Fiscal sustainability in the West African Monetary Zone: emerging issues

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Fiscal sustainability in a monetary union is critical for several reasons. Fiscal policy outcome has an influence on aggregate demand and long-term interest rates, which are usually considered in the formulation of monetary policy The paper discusses the theoretical issues in assessing fiscal sustainability and adopted an eclectic approach to measure sustainability in the Zone; the fiscal and debt sustainability of WAMZ countries is examined based on the following indicators: primary balance; total debt GDP; total debt service /domestic revenue; total debt service Export; net present value of total debt /Domestic revenue; and net present value of total debt service Exports. The outcome of the analysis suggests that most WAMZ countries are not fiscally sustainable thereby bring to the fore the need for fiscal consolidation measures to address the problem of sustainability. The paper identified the need for further tax reforms in the WAMZ to focus on broadly-based taxes such as Value Added Tax (VAT).Taxes on wealth, including property tax, which is a selective tax on real estate, capital levy, which is a once-and-for-all tax on wealth; and the domestic rate, which is a tax on the rental value of housing, were also identified as likely to yield higher revenue for the government. In order to achieve fiscal stability and overall sustainability of government revenue, fiscal policy design should aim at harnessing all direct and indirect tax revenue sources, especially against the background of evidence that most WAMZ countries have not fully exploited their taxable capacity. It is desirable that tax administration should be efficient, apply simple and codified rules, ensure fairness, and embody progress. Tax administration agencies need to be made functional through employment of qualified personnel, staff training, provision of equipment and necessary facilities and overall conducive working environment.

I.   Introduction

Fiscal sustainability in a monetary union is critical for several reasons. Fiscal policy outcome has an influence on aggregate demand and long-term interest rates, which are usually considered in the formulation of monetary policy. Fiscal imbalances are worrisome because they draw resources away from investment and, when deficits persist, lead to build-up of government debt and a consequent servicing burden that can

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become unsustainable and can threaten macroeconomic stability. Unsustainable fiscal policy puts undue responsibility for maintaining stabilisation on monetary policy But since monetary policy alone cannot compensate for the weakness of fiscal profligacy in a longer time period, it therefore means that unsustainable fiscal policy would clearly undermine the credibility of macroeconomic stabilisation, making required monetary policy harsher. Possible outcomes of such policy mix have been identified to include: high real interest rates due to the deficit borrowing requirements, with reduction of the capital available to the growth-generating private investments; high costs of financing the budget deficit (high interest rates, tight credit control), emergence of expenditure arrears, rising cost of public debt service; and falling competitiveness with large trade deficit and accumulation of external debt. In addition, aggregate demand and interest rates have a direct impact on the balance sheet of financial intermediaries and, hence, on the transmission channels of monetary policy.

The prevalence of fiscal deficits could result in a non-cooperative equilibrium, characterised by higher long-term interest rates. This can be illustrated by the example of an individual member state willing to tolerate higher deficits and to issue more debt securities in order to finance the resulting gap. This additional debt issuance would in all likelihood give way to a crowding out effect, namely, an upward pressure on interest rates due to the drain on private savings. The key point is that in a monetary union, where there exists a single currency and a high degree of integration between national financial markets, this additional burden would be borne by the zone as a whole, and not just by the individual member state responsible for the additional debt issuance. This kind of spill over effects could encourage each member state to issue excessive amounts of debts. As a result, the area-wide interest rates would tend to be higher than dictated by economic fundamentals. Such a situation could complicate the conduct of monetary policy.

The relationship between monetary and fiscal policy runs both ways. A more predictable fiscal policy fostered by fiscal rules would produce a more stable environment as regards, for instance, the inflation rate, aggregate demand or the tax burden. Such an environment would be conducive for economic and financial stability,

which would enhance the efficiency of monetary policy. On the other hand, a more predictable monetary policy is supportive of fiscal discipline. More predictable short-term interest changes are indeed likely to impact on the budgetary equilibrium in several member states. In addition, a stable monetary policy able to anchor the inflation expectations of economic agents will generate lower and less volatile long-term interest rates, which will further dampen the risk of budgetary slippages, induced by unforeseen interest rate developments.

More predictable interest rates are also extremely important for the general government, even when public debt level is extremely low. The assets of the general government, including the accumulated reserves of the investments and special fund and the assets held by the general pension regime as well as the associated income is primarily dependent on short and long-term interest rate developments. Indeed, the soundness and profitability of the financial sector, which accounts for a significant portion of all taxes collected by the government, could be sensitive to the level of short-term interest rates, to the slope of the yield curve and also to stock exchange prices. However, a non sustainable fiscal position is bound to create problems for the conduct of monetary policy and for general macroeconomic stability. The absence of fiscal sustainability could undermine the commitment of national governments to fiscal discipline.

A central issue in fiscal policy discussions is how to determine whether the net stock of government financial liabilities is *sustainable*. A sustainable stock of debt is consistent with the feasibility conditions set by current and future patterns of government revenue and outlays. Hence, the aim of fiscal sustainability analysis is to determine whether the government is living "within its means," and to indicate corrective policy measures for situations in which the reverse is the case.

Like other developing countries, most West African Monetary Zone (WAMZ)[1] countries endured persistent budget deficits for several decades (Onwioduokit, 2003). The continued deficits increased borrowing resulting in the accumulation of debt stocks.

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[1] *WAMZ Countries comprises, The Gambia, Ghana, Guinea, Nigeria and Sierra Leone.*

The goal of this paper is to present an assessment of the fiscal sustainability in the WAMZ member countries. Accordingly, the remaining part of the paper is organised thus; Part II dwells on theoretical/conceptual issues, while Part III examines WAMZ countries' recent fiscal profile. The causes of unsustainable fiscal profiles of WAMZ countries are examined in Part IV, while Part V contains policy recommendations/ conclusions.

II   Theoretical Background, Literature and Conceptual issues

Theoretical Background

The presentation in this segment dwells basically on two aspects: one on the relationship between fiscal policy and inflation, which is the main focus of monetary policy and fiscal sustainability issues.

On the theoretical front, there are two strands of academic debate regarding the relationship between fiscal policy and inflation, notably the inflation tax literature and the fiscal theory of the price level. The literature on fiscal theory of price level distinguishes between monetary dominant and fiscally-dominant regimes. In the monetary dominant regime fiscal primary surplus adjusts, given any sequence of prices, to guarantee fiscal solvency, whereas in the fiscally dominant regime the government's inter-temporal budget constraint is satisfied only for some price paths and the price level is assumed to settle itself to a path satisfying the government budget constraint.

