gen. T. Y. Danjuma	Vertical Allocation: Federal Govt. 47% State Govts. 30% Local Govts. 15% Special Funds 8% Special Funds: FCT 1% Stabilization 0.5% Savings 2% Derivation 2% OMPADEC 1.5% Dev of Non-Oil 0.5% Gen. Ecology 0.5% Horizontal Allocation Equality of States 40% Population 30% Social Dev. Factor 10%	Vertical Allocation: Federal Govt. 50% State Govts. 30% Local Govts. 15% Special Funds 5% Special Funds: FCT 1% Stabilization 0.5% Savings - Derivation 1% OMPADEC 1.5% Dev of Non-Oil - Gen. Ecology 1% Horizontal Allocation Equality of States 40% Population 30% Social Dev. Factor 10%

Cont'd

		Land Mass & Terrain - Int. Rev. Effort 20%	Land Mass & Terrain - Int. Rev. Effort 20%
11. 1999	F. M. G.		Fed. Govt. 48.5% State Govts. 24% Local Govts. 20% FCT 1% Gen. Ecology 2% Stabilization 0.5% Derivation (MR) 1% OMPADEC 3%

Source: Njoku (1982) and Ekpo (1994).

summarized in Table 1 and the content of the Nigerian experimentation, using our model fiscal constitution would make a fascinating study. Evidently, the general principles of fiscal federalism would seem to have informed the Nigerian experimentation with shifting emphasis on the principles as dictated by the miscellany of historical exigencies, coloured by the peculiarities of developments in the political system. But, there is also strong evidence that the distribution parameters are far removed from their paretian values.

For purposes of clarification, we might consider the now disreputable and contentious derivation principle which is required both on the efficiency and equity criteria. Most production activities, in particular those yielding the national pie for sharing (oil and gas extraction), exhibit grave consequences for the environment and

ecology of their host communities. Efficiency requires that these costs be imputed into the social cost of producing the national pie. This requirement goes beyond setting aside an arbitrary allocation of 2% of the Federal Account to 'general ecology' 1% (now 13%) of mineral revenue to 'derivation'; and 3% of mineral revenue for the development of mineral producing areas.

Besides, there is the issue of additional costs to the mineral oil producing communities arising from 'displacement' effects. Casual empiricism corroborated by the findings of some formal studies show that oil exploration and production in the Niger Delta had tended to correlate negatively with the incomes and employment generating powers of agriculture and fisheries in the area, with their attendant negative socio-economic and cultural consequences. Equity clearly demands that the displaced economy of the people be replaced to restore them to their welfare position before oil and gas exploration and production began. One may call this 'regressive equity' (not a conventional language). A 'progressive equity' would seek to place them on a higher welfare contour. Thus, if the derivation principle were given this type of interpretation, then Nigerian fiscal federalism could have been both efficient and equitable without setting aside any special allocation for derivation, even if, the derivation principle would still recommend itself for purposes of attaining a proper incentive structure. If things were so arranged, the current restiveness in the Niger Delta and the recurring nationality crisis might have been avoided.

V. *The Fiscal Federalism/Macroeconomic Stability Interface*

The formal relevance of fiscal operations to macrostability was first discovered by the Keynesian (1936) diagnosis of and remedy for

The Great Depression, as presented in *The General Theory…* The Keynesian diagnosis revealed that the clue to the paradox of insufficient production existing side-by-side with enormous unemployment of resources was deficient aggregate demand. For this, he effulgently discovered that the answer lies in using government as an agent of the *soft budget constraint*. It provided robust evidence that fiscal policy could be a very powerful tool for achieving macroeconomic stability. But, in practice, many obfuscating variables enter the picture such that a wide spectrum of outcomes litters the field, many of which are sub-optimal. First, using the instrument of soft budget constraint to cure recessions and depressions could be easily open to abuse, especially in a world ruled by greed manifesting in obscene corruption glorified as rent-seeking behaviour. The evidence suggests that the *soft budget constraint* has received its grotesque abuse in the Nigerian practice.

The relevance of fiscal federalism in the scheme of fiscal systems is that it provides the principles for the construction of the institutional foundation for fiscal operations in the context of real economies, especially in decentralized democracies. Thus, it is not the concept and principle of fiscal federalism as an institutional variable *per se* that matters for our purposes but its design and practice. This is clearly indicated by the fact that some decentralized democracies, such as Switzerland, Germany and the United States are known for their stability, a fact that has motivated some scholars to even give federalism some of the credit for the stability (McKinnon 1997; Qian and Weingast 1997)[35]. Some other decentralized democracies, such as Brazil, Colombia and Nigeria have, however, shown how decentralization could be a high risk to stability. Worse still,

35. This in no way implies that these economies had been completely free of the pangs of inflationary booms and deflationary bursts.

the Nigerian practice has also led to ethnic fractionalization and discrimination. Argentina has shown how decentralization can complicate the achievement of stability, as was the case in the 1980s. But it has also shown that decentralization can be made compatible with stability as happened in the 1990s, (Dillinger, Perry and Webb 1999). The varied outcomes of fiscal decentralization raise the following questions, according to Dillinger *et al* (1999):

> How does decentralization affect macroeconomic management and the size of the State?
>
> What institutional arrangements and policies account for the positive and adverse macroeconomic effects of decentralization?

These questions could be reduced to a number of specific questions related to certain issues, but this approach has not pursued here because such issues traverse the power relations, public expenditure management, budgetary process, financial management, resource mobilization, absorption capacity and institution building among many other considerations.

The transmission mechanism of the interface between fiscal federalism and macroeconomic stability is shown in Fig. 2, in particular the loop linking public expenditure and the money supply. It shows that public expenditure carries implications for changes in the money supply, which in turn carries implications for the three major price variables inflation, interest and exchange rates[36]. These regulate growth and hence output rates which, in turn, determine the

36. The wage rate is left out here, since it is more or less administratively determined in a manner to allow real wages to approach arbitrarily the vanishing point such that all labour becomes corrupt in the pursuit of survival with no one having the morality to criticize the stealing class.

employment of resources and also the distribution of income and wealth. In particular, the manner in which public expenditure is financed shows strongly in the determination of the trend. Formally, the interface between public expenditure and money supply as conditioned by the idiosyncrasies of the design and practice of a particular variety of fiscal federalism is captured by the government budget constraint:[37]

$$pG - T - pY = dH + dB_g \qquad \text{(nominal)} \qquad (2)$$

1. or

$$G = \frac{T}{p} + Y + \frac{dH}{p} + \frac{dB_g}{p} \qquad \text{(real)} \qquad (3)$$

The significance of the nature of the budget constraint is apparent in both (2) and (3) which suggest that achieving budget constraint need not always be hard; it is, in the final analysis, a reflection of the policy choices available to government with respect to the financing of its deficits or surpluses. The budget constraint states that in each period, the public sector's deficit (or surplus) must just equal the following: (i) the change in government bonds held by the public (including the financial institutions except the Central Bank); (ii) the change in high powered money (if the Central Bank buys government bonds); and (iii) the change in the Treasury's own cash balances deposits at the Central Bank and cash in the Treasury vault. However, (iii) is not likely to be of lasting importance over any length of time as Ott *et al* (1975) have rightly observed. It follows that one of the five variables in the budget constraint, namely $\overline{G}$, $\overline{T}$, $\overline{t}$, $\overline{H}$, and B_g is an

37. This presentation is in the spirit of Ott, and Yoo (1975), but with extensions and simplifications.

endogenous variable and the most likely candidate is B_g.

Thus, an increase in can be financed in several ways. However, the Central Bank can finance any deficits not covered by the induced rise in tax revenues and B_g. This points directly to the importance of the independence of the Central Bank in the scheme of things. If the Central Bank were independent, it could leave unchanged and let the interest rate rise sufficiently to ensure that B_g covers the deficits. That is, the Central Bank would allow the government to sell bonds to the public to the extent that tax revenues do not rise to cover the deficit at their true opportunity cost, assuming that the markets are perfect. The results of the two financing ways would be quite different in the two cases, since whatever policy actions are carried out must satisfy the government budget constraint.

When (3) is substituted into (1), we have

$$Y_t = C[(1-)Y_t] + I(, Y) + \bar{G} + [X(e, Y) - M(e, Y)]. \qquad (4)$$

2. Where X is export assumed to be a decreasing function of domestic income and an increasing function of the exchange rate defined as the units of domestic currency per unit of foreign currency that varies with respect to domestic and foreign price levels. M is import assumed to be an increasing function of domestic income and a decreasing function of the exchange rate as defined above. Strictly speaking, X is also an increasing function of foreign income while M is also a decreasing function of foreign income. The exchange rate is an increasing function of the domestic price level, p and a are decreasing functions of the rate of interest, .

$$\mu H = L(g, Y) \qquad (5)$$

$$\bar{H}_t = \bar{H}_{t-1} + \bar{G}_{t-1} - tY_{t-1} \qquad (6)$$

Where (5) is the money market equilibrium condition while (6) is a restatement of the government budget, constraint assuming that (with a lag) all government deficits are financed by the Central Bank which buys government bonds, thus increasing . Expanding the model further by introducing wealth into the system while abstracting from depreciation, the aggregate production function, and the labour market conditions, the model may be summarized as:[38]

Real aggregate demand: $Y = C + I + G + (X - M)$ (7)

Real Consumption: $C = C\left[Y(1-t) - \frac{\bar{T}}{p}; \frac{A}{p}\right]$ (8)

Real Investment Demand: $I = I(g\,Y)$ (9)

Net real nonhuman assets: $\frac{A}{p} = \frac{Mo}{p} + \frac{B_g}{gp} + K$ (10)

Capital stock: $K = K + I$ (11)

Money Demand: $M_d = pL(Y, y, \frac{A}{p})$ (12)

Money Supply: $M_s = \mu(g, \bar{p})\bar{H}$ (13)

Money market equilibrium: $M_s = M_d$ (14)

38. As earlier said, the model being presented is that of Ott, Ott and Yoo (1975) which has been expanded to include the external sector since, thinking about macroeconomic problems of an open economy in the framework of a closed economy, which is the common practice in the literature, to say the least, is inadequate.

Government budget constraint: $\frac{d\bar{H}}{p} = \frac{\bar{DEF}}{p} + d\bar{G} - \frac{dB_g}{gp}$ (15)

Production function: $Y = F(Ne^{lt}, K) = (N e^{lt})^{a} K^{1-a}$ [39] (16)

Labour market equilibrium: $pF_N = h(N, \frac{A}{p}, p, \bar{Z})$ (17)

3. Thus, there are thirteen endogenous variables in the model, namely, Y, C, I, X, M, A, p, M_d, Ms, , K, Bg, and N. The interest rate is assumed to be the rental price of capital in equation (9), assuming no corporate income tax and no depreciation, i.e. Y is defined as output net of depreciation. Equation (10) defines the real wealth of the private sector as consisting of: (a) real money balances $\frac{Mo}{p}$, (b) real government bond holdings $\frac{dB_g}{gp}$, and physical capital K, i.e. real net nonhuman assets defined from a balance sheet perspective. Thus, the net worth of the private sector is:

$A = CC + DD + TD + B_g + NB_p + pK$ (18)

4. Where CC = currency in circulation; DD = demand deposits; Bg = private holdings of government bonds; NBp = net private sector bonds; and pK = capital. However, if the balance sheet of the banking sector is considered, then, we have:

TD + DD = CC + R + Bp + Bg. (19)

5. Where R = deposits at the Central Bank. Substituting (18) into (17), we get:

39. A relevant extension is to specify the production function to account for environmental resources, -a subject that is not pursued here.

$$A = CC + CV + R + NBp + Bg + pK \qquad (20)$$

6. But, H = CC + CV + R (ignoring the banks' borrowing from the Central Bank). So, that:

$$A = H + Bg + pK$$

7. and $$\frac{A}{p} = \frac{H}{p} + \frac{B_g}{p} + K. \qquad (21)$$

8. Where CV is cash in vaults.

For purposes of simplification, we assume that $\bar{T} = 0$, that the money multiplier is a constant, and p (which in the Keynesian model is a constant) equals unity. We assume further that all the behavioural equations are linear in the variables, i.e., only a first-degree approximation of the relationships is attempted. Thus, if $\bar{G}$ is raised permanently to a higher level, then we get

$$DY_t = C_Y(1 - t)\,DY_t + I_g Dg + I_Y DY_t + NX_{ey} + D\bar{G}$$

$$+ \left\{ \frac{\left[C_A \left(m_g \bar{H} - \frac{B_g}{g^2} \right) + I_g \left(L_Y + L_A I_Y \right) \right]}{\left(m_g \bar{H} \right)(1 - L_A) + \frac{L_A B_g}{g^2} - L_g} \right\} DY. \qquad (22)$$

[40]

9. Where $NX_{ey} = NX_e De + NX_y DY = NX(e, Y) = [X(e, Y) - M(e, Y)]$. Equation (22) is derived by solving equations (7) to (15) for DY. The last term shows the complications arising from fiscal deficits whether

40. The full expansion of this model is not attempted and could not be attempted, as it would overburden the study. Yet, it is important to indicate the relationships between the government budget constraint and the various multipliers in the macroeconomy that drive the external manifestations of developments in real economies and to which policy responds. The derivations of the various multipliers can be found in Ott, Ott and Yoo (1975). It is not even possible to explore all the relationships between the government budget constraint and all the multipliers. They are too complex. So, only the most important relationships are highlighted.

financed by government bonds held by the private sector and/or by the Central Bank and its wealth effects and the effect of on the money supply. The multiplier in the solution is:

$$\frac{DY}{DG} = \frac{1}{1 - C_y(1-t) - I_y(1+C_A) + NX_{eY} - \left\{\frac{[C_A(\bar{m}_g H - B_g/g^2) + I_g(L_Y + L_A I_Y)]}{(\bar{m}_g H(1-L_A) + \frac{L_A B_g}{g^2} - L_g)}\right\}} \qquad (23)$$

This multiplier is most probably positive definite, given that $[1 - C_y(1-t)]\ I_Y(1 + C_A) + NX_Y$ is most likely to be positive. Since the expression in the denominator in the braces, is likely to be positive definite, since $0 < L_A < 1$ and $L_g < 0$. The numerator is most likely to be negative, since $\frac{B_g}{g^2}$ is (absolutely) very large and $m_g\bar{H}$ is not conceivably likely to be as large. Neither would the addition of the last term offset the difference as Ott et al (1975: 236) have observed. It is, perhaps, apt to note that without the wealth effects and the effect of g on the money supply, the multiplier collapses to an extended Keynesian multiplier

$$\frac{1}{1 - C_Y(1-t) + NX_Y - I_Y + \frac{I_g L_Y}{L_g}} \qquad (24)$$

Given the policy relevance of this discussion, it is perhaps advantageous to highlight the intuition behind the model than follow through its formalities. The basic assumptions are given as:

d(DEF), then, $\frac{dH}{d(DEF)} > 0;\ \frac{dM_s}{dH} > 0;\ \frac{dp}{d(M_s)} > 0;\ \frac{dg}{dM_s} > 0$

(not orthodox wisdom but once the real interest rate is considered and the interaction with is realized the sensibility of this proposition

becomes clear at once). It is suggestive that the effects on the interest rate could be pervasive);and $\frac{de}{dM_s} > 0$, (meaning depreciation of the national currency). Depreciation may be thought to be good for exports and import-resisting. This is true only if the economy has the flexibility to take advantage of a weak currency. This cannot be said of the Nigerian economy whose production is structurally dependent on foreign resources, in some instances up to 96% of value added. To this must be added a pattern of import-oriented consumption preferences and corruption- induced leakages. Consequently, depreciation can only deepen economic instability in the manifest Nigerian context.

As would be expected, these and their effects are sources of policy concerns, i.e., evidence of instability in the orthodox policy approach. This approach is misconceived since policy is simply targeting symptoms rather than the root cause of the problems. From the perspective of the composite function and working with chain rule, these effects are traceable to monetary financed fiscal deficits. Thus, in order to achieve macroeconomic stability, monetary policy in Nigeria should be targeting projected fiscal deficits of the public sector and the leakages in the system, given the impracticality of separating fiscal economics from politics and the reality that economics is always subservient to and is the effect of politics in a rent-seeking society such as Nigeria's.

5.1 Outcomes of Nigeria's Fiscal Federalism

As noted earlier, the military incursion into governance brought with it a unified command to the fiscal affairs of the country a development that is manifestly inconsistent with political decentralization that requires fiscal decentralization. However, since the re-introduction of democratic governance in 1999, greater fiscal

decentralization has increased the fiscal autonomy of the states. Yet, the practice of Nigeria's fiscal federalism continues to exhibit major incentive problems. Moreover, monetary centralization with fiscal decentralization induces fiscal competition, strategic behaviour, and conflict of interests all of which engender fiscal indiscipline and worsening the abuse of the soft budget constraint in particular in a rent-seeking society such as Nigeria's.

Nigeria practices centralized fiscal federalism in which public expenditures are financed by transfers from the central government to the lower tiers and units of governments. This practice has serious incentive problems. The secret of decentralization, aimed at inducing Pareto improvements in the overall macroeconomic performance of the public sector, is by bringing spending decisions closer to taxpayers. This presupposes that public expenditures would be financed by local taxes. Indeed, the efficiency conditions require that each public good or service be financed by optimal benefit taxes, the impracticability of this requirement notwithstanding. However, the financing of public expenditures by transfers is inherently sub-optimal since it has a debasing effect on resources. Given that the marginal cost of the transfers to the recipients is zero, it follows that the optimal condition is marginal benefit (MB) = marginal cost (MC) = 0. This is exactly what the outcomes of fiscal operations in Nigeria exemplify. This optimality condition induces serious incentive problems; it can only drive waste since transfers increase the separation of spending and taxing decisions. Consequently, there is no incentive to minimize cost or a commitment to value for money in the procurement system.

The major areas of concern in the fiscal system of Nigeria revolve around a public expenditure pattern that is not enveloped by a meaningful planning and medium-term expenditure framework. It exhibits extensive malpractices in the procurement system, revenue

mobilization, revenue sharing and budget operations, and the management of budget deficits, the public debt and, in particular, the external debt. The Nigerian practice of fiscal federalism is characterized by a lack of transparency, accountability and probity all of which add up to poor management of public resources and public expenditure and the delivery of public services. The effects of all this manifest in a low public spending effectiveness, poor economic performance and the fragility of national unity.

Worse still, Nigeria's fiscal federalism is deprivative, dispossessive, and victimizes production, leading to what is commonly called 'the fiscal dependency', of sub-national governments, as illustrated in Tables 2 and 3. Consequently, no tier or unit of government is production conscious. Rather, all tiers and units of government strategically compete for revenue sharing, with an inherent intense conflict of interest between governments as typified by the federal and 36 state governments ending up in court in what is popularly known as the Resource Control Suit of 2002. Unfortunately, however, not even the rather wide agenda set for the National Assembly by the Supreme Court ruling on the matter gets to the heart of the crucial issues even though, in fairness to the Court, the ruling provides guidance to the executive and legislative arms of government on their immediate responsibilities in correcting the errors, oversights and/or omissions of the past.

Table 2:

*Fiscal Dependency of State Governments (Percentages)**

State/Years	1990	1991	1992	1993	1994	1995	1996	Average
Abia	67.3	74.7	54.3	71.2	67.3	63.7	60.3	65.5
Adamawa	81.5	85.5	93.4	93.2	81.5	81.8	72.7	84.2
Akwa Ibom	58.9	76.3	68.9	74.3	58.9	74.9	57.4	67.1
Anambra	57.0	64.7	54.8	70.1	57.0	61.3	44.5	58.5
Bauchi	58.6	88.7	87.3	83.5	58.6	68.8	72.0	73.9
Bayelsa	-	-	-	-	-	-	66.4	66.4
Benue	79.9	95.5	94.0	74.6	79.9	61.8	66.0	78.8
Borno	73.8	88.6	77.0	94.5	73.8	55.9	72.1	76.5
Cross River	71.8	74.6	62.1	83.2	71.8	71.8	63.8	71.3
Delta	53.3	87.4	68.0	64.5	53.1	43.5	25.4	56.5
Ebonyi	-	-	-	-	-	-	70.1	70.1
Edo	72.0	79.3	75.4	88.1	72.0	65.8	54.0	72.4
Ekiti	-	-	-	-	-	-	72.3	72.3

Table 2: *Contd.*

State/Year	1990	1991	1992	1993	1994	1995	1996	Average
Enugu	67.7	87.0	87.2	84.5	67.7	65.0	52.8	73.1
Gombe	-	-	-	-	-	-	64.3	64.3
Imo	80.0	70.0	73.5	83.3	61.8	60.8	54.3	69.1
Jigawa	71.5	94.9	97.4	92.3	71.5	70.0	72.2	81.4
Kaduna	67.1	61.8	68.3	79.0	67.1	48.5	58.6	64.3
Kano	63.9	86.9	85.2	85.5	63.9	56.1	42.6	69.2
Katsina	79.5	93.7	96.4	91.5	79.5	78.9	71.1	84.4
Kebbi	77.2	83.4	83.9	78.8	77.2	64.8	56.0	74.5
Kogi	67.7	82.3	89.3	96.0	67.2	80.0	67.9	78.6
Kwara	77.6	88.7	83.7	89.2	77.6	75.9	72.0	80.7
Lagos	22.3	58.4	45.0	29.0	22.3	18.9	16.6	30.4
Nassarawa	-	-	-	-	-	-	75.5	75.5
Niger	85.0	87.4	94.1	95.9	85.0	85.9	75.5	87.0

Table 2: *Contd.*

State/Year	1990	1991	1992	1993	1994	1995	1996	Average
Ogun	65.4	69.1	79.6	89.5	65.4	67.2	38.4	67.8
Ondo	74.5	89.2	90.2	91.9	74.3	65.6	42.5	75.5
Osun	65.2	92.9	83.1	63.4	65.2	67.1	55.1	70.3
Oyo	51.1	96.3	71.1	73.4	50.9	61.4	40.4	63.5
Plateau	65.5	83.1	85.4	94.8	65.5	66.8	50.8	73.1
Rivers	41.8	84.2	70.3	50.9	41.8	59.2	36.8	55.0
Sokoto	75.8	88.0	78.3	91.5	75.8	77.8	68.0	79.3
Taraba	70.5	38.4	64.3	95.7	70.5	67.3	71.3	68.3
Yobe	52.4	99.6	64.1	73.1	52.4	56.0	73.0	67.2
Zamfara	-	-	-	-	-	-	61.9	61.9
FCT	28.7	-	-	-	28.7	79.7	45.7	26.1
Average	58.9	80.3	74.4	75.5	58.9	60.3	45.7	66.8

Source: Chete (1998)

* The author realizes that the data in the table is a little stale. Unfortunately, the data for the necessary update were not accessible, the paper having been written offshore.

Table 2 shows the fiscal dependency of Nigeria's 36 states and the Federal Capital Territory[41]. The average dependency ratio for the states during the seven-year period covered ranged from 30.4% for Lagos State to 87% for Niger State. As for the oil-producing states, their dependency is partly explained by the deprivative and dispossessive character of Nigeria's fiscal federalism. All the same, with these very high levels of fiscal dependency, which are further confirmed by data displayed in Table 3, it is clear that fiscal decentralization in Nigeria is very shallow, indeed. But, it must also be recognized that the fiscal dependency of the sub-national governments is worsened by widespread malpractices in internal revenue mobilization and rent-seeking behaviour in general, which individually and collectively rob the public treasuries of substantial government revenue. The very high dependency status of sub-national governments is an effect of the design of the fiscal system in general and the practice of fiscal federalism driven by greed that has killed the incentive to produce, in particular. The rampant strategic competition for fiscal resources in Nigeria is, therefore, understandable. As the survey by Dillinger *et al* (1999) has shown, political decentralization with fiscal dependency can put substantial stress on macro-stability, especially when institutional arrangements to prevent undesirable macroeconomic consequences are absent. Nigeria does not seem to be exempt from this rule.

---

41 .What is not clear is whether or not the Federal Capital Territory should not be regarded as a Federal responsibility, even thought it is implicitly being treated as a state. The Supreme Court ruling on the "Resource Control' suit seem, at least to implicitly recommend that it be regarded as a Federal responsibility. The assignment principle would make the same recommendation.

Table 3:
Aggregate State and Local Government
Fiscal Dependency, 1980 1999

Year	Total State Revenues (millions)	Federation Account + Others* (Millions)	Dependency (Percent)	Total Local Govt Revenues (Millions)	Federation Account + Others* (Millions)	Depend-ency (Percent)
1980	4,844.30	3,290.80	67.90			
1981	4,704.40	2,843.80	60.40			
1982	8,151.60	6,197.10	76.00			
1983	10,380.10	8,181.30	78.80			
1984	11,892.10	9,898.80	83.20			
1985	19,997.60	17,207.70	86.00			
1986	24,717.20	24,487.30	99.10			
1987	32,672.60	30,582.20	93.60			
1988	37,740.60	33,364.60	88.40			
1989	49,906.10	39,132.50	78.40			
1990	68,041.00	47,354.40	69.60			
1991	89,822.40	59,109.40	65.80			
1992	96,962.60	55,652.60	57.40			
1993	143,203.00	97,782.30	68.30	19,874.60	18,839.00	94.80
1994	163,990.00	111,171.00	67.80	19,223.10	18,017.20	93.70
1995	51,135.00	36,417.00	76.00	24,412.70	22,301.90	91.40
1996	4,844.30	3,290.80	67.90	23,789.60	21,578.50	90.70
1997	4,704.40	2,843.80	60.40	31,254.40	28,747.50	92.00
1998	8,151.60	6,197.10	76.00	44,948.20	41,616.60	92.60
1999	10,380.10	8,181.30	78.80	56,012.00	51,964.20	92.80
AVE	11,892.10	9,898.80	83.20	31,359.20	29,009.30	92.60

Source: Author's calculations

*Others for the states do not include VAT, include but stabilization receipts and grants among others. For the Local Governments, VAT and State Allocations are components of the dependency ratio.

Nigeria's fiscal federalism is characterized by a rather high fiscal dependency ratio of sub-national governments, and without the full complementarity of the necessary institutions which are either non-existent, inoperative or non-functional. First, the military who abrogated constitutional rule in 1966 have shown little regard or respect for institutions, rules and regulations or, indeed, for transparency, accountability, probity, checks and balances in the fiscal system of the country. Regrettably, the democratization of politics in recent times has not yet brought with it dividends in the areas of fiscal discipline and rational budget development and implementation, as illustrated in Tables 4A and 4B. Furthermore, the high dependency of the sub-national governments is a reflection of the extent to which sub-national expenditures are being financed by transfers from the Federation Account. So long as sub-national expenditures continue to be financed by transfers, so long will they be unintentionally freed from responsible prudential financial and expenditure management. The transfers are not only responsible for the large and deepening fiscal imbalances at all levels of government in Nigeria, they are also, to a large extent, responsible for the widespread instances of bad financial management which range from spending irregularities to unethical procurements and misuse of statutory powers and public property.

Table 4B shows the aggregate (public sector) fiscal balance and reveals that it has been mostly in the red, ranging between less than one percent of GDP to about 24 percent and averaging more than 6.6 percent between 1970 and 2001. It has fluctuated but the trend reveals that it is deepening, as clearly shown in Fig. 4, and constitutes the most dangerous and greatest challenge to fiscal policy in the form of revenue mobilization and expenditure management..

Table 4A:
Outcomes of Fiscal Operations of the Federal and State Governments
(Absolute Values are all in million ₦)

Year	Federal Revenue	Federal Expenditure	Federal Fiscal Balance	State Revenue	State Expend-iture	State Fiscal Balance
1970	448.80	903.90	-455.10			
1971	1,168.80	997.20	171.60			
1972	1,404.80	1,463.60	-58.80			
1973	1,695.30	1,529.20	166.10			
1974	4,537.00	2,740.60	1,796.40			
1975	5,514.70	5,942.60	-427.90			
1976	6,765.90	7,856.70	-1,090.80			
1977	8,042.40	8,823.80	-781.40			
1978	5,178.10	8,000.00	-2,821.90			
1979	8,868.40	7,406.70	1,461.70			
1980	12,993.30	14,968.50	-1,975.20	3,817.10	7,234.40	-3,417.30
1981	7,511.60	11,413.70	-3,902.10	4,874.80	10,990.90	-6,116.10
1982	5,819.10	11,923.20	-6,104.10	4,561.50	10,680.50	-6,119.00
1983	6,272.00	9,636.50	-3364.50	4,329.40	11,090.90	-6,761.50
1984	7,267.20	9,927.60	-2,660.40	4,400.90	7,064.90	-2,664.00
1985	10,001.40	13,041.10	-30,039.70	4,844.90	5,857.10	-1,012.20
1986	7,969.40	16,223.70	-8,254.30	4,704.40	5,774.70	-1,070.30
1987	16,129.00	22,018.70	-5,889.70	8,151.60	8,263.50	-111.90
1988	15,588.60	27,749.50	-12,160.90	10,360.10	10,778.50	-418.40
1989	25,893.60	41,028.30	-15,134.70	11,502.10	12,974.70	-1,472.60
1990	38,152.10	60,268.20	-22,116.10	19,967.40	20,049.30	-81.90
1991	30,829.20	66,584.40	-35,755.20	24,772.20	27,023.70	-2,251.50
1992	53,264.90	92,797.40	-39,532.50	32,673.60	37,060.60	-4,387.00
1993	126,071.20	191,228.90	-65,157.70	37,740.60	44,180.90	-6,440.30
1994	90,622.60	160,893.20	-70,270.60	49,506.10	55,916.00	-6,409.90
1995	249,768.10	248,768.10	1,000.00	69,641.60	77,895.50	-8,253.90

Table 4A: *Contd.*

Outcomes of Fiscal Operations of the Federal and State Governments
(Absolute Values are all in million N)

Year	Federal Revenue	Federal Expenditure	Federal Fiscal Balance	State Revenue	State Expend-iture	State Fiscal Balance
1996	325,144.00	337,217.60	-12,073.60	89,528.00	83,978.00	5,550.00
1997	351,262.30	428,215.20	-76,952.90	96,962.60	92,686.00	4,276.60
1998	311,639.00	487,113.40	-175,474.40	143,202.50	143,168.80	33.70
1999	662,585.30	947,690.00	-285,104.70	168,990.10	167,896.00	1,094.10
2000	595,282.10	701,059.40	-105,777.30	359,072.00	359,670.60	-598.60
2001	796,976.70	1,018,026.00	-154,748.70	573,548.00	596,956.40	-3,408.40
Total	3,790,666.90	4,963,456.90	-1,172,790.00	1,727,152.00	1,797,19.00	-70,040.40
Aver	118,458.30	155,108.03	118,458.34	53,973.48	56,162.25	-2,188.76

Sources: Central Bank of Nigeria *Statistical Bulletin: Government Finances*, (2002) and Author's calculations

Table 4B:
Fiscal Operations of Local Governments and Public Sector Fiscal Balance
(Absolute values are all in million x)

Years	Local Govt Revenue	Local Govt. Expenditure	Local Govt. Fiscal Balance	Public Sector Fiscal Balance	GDP at Market Prices	Fiscal Balance as % of GDP
1970				-455.10	5,203.70	-8.75
1971				171.60	6,570.70	2.61
1972				-58.80	7,208.30	-0.82
1973				166.10	10,990.70	1.51
1974				1,796.40	18,298.30	9.82
1975				- 427.90	21,568.80	-1.98
1976				- 1,090.80	27,297.50	-4.00
1977				-781.40	32,747.30	-2.39
1978				-2,821.90	36,083.60	-7.82
1979				1,461.70	43,150.80	3.39
1980				-5,392.50	50,848.60	-10.61
1981				-10,018.20	54,749.10	-18.30
1982				-12,223.10	51,709.20	-23.64
1983				-10,126.00	57,142.10	-17.72
1984				-5,324.40	63,608.10	-8.37
1985				-4,051.90	72,355.40	-5.60
1986				-9,324.60	73,061.90	-12.76
1987				-6,001.60	108,885.10	-5.51
1988				-12,579.30	145,243.30	-8.66
1989				-16,607.30	224,796.90	-7.39

Contd.

1990				-22,198.00	260,636.70	-8.52
1991				-38,006.70	324,010.00	-11.73
1992				-43,919.50	549,808.80	-7.99
1993	19,874.50	19,475.30	399.20	-71,198.80	697,095.20	-10.21
1994	19,223.10	18,967.10	256.00	-76,424.50	914,334.30	-8.36
1995	24,412.70	22,443.30	1,969.40	-5,284.50	1,977,740.00	-0.27
1996	23,789.60	22,665.60	1,124.00	-5,399.60	2,356,600.00	-0.23
1997	313,784.20	320,940.10	-7,155.90	-79,832.20	1,749,558.00	-4.56
1998	438,139.90	469,307.40	-31,167.50	-206,608.00	2,027,966.00	-10.19
1999	246,145.60	268,102.90	-21,957.30	-305,968.00	2,044,708.00	-14.96
2000	129,635.60	131,215.40	-1,579.80	-107,956.00	3,614,280.00	-2.99
2001	166,064.10	171,412.80	-5,348.70	-249,806.00	5,487,990.00	-4.55
Total	1,381,069.00	1,444,530.00	-63,460.60	-1,306,291.00	23,116,247.00	-2.12
Average	153,452.10	160,503.30	-7,051.18	109,218.40	722,382.70	-6.61

Source: Central Bank of Nigeria *Bulletin of Statistics: Government Finances*, (2002) and Author's calculations

The performance of the Nigerian economy has been dismal since the first half of the 1980s. The natural expectation in any economy is that it would produce significant and sustainable growth in the people's standard of living. In contrast, what Nigerians have experienced for more than two decades is not only vanishing real incomes, but also unbearable levels of unemployment and inflation, decay in socioeconomic infrastructure and repeated failure in the delivery of

services. Aggravating Nigerians' misery is a large number of natural and man-made elements, including environmental damage and degradation, ecological disasters and accumulation of wastes, most of which result from excessive dependence on a wasting asset for national revenue and foreign exchange earnings whose market is not only economically seasonal but also politically volatile. The most dramatically unsustainable element of Nigeria's economic life is, in the words of Rivlin (1991), living on borrowed money as reflected by the ever burgeoning fiscal deficits and public debt of an economy whose capacity utilization fluctuates around 35 percent. Collectively, these and other unsustainable elements such as deforestation, the profligate use of land, water and other natural resources, etc., reduce the quality of life to near zero. It is, indeed, tempting to conclude that life is more expensive than death for the average Nigerian family, except the ruling class and their minions and, perhaps, those in the oil and related industries.

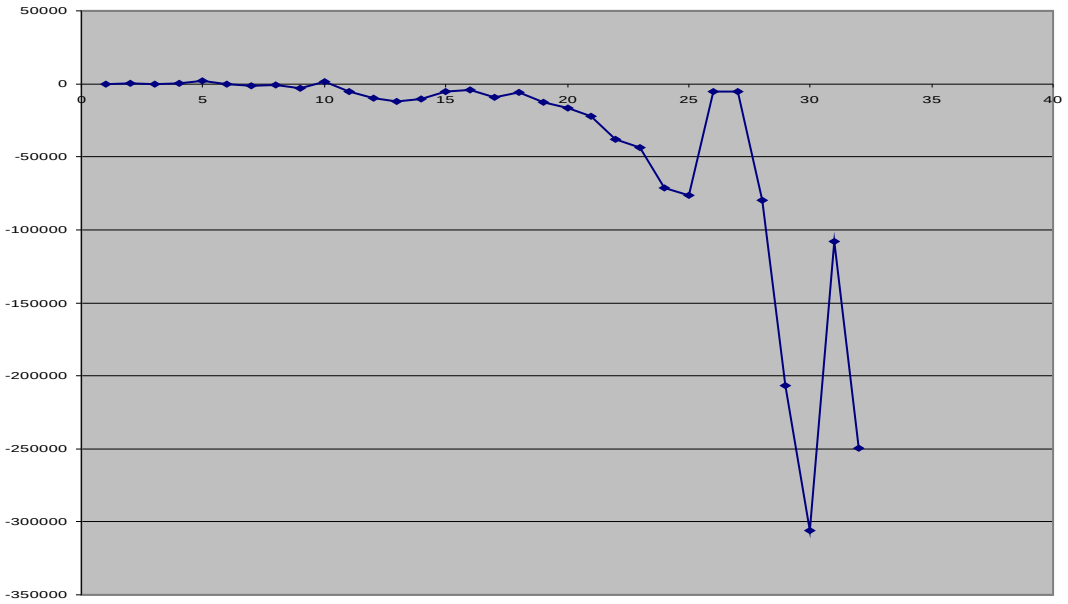


Figure 4. The Trend in the Fiscal

According to Musgrave and Musgrave (1989), the standard economic parameters for evaluating fiscal policy are macroeconomic stability, equity and efficiency. These parameters are normally used to rationalize government intervention as a corrective mechanism to move the economy towards its first best solution. The pertinent question, therefore is, how has Nigeria's fiscal federalism performed in these aspects?

Table 5:

Trends in Monetary, Price Variables and the Misery Index

(Monetary Values are in Millions of Naira)

Years	M1	M1 Rate	M2	M2 Rate	Inflation	Inf. Rate	Lending Rate	Exch. Rate	BOP	Misery Index
1970					10.80	13.80	7.00	0.71		18.60
1971					12.60	15.60	7.00	0.70		20.90
1972	747.00		1,219.00		13.00	3.20	7.00	0.71		
1973	788.00	5.90	1,387.00	13.80	13.60	5.40	7.00	0.71		
1974	1,719.00	105.50	2,592.00	86.90	15.50	13.40	6.25	0.79		
1975	2,463.00	52.10	4,035.00	55.70	20.70	33.90	6.50	0.75		38.70
1976	3,728.00	51.40	5,708.00	41.50	25.10	21.20	6.00	0.73		
1977	5,420.00	45.40	7,675.00	34.50	30.40	15.40	6.75	0.73		
1978	5,101.00	(5.90)	7,521.00	(2.00)	34.50	16.60	7.79	0.79	-2,096.00	
1979	6,147.00	20.50	9,849.00	31.00	38.50	11.80	8.43	0.84	3,148.00	22.20
1980	9,227.00	50.10	14,390.00	46.10	42.40	9.90	8.92	0.74	4,348.00	17.70
1981	9,745.00	5.60	15,239.00	5.90	51.40	20.90	9.54	0.69	4,382.00	
1982	10,049.00	3.10	16,694.00	9.50	55.10	7.70	9.54	0.74	-5,036.00	

Table 5: *Contd.*

Years	M1	M1 Rate	M2	M2 Rate	Inflation	Inf. Rate	Lending Rate	Exch. Rate	BOP	Misery Index
1983	11,283.00	12.30	19,034.00	14.00	67.90	23.20	9.98	0.74	-5,619.00	26.60
1984	12,204.00	8.20	21,243.00	11.60	95.60	39.60	10.24	0.78	-2,889.00	
1985	13,227.00	8.40	23,154.00	9.00	100.00	5.50	9.43	0.79	-971.00	13.70
1986	12,663.00	(4.30)	23,605.00	1.90	105.40	5.40	9.96	1.10	-1,209.00	
1987	14,906.00	17.70	28,895.00	22.40	116.20	10.20	13.96	4.06	-1,059.00	17.30
1988	21,446.00	43.90	38,406.00	32.90	181.20	38.30	16.62	5.87	-4,539.00	
1989	26,664.00	24.30	43,371.00	12.90	272.70	40.90	20.44	7.20	-5,129.00	
1990	34,540.00	29.50	57,554.00	32.70	293.20	7.50	25.30	10.06	-2,667.00	
1991	48,708.00	41.00	79,067.00	37.40	330.40	13.00	20.04	12.81	1,041.00	
1992	77,653.80	59.40	127,465.90	61.20	478.40	44.50	24.76	14.11	-1,523.00	47.70
1993	120,446.50	55.13	194,504.10	52.60	751.90	57.20	31.65	27.01	-5,638.00	62.60
1994	175,781.10	46.00	264,285.70	35.90	1,180.70	57.00	20.48	30.06	-1,911.00	59.20
1995	204,414.70	16.30	315,669.50	19.40	2,040.90	72.80	20.23	32.11	-1,938.00	74.60
1996	234,006.20	14.50	368,762.30	16.80	2,638.10	29.30	19.84	32.53	-2,774.00	33.10

Table 5: *Contd.*

Years	M1	M1 Rate	M2	M2 Rate	Inflation	Inf. Rate	Lending Rate	Exch. Rate	BOP	Misery Index
1997	276,563.60	18.12	431,196.80	16.90	2,863.20	15.10	17.80	31.47	(761.00)	18.70
1998	324,142.20	17.20	522,479.60	21.20	3,149.20	10.20	18.18	29.53	15.00	13.40
1999	393,078.80	21.30	699,733.70	33.90	3,357.60	6.20	20.29	30.82	(2,873.00)	9.20
2000	637,731.10	62.20	1,036,080.00	48.10		6.90	21.27	134.44	(3,538.00)	10.50
2001	818,707.60	28.40	1,312,557.00	26.70		18.90		142.73		22.40
2002						17.40		141.95		21.20
Aver	117,106.70	29.40	189,779.10	28.60	612.87	21.50	13.81	20.58	(1,669.13)	

Source: CBN Statistical Bulletin (Various Issues), IMF International Finance Statistics and Agiobenebo (2003)

Tables 5 report on Nigeria's fiscal operations and the trend in monetary aggregates, the general price level, lending and exchange rates, as well as the balance of payments position in 2003. It shows that money supply, however measured, has been driven largely by monetary financed fiscal deficits which have been subject to rapid growth averaging 29.4 percent (see Fig. 4). This high rate of monetary growth seemed to have been associated with high rates of inflation (see Fig. 5) whose rate averaged 21.5 percent for the period 1970-2002, net of the effects of base drift. (The unemployment figures were not available to the author.) But, the very high levels of capacity under-utilization, which averaged 52.7 percent in the last 27 years and inflation rate, are clear indications that the economy was operating much below its level of production possibilities and clearly unstable.

Figs. 6, 7, 8, 9 and 10 respectively, describe how the lending rate is directly associated with inflation: even though the nominal lending rate is an increasing function of inflation, the real lending rate has been negative for many of the years. It follows that since the savings rate is much lower than the lending rate, the real savings rate would be even more negative. How then can the economy save and invest?

Table 6:
The National Debt and Capacity Utilization

Years	DDEBT	EXTDEBT	TOTDEBT	GDP (MP)	TD/GDP	Capacity Utilization	TS/GDP
1970	1,111.90	175.00	12,869.00	5,203.70	24.70		7.00
1971	1,245.70	178.50	14,242.00	6,570.70	21.80		6.00
1972	1,000.70	265.60	12,663.00	7,208.30	17.60		6.00
1973	1,061.20	276.90	13,381.00	10,990.70	12.20		6.00
1974	1,266.60	322.40	1,589.00	18,298.30	8.70		6.00
1975	1,678.90	349.90	20,288.00	21,558.80	9.40	76.60	8.00
1976	2,630.00	374.60	30,046.00	27,297.50	11.00	77.40	8.00
1977	4,636.00	365.10	50,011.00	32,747.30	15.30	78.70	8.00
1978	5,983.10	1,252.10	72,352.00	36,083.60	20.10	72.90	8.00
1979	7,231.20	1,611.50	88,427.00	43,150.80	20.50	71.80	10.00
1980	8,231.50	1,866.80	100,983.00	50,848.60	19.90	70.10	11.00
1981	11,195.50	2,331.20	135,267.00	50,749.10	26.70	73.10	13.00
1982	15,010.50	8,819.40	238,299.00	51,709.20	46.10	63.60	17.00
1983	22,224.30	10,577.70	32,802.00	57,142.10	57.40	49.70	17.00
1984	25,675.00	14,808.70	404,837.00	63,608.10	63.60	43.00	17.00
1985	27,952.00	17,300.60	45.25	72,355.40	62.50	38.30	19.00
1986	28,440.20	41,452.40	698,926.00	73,061.90	95.70	38.60	17.00
1987	36,790.60	100,789.10	1,375,797.00	108,885.10	126.40	40.40	18.00
1988	47,031.10	133,956.30	1,809,874.00	145,243.30	124.60	42.40	16.00
1989	47,051.10	240,393.70	2,874,448.00	224,796.90	127.90	43.80	11.00
1990	84,124.60	298,614.40	382,739.00	260,636.70	146.90	40.30	11.00
1991	116,200.20	328,054.30	4,442,545.00	324,010.00	137.10	42.00	12.00
1992	161,900.20	544,264.10	7,061,643.00	549,808.80	128.40	39.10	10.00
1993	261,093.60	633,144.40	894,238.00	697,095.20	128.30	37.20	12.00
1994	341,266.30	648,813.00	9,900,793.00	914,940.00	108.20	30.40	12.00
1995	341,082.50	716,865.60	1,057,948.00	1,960,700.00	54.00	29.30	5.00
1996	343,674.10	617,320.00	9,609,941.00	2,740,500.00	35.10	37.20	6.00
1997	359,029.10	595,931.90	954,961.00	2,835,010.00	33.70	30.40	6.00

Contd.