In the inflation-tax literature, connection between fiscal policy and inflation is studied in a simple demand-for-and-supply-of-money framework. Inflation is treated as a tax on money balances and fiscal policy is connected with inflation through seigniorage revenues obtained from increasing money supply. The cost of increased money supply is borne by holders of money balances as the purchasing power of money decreases.

A considerable body of empirical evidence confirms that inflation is highly correlated with money growth, the long-run correlation between these two variables being close to

one. In high inflation countries, the connection between money growth and inflation is broadly simultaneous. In low-inflation countries, the effects of money growth are distributed rather evenly across the current and previous periods, and the short run correlation between contemporaneous and even lagged money growth and inflation appears to be rather low.

Regarding the relationship between public finances and money supply, a plausible and often advanced hypothesis is that money supply and seigniorage income should increase as a function of the fiscal needs, as reflected by the size of the budget deficit. However, empirical evidence of this link is weak. The basic message of the inflation tax literature for the analysis of fiscal soundness and monetary stability is that in some circumstances, monetary financing may be the only source of finance available for the government and that monetary financing is bound to affect the functioning of the monetary system.

There seems to be widespread conclusion that high inflation is almost always caused by fiscal pressures. However, among other things, high inflation disrupts the budgeting of expenditures and wrecks tax collection systems. Thus, government receipts and disbursements are likely to vary erratically.

Another recent strand of literature on the fiscal theory of the price level, deals explicitly with fiscal and monetary policy and their interactions. The theory focuses on the government's inter-temporal budget constraint and the sustainability of the fiscal position. There are many ways to state the government's inter-temporal budget constraint. One useful way to write it is in terms of the change of the (net) debt ratio,

$$\Delta b / \Delta t = -s + (i - g - p)b + e \qquad \text{..} (1)$$

Here **b** is the government's net debt and **s** primary surplus, both as per cent of GDP. $\Delta b / \Delta t$ denote the change in the debt ratio whereas **i** is the (average) interest rate on debt, **g** the growth rate of real GDP and **p** the rate of inflation. The stock-flow adjustment term **e** captures, as per cent of GDP, all other effects on the change in the debt ratio such as revaluations of debt items, etc.

The fiscal theory of the price level assumes that agents optimise their behaviour over time in anticipation of future economic developments, including the expectation of future policy actions. There is also a shift of emphasis towards the analysis of budgetary and monetary policy rules, rather than single decisions, and their time-consistency.

The inter-temporal and optimising character of analysis makes models complicated and difficult to analyse, even given their strong simplifying assumptions. Nevertheless, the theory has made many interesting contributions to the analysis of fiscal soundness and monetary stability, including the analysis of the institutional framework needed to govern the interactions between monetary and fiscal policy mentioned earlier as an example of a justification for fiscal convergence requirements.

Compared to the inflation tax literature, the fiscal theory of the price level extends both the time perspective and the spectrum of liabilities and assets considered in the analysis. Instead of a single immediate rate of inflation, the whole time path of the price level is relevant, and instead of the stock of money, the whole portfolio of government liabilities and assets is considered at least in principle.

Results from the theory illustrate the fact that irrespective of the starting position, the burden of irresponsible fiscal policies, if followed persistently over time, becomes excessive in the end even for strong stability oriented monetary policies. The risk of vicious debt dynamics is rather explicit in equation (1). If primary budget deficit is large (as reflected in a large negative value of s), debt tends to increase. When debt becomes sufficiently large, it starts to grow at an accelerating rate, as nominal interest rate normally exceeds nominal output growth. At this stage, there is not much to be done to increase the real rate of growth (g) and there are also limits to feasible primary surpluses (s). For very high debt ratios, unsustainable debt dynamics can only be reversed if the rate of interest on debt (i) is low enough and the rate of inflation (p) is high enough, i.e. through monetary financing. In rational expectation models, this is clearly perceived by the public well ahead its actual occurrence.

Furthermore, models considered in the literature clearly illustrate the fact that monetary and fiscal policies need to be consistent in order to be able to produce balanced and harmonious policy outcomes. In fact, there is no guarantee in these models that a uniquely

determined, well-behaving equilibrium time path for the price level exists, even for policy rules which in themselves seem to be quite sensible but not mutually consistent. For instance, inflationary and deflationary spirals, stochastically fluctuating explosive inflation or sunspot equilibrium may emerge even if monetary authorities let money stock grow at a constant rate or follow a Taylor rule.

Conceptual Issues and Literature Review

A simple indication of the sustainability of a country's fiscal policy is provided by the comparison of the actual primary balance (the government balance excluding interest payments) with the primary balance that would be needed to stabilize the ratio of debt to GDP at its current level. The difference is a measure of the additional fiscal efforts needed to stabilize the debt. This depends on the level of debt, interest rate, and the growth rate of GDP, as well as on the actual primary balance. For a situation in which the interest rate exceeds the growth rate, a primary surplus would be needed to stabilize the debt-to-GDP ratio, with a growth rate higher than the interest rate; the debt-to-GDP ratio will fall without the need to run a primary surplus.

A country's policies are adjudged fiscally sustainable if they lead to a situation in which the country can satisfy its budget constraint. However, Mendoza (2003) noted that the true budget constraint is an accounting identity that, by definition, is always satisfied. A government, for instance, can decide to satisfy its budget constraint by not paying (via outright default) or by inflating away its debt. In this sense, any analysis of fiscal sustainability ultimately reflects a value judgment on the costs and benefits of alternative adjustment mechanisms. Consequently, standard sustainability analysis utterly assumes that adjustments through the level and composition of tax revenues or primary expenditure are preferable to adjustments via default or inflation.

A set of fiscal policies is unsustainable if it leads to insolvency[1] (IMF, 2002; Croce and Juan-Ramon, 2003). However, they suggested that solvency is only a necessary

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[1] *Solvency is defined as a situation in which the future paths of spending and revenue satisfy the inter-temporal budget constraint*

condition for sustainability because it could be achieved with very large and costly future adjustments. Sustainability, instead, requires achieving solvency with unchanged policies. So, we can define a policy stance as sustainable if *a borrower is expected to be able to continue servicing its debt without an unrealistically large future correction to the balance of income and expenditure* (IMF, 2002).