Year	DDEBT	EXTDEBT	TOTDEBT	GDP(MP)	TD/GDP	Capacity Utilization	TS/GDP
1998	537,490.90	633,017.00	1,170,508.00	2,765,670.00	42.36	29.30	30.00
1999	794,506.30	2,577,383.00	337,189.00	3,338,070.00	101.02	32.50	30.00
2000	896,253.90	3,121,726.00	4,017.98	3,614,280.00	111.26	30.40	30.00
2001	10,169,740.00	3,176,291.00	13,346.03	5,487,990.00	243.20	35.50	36.00
2002						30.00	
Average						47.30	13.40

Source: *CBN Statistical Bulletin* (various issues) and Author's calculations DDebt = domestic debt; EXTDEBT = external debt; TOTDEBT = total debt = TD; GDP is at market prices

(i) .

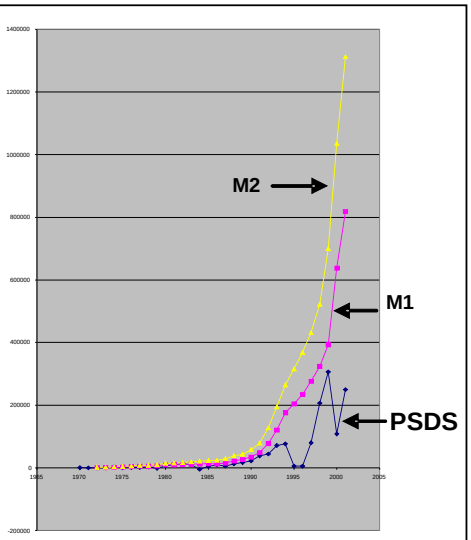


Figure 6: Deficits/Surpluses and the Money supply

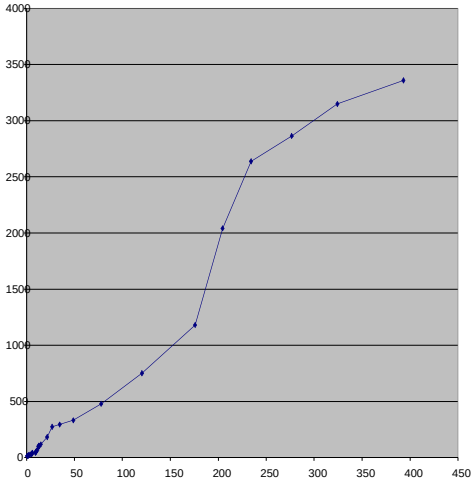


Figure 7: Money Supply and

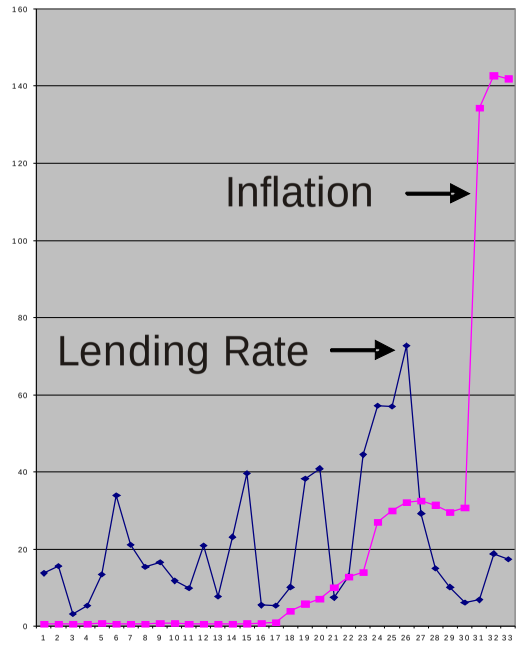


Figure 8: Inflation and the Lending Rate

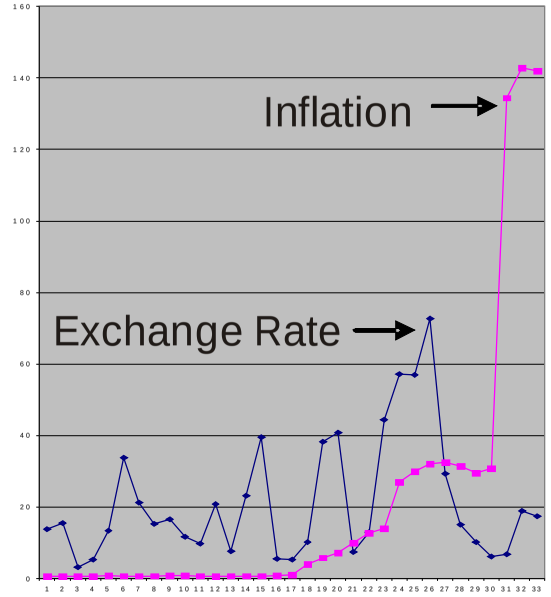


Figure 9: Inflation and the Exchange Rate

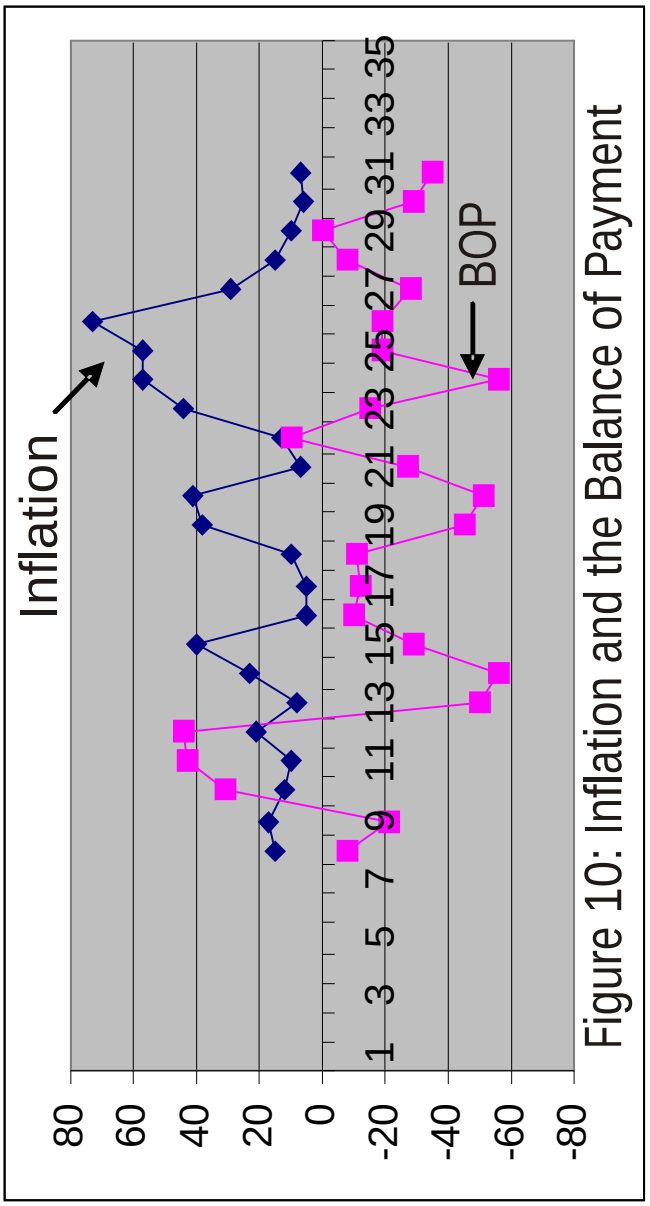


Figure 10: Inflation and the Balance of Payment

Inflation by itself is a major indicator of macroeconomic instability. Furthermore, given its well-known effects on the distribution of income and wealth, inflation also worsens the inequality situation. If Nigeria with its vast human and material resources is, indeed, the 17th poorest country in the world and 46 percent of its 138 million or so people are living below the poverty line, then, it cannot be argued that the present generation of Nigerians are living with smiles on their faces. Furthermore, GDP per capita had declined by 3.2 percent in 2002 according to the World Bank's (2003) *African Development Report*. And the huge and burgeoning national public debt shows to which the welfare of generations unborn Nigerians has been mortgaged (see Table 6). Table 6 is, therefore, an eloquent testimony of inter-generational inequity. Thus, Nigeria's fiscal federalism has failed woefully on all counts of Musgrave and Musgrave's test of rational fiscal federalism, namely, macroeconomic stability, efficiency and equity.

VI. *Findings, Policy Recommendations and Concluding Remarks*

6.1 Findings

This paper has investigated the linkages between fiscal federalism and macroeconomic stability and the implications for monetary management, with particular emphasis on the design, practice, outcomes, and monetary management of Nigeria's fiscal federalism and has come up with the followings:

Fiscal federalism is a miscellany of financial arrangements and relations among tiers and units of government, driven by developments in the fiscal constitution, itself acting more or less in

harmony with the rhythms of developments in the political and economic constitutions of a country.

- Fiscal decentralization is a feature of all political systems, but inherent in all federal systems of governance with layers and multi-unit governments.

- Fiscal decentralization is not in itself inherently destabilizing and/or risky; the culprit is usually its design and, in particular, its practice. However, fiscal decentralization requires a particular matrix of institutions and behavioural patterns to be consistent with macroeconomic stability. Consequently, fiscal decentralization may or may not be compatible with macroeconomic stability; it would depend on the design and practice of a particular fiscal system. This, then, seems to be the answer to the first question posed earlier on in this paper, namely, *How does decentralization affect macroeconomic management and the size of the State?*

- Fiscal decentralization can be made consistent with macroeconomic stability if sub-national governments have an adequate revenue base and with an autonomous revenue in which the central government establishes a firm political grip on budget discipline. However, this, in turn, requires an appropriate institutional capacity, transparency, accountability and probity on the part of the central government. In other words, it requires very high standards of fiscal discipline. Thus, the political institutions, such as the legislature and, in particular, the Public Accounts Committee (PAC), as well as the administrative and vigilante institutions, such as the internal and external auditing function, must be seen to discharge their statutory

responsibilities effectively and efficiently.

- The implications of fiscal decentralization are complex and diffused, arising from the dispersion of political, fiscal, and administrative powers whose building blocks are expenditure and revenue assignments, the design of inter-governmental transfers, and the supervision of sub-national fiscal operations by the central government, especially the control of the deficit behaviour of sub-national governments.

  Fiscal decentralization requires the balancing of revenue and expenditure profiles to eliminate, or at least minimize, dependence on transfers and loans and, worse of all, monetary financing. This is the greatest area of risk of fiscal decentralization as it remains a big challenge to take adequate steps to ensure that revenue mobilization matches expenditure responsibilities at the sub-national levels of government. This has further implications for institutions and capacity building and the enforcement of transparency, accountability and probity in the conduct of government business. Therefore, successful fiscal decentralization always requires rather stringent conditions.

- The foregoing discussion, therefore, provides the answer(s) to the second question posed earlier on in this paper, namely, *What institutional arrangements and policies account for the positive and adverse macroeconomic effects of fiscal decentralization*?

- It is possible that short-run dynamics may cause fiscal stress. In such a situation, fiscal consolidation would be in order. It would require prioritising and rationalizing expenditure, as well as the optimisation of revenue and budget enveloping, through a

medium-term planning strategy that would integrate planning, programming and budgeting.

- Nigeria's fiscal federalism, both in design and practice, and especially since the 1970s, has been highly centralized; deprivative, dispossessive and heavily dependent on transfers, with extensive provisions for bail-out of financially distressed sub-national governments. This has had serious incentive problems and induced intense strategic fiscal competition by all tiers and units of government, resulting in conflict of interests, governmental friction and ethnic fragmentation.

- Nigeria's fiscal federalism has been dictated by the assignment of oil revenues which have been highly volatile, resulting in instability in oil revenue sharing arrangements and its management. Consequently, it does not provide a stable basis for financing and invariably complicates macroeconomic management. Furthermore, oil revenue sharing does nothing to diffuse separatist tendencies since oil-producing sub-national governments will always be better off by keeping their oil revenues in full.

- The manner of the assignment of oil revenues raises a number of issues. They include the rights of sub-national geo-political entities to raise revenue on natural resources; the ability of sub-national jurisdictions *vis-à-vis* the central government to stabilize revenues in response to oil price uncertainties and volatility; and issues of inter-jurisdictional equity, re-distribution and the environment. There is also, as Ahmad and Mottu (2003) have rightly recognized, an overriding consideration of political economy regarding the assignment of revenues from natural

resources, especially oil, arising from the incessant demands for a direct share of the oil revenues from the localities where the oil fields are located, as illustrated by the rampant youth restiveness in the Niger Delta and the rationale for the establishment of the Niger Delta Development Commission (NDDC), the successor to the Oil Mineral Producing Areas Development Commission (OMPADEC).

- The main arguments for centralizing oil revenues for redistribution among the constituents of the federation are mainly political. The practice is, however, contrary to the constitutional stipulation that state or local owners of natural resources have the right to levy income taxes on certain bases or sources in their areas a fact highlighted in the Supreme Court ruling that is popularly called the “Resource Control” suit of 2002.

- Oil revenue uncertainties and volatility constitute a major challenge for expenditure sustainability and raise serious difficulties for the formulation and implementation of fiscal policy, especially expenditure management. Surprisingly, Nigeria's fiscal federalism has failed for 33 years to factor in the essential requirements, namely, the diversification of the economy to address the exhaustibility of a wasting asset, despite the traumatic experience of the Oloibiri Oil Field. Consequently, Nigeria's fiscal policy and operations have been very strongly deficit biased and procyclical, driven largely by oil price movements and obscene corruption, financed by greed.

- The implications of Nigeria's current boom-burst fiscal operations include the transmission of oil volatility to the rest of

the economy as well as disruptions to the stable provision of public services thereby fuelling, over the years, massive public spending. None of these has contributed to the diversification or growth of a richly blessed non-oil sector nor helped in poverty reduction.

- The current revenue-sharing arrangement whereby about half of the oil revenue is allocated to sub-national governments has facilitated the expansion of expenditure programmes at sub-national levels thereby constraining the ability of the Federal government to stabilize national expenditure and the macroeconomy. The fact that the oil revenues are transfers makes matters worse as they are destined to be wasted.

- Despite the huge oil revenues spent during the last 30 years, there is little or nothing to show for it in terms of economic development and poverty reduction. Between 1970 and 2001, Nigeria earned a colossal sum in excess of US$300 billion in oil revenues during which per capita GDP declined from $264 to $254, in constant 1995 US dollars, according to Baunsgaard (2003). Further, the country slipped from its middle income status in the 1970s to the 17th poorest country in the whole wide world. This reflects, as Baunsgaard (2003) rightly observed, the key challenge to fiscal management in Nigeria.

- The outcomes of the practice of fiscal federalism in Nigeria have been although dismal. The natural expectation of any economy is that it produces significant and sustainable growth in the standards of living. Instead, Nigerians have experienced, for more than two decades, vanishing real incomes, unbearable levels of unemployment and inflation, decay in socio-economic

infrastructure, and repeated failure in the delivery of services. The misery associated with the experience has been exacerbated by environmental damage and degradation, ecological disasters, accumulation of solid wastes, and excessive dependence on a wasting and volatile asset, oil. Nigeria has been living on borrowed money as reflected by ever-burgeoning fiscal deficits and the public debt in particular in an economy whose capacity utilization fluctuates around 35 percent. Collectively, these and other unsustainable elements, such as deforestation, the profligate use of land, water and other natural resources, have combined to reduce the quality of life to near zero. It is, indeed, tempting to conclude that for the average Nigerian family life is more expensive than death. Thus, Nigeria's fiscal federalism has failed woefully on the three-count test of Musgrave and Musgrave (1989), namely, stability, efficiency and equity.

6.2 Policy Recommendations

- Argentina has shown, in the 1990s, that fiscal decentralization compatible with macrostability and there is no reason why it cannot happen in Nigeria. What is required is a clean break with the past and a commitment to meaningful reform. First, the absolute dependency syndrome in fiscal matters (75 percent of public revenue) must be broken. This would be best achieved through diversification. The effortless approach to diversification is to work through the incentive mechanism, i.e. the internal revenue principle, which works best under the derivation principle. The outcomes of Nigeria's fiscal federalism between 1954 and 1965 are a key to this viewpoint. The derivation principle provides the most rational, efficient and

equitable principle for revenue decentralization in a federal political system. It resolves the serious incentive problems associated with a centralized, transfer-based fiscal systems and effectively tackles the two key challenges posed by the Nigerian model of fiscal federalism, namely, the conflicting claims over oil revenues and the lack of fiscal discipline at both federal and sub-national levels of government. Furthermore, it would avoid the political contentions that may arise from any attempt to make substantial changes in inter-governmental fiscal arrangements, given the high level of mistrust between the different tiers and units of government in the country.

- Given the need for diversification, policy reform must concentrate on institution and capacity building. There is substantial leakage in the revenue mobilization and procurement systems. For example, if in one year alone (2003) it had been possible for the House of Representatives to uncover N77 billion that had not been accounted for by the appropriate agencies, it says a lot about the porousity of Nigeria's revenue mobilization system.

- Budget formulation and its execution are very important parts of a properly functioning fiscal system; both require urgent strengthening in Nigeria. For example, the Federal Government could not be said to have operated on the basis of well articulated budgets for 2002 and 2003. This is not good enough. More importantly, the key actions requiring urgent reform in the budget preparation and approval processes include
  (i) increasing the realism of cost and revenue estimates;
  (ii) strengthening and codifying the coordination between the key players in the budget formulation, approval and

implementation process; (iii) integrating the recurrent and capital budgets to provide a global view of the budget; and (iv) the developing procedures for effective and efficient budget implementation and its proactive monitoring and evaluation.

- Policy reform must improve and strengthen expenditure management and the production of high quality fiscal data to improve and strengthen cash manrengthen the reporting of the fiscal operations of sub-national governagement practice; consolidate the automation of budget implementation, monitoring and evaluation procedures; as well as stments.

- A major challenge for Nigeria's fiscal federalism is how to effectively involve the sub-national governments. Under the current revenue-sharing arrangements, the budgets of the sub-national governments are heavily affected by the uncertainty and volatility of oil revenue. The way out of this is the adoption and development of a comprehensive medium-term expenditure framework (MTEF) in which planning, programming and budgeting are integrated in a medium-term horizon within a rolling plan concept for all levels of government.

- Given the high level of fiscal indiscipline in Nigeria, there is an urgent need to adopt explicit rules for strengthening the conduct of fiscal policy, including a constitutional provision for imposing fiscal discipline, fiscal prudence and borrowing on all tiers of government and on the financing of deficits. But, it would require a balancing restraint with flexibility in its application. For example, Nigeria is a member of the West African Monetary Zone (WAMZ) which has stipulated a ceiling on national central

banks' financing of budget deficits to only 10 percent of the previous' year's tax revenues to encourage fiscal prudence among member countries. This target was expected to have been achieved by year 2000 and to have been sustained thereafter. Adherence to this performance criterion would have serious implications for Nigeria's fiscal federalism as it would limit the Federal Government's ability to bailout financially distressed sub-national governments.

6.4 Conclusions

This study has reviewed the design and practice of Nigeria's fiscal federalism that has been dominated by oil revenue-driven fiscal operations, resulting in poor fiscal governance and worsened by corruption and greed. The results are low spending effectiveness, massive deficits, burgeoning public debts results which individually and collectively have had a destabilizing effect on the economy. Consequently, Nigeria's fiscal federalism has failed to meet the Musgrave and Musgrave test of stability, efficiency and equity. To break with this undesirable trend, extensive policy reforms are required, including the adoption of a comprehensive Medium-Term Expenditure Framework and appropriate fiscal rules. However, the policy recommendations in this paper are neither exhaustive nor final; other unexplored aspects of Nigeria's fiscal federalism together with the content of this paper, have the potential of driving the Nigerian economy towards its Paretian frontier.

REFERENCES

African Centre for Economic Growth (2003), "Improving Fiscal Management in Kenya: Lessons from a Study on Fiscal Systems in Kenya." *Research for Development.*

Agiobenebo, T. J. (1998), *Public Sector Economics: Theories, Issues and Applications,* Vol. 1 (Lima Computers, Port Harcourt0

_____ (1999a), "Assignment, Criteria and the Fiscal Constitution: An Excursion into a Theory of Rational Fiscal Federalism". In the *Proceedings of the 1999 NES Annual Conference on Fiscal Federalism and Nigeria's Economic Development*.

_____ (199b), "Role of Institutions in Revenue Allocation: The Case of OMPADEC, Etc." Paper presented at a One-Day Round Table Discussion on Fiscal Federalism in Nigeria: The Political Economy of Revenue Allocation organized by the Department of Economics, University of Uyo, under the Anthony Ani's Chair in Public Finance.

_____ (2000), "Implications of Deregulating the Petroleum Industry for Nigeria's fiscal federalism". Paper presented at the 2000 NES One-Day Seminar on the "Deregulation of the Petroleum Industry" on Tuesday 18th April 2000 at the Federal Palace Hotel, Victoria Island, Lagos

_____ (2000), *Public Sector Economics* Vol. 1, 2nd ed., (LIMA Computers and KB & I Ltd., P.H.)

Ahmad, E. & Eric Motu (2003), "Oil Revenue Assignments: Country Experiences and Issues" IMF Working Paper (WP/02/203)

Ajakaiye, O. (2003), "Fiscal Policy Coordination for Macroeconomic Stability in a Federal State." (Paper presented at the One-Day

Seminar of the Nigerian Economic Society on Fiscal Policy Management in Nigeria held at the MUSON Centre, Onikan, Lagos)

Akpan, G. E. (1999a), "Fiscal Potentials and Dependence in Nigeria." In the Proceedings of the 1999 NES Annual Conference on Fiscal Federalism and Nigeria's Economic Development.

_____ (1999b), "Majority Rule Over Minority Right: The Subversion of Derivation Criterion in Revenue Allocation in Nigeria." Paper presented at a One-Day Round Table Discussion on Fiscal Federalism in Nigeria: The Political Economy of Revenue Allocation organized by the Department of Economics, University of Uyo, under Anthony Ani's Chair in Public Finance.

Baunsgaard, T. (2003) "Fiscal Policy in Nigeria: Any Role for Rules?" IMF Working Paper (WP/03/155)

Bhatia, H. L. (1976), *Public Finance*, (18th ed. Vikas Publishing House PVT Ltd. Delhi, India)

Boadway, R. W. (1979), *Public Sector Economics*, (Winthrop Publishers Inc., Cambridge, MA)

Brown, C. V. and P. M. Jackson, (1990), *Public Sector Economics* (Basil Blackwell, 108 Cowley Road, Oxford, OX4 1JF, UK

Brown, W. H. (1989), *Macroeconomic Theory and Policy* (Harper & Row Publishers, NY)

Buchanan, J. M. (1965), "An Economic Theory of Clubs." *Economics*, No. 32(125): 882-902.

CBN, *Statistical Bulletin* (various issues)

Chete, L. N. (1998), "Fiscal Federalism and Macroeconomic Management in Nigeria" *Journal of Economic Management*, Vol. 5, #1: 91ff.

Dillinger, W. *et al* (1999), "Macroeconomic Management in Decentralized Democracies: The Quest for Hard Budgets Constraints in Latin America" (Paper presented at the World Bank Forum, 1999.

Ekpo, Akpan H. (1994), "Fiscal Federalism: Nigeria's Post-Independence Experience, 1960-90." *World Development Report*, Vol. 22, No. 8: 1129 1146

FMG, (1999), Budget 1999 Newsletter

Grauwe, P. de (1983), *Macroeconomic Theory for the Open Economy* (Gower Publishing Co. Ltd., Aldershort, England)

Herber, B. P. (1974), *Modern Public Finance*, (Richard D. Irwin Series, Homewood, Illinois 60430)

Litvack, J. et al (1998), Rethinking Decentralization in developing Countries (The World Bank)

Njoku, J. O. J. (1982), Nigerian Fiscal Federalism: Theory and Practice (mimeo)

Musgrave, R. and P. Musgrave (1989), *Public Finance in Theory and Practice* (8th ed. McGraw-Hill International Editions, McGraw-

Hill Book Company, N.Y.)

Qian, Y. & Gerard Roland (1998), "Federalism and the Soft Budget Constraint" AER Vol. 88 #5: 1143ff.

Ott, Ott & Yoo (1975), *Macroeconomic Theory* (McGraw-Hill, Inc., USA)

Ramphal, Shridath S. (1979), "Keynote Address" in *Readings on Federalism* (Nigerian Institute of International Affairs)

Rivlin, A. M. (1991), "Distinguished Lecture on Economics in Government: Strengthening the Economy by Rethinking the Role of Federal and State Government." *Journal of Economic Perspectives,* Vol. 5, No. 2: 3 14.

Sandler, T. and J. T. Tschirhart, (1980), "The Economic Theory of Clubs: An Evaluative Survey." *Journal of Economic Literature*, Vol. XVII, No. 4: 1481-1521.

THE CHALLENGES OF MONETARY MANAGEMENT IN AN ENVIRONMENT OF FISCAL DOMINANCE

T. Ademola Oyejide

1. Introduction

An influential school of thought on central banking argues that the enduring challenge of monetary management is to fight inflation, given that the primary task of a central bank is to preserve the internal and external value of the currency, and that this challenge can best be met if a central bank is endowed with considerable independence (Fischer, 1996). In order to carry out its primary task effectively, a central bank must limit the quantity of money in circulation. Money is, however, unique in a way which attracts "problems" from the fiscal authorities; its value in exchange far exceeds the cost of producing an additional unit and this may give governments an incentive to print money as a means of gaining "free" resources through seigniorage revenue. In other words, while a central bank may typically wish to control the money supply to fight inflation, money creation allows government to obtain resources without imposing an explicit tax.

Fiscal policy refers to the whole range of government's taxing and spending decisions. Mainstream economics of fiscal policy offers the following broad principles:

A prudent and sustainable fiscal posture promotes non-inflationary economic growth. In the long run, in particular, low and stable levels of fiscal deficits and government debt (which are indicators of prudent fiscal policy) are typically associated with higher

rates of economic growth. Hence, reducing budget imbalances in countries with high fiscal deficit and public debt tends to boost growth and keep inflation rates low. But the appropriate fiscal policy for promoting growth varies both over time and in relation to the economic situation. Thus, while fiscal policy should aim to keep government debt at sustainable levels over the long-run, fiscal expansion in the short run may be appropriate for countries which have achieved macroeconomic stability but are experiencing severe economic depression.

In a perfect world, monetary and fiscal policies would be perfectly coordinated and synchronized and they would impact the economy in a complementary and mutually reinforcing way. But in the real and imperfect world of policy-making, myopic behaviour, particularly on the fiscal side, may create problems for overall economic management. In the context of this imperfect world, conflict may often arise between a central bank whose primary goal is to maintain price stability and a government which pursues its primary goal of economic growth by running a stream of large fiscal deficits. Conflict is inevitable because such a macroeconomic programme is inherently infeasible and unsustainable.

In general, conflict between the fiscal authority (i.e., government) and the monetary authority (invariably, the central bank) in this context typically arises with respect to the impact of fiscal and monetary policies on public debt, domestic credit conditions and inflation; exchange rate management; and measures to ensure the institutional stability of the financial system. Such areas of potential conflict constitute a fundamental challenge of monetary management for a central bank whose core areas of mandate are roughly the same. Furthermore, conflict tends to recur and sometimes grows in terms of

level of acrimony in a country facing fiscal dominance, whose financial system is fragile and has no clear robust and institutionalized mechanisms for synchronizing and coordinating monetary and fiscal policies.

These are the issues which this paper seeks to address. In particular, the paper examines the links between fiscal dominance, fiscal deficits and monetary management challenges in section II; focuses more specifically on the Nigerian experience with monetary policy and fiscal behaviour in section III; and suggests a way forward by providing a survey of options for dealing with inherent fiscal-monetary policy conflicts in an environment of fiscal dominance in section IV. Concluding remarks are presented in section V.

II. *Fiscal Dominance, Fiscal Deficits and Monetary Management*

(a) *Monetary or Fiscal Dominance?*

The traditional theory, modelling and analysis of monetary policy are generally based on the assumption that a central bank uses monetary policy instruments predominantly to influence the general price level. This translates broadly into the monetary theory of the price level and implies monetary dominance in the determination of the price level.

This traditional approach is being challenged in the context of an on-going academic debate which suggests that fiscal dominance, rather than monetary dominance, may be the rule, rather than the exception in certain circumstances (Reinhart and Rogoff, 2003). The first shot in this debate was fired by Sargent and Wallace (1981) who

stressed that rising and uncontrolled budget deficits may feed quickly into inflation if economic agents expect that monetary policy independence will not be maintainable under the burden of rising government debt. According to this perspective, expectations of future money growth can be so large as to lead to high inflation *immediately,* thus overwhelming the efforts of a central bank to attain monetary restraint. More recently, this line of thinking has evolved into the fiscal theory of the price level. In essence, this theory questions the traditional assumption that inflation is always and everywhere a monetary phenomenon, that monetary policy is dominant in the determination of the price level; and, hence, that the monetary authorities never have to capitulate to the fiscal authorities. In effect, the fiscal theory of the price level suggests that, in most circumstances, fiscal policy is dominant and it is monetary policy that must adjust.

In principle, fiscal dominance occurs when fiscal policy is set exogenously to monetary policy in an environment where there is a limit to the amount of government debt that can be held by the public. Hence, if the inter-temporal budget constraint must be satisfied, fiscal deficits would have to the monetized, sooner or later. In fact, when the size of the financial system is small relative to the volume of fiscal deficits, a central bank may have no choice but to monetize the deficits. Thus, Mas (1994, p.35) argues that in countries with shallow financial systems, monetary policy is the reverse side of the coin of fiscal policy and can only play an accommodative role. In such low-income countries, government securities markets are underdeveloped and central banks do not hold sufficient amounts of tradable securities and the central bank's lack of suitable and adequate instruments of monetary control constitutes one of the factors that induce fiscal dominance.

The existence of fiscal dominance poses significant challenges for monetary management. Because of the greater vulnerability of fiscal policy to private interests, it may be more difficult to maintain macroeconomic stability to the extent that monetary policy is forced to "accommodate" the fall-out from fiscal policy measures. Where fiscal dominance applies, the country's economic policy is only as good as its fiscal policy and an institutionalized central bank independence may not necessarily bring about an independent monetary policy.

As Reinhart and Rogoff (2003) point out, the academic literature continues to debate several issues associated with fiscal dominance, including:

- Whether the fiscal theory of the price level applies in practice;
- Under what conditions it applies;
- What the factors are which determine when fiscal dominance occurs; and
- Whether there are some threshold levels of the key factors that will tilt the balance from monetary to fiscal dominance, or *vice versa*.

The on-going debate suggests some insights. First, for low-inflation industrial countries, it seems clear that the traditional paradigm of monetary dominance prevails, so long as the path of real fiscal deficits exhibits a self-correcting mechanism by ensuring that fiscal deficits decline as government debt grows. Second, the conditions on self-correcting fiscal deficits required to ensure monetary dominance may not always hold in low-income countries

where, therefore, the occurrence of fiscal dominance may be a distinct possibility. Third, while no firm evidence is as yet available on the factors that determine when fiscal dominance occurs, it seems certain that high government debt levels would be important in this context.

(b) *Financing of Fiscal Deficits*

The stock of government debt rises as annual fiscal deficits accumulate. Any change in government expenditure must be financed by a change in tax revenues, a change in government debt, and/or a change in the monetary base. Hence, budget deficits (which represent a change in government expenditure not covered by a corresponding change in tax revenue) must be financed through money creation and a build-up of public debt. In the latter case, public debt can be externally sourced; when it is internally acquired, however, it may be sourced from either banks or the non-bank public, or both. Government fiscal operations are thus linked to money supply through the financing of budget deficits and, especially, through money creation.

But reliance on internal debt for deficit financing can also have significant implications for money creation. In most cases, there tends to be a limit on the ability of a government to continually increase domestic public debt (by issuing treasury bills, for instance) to finance its fiscal deficits. In particular, as the public debt grows, there may be a growing concern among government bond holders that government might be unable to repay the bills. Thus, if government embarks on a path of unsustainable fiscal deficits, the central bank may eventually be forced to create money to fund the deficits.

(c) *Fiscal-Monetary Policy Conflicts*

Despite the fairly general recognition of macroeconomic policy (especially price) stability as an essential requirement for stimulating investment and growth, and the associated prescription that a central bank should focus primarily on maintaining low inflation, desperate governments have not been particularly reluctant to use domestic debt and money creation to finance their deficits, especially when they are starved of resources and unable to deploy alternative tax handles. In such circumstances, it may be virtually impossible to separate monetary from fiscal policy. This is clearly one of the areas where conflict frequently occurs between monetary and fiscal authorities.

There is an argument in the literature that independent central banks should be better able to resist government efforts to have them monetize deficits (Pollard, 1993). This argument suggests that once governments realize that there may be limits on their ability to issue treasury bills continuously to finance their deficits, they may decide to control their deficit spending. The empirical evidence on this supposition has been mixed. There is, for instance, some evidence of a negative relationship between central bank independence and the long-run behaviour of government deficits as a percentage of GNP (Parkin, 1983). But, in a later study, Grilli, Masciandaro and Tabellini (1991) conclude that an independent monetary authority apparently does not discourage the government from running fiscal deficits.

In the case of low-income countries characterized by shallow capital markets, limited tax revenue alternatives and restricted access to foreign savings, governments which sustain large fiscal deficits that their “independent” central banks are reluctant to monetize could, conceivably, shift political responsibility for the consequences of their

fiscal policies to their central banks. When substantial domestic financing of fiscal deficits induce inordinately high real interest rates which, in turn, crowd out private sector credit and investment, government can always claim that these are monetary problems for which the independent central bank, rather than the fiscal authorities, should be held accountable. The central bank can, at least in principle, respond with an overly restrictive monetary policy and thus refuse to "accommodate" government's fiscal policy posture in the hope of forcing government to change its policy. This assertion of independence and "toughness" may, however, backfire, as in the case of Peru (Mas, 1994). Faced with this kind of problem, the Peruvian Central Bank refused to accommodate the bulk of government's requests for credit between September 1988 and July 1989. As a result, there was a 23% decline in GDP and a 75% appreciation of the *parallel* market exchange rate. The "face-off" ended with the resignation of the President of Peru's Central Bank the Peruvian government had apparently succeeded in shifting the political responsibility for its fiscal actions to the independent central bank.

The Peruvian example also shows that fiscal-monetary policy conflicts can also arise with respect to, and have significant implications for, the exchange rate. Typically, actions by both the government and central bank of a country would affect the exchange rate, even if the central bank has been given the responsibility of exchange rate regulation and intervention. In many countries, the central bank could derive its exchange rate policy powers from the general mandate to maintain the *internal* and the *external* values of the national currency, a mandate which translates, broadly, into the maintenance of both price and exchange rate stability. Face with large foreign capital inflows, government may choose to let the exchange

rate float, i.e., appreciate. The country's central bank, however, may see the induced appreciation of the exchange rate as an opportunity for a non-inflationary expansion and thus take such action that would clearly undermine the government's policy. In effect, conflict is likely to occur whenever the government and central bank of a country can both affect the exchange rate, but have different policy goals.

There is a third area of possible conflict between fiscal and monetary authorities: the stability of the banking system. In many countries, the central bank typically has the dual functions of lender of last resort and bank surveillance and supervision. If, against this background, government were to embark on large fiscal deficits, the central bank would be forced to face a real dilemma. It might, on the one hand, refuse to finance the deficits which would then generate an unsustainable path of domestic debt that could, in turn, trigger a flight to cash and generalized distress in the banking system. Given its bank supervisory function, the central bank would then have to act as a lender of last resort to sustain the banking system. On the other hand, the central bank could avoid this arguably more costly assault on the banking system by accepting to accommodate some monetization of the debt. In other words, when faced with this kind of situation, a central bank might be forced to sacrifice part of its monetary policy "independence" or risk jeopardizing the stability of the entire banking system.

(d) *Policy Coordination*

The case for coordinating fiscal and monetary policies as an integral part of the process of prudent macroeconomic management derives from the various forms of inherent conflict discussed above. The analysis so far suggests that such conflict can pose serious challenges when monetary

and fiscal policies are delegated to independent institutions and, especially, in a situation in which fiscal dominance prevails.

Analytical models of fiscal-monetary policy interactions seeking to address this issue abound in the literature (see, e.g., Pollard, 1993), and many of them cast the interactions in the context of games. They typically begin with the assumption that the government controls fiscal policy while the central bank controls monetary policy. Next, it is assumed that both authorities set goals for the economy (e.g. inflation, output, and other targets) and assign priorities to the goals. Since the fiscal and monetary authorities are independent, the goals set and priorities assigned may differ and each institution uses the instrument(s) available to it in an attempt to reach its goals. In particular, the central bank typically controls the growth rate of the monetary base while the fiscal authority controls government spending. Assuming that the government establishes an output target and the central bank sets an inflation target, the further the actually achieved level of output and rate of inflation are from their respective targets, the more disutility each authority suffers. Thus, each authority sets its policy to minimize its own loss function a function which captures deviation from established targets.

Whenever the two authorities cooperate and, therefore, policy coordination occurs, this situation is analytically modelled as the choice of the two policy variables to minimize a weighted average of the two loss functions. The case of non-cooperation is modelled in either of two ways. In one version, fiscal and monetary policies are chosen independently and simultaneously by each authority to minimize its individual loss function in the context of a Nash game. In the other version, one authority sets its policy before the other authority determines its own. This reflects a Stackleberg game

context in which the leader acts first and the follower responds.

In all three cases, solutions of the analytical models show that:

- the cooperative solution is Pareto superior to the non-cooperative solution; and

- the performance of the economy is better under cooperation in the sense that the "losses" to the government and the central bank are each lower than they are under non-cooperation.

The results make a strong case for the coordination of monetary and fiscal policies in general. Previous analysis suggests that when fiscal dominance prevails, the coordination of fiscal and monetary policy would probably occur in the context of a Stackelberg game where fiscal policy leads and monetary policy plays a more subservient role.

III. *Monetary Policy and Fiscal Behaviour in Nigeria*

In analyzing the relationship between monetary policy and fiscal behaviour in Nigeria since 1980, this section focuses attention on four inter-related policy issues:

- The pattern of fiscal behaviour and how it may have changed over time;
- The incidence of fiscal dominance and its variation over the period;
- The implication of the pattern of fiscal behaviour for monetary policy and its management; and

- Why an apparently dysfunctional fiscal behaviour seems to have persisted through

A substantial body of academic discourse has developed around issues relating to the pattern of fiscal behaviour in Nigeria and some of its consequences. A brief review of the literature offers a glimpse into the questions that have attracted the attention of researchers. For instance, Oyejide (1972), Ndebbio (1998), and Fahm (1998) were concerned not only with an examination of the pattern of budget deficits over different periods, but also with the effects of these deficits on domestic liquidity and inflation. By comparison, Onwioduokit (1999) probed the direction of causality between budget deficits and the general price level, while Egwaikhide (1997) analysed the quantitative effects of alternative methods of financing Nigerian budget deficits. More specifically, Adam and Bankole (2000, p.271) conclude that the monetary financing of government deficits may have contributed to a rapid growth in money supply and a sharp acceleration in inflation. Finally, Ariyo (2003) demonstrates how this pattern of government behaviour has generated serious concern for fiscal sustainability in Nigeria.

Policy analyses by the Central Bank of Nigeria have also profiled the pattern of fiscal behaviour over time. In his evaluation of the 1986-92 period, for instance, Odozi (1992,p.141) argued that the " effectiveness of monetary policy in regulating the money supply over the years has depended to a large extent on government spending and fiscal deficit." In addition, he specified what he considered as a general pattern as follows:

- Whenever fiscal policy was only moderately expansionary money supply growth normally fell in line with the direction of monetary policy.

- Growth rates of money supply were closest to target levels in those years when net credit to government rose only moderately or declined.
- Sharp increases in money supply were associated with relatively large increases in net credit to government.

Based on this observed pattern, Odozi (1992, p. 145) concluded that the greatest problem which has reduced the effectiveness of current monetary and banking policies in Nigeria is the persistence of large government deficit and its mandatory financing by the central bank.

The general thrust of the arguments offered above has been maintained in a subsequent analysis of the Central Bank of Nigeria (CBN). In its *Annual Report* for 1994, the CBN claimed that "Nigeria's economic and financial performance was much below expectation … due mainly to the continuation of undue fiscal expansion ..." (CBN, 1994, p.1) and that "the high level of macro economic instability in the Nigerian economy originated from the pursuit of expansionary fiscal policy, especially in the last four years" (CBN, 1994, p.13). This *Report* also specified a pattern linking fiscal deficit to money supply growth and inflation which maybe summarized as follows:

- The fiscal deficits of the federal government have been large and increasing.

  The financing of the deficits, largely through the banking system, especially the CBN, has resulted in a sustained injection of huge amounts of high-powered money into the economy.

- This has accelerated the growth of money supply … and has been manifested in a persistent upward movement in prices.

The *Annual Report* for 1999 repeated the same charge, i.e., that " the problem of excess liquidity … was induced mainly by the expansionary fiscal operations of the federal government" (CBN, 1999, p.21). Finally, in its (most recent) *Annual Report* for 2002, the CBN held the fiscal behaviour of not just the federal government but also that of the two other tiers of government responsible. Thus, it claimed that "monetary growth was excessive, relative to the targets set for 2002, reflecting the impact of the expansionary fiscal operation of the three tiers of government" (CBN, 2002, p.5); and that " the excessive growth in money supply was induced by the expansionary fiscal operations of the three tiers of government" (CBN, 2002, p.24).

Table 1:
Fiscal Deficit and Financing, 1980-2002

	Period I (1980-87)	Period II (1988-97)	Period III (1998-2002)
Fiscal Deficit/GDP (%)	-3.1	-5.9	-4.9
Banking System's Holding of Domestic Public Debt (%)	73.2	83.3	92.0

Source: Author's computation from original data in CBN's *Annual Reports* and *Statistical Bulletin* (various years).

Table 1 provides summary data for a systematic analysis of the pattern of fiscal behaviour broadly described above. It uses a three-period classification scheme. Period I (1980-87) covers the period before CBN autonomy was granted in 1988; period II (1988-97) covers the period of autonomy, while period III (1998-2002) spans the period since 1998 when the CBN has been granted monetary policy

instrument independence. In principle, the powers of the CBN to control and effectively manage monetary policy has increased sequentially and substantially over the three periods. As the table shows, however, the fiscal deficit/GDP ratio was actually lowest during period I (at -3.1%); it worsened to -5.9% during period II before recovering to -4.9% in period III. It appears, therefore, that increased autonomy and greater independence of the CBN did not induce an improved fiscal behaviour on the part of government. Furthermore , the proportion of the stock of domestic public debt (created through the financing of persistent fiscal deficits) which was held by the banking system increased steadily over the three periods, rising from about 73% in period I through 83% in the next period to 92% in period III. Thus, just as the CBN's increased powers over monetary policy decisions had failed to induce an improved fiscal behaviour by government, the banking system (including the CBN) has been apparently obliged to hold an increasing share of the rising public debt. In effect, government's fiscal behaviour ultimately determined the growth of monetary aggregates over these three periods.