With these considerations in mind, we define a sustainable situation as one that satisfies the following two conditions:

- If a country can satisfy its current period budget constraint[2] without recurring to default or excessive debt monetization; and

- If a country does not keep accumulating debt by knowing that a major future adjustment will be needed in order to service the debt[3].

$$\left(D_{t+1} - D_t\right) + \left(M_{t+1} - M_t\right) = iD_t + G_t - REV_t \qquad (2)$$

Where D measures the stock of public debt (measured at the beginning of the period), M is the monetary base, i is the interest rate paid by government debt, G is government expenditure in goods and services, and REV represents taxation (net of transfers) and other revenues (they could be royalties from natural resources).

Equation (1) clearly shows that a given deficit can be financed either by issuing debt (bond financing) or by printing money (money financing). As excessive money financing may lead to hyperinflation, equation (1) is often written as $\left(D_{t+1} - D_t\right) = iD_t + G_t - REV_t$. The equation does not impose a strong constraint on governments that are able to issue debt. Indeed, virtually any pattern of deficit would be sustainable if it were possible to borrow money and pay the interest by borrowing more. Wilcox (1989)

[3] The inter-temporal constraint, instead, imposes a limit on the government's ability to borrow indefinitely, by requiring net initial debt plus the present value of expected future government expenditures to be equal to (or not greater than) the present value of expected future government revenues. This could be presented as:

$$D_t + \sum_{k=0}^{\infty} \frac{E_t \left(G_{t+k} + iD_{t+k}\right)}{\left(1+i\right)^k} \leq \sum_{k=0}^{\infty} \frac{E_t \left(REV_{t+k}\right)}{\left(1+i\right)^k} \qquad\qquad (3)$$

Where E_t denotes expectation taken at time t, and all other variables are as earlier defined.

Evaluating equation (2) requires formulating expectations on the future path of government revenues and expenditures. Furthermore, the equation is highly simplified by assuming that the interest rate paid on government debt is constant and equal to the discount rate.

One implication of equation (3) is that in the limit (as *t* goes to infinity), the present value of debt in the terminal period should be zero. Thus

$$Lim_{t,\, \psi}\frac{D_{t+t}}{(1+i)^t}=0 \quad\text{...} 4$$

This condition is usually referred to as no Ponzi game condition or NPG. Since sustainability requires that the above conditions be satisfied without a radical change in policies, sustainability can be tested by looking at whether the current fiscal stance will eventually lead to a violation of equation (4).

As prescribed tests of sustainability tend to be tricky as well as very challenging in terms of data requirement, some analysts have developed rule of thumb indicators aimed at checking whether current policies can stabilize or reduce a given debt ratio. While these indicators have the advantage of being simple, it should be recognized that they are not based on any well-specified definition of sustainability.

The starting point for deriving these indicators is the current period budget constraint of equation (2) that, after dividing all variables by GDP, can be re-written as:

$$\Delta d = (r-g)d - ps \quad\text{..} 5$$

Where *d* is the debt to GDP ratio, *r* the steady state real interest rate, *g* the long-run growth rate of real GDP, and *ps* the primary surplus (defined as *(REV-G)/GDP)*. A positive value of (5) indicates that debt to GDP is expanding and may be interpreted as an unsustainable policy. After setting Δd equal to zero, equation 5 could be rewritten as $ps = (r-g)\, d$, and **ps** is as, and **ps** is interpreted as the primary surplus required to stabilize the debt-to-GDP ratio for a given real interest rate, growth rate of the economy and initial stock of debt. Given its simplicity, equation (5) is probably the most commonly used indicator of sustainability.

Blanchard (1990) defines a set of sustainability indicators that require computing the constant tax rate that satisfies, $t^* = E\left(e + (r - g)d\right)$, where t^* measures taxes over GDP and e government expenditure over GDP. This technique can be used to compute short-run (where expectations are replaced with current values of **e, r**, and **g**) or, depending on the length of the period for which expectations are taken, medium and long-run indicators.

Blanchard (1990) indicated that t^* has an easy interpretation because it is equal to the annuity value of expected future spending and transfers plus the difference between expected real interest rate and growth rate multiplied by the current debt-to-GDP ratio. Then, if t^* is larger than the current tax rate (t), an adjustment in spending or taxation will be required and hence the fiscal policy stance would not be sustainable. The sustainability indicator $(t^* - t)$ measures the size of the required adjustment in the current period. He proposed that different values of ($t^* - t$) will have different implications for sustainability depending on the starting level t. Countries with a low tax rate may have more room to adjust, while countries that already have high tax levels or limited ability to raise taxes (maybe because of the presence of a large informal sector, as is the case in developing countries) may have to resort to debt monetization or outright default.

Mendoza and Oviedo (2003) developed probabilistic model for assessing fiscal sustainability. The guiding principle of the Mendoza-Oviedo (MO) model is that of "credible payment commitment" (CPC). According to their definition, a commitment to repay is credible only if the government is able (not necessarily willing) to repay its debt in every state of nature. This implies that the government cannot accumulate more debt than the level it could service if it were to enter a fiscal crisis, defined as the case in which the primary balance remains forever at its lowest possible value. Were the actual level of debt to remain higher than the threshold determined by the CPC, then the government would be facing a positive probability of default on its debt, something that a risk-averse lender would not allow to happen.

With these considerations in mind, Mendoza and Oviedo (2003) developed a full-blown

dynamic stochastic general equilibrium model where the path of government revenues is endogenously determined by the behaviour of utility-maximizing individuals and profit-maximizing firms, in a context where both tradable and non-tradable goods are produced. In their model, there is a mismatch in the government's balance sheet because the government debt is mostly denominated in tradable and tax revenues are mostly denominated in non-tradable. They also assumed that volatility in government revenues can be traced back to volatility in fundamentals such as the terms of trade, foreign interest rates, or productivity.

There are several limitations that apply to the indicators discussed above. First, they mainly centred on soothing a particular debt-to-GDP ratio but are silent on the optimality of this ratio. Secondly, all the indicators discussed so far are sufficient (but not necessary) conditions for long-run sustainability. There are good reasons why a country may want to run a large deficit. Hence, it may be sub-optimal to prevent a country from smoothing expenditure because this would lead to overshooting a fiscal ratio that corresponds to a long-run equilibrium (Economist, 2002). Thirdly, these indicators require assumptions on GDP growth, interest rate, government expenditures and revenues, and implicitly assume that these variables are exogenous. However, most of these variables have a tendency to be endogenous and correlated with one another. For instance, it is clearly unrealistic to assume that changes in the primary deficit will have no effect on interest rate and growth, or that changes in growth do not affect the primary surplus.