This may serve as *prima facie* evidence that fiscal dominance has characterized the monetary-fiscal policy interactions in Nigeria. Table 2 offers additional data whose analysis may shed further light on this issue. Bearing in mind that fiscal dominance is, in principle, most likely to occur when the size of the banking system is small relative to the volume of fiscal deficits, this table has been constructed around two key indicators of fiscal dominance, as shown.

Table 2:
Trends in Indicators of Fiscal Dominance. 1980-2002

Indicators	Period I (1980-87)	Period II (1988-97)	Period III (1998-2002)
Domestic Public Debt/GDP (%)	32.2	23.6	21.3
Domestic Public Debt/Total Assets of the Banking System (%)	62.0	78.5	65.7

Source: Author's computation from original data in CBN's *Annual Reports* and *Statistical Bulletin,* (various years)

One indicator relates domestic public debt to GDP, and the other relates the same variable to total assets of the banking system. The second shows that since total domestic debt represents more than 50% of the total assets of the banking system, fiscal dominance was probably evident during each of the three periods shown in Table 2 and that it was particularly strong during period II. When domestic public debt is related to GDP, however, it appears that in spite of the persistence of fiscal dominance over time, its relative significance has fallen steadily over time. The evidence in Table 1 which shows that the banking system had been obliged to hold a *large* and *increasing* share of domestic public debt reinforces the central finding that fiscal dominance was occurring throughout the periods analyzed.

The responsibility for monetary policy formulation, implementation and evaluation in Nigeria rests with the CBN. However, the authority of the CBN in this matter has been exercised over time subject to appropriate consultation with government. Prior to 1988, CBN's policy proposals and actions were presented to government through the Ministry of Finance (Odozi, 1992). Following CBN's achievement of an autonomous status in 1988, such initiatives were subsequently channelled to government through the Presidency. Thus, CBN's autonomy was by no means unlimited. The next major institutional development occurred in 1998 when the CBN was granted instrument autonomy, signaling the institution's independence to determine the monetary policy instruments used.

In spite of these institutional developments, the retention by government of overall responsibility for the economy means that there could be differences between fiscal policy priorities and monetary policy directions at various times. According to Odozi (1992), the coordination of monetary and fiscal policy targets has been, in this context, undertaken within the framework of high-level inter-agency meetings which brought together government's key economic ministries, relevant departments of the CBN, and several public sector organizations. These meetings reviewed government revenue and expenditure projections as well as projected levels of fiscal deficit (or surplus) and their mode of financing. Such review served as the basis for making proposals to government with respect to corresponding fiscal and monetary policies. This policy coordination mechanism may have worked reasonably well at the policy articulation stage; it appears to have been less successful, however, at the stage of implementation. This may be part of the reason why monetary policy targets have typically failed to be achieved for so long in Nigeria.

Two of the core areas of the mandate of the CBN which have direct relevance to its monetary policy function include the maintenance of price and exchange rate stability and the promotion of financial sector soundness. The major challenge of monetary management confronting the CBN has generally been the need to curb excessive monetary expansion associated with the financing of persistent fiscal deficits. In its 1994 *Annual Report* (pp 1-5), the CBN detailed its confrontation with this challenge as follows:

- The fiscal operations of the federal government in 1994 resulted in a budget deficit representing 7.9% of GDP compared with the planned overall zero budget balance.
- As in the recent past, the bulk of credit to government (to finance the deficit) was accounted for by the CBN.
- The CBN has tried to deal with the excess liquidity in the economy by undertaking relatively large open market sales of treasury bills.
- This effort was only partially successful, mainly because of the large new injection of liquidity arising from federal government borrowing from the CBN.
- Hence the behaviour of base money was ultimately determined by the level of CBN's net credit to the federal government Irrespective of the level of open market operations.

This process, in the context of which monetary policy broadly accommodates fiscal impulses, also leads to the general overshooting of monetary policy targets. As shown in CBN's *Annual Report* (2001,p. 6), “the divergence between (monetary policy) targets and actual values have been persistently wide in recent years” as fiscal dominance appears to have become more fully embedded in the policy process and the fiscal authorities have demonstrated even

less capability to adhere strictly to their expenditure targets.

The trends observed in the fiscal-monetary policy interactions over the 1980-2002 period suggest that even though the CBN has achieved relatively greater independence over time, the increasing significance of fiscal dominance has tended to nullify that independence. In effect, cooperation between the monetary and fiscal authorities appears to have taken place in the context of a Stackleberg game in which the fiscal authorities provide policy leadership and the central bank is obliged to follow by picking up the pieces.

IV. *The Way Forward: A Survey of Options*

In many low-income countries, macroeconomic problems typically have deep fiscal roots. Nigeria is not an exception to this general pattern. This is particularly the case in an environment of fiscal dominance where non-inflationary monetary policy is only achievable through a strong commitment to fiscal discipline. In other words, when fiscal dominance prevails the key to achieving and maintaining macroeconomic stability lies in a substantial curtailing of government discretion in fiscal policy. As Alesina (1997, p. 8) puts it, the goal of achieving and maintaining fiscal stability is the main macroeconomic issue. Hence, the way forward is to design and implement appropriate mechanisms for building more responsible fiscal behaviour, bearing in mind that it is often politically difficult for government to relinquish discretionary authority over fiscal policy.

Several such mechanisms exist for restraining the fiscal behaviour of government. These can be broadly classified into three groups, has

- limits on the extent of fiscal deficits,
- limits on government borrowing, and
- sterilization of government revenue.

Given the difficulty of restraining government spending, some countries have chosen to bind the hands of their politicians by imposing strict limits on the amount of deficit spending that would be allowed. Such policy is implemented in various ways. One approach is the cash budget which stipulates that government spending shall not exceed its revenue. This is a simple rule which has provided an effective instrument of restraint on governments, although its economic rationale may not be robust (Collier and Gunning, 1998). In some other countries, there are balanced budget laws that are backed up by the constitution in order to ensure that such laws cannot be overturned easily by an incumbent government.

While the two approaches impose a zero deficit rule on the budget process, other mechanisms are less rigid and set non-zero limits on fiscal deficits and are implemented through regional agreements. For instance, the six member countries of the West African Monetary Zone (WAMZ) (The Gambia, Ghana, Guinea, Liberia, Nigeria, and Sierra Leone) have agreed to "maintain a maximum budget deficit to GDP ratio of 5% by the end of 2000 and 4% by the end of 2003" as part of the convergence criteria specified for membership of the single monetary zone. Whether they are rooted in domestic law or based on international agreements, the basic idea is that the violation of the restriction imposed by these mechanisms on the fiscal behaviour of a government will attract sufficient penalty to serve as an effective deterrent.

When fiscal restraining mechanisms permit non-zero deficits,

some additional or secondary rules may be needed to guide the financing of the resulting deficits. Such rules often take the form of pre-set limits on government borrowing which may apply to *all* sources of borrowed funds or to financing sourced from the central bank and/or the entire banking system. In Nigeria, for instance, there is a limit to how much, in relation to revenue, can be sourced by government from the CBN through Ways and Means Advances. In addition, the convergence criteria associated with WAMZ limit central bank financing of the budget deficit to 10% of the previous year's tax revenue. Whatever forms they may take, the limits placed on government borrowing are generally motivated by the need to protect the central bank from being forced to use the power of the printing press to turn government debt into money. In other words, the monetization resulting from the purchases of debt by the central bank would solely serve monetary policy objectives, rather than be used to solve the fiscal problems of government.

The need to articulate mechanisms for sterilizing government revenue arises from the recognition that windfall revenue can distort government expenditure patterns (CBN, 1999). It has been suggested that oil windfall revenue should be sterilized, whenever it occurs, by building up external assets which can be monetized in periods of revenue shortfall. The rationale for revenue sterilization is the maintenance of government expenditure at a stable and sustainable level over time in the face of sharp and irregular fluctuations in government revenue.

V. *Concluding Remarks*

In an environment of fiscal dominance, there are major monetary management challenges that even a robustly independent

central bank cannot effectively deal with without creating more problems than it solves. In particular, a central bank may not have much effectiveness in restraining fiscal deficits and, hence, may be unable (even if willing) to fulfill its mandate for ensuring domestic price, exchange rate and interest rate stability. This is not to suggest that an independent central bank is necessarily harmful in an environment of fiscal dominance; it is to argue that the proximate source of the problem is fiscal policy and this is where the remedy to fiscal deficit must be found.

The ultimate solution would be the restoration and maintenance of fiscal viability which could involve a substantial reduction of fiscal deficits, using appropriate fiscal restraint mechanisms. Meanwhile, it would be helpful to find non-inflationary means of financing fiscal deficits perhaps through rules which limit access to the banking system.

The adoption and implementation of effective restraining mechanisms for inducing more responsible fiscal behaviour require skills in design and persuasion which the CBN is, arguably, better placed to mobilize and deploy than the more amorphous fiscal authorities. In any case, the CBN has a significant self-interest in this context; it cannot carry out its mandate effectively in the absence of appropriate fiscal behaviour. Hence, it is in the ultimate interest of the CBN to ensure that relevant research is done to demonstrate clearly why and how the current fiscal behaviour may be dysfunctional; articulate the mechanisms through which responsible fiscal behaviour can be induced; and disseminate the knowledge acquired in an effective way to bring about the necessary institutional and policy reforms.

REFERENCES

Adam, J. E., and A. S. Bankole (2000). "The Macroeconomics of Fiscal Deficits in Nigeria", *Nigerian Journal of Economic and Social Studies,* vol. 42, no.3, PP. 263-290

Alesina, A. (1997). "Institution for Fiscal Stability" *NBER Reporter*, Winter 1997/98, pp.8-10

Ariyo, A. (1993). "An Assessment of the Sustainability of Nigeria's Fiscal Deficit: 1970-1990", *Journal of African Economies,* vol. 2, no.2, pp.263-282

Ariyo, A. (2003). "Budgeting and Fiscal Sustainability in Nigeria: Some PolicyIssues", Department of Economics Seminar Paper, University of Ibadan.

Canzoneri, M., R. Cumby, and B. T. Diba (2001). "Is the Price Level Determined by the Needs of Fiscal Solvency?", *American Economic Review,* vol.91, no.5, pp.1221-28

Central Bank of Nigeria (CBN) 2002. *Statistical Bulletin,* December 2002

Central Bank of Nigeria (CBN), *Annual Report and Statement of Accounts,* (various years in 1980-2002)

Colier, P., and J. W.Gunning (1998). "Policy Commitment

Arrangements for Africa: Implications of Aid, Trade, and Investment Flows,"mimeo, CSAE, Oxford University.

Egwaikhide,F.O (1997). "Effects of Budget Deficits on Current Account Balance in Nigeria: A Simulation Exercise" , Research Paper No. 70, AERC, Nairobi.

Fahm, I.A.J. (1998). "Fiscal Deficit, The Parallel/dissertation Market for Foreign Exchange and Money Supply Endogenity in Nigeria", Unpublished Ph.D.Washington, D.C.

Fair, R. C. (1995). "Is Monetary Policy Becoming Less Effective?" Working paper 95-05, Federal Revenue Bank of San Francisco.

Fischer, S. (1996). "Maintaining Price Stability", *Finance and Development*, vol. 33, no 4, pp. 34-37.

Fischer, S. (1993). "Does Macroeconomic Policy Matter? Evidence from Developing Countries, Occasional Paper no 27, ICEG, San Francisco

Grilli,V., Masciandaro, and G. Tabellini (1991). "Political and Monetary Institutions and Public Financial Policies in the Industrial Countries", *Economic Policy,* 13, pp.341-392.

Hetzel, R. C. (1997). "The Case for a Monetary Rule in a Constitutional

Democracy", Federal Reserve Bank of Richmond *Economic Quarterly,* vol. 83, no.2, pp. 45-65

Mas, I (1994). "Central Bank Independence: A Critical View " Policy Research Working Paper no.1356, World Bank, Washington D.C.

Ndebbio, J.E.U (1998)."Fiscal Policy and Inflationary Process in an Open Economy: The case of Nigeria", *Nigerian Journal of Economic and Social Studies*, Vol.40, No.3, pp. 411 - 431.

Odozi, V. A. (1992). "Current Monetary and Banking Policies in Nigeria and the Prospect in the Third Republic", *CBN Economic and Financial Review*, vol, no.3, pp. 130-156

Onwioduokit, E.A (1999). "Fiscal Deficits and Inflation Dynamics in Nigeria: An Empirical Investigation", *CBN Economic and Financial Review*, Vol.37, No.2, pp 1-6.

Oyejide, T. A. (1972). "Deficit Financing, Inflation and Capital Formation: An Analysis of The Nigerian Experience, 1957-1970", *Nigerian Journal of Economic and Social Studies*, vol. 14, no.1 pp.27-43

Parkin, M.(1987)." Domestic Monetary Institutions and Deficits" in J.M Buchanan et al (eds), Deficits, Basil Blackwell, p310-337.

Pollard, P. S. (1993). "Central Bank Independence and Economic

Performance"' Federal Reserve Bank of St. Louis Review, vol5, no.4 pp.211-36

Reinhart, C. M., and K. S. Rogoff (2003). "Foreign Direct Investment in Africa: The Role of Price Stability", in B. Pleskovic and N. Stern (eds), *Annual World Bank Conference on Development Economics.*

Sargent, T. J., and N. Wallace (1981). "Some Unpleasant Monetarist Arithmetic", Federal Reserve Bank of Minneapolis *Quarterly Review*, pp.1-7.

NIGERIA'S OPTIONS FOR FINANCING FISCAL DEFICITS AND THE IMPLICATIONS FOR MONETARY POLICY

Paul Collier

1. Introduction

For five years until March 2003, I directed the research department of the World Bank, on leave from my chair at Oxford University. I want to start by stating clearly that I am now back at Oxford and it is in that capacity that I am speaking to you. This gives me both the freedom, and, if you like, the lack of responsibility of the academic. I also want to remark what a daunting experience it is for an outsider to address a conference of national experts such as yourselves. You know more about your economy, and about the subject of the government's financing options than I do at least, I hope you do. In one sense, however, the role of an outsider such as myself is a little like a miniature version of the role of a central bank itself some detachment from the political turmoil that always dominates the media, and threatens to engulf government with short-term pressures. An effective central bank periodically saves the government from itself by knowing when and how to say 'no'. And in the longer term, it gradually educates the public on its two core policy issues the fiscal stance and the exchange rate. Both these issues are liable to being grossly misunderstood in the media, by political parties and society, and one measure of how effective a central bank is, is how well it counters these misunderstandings. Of course, the central bank is not on its own in guiding public opinion on these difficult topics. The economics profession has a responsibility to speak out, and most especially to critique the populist slogans that pass for thought. Indeed, a core role of economists is to function like a disinfectant, killing off the germs of populism as they appear.

In this paper I am going to focus on two issues. The first is the fiscal stance and how to finance it. The second is capital flight and the exchange rate. They are, I think, the two central issues for Nigerian economic policy at the moment. Now is the most exciting time to discuss them in the past thirty years because, at last, economic policy has reached the top of the political agenda.

2. *The Fiscal Stance and How to Finance it*

At present, Nigeria's fiscal deficit is estimated to be around 2.5% of GDP. On the face of it this is not an alarming figure, although any fiscal deficit has to be judged relative to the growth rate of the economy. If the economy is stagnant, then the sustainable fiscal deficit is simply zero. At present GDP may be growing quite fast possibly by even as much as 6%. Any outside economist, seeing a deficit of 2.5% and a growth rate of 6% is going to say, well, if this is normal you don't have a problem. And that is where your problems start, because neither of these figures are likely to reflect your normal state of affairs.

The likely evolution of your fiscal deficit is obviously determined by trends in revenue and expenditure. Revenue is dominated by oil, and expenditure reflects your political decision processes. Oil revenue is highly cyclical. Every Nigerian knows this because you have lived through it booms are followed by busts. It seems highly likely that you are currently in a boom. In a boom you should be saving to finance the bust. Every other important oil exporter is currently running a fiscal surplus. Hence, although the current level of the fiscal deficit would be sustainable were revenue at a normal level, in fact, revenue is at an exceptionally high level. Approximately, every dollar that the oil price drops increases the deficit by around 0.7 percentage points of GDP. So the long-term level of the oil price does not have to be much lower that at, present before the deficit starts to look unsustainable.

At present, the government should be running a fiscal surplus. A more difficult issue is what should be the long-term fiscal deficit, averaged over the oil cycle? An average level of 2.5% of GDP is probably sustainable, but sustainability is only a necessary condition for a fiscal stance, it does not imply that it is desirable. I think that there is a good case for saying that Nigeria, averaged over the oil cycle, the government should not have a deficit. A rule that aims to balance the budget over the cycle would have two advantages. One is that a balanced budget - zero fiscal deficit - is psychologically pretty clear - it can be communicated to the mass electorate and easily understood: the government is not borrowing. This is a much easier line to defend than any other number. The other advantage is economic. The Nigerian economy is radically more lacking in private investment than in public investment. I estimate that Nigeria has around three times as much public capital as private capital invested in the country.

Outside Africa, the normal balance is for private capital to be double public capital. Your private investment collapsed during the oil boom, when public investment was in full flood. Hence, the government needs to be particularly sensitive to the problems of crowding out. A fiscal deficit, even a sustainable one, implies that the private sector is using part of its savings to finance public capital rather than private capital. This is reinforced by the fact that oil revenue gives the government command over a substantial share of GDP even without borrowing. In most similarly low-income countries, the government spends less as a proportion of GDP that is provided to the Nigerian government simply from oil revenue. It is far from evident that the marginal benefits from inflating public expenditure beyond this level by borrowing are going to exceed the benefits from letting households use the resources directly. In some other African countries, the banking system is holding so much government debt that instead of performing its core function of financial intermediation

within the private sector, it has become little more than a retail outlet for government debt. I think it would be preferable if the Nigerian banks gradually reduced the share of government debt in their portfolios.

Turning from revenue to expenditure, estimates of current trends suggest that while the Federal Government is starting to do a reasonable job at containing expenditure, regional and local governments are increasing their expenditures year-on-year by over 50%. Such a rate of increase evidently bears no relation to the capacity of the economy to finance it. The phenomenon is worryingly reminiscent of regional government behaviour during the oil boom of the early 1980s when huge debts were accumulated because those incurring them believed that they would not be held responsible for repayment.

The resulting debt shock of the mid-1980s - when such irresponsible borrowing hit the limits of the willingness to lend - massively lowered expenditure just as the oil price collapsed. The debt shock was about as large as the oil shock, but the difference was that the debt shock was entirely self-inflicted. Evidently, a better national economic policy would have been to accumulate foreign assets during the boom and use them to cushion the price crash. The economy is in danger of repeating the mistake of the first oil boom. Those who fail to learn from history are, indeed, in danger of repeating it. Even an outsider can see that at present the government should not be running a deficit.

In my view, a sensible decision rule is to have a cyclical smoothing fund - such a strategy can only be started when oil prices are high as at present. Above some reference oil price, which could, for example, be taken from UN estimates, revenues would be saved, to

be drawn down when prices are low. Obviously, forecasting the future average oil price will be subject to error, and sometimes, there is a case for erring a little on the side of caution. But even with mistakes, such a policy rule would be a major improvement on past and present practice. I want to distinguish sharply between the case for a smoothing fund, such as the above, and an oil fund for future generations, such as Kuwait has attempted to build. I do not think that a future generations fund makes much sense for Nigeria. You should be building up real capital within the economy, not financial assets abroad.

Given that the government is running a deficit, what should the Central Bank be doing about it? It seems to me that the first and foremost responsibility of the Central Bank is to explain to the government, to elected politicians, and to the media that such a fiscal stance is mistaken. The Central Bank's duty is, as I have said, to save the government from itself. The second responsibility is to provide financing for such deficits as cannot, in the short term, be avoided. Here the bank has various options.

One important choice is between monetizing the deficit and selling government (or central bank) debt. This is not an easy choice because the bank must choose between two evils. If it monetizes the deficit the result will be inflation. If it sells debt the result will be that debt accumulates at an unsustainable rate. The Central Bank has a duty to avoid both of these outcomes. My own preference is, however, clear. I believe that the bank has a stronger duty to avoid debt accumulation at an unsustainable rate than it has to avoid inflation. Inflation is, after all, a tax. That is one reason why it is unpopular. Other than at low rates it is a very bad tax, but nevertheless it is a tax. When the government chooses an unsustainable deficit, that is, when

it sets spending too high relative to taxation, if the central bank lets inflation rise then in effect taxation automatically increases. If the central bank does this repeatedly, and of course the bank is indeed playing what economists term 'a repeated game' with the government, then the government learns that it has the choice between the highly unpopular and damaging form of taxation called inflation, and either better forms of taxation or reduced expenditure. Gradually, the government will learn to avoid unsustainable deficits. If, instead, the central bank sells debt to finance the unsustainable deficit, in the short and medium term the government suffers virtually no adverse consequences. Eventually, there is a fiscal crisis because no more debt can be sold. Even what was initially a sustainable deficit can no longer be financed. The policy thus punishes some future government for the errors of the present government. This produces crisis instead of learning, which has indeed been a feature of Nigerian economic history to date. So, my personal strategy for the Central Bank would be to make the government suffer a relatively high inflation tax.