Finally, most of these indicators do not take into account a host of factors that characterize the situation in most developing countries but tend to draw almost exclusively from the antecedents in the industrialised economies. For instance, most developing economies, including the WAMZ countries have limited capacity to raise taxes (because of a large informal sector), have volatile revenue base, are subject to large external shocks (both real and financial) that increase the volatility of GDP growth as well as debt service, and are characterized by limited access to world capital markets. All of these elements complicate the management of fiscal policy and greatly increase the difficulty of evaluating sustainability.

Ultimately, assessments of sustainability can be only probabilistic. An increase in public sector debt is likely to increase the perceived risk of unsustainable public finances and thereby the perceived risk of a future loosening of the monetary policy and ultimately of monetary financing. The size of the perceived risk depends on many things such as the level of government debt, the soundness of the fiscal policy framework as well as the status of and the credibility of the monetary policy strategy adopted by the central bank. An increase in indebtedness gives rise to less concern if it is associated with strong and credible overall policy framework and with strong commitments by the fiscal authorities to restore the debt level to a low level within a realistic timetable. On the basis of these considerations, it has been argued that debt sustainability exercises should be performed by making use of weighted debt-to-GDP ratios.

For fiscal policy to be sustainable, the aggregate level of spending must be consistent with the macroeconomic framework. If not, high or rising budget deficits, depending upon how they are financed, will result in particular macroeconomic imbalances. The permissible aggregate level of spending depends upon the sustainable budget deficit and the composition of that deficit. To calculate the sustainable deficit, future projections of debt to GDP need to be made, given assumptions about the demand function of money, the desired inflation rate, the real interest rate and the growth rate of the economy. The deficit is unsustainable if the debt to GDP ratio is projected to grow in the future.

There is a close linkage between accumulation of external debt and domestic debt, as economic agents borrow to fill the private savings-investment gap, the fiscal gap and/or the foreign-exchange gap. Fedelino and Kudina (2003) in their alternative framework for debt sustainability, take into account external and domestic liabilities because, first, while external debt may be sustainable, the total stock of debt may not be when domestic debt is also included in total debt stocks, and second, to the extent that most heavily indebted poor countries, like some of the WAMZ countries, do not have access to international capital markets and rely on ODA flows, domestic financing has become a significant source of funds with significant macroeconomic and debt sustainability implications. Third, in a number of countries, past and current government's role in the economy, for instance in the parastatals sector, has left a legacy of sizeable domestic

liabilities (explicit and contingent), these liabilities also impact on government ability to sustain given fiscal policies. Thus, neglecting domestic debt might underestimate the required magnitude of the fiscal effort needed to reach real debt sustainability. Even though domestic debt is small compared to external debt, its influence on fiscal debt sustainability could be great. For all the WAMZ countries between 2000 and 2003, the stock of domestic public debt as a proportion of total public debt was quite high. The fiscal burden of public domestic debt appears even greater if interest payments are taken into consideration. A substantial fraction of total interest payments by the WAMZ countries are on public domestic debt. Of all interest payments by The Gambia, for instance, over 65.4 per cent is on domestic debt. The comparable figure for Nigeria is 22.6 per cent. Thus, public domestic debt could prove a bottleneck for the WAMZ countries in achieving fiscal sustainability, even if it were possible to reduce their external debt to sustainable levels.

In order to provide for overall fiscal sustainability of the WAMZ countries, a country's domestic public debt (and especially the amount of debt service on public domestic debt) would be included in the debt sustainability analysis. Indeed, servicing domestic debt adds as much, if not more, to a government's fiscal burden as servicing external debt. To reduce the impact of fluctuations in yearly data, especially in respect of the denominator of a debt ratio, it is usually preferred to use multi-year averages.

The HIPC Initiative for instance uses three-year backward-looking averages for exports and revenues in calculating its NPV debt-to-export and NPV debt-to-revenue ratios. Finally, given that each indicator has its limitations; it is also useful to look at more than one or two debt indicators to determine a country's fiscal sustainability. It is important to keep in view two principal purpose of fiscal sustainability: determining the sustainability of a country's external debt, and estimating the fiscal sustainability of a country's public debt[1].

Given the peculiarities of the WAMZ economies, our analysis of the fiscal sustainability shall adopt an eclectic approach. Unlike the principles applied in the HIPC Initiative, debt and debt service is not limited to public and publicly guaranteed external debt, but

include domestic debt. The fiscal and debt sustainability of WAMZ countries is examined based on the following indicators, classified between solvency and liquidity indicators.

- primary balance
- total debt/GDP
- total debt service /domestic revenue
- total debt service/ Export
- net present value of total debt /Domestic revenue
- net present value of total debt service/Exports

III. Analysis of Fiscal Sustainability in the WAMZ

Based on the identified fiscal sustainability criteria outlined earlier, the analysis of the WAMZ countries' fiscal sustainability is undertaken as follows:

Primary Balance

The primary balance measures how the current fiscal policy stance affects the net indebtedness of the public sector. That is, since interest payments are the result of past deficits, excluding them from the fiscal balance provides a clearer picture of Current behaviour. The primary balance is therefore a useful indicator of sustainability of the current fiscal stance of the government.

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[1] *When analysing a country's external debt sustainability, the debt category should usually include all external debt, whether it is public or private. If analysing a country's fiscal sustainability, the debt category should usually include all public debt, both foreign and domestic. It is germane to also note that using a specific debt variable usually also has implications for the use of macroeconomic denominator for a debt and a debt service ratio. For instance, it is inappropriate to use the export denominator if analysing a country's total fiscal debt sustainability, which include foreign and domestic debt. Similarly, the use of the revenue denominator is not appropriate if analysing a country's total foreign debt sustainability. Indeed external debt sustainability is not a sufficient condition for fiscal sustainability and the reverse holds true.*

Table I: Primary Balance (excluding grants) and Required Primary Surplus[2] as percentage of GDP.

Country	Actual 2000	Required 2000	Actual 2001	Required 2001	Actual 2002	Required 2002	Actual 2003	Required 2003	Actual 2004	Required 2004
The Gambia	8.8	9.4	- 4.7	9.8	- 4.2	8.2	- 1.3	8.4	2.8	28.0
Ghana	0.5	3.6	1.0	1.5	1.7	4.2	2.5	4.6	1.1	10.8
Guinea	-3.4	5.8	- 3.9	8.9	- 4.6	2.8	- 5.8	-1.5	- 3.2	3.9
Nigeria	3.9	5.5	3.3	0.5	- 1.1	1.6	2.3	13.8	13.3	7.4
Sierra-Leone	-1 3.5	36.5	-11.1	10.0	- 10.1	17.3	- 8.7	3.9	- 8.9	15.4

In GDP terms, the government of **The Gambia** mainly recorded primary deficits, which ranged between 4.7 percent in 2001 and 1.3 percent in 2003. However, surpluses of 8.8 and 2.8 percent were also registered in 2000 and 2004. The fiscal performance of the government using this indicator showed that although surpluses were registered in some years, the levels were not enough to off set the outstanding obligations. For instance in 2000 the required level of surplus to attain sustainability was calculated to be 9.4 per cent, while the required levels for 2001 and 2002 were 9.8 and 8.2 per cent respectively. The required surplus for 2003 and 2004 were 8.4 and 28.0 per cent, respectively. Using this basic indicator it is clear that fiscal policy was generally unsustainable in the Gambia during the review period. In the last four years, **Ghana's** Primary balance was largely in surplus ranging from 1.8 percent in 2000 and 2.1 percent in 2003. On the average, the rate hovered around 1.9 per cent during the review period. However, given the level of interest required on both domestic and external debt, the surplus was clearly inadequate to off set the needed debt service requirement as shown in Table 1. In essence, the government would have needed to drastically adjust its revenue and expenditure policy in order to meet the debt service requirement. Thus, in assessing the fiscal sustainability in Ghana, using this ratio clearly indicates that during the review period, fiscal policy was clearly unsustainable. In **Guinea,** primary balance excluding grants deteriorated from a deficit of 3.4 percent of GDP in 2000 to 5.8 percent in 2003. Compared with the

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[2] *The required surplus is defined as:* $s = (r-g)^{\cdot}d/(1+g)$, *where r is the real interest rate, g is the real GDP growth rate, and d is the debt GDP ratio at the end of the year*

required primary surplus shown in Table 1, it is obvious that the fiscal policy during the period 2000-2004 was unsustainable. **Nigeria's** primary balance, which peaked at a surplus of 4 percent of GDP in 2004 averaged 2.5 percent of GDP for 2000—2004. Using this basic indicator, it is clear that Nigeria fiscal policy was sustainable in two (2001 and 2004) out of the five years, when the actual were greater than the required. It is germane to note that the positive outcome was due to increased oil receipts accrued from sustained high prices and the fiscal restraint embraced of government. As a ratio of GDP, the fiscal operations of the **Sierra Lone's** government generally resulted in primary deficits, which varied between 13.5 percent in 2000 and 8.9 percent in 2004. On account of this indicator, the fiscal performance of the government demonstrated unsustainability in all of the period as shown by the magnitude of the divergence between the actual primary balance and the required primary surplus.

In **the Gambia**, the ratio indicated a worsening trend since 2000 and was consistently above 150.0 percent between 2000 and 2004. The overall public debt -to-GDP ratio increased from about 157.3 percent in 2000 to 203.4 percent in 2003, but declined to 151.3 percent in 2004.

Table II: Total Debt / GDP ratio
(in percent).

Country	2000	2001	2002	2003	2004
The Gambia	157.3	150.7	179.0	203.4	151.3
Ghana	144.5	145.8	135.3	109.0	96.4
Guinea	165.2	182.0	172.0	169.3	157.3
Nigeria	83.5	80.9	90.7	77.8	68.8
Sierra-Leone	215.1	177.9	164.7	172.8	178

On the average, the ratio stood at 168.3 percent between 2000 and 2004. Regarding this ratio, there has been a steady improvement in **Ghana**. From 144.5 and 145.8 percent in 2000, and 2001, respectively, the ratio declined gradually to 96.4 percent in 2004.Thus the country operated within the threshold of 150 per cent considered sustainable level during the review period. An indicator of **Guinea's** debt problems is the performance of

the total debt to GDP ratio which is a key measure of a country's vulnerability. The ratio rose from 165.2 per cent in 2000 to 182.0 per cent in 2001. It declined gradually from 172.0 per cent in 2002 to 157.3 per cent in 2004. The indicator on total debt to GDP remained moderate in **Nigeria** during 2000-2004. The ratio, which stood at 83.5 per cent of GDP in 2000 rose to 90.7 per cent of GDP in 2002 before it dropped to 68.8 per cent of GDP in 2004. On the average, Total debt/GDP ratio during the period 2000-2004, was substantially below the unsustainability threshold of 150.0 per cent. The ratio has improved significantly in **Sierra Leone** since 2000, due to large increased grant from the donor community. Between 2000 and 2004 the ratio was consistently above 150.0 per cent. The overall public debt -to-GDP ratio dropped from about 215.1 per cent in 2000 to 164.7 per cent in 2002, but rose to 178.0 per cent in 2004. The average ratio for the period 2000-2004 was 181.7 per cent.

Total Debt Service/Domestic Revenue

The performance of **The Gambia** on this indicator showed a worsening trend between 2000 and 2004. The ratio rose from 20.7 per cent in 2000 to 40.4 per cent in 2003, indicating a 19.7 percentage point's growth rate over the period. However the ratio moderated gradually to 32.8 per cent in 2004. The ratio of total debt service to domestic revenue in **Ghana** indicated an improving trend between 2000 and 2004.

Table III: Total Debt Service / Domestic Revenue
(in percent)

Country	2000	2001	2002	2003	2004
The Gambia	20.7	26.5	32.0	40.4	32.8
Ghana	81.1	56.8	58.2	45.1	35.2
Guinea	35.2	33.4	38.8	53.1	47.5
Nigeria	16.4	14.7	21.7	26.5	10.6
Sierra-Leone	48.7	57.4	63.3	71.8	56.1

It improved gradually from 81.1 per cent in 2000 to 35.2 per cent in 2004. On the average, the ratio stood at 55.3 per cent for the period. Although the trend between 2000 and

2004 showed significant improvement, it was substantially higher that the sustainable threshold of 15.0 per cent. The share of debt service in **Guinea's** total domestic revenue has remained very high during 2000 to 2004, presenting solvency risks for the country. The ratio dropped marginally from 35.2 per cent in 2000 to 33.4 in 2001. However a deteriorating trend was registered in 2002 and 2003, with the ratio peaking at 53.1 per cent in 2003 before gradual moderation to 47.5 per cent in 2004. In **Nigeria**, the performance under this indicator followed a similar trend like in Guinea. The ratio improved from 16.4 per cent in 2000 to 14.7 per cent in 2001, but worsened gradually to 26.5 per cent in 2003. However, in 2004 the ratio improved significantly to 10.6 per cent operating within the threshold of sustainability for the first time in the last five years. This indicator showed a deteriorating trend between 2000 and 2004 in **Sierra Leone.** The ratio weakened from 48.7 per cent in 2000 to 71.8 per cent in 2003, but improved to 56.1 per cent in 2004. The analysis of the ratio indicate that except for Nigeria that operated within the benchmark of 15.0 per cent in just one year (2004) none of the WAMZ countries operated within the threshold during the review period indicating the unsustainable level of the countries fiscal positions.