I think that there is one exception to this advice. Suppose that a new government team inherits a fiscal position that is unsustainable. Evidently, the appropriate strategy for such a team to adopt is one of gradually reducing the deficit to a sustainable level - and possibly, as I have suggested, aiming to eliminate it all together, moving to a balanced budget. Such a fiscal change cannot be made in a matter of months. During the transition, the fiscal deficit will be at a level that would be unsustainable were it maintained. But nevertheless, the transition can imply an increase in the debt burden, which is sustainable - precisely because in the future deficits will be small or non-existent. Hence, if Nigeria is in a period of fiscal transition then what would otherwise look unsustainable becomes sustainable. In

such a case, there is no need to punish the government with a high inflation tax - the Central Bank should finance the transitional deficit through debt sales. There is one problem with such a prescription: every deficit government is going to claim that its deficit is a transition. Hence, the critical issue for the Central Bank, in my view, is to form a judgment on the credibility of the reform process. If it is a sham then the Central Bank contaminates itself by being complicit in it - that is, by selling debt in unsustainable quantities. If, however, the reform is credible to the Central Bank then, not only should it support the transition by selling debt, it is important that the bank publicly align itself with the transition. The reason for this is not political sycophancy, but rather that purchasers of debt themselves need to form the same judgement. The price that purchasers are willing to pay will depend critically upon whether the government's future fiscal stance is seen as sustainable or not. If the Central Bank believes that it has switched from unsustainable to sustainable, it need to signal that to the debt market. Similarly, if at any point it comes to doubt the credibility of the reform process it is, in my view, duty bound to say so publicly.

Now I want to consider the options if the Central Bank judges the current fiscal stance to reflect a transition to sustainability and so decides to finance the deficit by selling debt. The next choice is what sort of debt. The temptation for a well-brought-up central bank is to try to sell relatively long-dated debt. The advantage of building a portfolio in which many of the liabilities are long-dated is that macroeconomic risk is shifted from the government to the holders of the debt. However, there is a time when such a strategy is appropriate, and a time when it is not. At the start of a transition to fiscal sustainability inflation is relatively high and interest rates are high because of the lack of trust on the part of the market. Until the government has built credibility it is not, in my view, wise to borrow long. To take an extreme

example, when the government of Uganda started to develop a market in long-dated debt in the early 1990s it found that it had to offer a real interest rate of nearly 40%. This seems to me to be a seriously counter-productive strategy in two senses. First, it sends a wrong signal: the only type of government for which it is sensible to borrow at such a rate is one which has no intention of paying back. Hence, it signals fiscal irresponsibility. Second, if the strategy starts from relatively high inflation, as in Nigeria at present, it tends to lock the government into the need to keep inflation at high levels because disinflation becomes much more costly if there is a large stock of long-dated securities carrying high interest rates. Indeed, since the private sector can see this cost, it tends to make a disinflation policy not just more costly but less effective, because it is harder to convince the private sector that the government means what is says.

The path to large sales of government debt at low interest rates lies through the establishment of a high degree of fiscal credibility. The central bank obviously has no chance of achieving such credibility while the government is running a large fiscal deficit. So, the first step towards building a market for longer-dated government debt is for the government to achieve a fiscally sustainable budget. This is obviously not enough: a government can have a sustainable deficit one year and abandon it the next. Holders of debt are worried not just about the present but about the future. The government needs some device to lock itself into fiscal sustainability. The most credible lock-in device is if fiscal responsibility becomes electorally unpopular. This has happened in Europe and America over the past twenty years. A government, which runs a large deficit ahead of an election, is now more likely to lose votes due to the perception that it is irresponsible than to gain them from the short-term boost to the economy. Behind this sea-change in voters' attitudes is a huge

amount of economic education, starting with the academic community and spreading through the media. The same sort of thing needs to happen here but it is a long, slow process. All I can say is: start now!

Are there any short cuts? One much-debated short cut is giving greater independence to the central bank. I am in favour of this, but with two conditions. The first is that the instructions that specify the objectives of the central bank need to be well-specified. It is, for example, definitely not enough to say that the central bank should keep inflation low. The bank has also to take into consideration the objective for the growth of the real economy. The second is that the central bank should behave in a transparent way with its decisions properly explained to a broad audience. As I suggested at the start, a core objective of the central bank should be to communicate, gradually building a more informed society.

Finally, on the topic of government debt, I will make a few comments on short-term smoothing. In addition to the oil cycle, which is a medium-run phenomenon, Nigeria has to cope with a lot of short-term revenue and expenditure instability. Both receipts and payments are lumpy. The central bank has an important role here to smooth these shocks. In doing so it reduces volatility in the economy and so reduces the level of risk. It is important for the bank to be clear about when its interventions are short-term smoothing when they are intended to finance the transition, and when they are intended to finance sustainable deficit. By keeping these three rationales for intervention distinct, the bank can best guard against the mistaken strategy of trying to sustain the unsustainable. From time to time governments want central banks to do precisely this, but compliance ruins the bank's reputation and with it the debt market.

3. *Capital Flight and the Exchange Rate*

I now turn to my other topic, capital flight and the exchange rate. I do research on capital flight. Together with Anke Hoeffler and Cathy Pattillo, I have estimated it for some 56 countries including Nigeria (Collier *et al*, 2001, 2004). Our approach is to add the annual flows of capital flight up, to estimate the outstanding stock of private wealth that is held outside the country. We then compare this with the stock of real private wealth that is held within the country we estimate this from the flows of private domestic investment. A key statistics is then the proportion of private wealth, which is held abroad. Even in very successful economies, the private sector chooses to hold some of its wealth abroad. Such a diversification of the asset portfolio is a sensible way to spread risks. For example, a typical Asian economy has around 10% of its private wealth held abroad. On average, Africa has around 30-40% of its private wealth abroad. Nigeria, however, has around 70% of its private wealth abroad, as of 1999. This is the highest figure for any of the 56 countries in our sample. The stock of flight capital is around $107 billion. Before continuing, I should emphasise that all estimates of capital flight are approximate because they are indirect. However, since Nigerian GDP is only $40 billion, we can say with reasonable confidence that capital flight is large relative to the Nigerian economy.

This is both good news and bad news. The good news is that if only this capital could be attracted back to Nigeria it would be transforming. The private nationally owned capital stock in the country could be approximately tripled. Or, at a more parochial level, the Central Bank could sell huge quantities of debt. The repatriation of this capital should be a central aim of Nigerian economic policy

precisely because it is so much bigger than any other economic number. It is even much bigger than Nigeria's external debt more than three times bigger. Nigeria is thus a substantial net creditor to the rest of the world.

The bad news is obviously that Nigeria has lost so much private wealth, and presumably unless something changes it will continue to do so. It becomes important, therefore, to understand what needs to change in order to turn flight to repatriation.

It is virtually impossible to stop capital flight by administrative means. People who want to shift wealth out of the country have too many options by which to do it. Indeed, the effort to police capital flight might well do considerable damage to the economy through raising transactions costs, without significantly curtailing capital flight itself. Hence, for capital flight to be reduced or reversed, it is necessary to change the incentives, which induce people to want to get their money out of the country. What are these incentives?

In Nigeria, the most common perception is that capital flight is the result of corruption. Obviously, some of it is and to get this money back you have to use legal and diplomatic channels as, indeed, you are doing. However, globally, there is no relationship between corruption and capital flight. In some societies that are highly corrupt the resulting wealth is held domestically. In other societies that are

pretty honest, even the honestly acquired wealth is held abroad. Essentially, private wealth is held where the returns are high relative to the risks and this applies regardless of how it has been acquired. Nigeria's acute problem of capital flight is due to a combination of high risks and low returns. This is potentially good news. If the risks can be brought down and the returns raised, then capital can be repatriated. This is not just fanciful. As of 1990, Uganda had almost as much capital flight, proportionately, as Nigeria has now - around 66% of private wealth was out of the country. During the 1990s substantial amounts of this were repatriated - in some years capital repatriation was greater than exports. It can be done.

Two of the major drivers of capital flight are fiscal volatility and an excessively appreciated real exchange rate. Fiscal volatility presumably drives out capital because of its effect on risk. An appreciated real exchange rate drives out capital because the policy cannot be sustained, so that while it is in operation it is profitable to take capital out. Such behaviour can be seen dramatically in the history of Nigeria. Private investment collapsed *during* the oil boom private wealth was shifted out of the country to take advantage of the high real exchange rate. A particularly potent aspect of overvaluation is the gap between the official and the parallel exchange rate. The wider this gap is, the larger is capital flight the gap is in effect a subsidy on capital flight.

The reversal of capital flight thus requires the reversal of two major policy errors of previous Nigerian governments fiscal volatility and an over-valued exchange rate. The gains to the reversal of capital flight are in the case of Nigeria absolutely enormous. The over-valuation of the Naira has reflected the interests of the elite in having cheap imported consumer goods, to the detriment of the non-oil productive economy. This is perhaps the single biggest contrast with

growth-oriented economies, such as China now and Indonesia until the last decade. Currently, the government of China is struggling to keep the exchange rate as under-valued as possible, against opposition from the USA which fears Chinese competition. China's economy is growing at around 10%. In 1986, I was travelling regularly between Nigeria and Indonesia. In Indonesia the academic community joined with the business community to demand depreciation. They argued - correctly - that overvaluation was making Indonesia uncompetitive in foreign markets a 'high-cost economy' was the expression used. A lack of competitiveness implied a lack of jobs. The Indonesian government responded by depreciating the currency. In Nigeria, by contrast, the elite fought tooth-and-nail to oppose a depreciation, even though Nigeria's currency was far more overvalued than that of Indonesia Nigerian voices of rent-seeking vested interests, masquerading as nationalists. It is part of the business of the central bank, and indeed of the economics profession, to discredit them.

4. *Conclusion*

In a democratic society, a central bank has an important role as an independent voice of authority for reasonable economic policies. Because macroeconomics is often counter-intuitive, there is considerable scope for popular misunderstanding. A central bank needs to communicate both by publicly giving advice and comment that contradicts illusions, and by trying to explain the thinking behind its views.

Trying to sell large quantities of government debt during periods when the government has a fiscal stance that is unsustainable is, I have suggested, counterproductive. Such a strategy misleads both

the government and the population because for years it can disguise the key fact of unsustainability. At some point in the future the strategy blows up leaving some future government worse off. To sell debt successfully, the government must, at a minimum, have a sustainable fiscal stance, but this is not sufficient. Wealth holders will need some reassurance that the stance will not deteriorate. I have suggested that the government can lock itself in either by educating the electorate, and by imposing rules on itself and permitting a degree of independence by the central bank.

Nigeria is fortunate to have one huge unexploited resource that would potentially enable the government to sell large quantities of debt. This is the stock of flight capital. This stock, around $107 billion, has built up because to date there have been such strong incentives for capital flight. Risks on domestic investment have been too high, and returns too low. I have suggested that one key driver of capital flight is overvaluation and that this has been more important than corruption. If Nigerians want to harness this huge pool of resources whether for government debt sales or private investment - you will need to face the issue of the exchange rate. In my view, a persistently overvalued exchange rate has progressively impoverished the economy, draining out wealth abroad. The potential for a more competitive exchange rate is usually discussed in terms of export diversification. While this is correct in itself, the sheer size of the stock of Nigerian flight capital suggests that the major gains to a more competitive exchange rate might come from portfolio shifts back into Nigerian assets.

Finally, I have distinguished between reform as a sham - the attempt by a weak government to disguise an unsustainable strategy, - and a genuine transition. In a genuine transition it is legitimate to have

a phase in which the fiscal deficit is too high. The early stages of a genuine reform are, in fact, a fabulous opportunity for smart investors to purchase government debt - because until credibility is fully secured, debt will be too cheap. That is the judgement which both the central bank and the market must make about the present reforms.

Economic theory tells us that there is one thing that a genuine reforming government can do to distinguish itself from the lies that come forth from a weak government trying to disguise itself. The genuine reformer needs to do something that the weak government is simply too frightened to do. That is, the genuine reformer is distinguished by courage. Courage is, in economic parlance, that signal that separates the genuine reformer undertaking a transition, from the weak government hoping to disguise itself.

It is not for me to judge the courage of the present economic reforms. But it is something that the Central Bank, the debt market, and Nigeria's economists should judge not just as citizens involved in the consequences, but as professionals who are obliged by your positions to form a view. But, of course, you *are* also involved as citizens. And not just any citizens but people of influence and authority. This gives you a dual role. You must reach a judgment as to whether the transition will be completed, but collectively your actions will influence whether it is completed, or is reversed like all previous Nigerian reform episodes. And just as you must judge the actions of others, so your own actions - enhancing the transition, standing on the sidelines, or actively undermining it - will be judged. They will be judged by your children.

REFERENCES

Paul Collier, Anke Hoeffler and Cathy Pattillo, (2001). "Flight Capital as a Portfolio
Choice." *World Bank Economic Review*.
_____2004. Africa's Exodus. *Journal of African Economies*

REFORMS, FISCAL TRANSPARENCY, DUE PROCESS AND ACCOUNTABILITY

Prof. Dotun Phillips

Distinguished Ladies and Gentlemen,

Ultimately, everything in life is *relative*. So, if I seem to sound absolute in this Lunch Talk, my real meaning should be understood to be relative. After all, Nigeria's prolonged and patently avoidable retrogression does get many of us angry, desperate and passionate sometimes!

Critical reforms are now being rolled out by Nigeria's Federal Government. In this regard, those who have been accusing Obasanjo of obduracy, arrogance, sanctimony, despotism, insensitivity, omniscient posturing, etc., seem to be oblivious of the fact that, in varying degrees, these are the typical characteristics of almost all persons in the executive branch of government in all countries of the world, especially in times of national crises. (Bush, Blair, Putin, Mahatia, 'Lula', Belusconi, and so on, have all been similarly characterized at one time or the other!). There is 'something' in the *culture* of government everywhere in the world which makes previously humble people to instantly acquire these disturbing characteristics the moment they are inducted into the inner sanctum of government. Fortunately, as has happened to all others before them, they will become humble again immediately they exit government. In the meantime, let us accommodate them with a robust sense of humour and engage in damage minimization. After all, Nigeria and the human spirit will outlast everybody, as has been the case through all ages and lands.

1. Red-herring Reforms?

So far, it is difficult to avoid the conclusion that all the reforms being currently touted by the Federal Executive seem to ignore and divert attention from Nigeria's fundamental problems which comprise the following:

- Overcentralization,
- Ethnicism and sectionalism,
- Chronic inability to produce good political leaders,
- Scant attention to human resource development,
- Over-dependence on imports for production,
- Continued dependence on the export of primary commodities (initially, unprocessed cash crops, now unprocessed crude oil), and
- The external debt burden.

Constitutional reforms which could have addressed the first three problems have not seen the light of day since 1999. The Federal Executive appears uninterested and the multiplicity of uncoordinated constitutional review committees set up since 1999 to date come handy as excuses for delaying or avoiding to face the issues. As for human resource development, little has occurred so far to justify any conclusion that Nigeria's top decision-makers appreciate that human resource is, in fact, the most important resource of any nation. If anything, policies and actions so far on human resource development appear retrogressive. (Even the population census, the base of all good policies, has been cavalierly postponed from 2001 to an uncertain future year!). With regard to the last three problems, all the recently renewed, counter-productive utterances about an “overvalued” Naira needing devaluation, external debt rescheduling, and an import-focused downstream petroleum deregulation clearly

show that Nigeria's top decision makers are yet to fully appreciate the existence and fundamental nature of these problems.

2. Painless Reforms Needed

Those currently managing Nigeria seem to be forgetting that, for nearly 25 years now (a generation), Nigerians have been going through all sorts of *painful* economic reforms imposed on them by successive governments, without any sustained gains accruing therefrom. Understandably, Nigerians are now very tired of *painful* reforms! They will no longer willingly buy into or facilitate *painful* reforms. If they are forced, they will surrender superficially, but will then proceed to quietly continue to destroy Nigeria from under the table. Therefore, the unusual challenge before those currently in charge of Nigeria is to come up with *painless* reforms; otherwise, they should simply leave Nigeria alone!

In trying to meet this challenge of designing and implementing *painless* reforms, Nigeria's top managers should appreciate one basic *human nature*: for the vast majority of human beings, what is really relevant is the proximate, the tangible and the instant; the long term is not really relevant. This basic human nature (and Nigerians are human beings!) transcends professionalism, technocracy and transient state power. When this basic human nature is combined with the aforementioned inappropriateness of *painful* reforms in contemporary Nigeria, then the challenge facing Nigeria's current 'born again' reformers can be better appreciated. The professional economists among these reformers need to remember the teachings of one of the creators of the discipline of Economics: Vilfredo Pareto, particularly what is called the Pareto Optimality. Thus, provided criminality is absent and the target group is not to blame for the condition to be

changed, then a change would be worthwhile only if it improves the conditions and gainers compensate the losers.

3. *Instruments vs. Outcomes*

Reforms and effective economic management require, among other things, a clear distinction between policy instruments and policy outcomes. Since the *raison d'être* of an economy is the material welfare of all the people therein, the only proper outcome is the sustained significant enhancement of the standard of living of all people in at least the following areas: jobs, incomes, food, water, housing, health, education, roads, transportation, communication, electricity, fuel, and public safety. Any other concept of outcome is erroneous and illegitimate. In addition, the overriding preoccupation and focus of the top economic managers should be the *outcome*, whilst they are manipulating and adjusting the *instruments*.

The foregoing explanation immediately leads to the following observation on the realities in Nigeria to date:

> The President's 'Economic Team' should actually consist of the top people in charge of the 13 outcome areas highlighted above, in addition to the heads of Finance, National Planning, Budget and the FCT who now make up the 'Economic Team.' In other words, the Federal Executive Council would, in reality, be the President's Economic Team.
>
> There has been an undue focus by Nigeria's economic managers on *instruments*, leading to a strong tendency to adjudge the performance of Nigeria's economy by reference to the instruments, e.g., fiscal, monetary and foreign exchange instruments, all wrapped up in the concept of 'macroeconomic stability.'

Nigerians (like other people world-wide) have been very consistent in assessing the performance of their economy by reference to the 13 *outcome* areas highlighted above, not by reference to 'macroeconomic stability' and macroeconomic indices. Their message should, by now, be clear to the top managers of Nigeria's economy.

4. *The 'Federal Fiscal Might'*

The greatest part of Nigeria's fiscal problem appears to be at the federal level. This is not surprising because the Federal Government accounts for the following:

- About 70 per cent of the combined federal, state and local governments' overall annual expenditure;
- About 75 per cent of Nigeria's external debt stock;
- About 86 per cent of the overall government deficit of N356 billion in 2002;
- Largely unconstitutional expenditures in the areas of agriculture, water, education, health, housing, etc.; And
- The Federal Executive alone annually accounted for over 95 per cent of the total combined expenditure of the Executive, Legislature and Judiciary at the federal level between June 1999 and 2003.

=

Clearly, contrary to public statements by top federal officials, fiscal reforms in Nigeria should be directed mainly at the federal level, not the sub-national levels.

5. *Pre-determination of Annual Budgets*

Most people fail to appreciate that the annual budget is largely pre-determined by previous decisions and existing obligations. For the year 2000 and 2001, our federal budget study revealed that the extent of pre-determination, in fact, well exceeded 100 percent, meaning that the financial implications of what was already on the ground far exceeded inflow projections and figures in the annual *Appropriation Acts*. Yet, each year, everybody erroneously behaves as if government has fresh uncommitted funds with which to enter new services and projects! Herein lies the major explanation for the enormous pressure mounted each year on the budgetary system, the pre-disposition of the budget to significant *ex ante* and *ex post* deficits, and the presumed fiscal indiscipline of government. The failure of Nigeria's fiscal managers to appreciate the largely pre-determined nature of annual budgets is well dramatized by the perennial gross under-budgeting for *operating* funds, i.e., recurrent expenditures.

6. Under-budgeting for Recurrent Expenditure

The federal, state and local governments in Nigeria are now truly overwhelmed. They all have inherited and taken on much more than they can cope with. Regrettably, virtually all their leaders are unaware of their fiscal predicament, as they seek to add on more new services and capital projects each passing day. In this regard, a budget study done by us for the years 2000 and 2001 revealed that the Federal Government required at least four times its budgeted annual *recurrent* expenditure, just to effectively cope with what was *already on the ground*. Recently, in October, 2003, the Lagos State Government, through its Deputy Governor, disclosed that Lagos State required at least N10 billion monthly to cope, whereas its total monthly inflow averaged about N3 billion.

Contrary to conventional wisdom in Nigeria, the major reason why "nothing works in Nigeria" is actually the gross inadequacy of government *operating* funds. Therefore, all those who are condemning government's recurrent expenditure in Nigeria need to re-think their positions for the following twelve reasons:

(1) Without adequate *operating* funds to procure *inputs*, existing government services and completed projects (schools, hospitals, roads, water, policies, courts, etc.) cannot produce their expected *outputs*.

(2) Operating funds are typically provided for in the government *recurrent* expenditure budgets under the label "Overhead" (after the people required for the operations would have been provided for under "Personnel" cost).

(3) Operating funds are required year-in-year-out; it is because these financial requirements recur every year that the word "recurrent" is used to describe that part of the government budget.

(4) Government *output* constitutes a major *input* into private sector activities. So, if government fails to produce its own output, the private sector would also fail to produce its own output, and the whole economy would be adversely affected, and so, "nothing works."

(5) Even if the current public sector dominance of the Nigerian economy were significantly reduced over time, the private sector would still require the outputs of the traditional functions of government.

(6) In National Accounts, the “Gross Domestic Product” (GDP) is a summation of final outputs, not a summation of investments or capital projects. Therefore, Nigeria's GDP growth rate, for some time to come, may be determined more by ensuring that what is already on the ground is enabled, with adequate operating funds, to produce its expected outputs.

(7) Recurrent expenditure votes provide for personnel, 'raw materials,' maintenance and depreciation, and if these recurrent votes are inadequate (as they have been for a long time in Nigeria) it is unreasonable to expect government to produce its expected outputs.

(8) Efficiency and structural considerations should not blind one to the fact that the overall levels of recurrent expenditure are actually grossly inadequate by at least 300 per cent at the federal level. Indeed, it is for this reason that we concluded, long ago, that Federal Budgets are pre-disposed to deficits, having regard to the magnitude of what the government already has on the ground that it’s desperately in need of operating funds.

(9) People always complain that “nothing works in Nigeria” and ask government to “do something about it”! In the foreseeable future, and until effective privatization, internalized deregulation and enhanced competition take root, government can, indeed, “do something about it” mainly by ensuring that government services and facilities already on the ground are provided with adequate operating funds (i.e., recurrent funds) to enable them produce their expected outputs.

(10) Recurrent expenditures may be too routine to be glamorous

and exploitable by politicians and bureaucrats, but without *operating* funds (i.e., recurrent expenditures) nothing would work in the end.