Total Debt Service/Export

The ratio of debt service to export for **The Gambia** worsened from 17.7 per cent in 2000 to 18.5 per cent in 2002, but enhanced to 16.4 per cent in 2004. The average ratio for the period was 17.5 per cent, about 7.5 percentage points above the threshold for debt sustainability. The ratios in the last five years 2000- 2004 in **Ghana** generally indicated

Table IV: Debt Service / Export
(in percent)

Country	2000	2001	2002	2003	2004
The Gambia	17.7	17.9	18.5	16.8	16.4
Ghana	23.8	12.1	18.2	17.9	13.4
Guinea	12.7	12.4	16.8	20.7	19.4
Nigeria	16.4	16.8	19.9	8.0	7.5
Sierra-Leone	291.4	77.7	69.4	62.2	39.0

moderating trend. The ratio improved from 23.8 per cent in 2000 to 12.1 per cent in 2001, deteriorated to 18.2 per cent in 2002 and thereafter moderated to 13.4 per cent in 2004. In **Guinea**, during review period the ratio was consistently above the 10 per cent benchmarks. It improved from 12.7 per cent in 2000 to 12.4 per cent in 2001but deteriorated to 20.7 per cent in 2003 before easing marginally to 19.4 per cent in 2004. The ratio of debt service to export deteriorated steadily from 16.4 percent in 2000 to 19.9 per cent in 2002 but improved to 7.5 per cent in 2004 in **Nigeria** The ratio of total debt service to export in **Sierra Leone** improved from 291.4 percent in 2000 to 39.0 per cent in 2004. (Table IV). However, on the average the ratio was generally outside the threshold for debt sustainability.

Net Present value of Debt/Domestic Revenue

The Net present value of debt as a ratio of domestic revenue for The **Gambia** improved progressively from 651 per cent in 2000 to 268.4 per cent in 2004. On the average, the ratio for the five year period, 2000-2004, stood at 516.3 per cent compared with international benchmark of 250 per cent. For **Ghana** historical data on this measure of sustainability reveal a high though declining trend between 2000 and 2004.The ratio plummeted from 398.8 per cent in 2000 to 113.6 per cent in 2004. The average for the five-year period stood at 233.4 per cent as against the sustainability threshold of 250.0 per cent. The ratio of debt in present value terms to domestic revenue for **Guinea** stood at 479.7 per cent at the end of 2000 relative to the benchmark of 250.0 per cent. It declined only slightly during the subsequent three years to stand at 304.1 per cent in 2004, substantially above the threshold of sustainability.

Table V: Net Present Value of Debt / Domestic Revenue
(in percent)

Country	2000	2001	2002	2003	2004
The Gambia	651.2	677.4	558.3	426.2	268.4
Ghana	398.8	253.0	241.1	160.3	113.6
Guinea	479.7	423.8	372.6	337.4	304.1
Nigeria	192.8	164.6	212.2	142.7	92.4
Sierra-Leone	846.2	620.1	539.5	447.6	373.8

In **Nigeria** the ratio improved from 192.8 per cent in 2000 to 164.6 per cent in 2001 but worsened to 212.2 per cent in 2002 before improving to 92.4 per cent in 2004. The present value of debt as a ratio of domestic revenue in **Sierra Leone** enhanced gradually from 846.2 percent in 2000 to 373.8 per cent in 2004. The average ratio for the five-year period, 2000-2004, stood at 565.4 per cent as against the international benchmark of 250 per cent.

Net Present Value of Debt/Exports

The ratio of the present value of debt to export in **The Gambia** improved steadily from 493.0 per cent in 2000 to 191.7 per cent in 2004. On the average, the ratio was 298.6 percent over the period 2000-2005 compared with the threshold of 150 per cent. In **Ghana**, Present value of debt/Export ratio that peaked at 292.7 per cent in 2000 declined gradually to 158.4 per cent in 2004, representing an average level of 205.1 per cent during the period compared to the threshold of 150.0 per cent. In net present value terms, the ratio of debt to exports in **Guinea,** give a clear indication of the country's heavy debt burden and solvency risk. During 2000 to 2004, the ratio has remained consistently above the 150 per cent benchmark. The ratio improved from 230.7 per cent in 2000 to stand at an average of 179.1 per cent in 2001 but worsened marginally to 180.3 per cent in 2002 before moderating to 153.3 per cent in 2004. In **Nigeria** the present value of debt to export continued to be high during the assessment period. From 208.7 per cent in 2000 and 203.1 per cent in 2001, the present value of debt to export

peaked at 216.0 per cent before it moderated to 140.7 and 122.5 per cent in 2003 and 2004, respectively. The performance averaged 178.2 per cent, exceeding the benchmark of 150 per cent. In **Sierra Leone** the ratio of the present value of debt to export was astronomically high between the period 2000 and 2002, ranging from 4787.6 per cent in 2000 and 1262.6 per cent in 2002. It improved substantially to 259.9 per cent in 2004. On the average the ratio for the period was 1783.6 per cent, exhibiting a large variation from the threshold of 150 percent.

**Table VI: Net Present Value of Debt/Exports**
(in percent)

Country	2000	2001	2002	2003	2004
The Gambia	493.0	355.4	241.6	211.2	191.7
Ghana	292.7	227.4	188.8	158.4	158.4
Guinea	230.7	179.1	180.3	178.9	153.3
Nigeria	208.7	203.1	216.0	140.7	122.5
Sierra-Leone	4,787.6	2,220.4	1,262.6	387.6	259.9

IV.   Factors Constraining Fiscal Sustainability in the WAMZ

The main causes of fiscal unsustainability which are peculiar to the developing countries, including the WAMZ countries, are: terms of trade shock; weak revenue base; overdependence on foreign grants; excessive expenditure, etc.