(11) Our budget study reveals that until the annual retained revenue of the Federal Government rises above N3,000 billion (from less than N1,000 billion now), the bitter truth is that government would not really have the fresh financial capacity to add on new services and new capital projects, without jeopardizing the outputs of existing services and facilities already on the ground. This is because, once again for emphasis, there is currently a gross under-budgeting by government for what is currently on the ground.

(12) Any mismanagement of the grossly inadequate *operating* funds (i.e., recurrent funds) should *not* blind the fiscal reformers to the fact that the funds were inadequate in the first place. It would seem to be a case of double jeopardy!

7. *No New Capital Projects*

The serious overall financial situation of the Federal Government is typified by the following two examples of the Federal Ministry of Works (FMW) and the Ministry of the Federal Capital Territory (MFCT), as at July 2003:

Value of Indebtedness to Contracts Value of Ongoing Contracts Awarded

	Value of Indebtedness to Contracts (N bn.)	Value of Ongoing Contracts Awarded (N bn.)
FMW	58	352
MFCT	50	145

During 2000-2002, none of the two ministries actually received more than N50 billion annually from the treasury! This desperate situation calls for drastic corrective and preventive action. Ideally, both Ministries (and many others) should not award any new construction contracts during the next few years because their Budgets have already been pre-determined for several years to come by existing contracts!!!

8. Budget Mutilation

The extent of mutilation of the federal budget system, from June 1999 to 2003, is simply mind-boggling, and the Federal Executive, far much more than the Legislature, is to blame. Consider the following scenarios:

(1) The budget estimates are presented very late in the year (typically in October or November) by the Executive to the National Assembly; but the Assembly is then blamed for delays in passing the Appropriation Bill on time, after struggling with estimates which are typically and cavalierly presented with incomplete documentation by the Executive.

(2) With the exception of the 2002 budget, there was no year when

the *Appropriation Act* had been in place “by the beginning of the financial year” as expected in Section 82 of the 1999 Constitution.

(3) Each year, the Executive flies into a rage alleging that the Legislature has not passed the estimates exactly as presented, even though Section 80 of the Constitution clearly gives the authorizing powers to the Legislature.

(4) Each year, from 2000 to 2003, the Executive has refused to fully and promptly implement the *Appropriation Acts* on the excuse of inadequate funds.

(5) But each year, there have been significant excess revenues realized.

(6) Despite significant annual excess revenues, each year has still ended with significant budget deficits.

(7) But the 'achieved' average annual implementation ratios are 60 per cent for budgeted recurrent expenditure and 40 per cent for budgeted capital expenditure, in comparison with the votes in the *Appropriation Acts*.

(8) To date, approved budget funds have never been released promptly and fully, resulting in a massive dislocation of government operations, undue topmost-level interventions, and the so-called 'cash-backing' process - all of which end up convoluting the whole system.

(9) Despite all the rhetorics, extra-budgetary disbursements and anticipatory approvals still occur.

(10) Despite its perennial refusal to implement the main budgets enshrined in the annual *Appropriation Acts* for the years 2000 to 2003 on the grounds of alleged inadequate funds, the Executive has regularly presented to the National Assembly *Supplementary Appropriation Bills* every year.

(11) The *Supplementary Appropriation Bills*, since 2000, have failed to comply with the stipulations in Section 81 (4) of the *Appropriation Act* regarding supplementary estimates. The Bills also reflect a defective *formulation* of the main budgets in the first place. Besides, they tend to betray any attempts to hide controversial estimates initially, with a view to presenting them later, at the last minute, very close to the event. Moreover, the *Supplementary Appropriate Bills* have essentially been exercises in political theatre as their contents have been such that the National Assembly would not dare to reject them and carry the can for any government failure.

(12) Patronage, personal favours, "see them" tactics and arbitrariness remain the disturbing features of budget management.

(13) Regrettably, very few people now trust government on budget and money matters!!!

9. Due Process and Transparency

From colonial times up to 2001, there has always been due process in government expenditure operations in Nigeria; nobody could spend funds without complying with stipulated procedures aimed at ensuring probity, accountability, value-for-money, discipline

and legality. The only difference now is that (no thanks to external pressure) the elegant title of “due process” and a centralized 'Due Process Office' did not exist until 2001. Thus, long before 2001, due process had been enshrined in the operations of the following:

- The Financial Regulations (formerly called Financial Instructions),
- The Financial Circulars,
- The Internal Audit System,
- The Auditor-General's System,
- The Public Accounts Committee,
- The *1958 Finance Control and Management Act*, as amended to date, and
- Several other fiscal regulatory provisions.

It was the military, during their prolonged misrulership of Nigeria up to May 1999, which subverted and weakened the due process structure itemized above. *This structure has not been dismantled* as at December 2003. Rather, instead of strengthening it, Nigeria's democratic rulers have paralleled it with the 'Due Process Office' (i.e., the Budget Monitoring and Price Intelligence Unit). Regrettably, this 'Due Process Office' is already growing into a highly centralized bureaucratic bottleneck which is slowing down and complicating Nigeria's development process, notwithstanding the N52 billion savings in capital project costs claimed to have been achieved by the Office.

Transparency in fiscal and other matters requires at least the following characteristics:

– full, timely, truthful and open financial records of government operations,

– open government processes,
– unfettered access by the general public to detailed information on government operations,
– freedom of speech,
– a vibrant and vigilant press,
– honest and sincere leaders at all levels, and
– the rule of law (not the law of the ruler).

Due Process and Transparency are mutually interdependent and are both prerequisites for Accountability. Unfortunately, most Nigerians fail to realize that matters of *money* are not for accountants alone, neither is *accountability* a matter of formal accounts only.

When the Executive, the Legislative and the Judicial branches of government are considered together, it is the Executive branch which appears the least transparent. This is so because the decision-making processes in the Executive branch are typically conducted in secret and covered by the *Official Secrets Act*. By contrast, the procedures of the Legislature and the Judiciary are conducted openly in public, with free access to all interested parties. Ironically, as highlighted earlier in this presentation, the Federal Executive accounts for over 95 per cent of the overall annual expenditure of the three branches of government. Thus, the biggest branch of government, fiscally, is the least transparent. All this clearly demonstrates the daunting nature of transparency campaigns in Nigeria. Regrettably, even the National Assembly is increasingly resorting to "Executive Sessions" in order to deliberate in secret!

Sensational and panic disclosures or measures by top government officials (as they often occur now) are not substitutes for transparency and due process in fiscal, monetary and forex

management. They only lead to stampede in the economy and an enhanced perception of a cover-up of government failure. Similarly, published data are not necessarily indicative of transparency or the provision of full and truthful information. For example, the ongoing petroleum deregulation crisis has uncannily revealed that all of the much-touted published data of NNPC's operations, in fact, conceal the really critical information. In the same vein, NEPA has gleefully announced that its current 4,000 MW power output exceeds the national demand of 3,500 MW, but fails to reveal the extent of *suppressed* demand and the fact that transmission and distribution problems have actually combined to make demand fall much further below generation capacity.

How about transparency, due process and accountability in Nigeria's monetary and financial sector? Or are the managers of that sector not Nigerians? Is the sector being managed by super-humans, relying on super computers, and without human foibles and biases? Perhaps the next CBN Annual Monetary Policy Conference should focus on transparency, due process and accountability in Nigeria's financial system.

Also, is there really a Federal Government account with the CBN that was formally designated a “Ways and Means Account”? (The presumed existence of this account arises from general complaints about improper financing of fiscal deficits from the account and with issues of transparency.)

Furthermore, it is noteworthy that the *Freedom of Information Bill* has been bogged down (deliberately?) in the National Assembly since 1999. Could this be further evidence of an unenthusiastic attitude at the highest level to the enhancement of transparency in governance in Nigeria?

Finally, the real world is, of course, a world of double standards. The external agents, under whose pressure Nigerian economic management labours (forget all the rhetorics!) have always tended to short-change Nigeria on overall fiscal transparency where their beneficial interests are concerned, such as the JVCC and External Debt Service.

10. External 'De-transparenting'

A decade ago, under external pressure, the Joint Venture Cash Calls (JVCC) and external debt service funds were removed from the federal budgeting and appropriation process. They were turned into 'first line charges', meaning that they were deducted up-front from federally-collected revenues before any budgetary allocation was made on the balance. By this device, those two fiscal outflows (accounting annually for nearly 40 per cent of total federal fiscal outflows) were excluded from annual budgetary scrutiny, thereby seriously derogating from the transparency which should characterize them.

Despite the restoration of democracy since 1999, the National Assembly has merely been informed, annually, of the aggregate amount involved in these two heavy fiscal outflows. The two fiscal outflows thus escape detailed legislative scrutiny and are not enshrined in the annual *Appropriation Acts*. Furthermore, even though the Supreme Court has ruled against 'first line charges' since April 2002, the practice has, in effect, continued in 2003. Consequently, a situation in which nearly 40 percent of federal fiscal outflows escapes strict transparency test does raise serious doubt and concern. Of course, the external agents who are daily shouting about lack of transparency in Nigeria are not complaining about this 40 per cent 'de-transparented' fiscal outflow which benefits them! Sanctimonious

double standards, indeed!! Nevertheless, it is in Nigeria's fiscal interest that *all* fiscal outflows during a year be covered by the *Appropriation Acts* for that year.

11. Tired Recommendations

We qualify our following recommendations as "tired" because these recommendations have been made ad nauseam, many times, by many entities, since 1999 to date, without effect !!!

1. The Federal Ministry of Finance should henceforth be allowed to FULLY manage the finances of the Federal Government.

2. A lot of effort should be put into properly formulating the annual federal budget, thereby facilitating subsequent effective budget execution.

3. Once the properly formulated federal budget is approved by the National Assembly, the consequential Appropriation Act and its usually voluminous Schedule should be respected by all, like a financial holy book.

4. In line with the constitutional expectation enshrined in the first sub-sentence of Section 82 of the 1999 Constitution, the annual Appropriation Act (i.e. the law approving the federal budget) should always be passed before the beginning of the relevant financial year.

5. In order to ensure that the Appropriation Act is passed before the beginning of the relevant financial year (as expected in the first sub-sentence of Section 82 of the Constitution), the President should ensure that his obligation under Section 81 of the Constitution to lay the proposed budget before the National

Assembly is done in good time to enable the National Assembly pass the *Appropriation Act* before the beginning of the year, without stampede or political ambush, as has been the case to date. (The *2000 Report* of the Budget System Review Committee, headed by myself, has made extensive recommendations on this matter, but no action has been taken, so far.)

6. The erstwhile epileptic, unpredictable and partial release of approved budget funds to spending agencies should cease. Henceforth, the release of approved budget funds should be automatic, routinized, full and prompt, with the Federal Ministry of Finance being *fully* in charge of the release process.

7. The choice of words in the annual *Appropriation Act*, not just its provisions, should always be carefully noted and obeyed by all concerned to promote the cessation of the so-called "cash-backing" process and the curtailment of the use of AIEs.

8. To inculcate a good demonstration effect of the acquisition and use of moral authority, the "down-sizing" and "right-sizing" components of the ongoing federal government 'reforms' should start at the level of the Presidency. In this regard, the President would be well advised to:

(a) Allow Ministries to *fully* run the affairs of government, as it used to be;

(b) Scrap all parallel bodies and units created in the Presidency and desist from establishing new ones;

© Dispense with the services of 95 per cent of the current group of Special Advisers, Senior Special Assistants, Personal Assistants, etc., and desist from appointing new ones; and

(D) Remember that Under Section 148 (c) of the 1999 Constitution Ministers are, in fact, also his Advisers; and that· Section 151(1) of the Constitution does not, in fact, compel the President to have Special Advisers.

9. Given Nigeria's desperate fiscal situation, no new contract for construction, supplies or services should be awarded, unless the full amount of money to cover the estimated value of the contract, as shown in the *Appropriation Act*, is ready in cash in a dedicated bank account away from the government treasury.

10. Government should urgently come up with an internalized development-generating *exit* strategy, backed up by an *Act* of the National Assembly to ensure that well before 2010, Nigeria would have cleared her external debt burden. (It can be done!!!).

11. As from 2004, *all* the fiscal outflows of the Federal Government (i.e., disbursements and payments by government, including JVCC and external debt service) would be embodied in the *Appropriation Act* for each year.

12. The fiscal period in Nigeria should shift from one year to the medium term of, say, 3 years, thereby avoiding panic measures and sudden shifts in fiscal policy (i.e., avoiding precipitate action on tax, expenditure and debt).

13. The National Assembly should urgently pass an *Act* to:

- Prohibit crude oil imports,
- Prohibit refined petroleum imports,
- Legalize only petroleum exports, and
- Provide very robust incentives to all concerned, rightaway.

Thank you for your attention.

CHALLENGES OF MONETARY POLICY IN A DEVELOPING ECONOMY

Prof. Ibi Ajayi

1. Introduction

It gives me great pleasure to address an important issue at this year's 3rd CBN Monetary Policy Conference. In deciding what to say at this dinner talk, I discussed with some "gurus" of the "dinner talk" industry who told me that a dinner talk is often given by elders. How then do I qualify? After pausing for a short while, I realized that after over thirty-two years in academia and the accumulated gray hair I have on my head, I might just qualify as an elder! I was duly informed that my talk should be short, since a lot of people are eager to go on with the business of eating the delicious food placed before them; or have eaten and are eager to go home to rest after a hard day's work. In either case, I am not also expected to propound some fundamental theories at this time. Given all these warnings that I have received and which I have taken to heart, I am going to be brief and would not bore anyone with dy/dx, a euphemism for quantitative analysis, in this talk

.

A good deal of attention has been devoted in recent times to the old but certainly still interesting and germane question of how the challenges facing a central bank, as the monetary authority charged with conducting monetary policy in developing countries, differ from those of developed countries. Are the evident differences in economic and social structure, or in the pace of change, or in exposure to shifts in the global economy so significant as to require a difference in approach to conducting monetary policy? If so, what are the material differences and what adjustments are policy makers required to make

in either focus or process? What challenges are posed by the processes of globalization for the conduct of monetary policy in developing countries? Can inflation-targeting be usefully adopted in developing countries?

Permit me to say from the outset that, as a group, it must be realized that developing countries are definitely heterogeneous. They have had diverse monetary regimes and experiences and are at different stages of financial development. Therefore, a one-size-fits-all categorization may not be applicable. There are, however, some basic areas of commonality including, in particular, a shallow financial infrastructure in money and capital markets, fiscal dominance, and some irrationality in monetary behaviour. These are the various issues I intend to dwell upon this evening.

2. The Objectives of Monetary Policy

In all parts of the world, the objectives of monetary policy are basically similar. They include the maintenance of full employment, price stability and sustained economic growth and a balance of payments equilibrium. While the objectives of policy are similar between developed and developing countries, the focus may differ from time to time, reflecting the environmental and international shocks that beset different economies. What is striking in moving from a developed to a developing country is the remarkable similarity in the monetary policy process. This similarity may arise from the efforts of the international community in setting standards of international good practice for the conduct of macroeconomic policy world-wide.

3. What Is the Difference Between Developed and Developing Countries?

The environment in which monetary policy is conducted in developing countries can simply be regarded as the distinguishing feature that raises the level of uncertainty facing policy-makers. In recent times, developing countries have faced more challenges from the increasing processes of globalization as communication world-wide has become much easier, the increasing evolution of electronic transfers, the increasing volatility of capital flows and the need to contain contagion effects all of this is posing new challenges for monetary policy and its management and calls into question the adequacy and efficiency of existing techniques of monetary policy in developing countries. Developing countries have to evolve new techniques to deal with large amounts of capital flows of varying composition so as not to exert unnecessary pressures on their economies. These issues constitute great challenges for monetary authorities in developing countries.

What then are the major differences between developed and developing economies? Let me mention a few of them and the challenges they pose for the conduct of monetary policy in developing countries.

First, because developing countries are undergoing significant structural changes, they are more vulnerable to shocks than developed countries. The rapidity and frequency of such shocks exert pressures on policy tools and options.

Second, movements in exchange rates may have a relatively bigger impact in developing countries, and their currencies may be more exposed to underlying volatility than those of developed

countries. Movements in exchange rates can have large and unanticipated effects on domestic monetary conditions.

Third, policy makers in developing countries tend to have less information available to them about developments in their economies. This means that appropriate statistics may be available less frequently or in a less comprehensive or disaggregated form, or simply less reliable. With inadequate data and information, developing countries may be planning without the appropriate facts, with all the attendant negative impacts. While the armoury of instruments of monetary policy is generally available and seems similar, the depth and breadth differ considerably from developed to developing economies.

Fourth, in order to execute monetary policy effectively, monetary authorities in a developing country may have to carry on the additional responsibility of promoting the development of the necessary infrastructure to enable them carry out monetary responsibilities adequately and efficiently. This is the promotional function of central banks in developing economies. Central banks may, therefore, have to expend considerable effort on this aspect of their function. In this category are the promotion of the development of the money and capital markets and the mobilization of savings in the early stages of the development of a central bank. Most central banks in developing countries have had to carry out this responsibility to ensure the effectiveness of their operations and the development of their respective economies.

Fifth, the underdeveloped nature of the financial system in developing countries poses a great challenge to the conduct of monetary policy. It makes the transmission mechanism of monetary policy complex and uncertain. The underdeveloped nature of the

financial system also constrains the choice of appropriate monetary policy techniques to be adopted.

The sixth challenge is the size of the informal sector in developing countries. This has been variously estimated to vary between 30-40 percent of GDP. The existence of a large informal credit and exchange rate system has a lot of implications for the coverage and the transmission mechanism of monetary policy in developing countries. Concretely, with a large informal sector, a significant part of the economy is outside the control of the monetary authority. The impact of monetary policy on the economy is consequently less certain and more complicated.

The seventh challenge has to do with the relationship between the fiscal authority and the monetary authority. There are two aspects of this. The first relates to the degree of autonomy of the monetary authority in the pursuit of its mandate. Where the central bank is a sub-department of the ministry of finance, the independence of thought, based on the expertise repository in the central bank, may be lost. The second is where the Governor of the central bank is not a member of the monetary policy decision-making body, serious constraints may be put not only on the formulation but the execution and effectiveness of monetary policy. In practice, there is need for adequate coordination of fiscal and monetary authorities.

This brings me to the eighth challenge facing monetary policy in a developing country: the fiscal dominance of monetary policy. Where monetary policy is dominated by fiscal policy accommodation, it vitiates the effectiveness of monetary policy and creates uncertainty of monetary impact. It makes the central bank's objective of price and exchange rate stability unattainable.

What about the challenge in the choice of an intermediate target of monetary policy? The question may be put more directly as follows: What is the intermediate target to use that will impact directly and effectively on the ultimate policy objective? It is generally accepted that the overriding objective of monetary policy is the maintenance of price stability. The attainment and preservation of a low and stable inflation rate is based on the following generally accepted statements:

- A high and variable inflation is costly in terms of long-term growth and the allocation of resources;
- Increases in money supply have a lasting effect on the price level;
- Money has a transitory effect on a number of real variables, including output and employment;
- A low inflation rate makes the attainment of other monetary objectives possible; and
- High inflation is inhibitive of growth.

The question to ask then is: Which is the most appropriate aggregate to utilize that will impact directly on inflation? In many developing countries, there are usually two choices. The first is inflation-targeting while the second is choosing a monetary aggregate, such as broad money. In many developing countries, the monetary policy framework is deeply rooted in monetary aggregate-targeting which involves the determination of the quantity of money supply required to achieve the macroeconomic objective of low inflation and internal and external balance of payments on a sustainable basis. Thus, the rate of inflation is the ultimate target of policy while the intermediate target is the effective management of broad money and base money in the operating target. The problem that monetary authorities often face in developing countries is that fiscal policy exerts pressure on monetary aggregates. With an

increasing budget deficit, it is difficult to predict monetary aggregates and price inflation with any degree of certainty. If anything, these goals soon become elusive.

The ninth challenge has to do with the level of independence of a monetary authority. In other words, the independence of a monetary authority from government is important. A monetary authority must be able to choose the appropriate instruments of policy it deems fit to address particular monetary or macroeconomic problems. Such instruments would, of course, be meaningful only in the context of fiscal policy discipline. Regrettably, fiscal policy discipline is more the exception than the rule in many developing countries.

The tenth challenge is the critical role played by confidence in, and the credibility of, the policy framework. There are two aspects of this: the domestic and international dimensions. Domestically, there is a critical need to win public acceptance of the value of low inflation and to ensure public confidence in the determination and ability of the central bank to achieve it. Thus, the informative role of the monetary authority in a developing country would be important to get the message across that monetary policies are being implemented for the good and well-being of all. Similarly, confidence generated at the international level can have a powerful influence on investment inflows and on the exchange rate. That confidence is important because the maintenance of macroeconomic stability exerts positive impacts on macroeconomic outcomes. It is known, for example, that foreign direct investments respond to a domestic economy's fundamentals and not to sentiments. No matter how much foreigners may claim to love developing countries, in the final analysis, it is the domestic macroeconomic fundamentals of each country that would determine what each country receives from the global economy.

We can now examine the issue of inflation-targeting in

developing countries and its appropriateness as a framework for monetary policy in Nigeria.

4. Can Inflation-Targeting Be a Framework for Monetary Policy in Developing Countries?

One of the most recent topics of debate has to do with inflation-targeting. A number of industrial countries have adopted an inflation-targeting framework in response to the difficulties they have had in using an exchange rate peg or some monetary aggregate as the intermediate target. For some developing countries, however, inflation-targeting has become a fad. My humble opinion is that inflation-targeting must be approached with maximum care after taking due cognizance of each country's macroeconomic fundamentals, as well as the track record of the country's monetary authority in the attainment of its ultimate objectives of policy. Thus, the adoption of inflation-targeting constitutes a great challenge to developing countries.

There are certain prerequisites that must be met before it can be embarked upon, such as the following:

- The monetary authority, or the central bank, should have a considerable degree of independence. In particular, it must have the freedom to gear the instrument of monetary policy towards some nominal objectives;

- A country adopting inflation-targeting must not show any of the symptoms of fiscal dominance. In other words, the conduct of monetary policy must not be dictated or constrained by purely fiscal considerations. The implication of this is that public sector borrowing from the central bank and the banking system must be low or nonexistent;

- Government should necessarily have a broad revenue base and not rely on revenues from seigniorage generated by excessive currency issuance;
- Domestic financial markets should have enough depth and breadth to absorb the placement of both public and private debt instruments; and
- The accumulation of public debt should be sustainable and not unduly constrain monetary policy.