External shocks, like terms of trade shock, tend to be larger in developing countries. This affects the volatility of GDP growth and hence makes the growth rate difficult to estimate. Given that all the WAMZ countries depend on one or at most two export commodities, external shocks either in the price or quantity easily destabilize the fiscal programme of government. Recent empirical findings including, Galindo and Izquierdo, (2003) present some evidence that indicates that the impact of external shocks is amplified by decline in capital flows in the developing countries. This is very instructive as the combined impact of external shocks and decline in Foreign Direct Investment inflow have complicated fiscal management in some WAMZ countries in the last two years.

International Comparison of Average Fiscal Performance
2000 - 2003
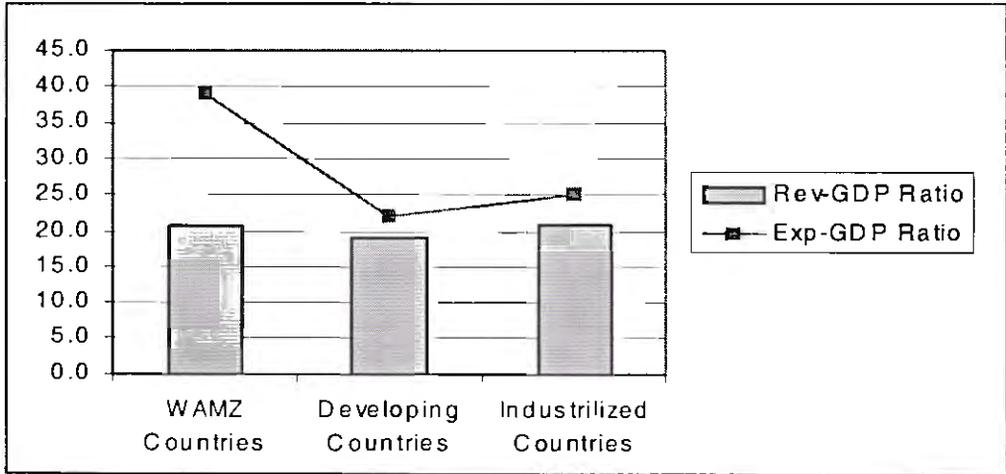
Weak revenue base due principally to narrow revenue sources is another key character-istic of the WAMZ countries. The ratio of total tax revenue to the GDP measures the relative depth of the revenue generating capacity of a country. In the WAMZ countries the ratio was consistently below 20 per cent for all countries except The Gambia in 2000, Ghana in 2003 and Nigeria where the ratio for the period fluctuated between 40.6 per cent in 2000 and 35.2 per cent in 2003. In the other WAMZ countries, the ratio varied greatly from country to country and even between the years in the same country. In The Gambia, the ratio ranged from 21.0 per cent in 2000 and 13.8 per cent in 2003. In Ghana, the ratio rose from 16.3 per cent in 2000 to 20.2 per cent in 2003. In Guinea, the ratio increased from 9.9 per cent in 2000 to 10.9 per cent in 2002 and thereafter fell to 9.8 per cent in 2003. The ratio was consistently above 29.0 per cent for all the review period in Nigeria. In Sierra Leone, the ratio rose from 10.8 per cent in 2000 to 12.0 per cent in 2001 and thereafter dropped gradually to 11.6 per cent in 2003. Most WAMZ countries rely extensively on unsustainable and volatile revenue sources such as external grants, and commodity and export taxes. The revenue sources are not also diversified with some countries obtaining over 50 per cent of their tax revenue from a single source.

The cost of servicing debt constitutes a large claim on total government revenue, either

because the domestic and external debt stock itself is large and/or because domestic real interest rates are high. Problems associated with domestic and external debt are therefore legitimate components of fiscal sustainability.

Debt Service / Total Revenue
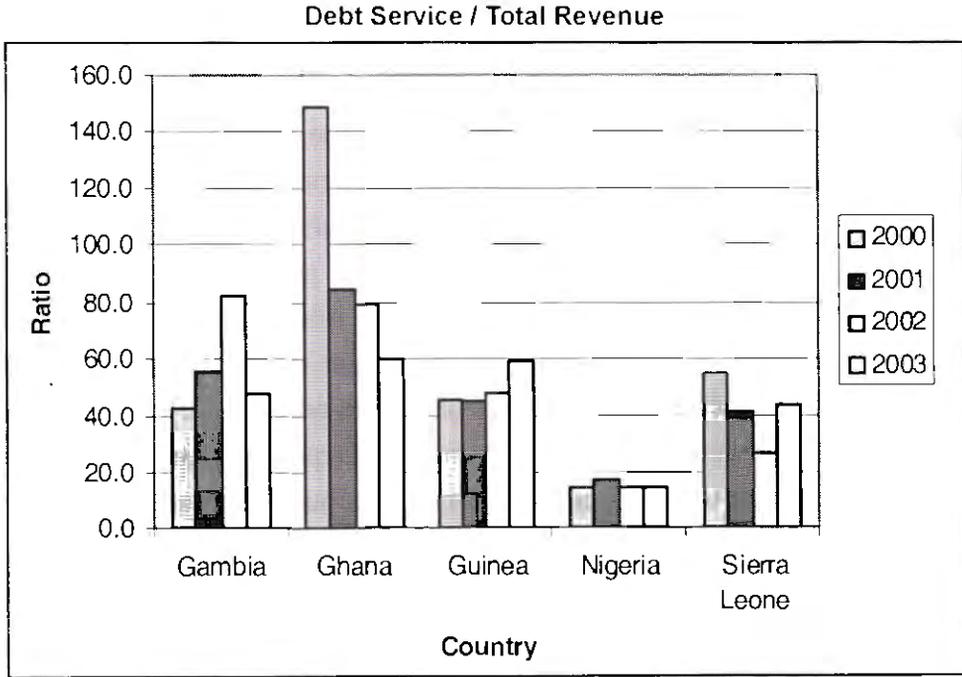
The approach taken towards domestic debt reduction needs to reflect the nature of the domestic debt burden in individual countries. Unlike the external debt burden, the size and cost of the domestic debt burden varies greatly. The domestic debt stock of the WAMZ countries is relatively low, both in absolute terms and compared to their external debt burden. This is not universally the case: for some countries (such as Ethiopia and Zimbabwe) domestic public debt is high so that even quite small changes in the real interest rate on debt will require substantial fiscal accommodation. Even though the debt stock itself is generally low, the cost of servicing domestic debt is often high, reflecting the structure of domestic interest rates. To the extent that the required fiscal accommodation is not forthcoming, increasing real interest rates can lead to a rapid growth in the debt burden, regardless of the starting level, as the additional interest cost is capitalized. Domestic debt is dominated by short-term instruments and is held predominantly by financial institutions (the central bank and the commercial banks).

Since corporate debt and equity markets are typically underdeveloped, domestic public debt frequently serves as the only interest-bearing financial instrument in circulation and therefore plays a central role in monetary policy.

In contrast to external debt, the interest rate on domestic debt is, at least partially, determined by the outstanding stock of debt. In particular, a high domestic debt stock presents the authorities with an incentive to devalue the real debt stock by generating inflation above the level anticipated by the private sector. Given the narrowness of the traditional tax base in low income economies, the potential value of this "inflation tax" revenue may be high. Anticipating this incentive, the private sector will demand an "inflation premium" on domestic debt, driving up interest rates. The inflation tax incentive (and hence the premium required to counter it) is positively related to the stock of debt, hence reducing the stock of debt will, in addition to lowering the cost of debt service directly, lower the interest rate on debt. Depending on the structure of the domestic financial sector and the degree of capital account liberalization this may also lower the cost of capital to the private sector and hence "crowd-in" higher levels of domestic investment.

Whether declining domestic debt (and interest rates) will be passed on to the private sector by way of cheaper or more credit depends on the structure of the banking sector. Specifically, the less competitive is the banking sector (or the less able it is to diversify its lending portfolio) the less the benefits of lower interest rates on debt will be passed through to the private sector. In the WAMZ countries characterized by a history of controls, and where the banking sector is typically oligopolistic, "crowding-in" effects may be relatively weak, at least in the short to medium term.

V.   Policy Recommendations/Conclusions

The foregoing analysis suggests the need for fiscal consolidation measures to address the problem of sustainability. In this regard, the reduction of the budget deficit would constitute an important fiscal adjustment measure towards a more sustainable deficit. This need has already been recognized by the authorities, who intend to reduce the budget

deficit over the medium term. Future primary surpluses would be required in order to service (not entirely pay off) the prevailing debt in these countries. Increased tax revenues and decreased government expenditure is another policy option. However, increase in tax revenue would be difficult because of the inelastic nature of the tax base in the WAMZ countries. Nonetheless, towards this end, some governments have taken measures such as enhancing the tax base, improving tax administration and introducing new taxes in recent years. The importance of these measures can not be overstated as it is the only credible arrangement that can add to revenue.

It is pertinent for tax reforms in the WAMZ to continue to focus on broadly-based taxes such as Value Added Tax (VAT). This is because, even at a lower tax rate, substantial sums of money will continue to be generated from it. Because of this possibility, the economic cost of these taxes tend to be lower, other things being equal, than those of narrowly-based taxes. Thus, the government should identify and incorporate additional broadly-based taxes such as wealth taxes. Taxes on wealth, including property tax, which is a selective tax on real estate; capital levy, which is a once-and-for-all tax on wealth; and the domestic rate, which is a tax on the rental value of housing, are likely to yield higher revenue for the government.

In most WAMZ countries only a few of the wealth taxes are imposed. The common ones have been the property tax, capital gain tax and stamp duties. There are also serious lapses in the collection of these taxes. The main problem with the wealth taxation is lack of political will arising from the fact that those who formulate tax policies are part of the wealth-owning class and political system is not sufficiently developed to compel a more equitable distribution of wealth. The problem of valuation of property is also frequently mentioned. A related area of reform is the taxation of luxury goods. High but not prohibitive taxes could be imposed on certain categories of imported vehicles, houses and other suspicious consumption items. This is without prejudice to the trade liberalization programme of government. On a broader perspective both the taxable capacity and poor economic structure can be improved by adopting strategies for growth and development. Both aspects are important for revenue mobilization. The first aspect is important for enhancing the tax base, and the second, for diversifying the sources of

revenue. It is recommended for instance, that attention should be focused on identification and incorporation of more broadly-based taxes, such as wealth taxes, and on enhancing taxable capacity by adopting a viable development strategy.

Although the revenue could be increased through taxes, this framework is largely limited in the WAMZ because higher taxes may lessen private sector participation in production activities. Therefore, the reduction of expenditure seems a preferred alternative to be considered. The minimisation of wasteful expenditure, better targeting of welfare programmes and reduction of transfers to corporations are important in the current policy context. Other broader measures such as civil service reforms and public enterprise reforms are also imperative.

In order to achieve fiscal stability and overall sustainability of government revenue, fiscal policy design should aim at harnessing all direct and indirect tax revenue sources, especially against the background of evidence that most WAMZ countries have not fully exploited their taxable capacity. It is desirable that tax administration should be efficient, apply simple and codified rules, ensure fairness, and embody progress. Tax administration agencies need to be made functional through employment of qualified personnel, staff training, provision of equipment and necessary facilities and overall conducive working environment.

On the expenditure side, it is clear that public expenditure has the potential to contribute significantly to economic growth and development. This is particularly true for the WAMZ countries where the private sector is   not yet very well equipped to take the initiatives for growth and development and the government commands the greater part of national resources. However, for public expenditure to contribute meaningfully to growth and development, it has to be prudently managed. Most WAMZ countries expenditure management has not been quite impressive. The present economic crisis, with the attendant problems of high inflationary pressures, exchange rate distortions, debt over hang, adverse balance of payments and high unemployment, to mention a few, has been attributed largely to reckless and poor management of public expenditure, coupled with widespread corruption in the countries. It is on this note that the current efforts of

governments across the zone in fighting corruption and other related malpractices should be sustained. There is need for government to ensure that the usual gap between policy pronouncements and implementation is bridged. This among other things calls for good governance as well as transparency and accountability in the use of public resources.

Given the tension between the cost of domestic debt service and the role of the debt instruments in the conduct of monetary policy, it is probably not optimal to seek to eliminate domestic debt entirely. Rather, the target for domestic debt should be a level low enough to eliminate any excessive inflation premium but not so low as to jeopardize the smooth functioning of the monetary system. Given that the domestic debt stock is already quite low in a number of WAMZ countries, this target level may entail only limited additional debt reduction. In such circumstances measures taken to reduce the debt stock further without developing alternative interest bearing liquid assets (for example Central Bank paper) may be destabilizing.

The interest rate-reducing effect of a lower debt stock operating through a reduced inflation premium may be further enhanced if a lower domestic debt stock serves as a more general signal of sustainable domestic macroeconomic policy in the future. However, transitional effects flowing from temporary real exchange rate movements may offset or even reverse this effect in the medium term.

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