These conditionalities constitute the first requirement.

The second requirement for the adoption of inflation-targeting is that the monetary authority should refrain from targeting the level or path of any other nominal variable, such as wages or the exchange rate. A country that chooses a fixed exchange rate system necessarily subordinates its monetary policy to the exchange rate objective and is unable to target effectively any other nominal variable, such as the rate of inflation.

A country that satisfies these two fundamental conditions can, in principle, engage in inflation-targeting. The greater challenge, however, in addition to the ones mentioned above, lies in having the technical and institutional capacity to model and forecast domestic inflation and assess the probable effects of instrument changes on future inflation. Additionally, a country must have a mechanism for managing the way in which monetary impulses affect the main macroeconomic variables.

From the studies of central banks, we learn that the monetary authorities in developing countries face environments that differ radically from those faced by developed countries. The ability of

monetary authorities in developing countries to conduct an independent monetary policy is constrained by three main factors, namely, a heavy reliance on seigniorage, a shallow financial market, and a fragile banking system. A number of developing countries rely on seigniorage to the tune of 1-3 percent of GDP, while the shallow financial market and a fragile banking system are applicable to many more developing countries. For a number of developing countries, fiscal dominance and a poor financial infrastructure severely constrain the scope for an independent monetary policy. For many of the countries in this category, the attainment of an effective instrument that would be independent of the central bank would require a comprehensive public sector reform to broaden the tax base and reduce reliance on seignorage. Indeed, a revamping of the banking and financial systems of such countries would be required.

5. Taking the Issue of Inflation-Targeting Nearer Home

With all that has been said, is it appropriate for Nigeria to now change to inflation-targeting? Put in another way, do we have all the prerequisites for embarking on inflation-targeting in Nigeria? Looking at the track record of the Central Bank of Nigeria in meeting its inflation objectives over the years, it is very clear that it has not been able to record an unqualified success; there is always considerable discrepancy between what it wants to achieve and the final outcome. The reasons for this undesirable situation are not difficult to discern. The greatest obstacle is the pattern of government behaviour: large borrowing from the Central Bank and the financial system; a narrow revenue base and reliance on seignoirage. If it is any consolation, and it should be, the apparently poor track record of the Central Bank of Nigeria is not peculiar to developing countries: even the Bank of England, among the developed countries, has had its own share of

similar failure. In general, despite several years of monetary management by central banks as monetary authorities, improving performance remains the main objective.

It would seem very unwise for Nigeria to switch to inflation-targeting at this time. The Central Bank of Nigeria has been using monetary aggregate-targeting by targeting broad money (M2) which is certainly the best in the present circumstances. Nigeria should stick to the present mechanism of control, refine it and battle the issue of fiscal dominance in a meaningful way. Changing the focus of policy just because it is fashionable will not lead to any meaningful improvement, so long as the various impediments mentioned earlier persist in the economy.

I thank you all for listening to me.

REFERENCES

Ajayi, S. Ibi and Oladeji O. Ojo, (1981). *Monetary and Banking: Analysis and Policy in the Nigerian Context,* London: George Allen and Unwin.

Mason, Paul R. (1998). "Can Inflation Targeting be a Framework for Monetary Policy in Developing Countries?" *Finance and Development*, March.

NES Nigerian Economic Society (2003). *Monetary Policy and Exchange Rate Stability*, Proceedings of a One-day Seminar held on 23 May 2002 at the Federal Place Hotel, Lagos.

Plenderleith, Ian (2003). "Is Monetary Policy Different in Africa?" Paper presented at the Symposium sponsored by the Federal Reserve of Kansas City, Jackson Hole, 29 August.

WELCOME ADDRESS

Ernest C. Ebi

Mr Chairman,
Distinguished Senators,
Honourable Members of the House of Representatives,
Honourable Commissioners,
Chief Executives of Banks and Other Financial Institutions,
Captains of Industries and the Organized Private Sector,
Distinguished Members of the Academia,
Ladies and Gentlemen,

1. It is my honour and privilege to welcome you to the 3rd CBN Annual Monetary Policy Conference. For the benefit of those of you who are attending our Conference for the first time, I would first of all wish to intimate you with the major objective of CBN's Monetary Policy Forum/Conference which started in November 2000. The Monetary Policy Forum (MPF) is a quarterly event while the Monetary Policy Conference (MPC) is held annually, both intended to provide an opportunity for all key stakeholders in the Nigerian economy to brainstorm, dialogue and exchange ideas on contemporary issues confronting the Nigerian economy, with a view to fashioning out appropriate policy measures/programmes for addressing them. We have successfully held eight MPF's and today marks the third in the series of annual conferences. I would like to state with all sense of modesty that the themes of past fora/conferences have been quite stimulating and the outcomes very rewarding.

2. You will agree with me that fiscal management is one of the

major economic issues that have attracted much attention in public discourse in recent times, particularly in developing countries. It is against this background, as well as the desire to achieve complementarity of fiscal and monetary policies, that we chose Issues in Fiscal Management: Implications for Monetary Policy in Nigeria" as the theme of this year's Conference. The choice of the theme for this year's Conference, it is hoped, will give participants the opportunity of discussing a major issue confronting macroeconomic management in Nigeria.

3. Ladies and Gentlemen, an honest assessment of government finances in recent years reveals a worrisome development reflecting the unsustainable fiscal performance of the three tiers of government. Over the years, oil has remained the dominant revenue source of government while the country has maintained a rising expenditure profile, resulting in huge overall fiscal deficits in most of the years. Equally worrisome is the fact that the budgetary gaps are financed largely through credit from the banking system, particularly the Ways and Means Advances from the Central Bank, with adverse consequences on macroeconomic stability and the growth potentials of the economy. Unfortunately, the failure of government to exercise budgetary restraint and the fiscal authorities to implement the necessary expenditure control mechanisms have shifted the burden of macroeconomic adjustment to the monetary authorities. It is, however, gratifying to note that there has been a paradigm shift in recent times by the present Administration to the "due process" of expenditure management while the *Fiscal Responsibility Act* is in the process of approval by the National Assembly.

4. Mr. Chairman, the importance of a sound and sustainable fiscal policy is generally well appreciated. Similarly, the effectiveness of monetary policy depends, largely, on the complementarity of

monetary and fiscal policies as well as the extent of coordination between them. In this regard, an overly expansionary fiscal policy usually makes the challenge of monetary management an arduous task, compelling the monetary authorities, in most cases, to adopt a non-accomodating stance. In order to mitigate this development, governments at all levels are required to tailor their expenditures to the absorptive capacity of the economy, and inculcate the habit of financing any budgetary deficit from non-inflationary sources, rather than continue to rely on borrowings from the financial system. Furthermore, government's statutory limits on borrowing requirements from the banking system must be reviewed while the refinancing conditions should be more clearly stated.

5. Mr. Chairman and Distinguished Participants, this Conference is designed to address basic issues of fiscal management that are germane to the effective implementation of monetary policy in Nigeria. To this end, we have assembled today the best professionals of various callings and with vast experiences to lead the discussions on the various sub-themes. In line with our tradition, we encourage the participants to discuss freely and frankly in order to come up with useful and comprehensive policy recommendations that will crystallize into the realization of sustainable macroeconomic management in Nigeria.

6. On this note, I would like to sincerely welcome you to this Conference and to wish you very successful and rewarding deliberations.

7. Thank you for your kind attention.

KEYNOTE ADDRESS

J.O. Sanusi

Distinguished Senators,
Honourable Ministers,
Honourable Members of the House of Representatives,
Honourable State Commissioners,
Distinguished Guests,
Chief Executives of Banks and Non-Bank Financial Institutions,
Captains of Industry,
Ladies and Gentlemen.

1. It is my pleasure and honour to welcome you all to the Third Central Bank of Nigeria Annual Monetary Policy Conference. The theme for this year's Conference, “Issues in Fiscal Management: Implications for Monetary Policy in Nigeria,” is apt and very important, considering the effects of government's fiscal dominance on monetary management in Nigeria, over the years. Indeed, the major factor that explains the recent excessive growth in money supply has been the expansionary fiscal operations of the three tiers of government.

2. Distinguished Ladies and Gentlemen, I will not attempt to pre-empt our eminent resource persons in this discourse, but permit me to make a few observations on the theme of the Conference. The stance of fiscal policy in Nigeria has been largely expansionary, since the oil sector took over as the major source of government revenue in 1973. In the last five years, the overall fiscal deficit of the Federal Government has been large and in excess of 4 per cent of GDP. The deficit has been financed

mainly by the banking system, especially through the CBN Ways and Means Advances to government, with serious implications for inflation, exchange rate stability and output growth.

3. Also, the sporadic surges in government expenditure at all levels, which often accompany windfalls in oil export earnings, have been at the root of the recurrent problem of excess liquidity in the banking system. It is against this background that the CBN has always advocated fiscal prudence by all tiers of government and the establishment of a stabilization fund to sterilize excess oil receipts when the world price rises above an agreed benchmark. Such a fund would also ensure the maintenance of a sustainable expenditure level.

4. Moreover, the system in which the CBN underwrites government's domestic debt securities promotes an accommodating monetary policy, since the Bank automatically takes up the unsubscribed portion of any primary issue. Quite often, there are conflicts between the objectives of monetary policy and debt management, posing serious problems for the monetary authorities. The establishment of the Debt Management Office (DMO) to assume the responsibility for managing government debt is, therefore, a welcome development that should facilitate the conduct of monetary policy and enhance its effectiveness.

5. Ladies and Gentlemen, let me emphasize that our experience over the years demonstrates that the monetary financing of large fiscal deficits generally leads to high inflation, and that its financing through the banking system crowds out the private

sector by forcing interest rates to rise beyond what could be considered realistic for investment growth. Studies have also shown that there is a strong correlation between large fiscal deficits and external current account imbalances, thus demonstrating the sensitivity of real exchange rate to fiscal deficits. In an overly imports-dependent country, such as Nigeria, an expansionary fiscal policy has a way of depleting external reserves and weakening the exchange rate. To ensure the stability of the naira exchange rate, therefore, budget deficits must be brought under control, recognizing that a budget deficit creates its own destabilizing vicious circle. It is, in fact, important that we should, at this Conference, consider the various indicators, such as the Deficit/GDP Ratio, and the Debt/GDP Ratio to determine the extent to which Nigeria has achieved fiscal sustainability.

6. Another important issue in fiscal management is the structure of revenue and expenditure. The fact that Nigeria still relies excessively on oil as the main source of government revenue is a matter for serious concern. The continued dependence by all the three tiers of government on revenue receipts from crude oil makes the economy vulnerable to the vagaries of the international oil market. Notably, it is always difficult to bring down the usually strong expenditure response to any windfall earnings, when oil income falls as a result of the collapse of world prices. There is, therefore, a strong need for diversification of government revenue sources, away from oil. Similarly, government expenditure over the past decade has tended to be predominantly recurrent, comprising personnel cost, overhead cost and debt service payment, leaving little or no room for capital expenditure that will generate growth. Moreover, lack of

effective coordination between fiscal and monetary policies has resulted in periodic fiscal surprises, which tend to overburden monetary policy in the fight against inflation.

7. In this regard, I wish to acknowledge the recent efforts of the Federal Government to enthrone fiscal prudence, through such policies as the institutionalization of the Due Process Mechanism, the adoption of a Medium-Term Expenditure Strategy, the proposal to enact the *Fiscal Responsibility Act,* and the pursuit of the Anti-Corruption Crusade. I am hopeful that as these measures come into full force, the fiscal surprises that have undermined the effectiveness of monetary policy will be minimized.

8. Finally, I urge you all to deliberate further on some of the issues that I have raised, so that this Conference can come up with policy proposals for enduring solutions to the constraints to the effectiveness of macroeconomic policies in this country.

9. Once again, I welcome you all to this annual Conference and wish you successful deliberations.

SPECIAL ADDRESS: ISSUES IN FISCAL MANAGEMENT: IMPLICATIONS FOR MONETARY POLICY IN NIGERIA

Dr (Mrs) Ngozi Okonjo-Iweala

Introduction

1. Governor, Chief J. Sanusi, Deputy Governor Ernest Ebi, other Deputy Governors and colleagues of the Central Bank, Distinguished Senators and Hon. Members of the House of Assembly, Excellencies, distinguished Ladies and Gentlemen. It gives me great pleasure to be among you at this opportune moment to discuss a subject of great importance to our country at this juncture. We have all witnessed developments in various aspects of the Nigerian economy in recent years and, in particular, since the inception of the second term of this Administration. There are important challenges and opportunities ahead of us. A well thought-out and far-reaching economic reform programme is in the process of being implemented. Yet, we know that the impact on key economic indicators will take some time to manifest itself, even as we work hard to ensure that the Nigerian public begins to feel the benefits of these reforms.

2. Fiscal and monetary policies are inextricably linked in macroeconomic management; developments in one sector directly affect developments in the other. Undoubtedly, fiscal policy is central to the health of any economy as government's power to tax and to spend affects the disposable income of

citizens and corporations, as well the general business climate. In this regard, the interrelationship between public spending and private sector performance is of paramount importance. On the one hand, government expenditure can provide an impulse for private sector growth, while on the other, it can also be harmful if it results in budget deficits and leads to competition for scarce financial resources from the banking sector as the government seeks to borrow to finance the deficit. In such circumstances, the crowding out of the private sector by the government sector can outweigh any short-term benefits of an expansionary fiscal policy. The key to all this, therefore, lies in striking a good balance in fiscal management enough expenditure outlays to meet the needs of government and support growth, but not so much as to deny the private sector the resources it needs to invest and develop.

The Operation of Fiscal Policy

3. Fiscal Policy has been an enduring challenge in Nigeria, not least because it has been difficult to strike the needed balance in fiscal management. Driven by the volality of oil revenues, the fiscal stance has been equally volatile. It has been difficult to implement the kind of management needed to smooth out consumption and expenditures and generate savings.

4. Government expenditure impacts the aggregate demand which in turn, affects the rate of inflation and the real effective exchange rate, especially as the inflation rate of Nigeria's major trading partners' is relatively low. This can then affect the competitiveness of the non-oil sector. Uncontrolled

government spending has had the effect of injecting excess liquidity into the financial system which, in our case, fuels the demand for foreign exchange and undermines the stability of the Naira. The transmission mechanism is twofold. Firstly, the import content of most projects in Nigeria is quite high (averaging in most cases upwards of 60%) so that when contracts are awarded, new pressure is brought to bear on the Naira because of the extra demand for foreign currency. Secondly, profit repatriation an unavoidable element in an open economy such as ours leads to increased demand for foreign exchange. We know that there are also speculative pressures and capital flight aided by such sharp practices as over-invoicing of goods and services procured. The greater the demand for foreign exchange relative to supply, the more the exchange rate of the Naira is affected. And we all know that the Nigerian economy is still excessively dependent on the oil sector with all the vagaries of the international oil market for foreign exchange earnings and, therefore, absorbs all of the volatility.

5. The quantity, quality and pattern of expenditure are very important. This is what I have observed since I took office as Minister for Finance six months ago. The issue of quantity has already been referred to above. A fiscal deficit averaging 4.7% of GDP over the past five years is a key indicator of the quantum of spending with which we have to grapple. With regard to quality of spending, the key challenge has been the diminishing proportion of capital expenditure and the commensurate growth of recurrent expenditures. Payroll and overheads of government have grown from 124 billion Naira in 1998 to 493 billion Naira in 2002, while capital expenditures have slipped

from 63% of total spending to 32% during the same period. In an economy such as ours where the lack of needed infrastructure is an obvious weakness, and the failure to adequately develop non-oil sub-sector is another, reversing the structure of expenditures to grow the capital budget and provide the much needed public investments in roads, power, water, human resources, education, and healthcare etc., is key! The pattern of expenditure is also critical. I earlier referred to the volatility of spending. The sharing of excess oil revenue between the federal, state, and local governments at quarterly intervals, as is being currently done, automatically tends to exacerbate the see-saw spending pattern. Large sums of money enter the economy at the same time, often with deleterious effects. For the latter part of 2003, we have, therefore, been reluctant to share the excess crude proceeds accumulated in the last couple of months, especially with what we have seen with the fall of the Naira. Because such temporary measures remain subject to constitutional challenge by the states, we are working on a *Fiscal Responsibility Bill*, a key feature of which will be an oil price-based fiscal rule to which all tiers of government would subscribe. The idea will be to get away from the fiscal policy in the past that has been very procyclical, which has neither been good for macroeconomic stability nor engendered confidence by the private sector in public sector management.

6. Another important aspect of expenditure management relates to the practice of extra-budgetary expenditure, debt accumulation and delayed payments to contractors. Not only is this bad for private business, it could also have a deleterious effect on macroeconomic stability because, eventually, such arrears will have to be paid. Such payments

usually come in large sums, for example, when the government has extra cash. Since mid-November, we have been successfully but unpopularly managing pressures at the moment to inject what could be an incremental 40 billion Naira of arrears payments into the system, with all the implications that this entails. Lumpy injections of liquidity into the system has the same effect on the stability of the Naira as earlier indicated, through the increased demand on foreign exchange.

7. A major factor affecting aggregate demand management and hence posing a challenge for fiscal and monetary policy is the decentralized nature of our fiscal arrangements. Fiscal federalism is a constitutional issue, of course, and I do not pretend that it is a simple matter. Under the current system, sub-national governments get their allocations from the federation account and spend such revenues in the way they deem fit for the development of their jurisdictions. How they spend such revenue is their prerogative as underscored by the constitution which leaves the Federal Government with no handle to coordinate fiscal policy of all tiers of Government, but it has implications for overall macroeconomic stability. Excessive spending at the lower tiers of government affects national aggregate demand, inflation and, eventually, the stability of the exchange rate in the same way that federal expenditure does. If the spending patterns at the sub-national level are also lumpy, the impact will simply exacerbate the type of instability indicated above. Fiscal policy coordination under these circumstances has proved to be very difficult to manage at the national level. When the *Fiscal Responsibility Bill* is eventually passed into law, it will go a long way towards addressing some of these issues.

The Government's Reform Programme:

8. At the core of the Administration's reform programme under the National Economic Empowerment Development Strategy (NEEDS) is the determination to improve the operation of fiscal policy. Essential elements of the Strategy include:

- Public expenditure/budget reforms,
- Public revenue reforms,
- Monetization of in-kind benefits and pensions reforms,
- Civil service reform and the re-professionalization of the civil service,
- Deregulation of key sectors of the economy, including petroleum,
- Privatization of public entities and private sector development, and
- Fighting corruption and increasing transparency.

9. In the near term, the plan is to rein in public spending as much as possible. Specifically, the fiscal strategy for 2004 envisages a tight budget with a fiscal deficit of no more than 2.5% GDP. The budget envisages taking stock of arrears to contractors and devising a payment plan for clearing them smoothly rather than in a lumpy fashion. Furthermore, fiscal policy will be tightened by careful screening of expenditure items and matching this up to expected revenues. In this context, a Cash Management Committee, under my chairmanship, is presently being put together with a view to assuring greater efficiency and effectiveness of spending. The government is also learning to finance its deficits in a less inflationary fashion. We have recently floated bonds and issued

National Savings Certificates to raise needed cash and move away from depending on the CBN's *Ways and Means* approach to financing deficits. We are also paying greater attention to monitoring large projects in order to ensure best practices and value for money. The war on corruption is continuing with vigour, while the work of the Extractive Industry Transparency Initiative (EITI) will help to sanitize the oil and gas sector.

10. All of these reforms will have the effect of strengthening the structure of the budget. Reducing the size of the public sector will free resources for priority sectors, such as education, health and infrastructure, and widen the operational space of the private sector. A re-professionalized civil service will be in a better position to deliver services to the Nigerian public; deregulation will open up various sectors to competition and remove bottlenecks and shortages; privatization will obviate the need for budget subsidies to inefficient public enterprises; and any measures to reduce corruption will help public finances. These various measures will increase the amount of resources available for the budget and help generate fiscal surpluses to augment government's reserve assets, thereby releasing more resources for non-oil private sector growth.

Implications for Monetary Policy

11. According to the *CBN Act of 1991* (as amended), the key functions of the Central Bank of Nigeria (CBN) are the maintenance of price and exchange rate stability. Clearly, from the above discussion of developments in the economy, the CBN has faced enormous policy challenges on both counts, as

well as in its efforts to sanitize the banking system through its supervisory functions. In all this, it has had to struggle to craft appropriate monetary policies to cope with the challenges occasioned by the developments in the rest of the economy.

12. The principal instruments available to the CBN for dealing with inflationary pressure and exchange rate fluctuations include:

The issue of bonds in open market operations in order to mop up excess liquidity in the system;

Using direct instruments, such as increasing the threshold of reserve requirements, varying the liquidity ratio for commercial banks, discount window operations, etc., as a way of controlling the growth of money supply; and

Allowing the interest rate to move with market conditions, thereby making for efficient allocation of scarce resources.

13. We all know that reconciling the objectives of economic policy growth, inflation, etc is often quite complicated. Nevertheless, the Central Bank has made a good start. It is already active in deploying some of the relevant instruments, such as the recent issue of bonds and savings certificates for the purpose of managing liquidity. It could, however, be more proactive by exerting greater moral suasion on commercial banks in other areas. For example, banks need to pay more attention to their historical function of savings mobilization, including from small savers, and term financing in order to help develop the country's productive base. Furthermore, in periods of stress, the Bank could move more quickly to reassure the markets.

14. These challenges are of a continuing nature; the fight against inflation and for stabilizing the Naira will not be won overnight. We all have to work together in terms of separately strengthening fiscal and monetary policies, as well as through closer coordination of fiscal and monetary policies. A buoyant economy is the best way to ensure that the fundamentals that underpin the exchange rate and price movements are in place. I am confident that as the benefits of the Administration's reform programme begin to be felt, and as macroeconomic stability improves, the challenges of monetary policy and its management will also become more manageable.