

# NIGERIA'S MEDIUM-TERM DEBT MANAGEMENT STRATEGY

2012 - 2015



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#### **GLOSSARY**

AfDB African Development Bank

AMCON Asset Management Corporation of Nigeria

AT Analytical Tool

ATM Average Time to Maturity
ATR Average Time to Refixing
BOF Budget Office of the Federation

CBN Central Bank of Nigeria
CPs Commercial Papers
CRR Cash Reserve Ratio

CS-DRMS Commonwealth Secretariat Debt Recording and Management System

DMBs Deposit Money Banks
DMO Debt Management Office
DSA Debt Sustainability Analysis

DX Domestic Currency ECA Excess Crude Account

EDF European Development Fund FDI Foreign Direct Investment FRA Fiscal Responsibility Act FX Foreign Exchange GDP Gross Domestic Product

IBRD International Bank for Reconstruction and Development

ICM International Capital Market

IDA International Development Association

IDB Islamic Development Bank

IFAD International Fund for Agricultural Development

ILBs Inflation-Linked Bonds
IMF International Monetary Fund
LIBOR London Inter-Bank Offer Rate

MPR Monetary Policy Rate

MTDS Medium-Term Debt Management Strategy
MTEF Medium-Term Expenditure Framework

NASS National Assembly

NBS National Bureau of Statistics
NDF Net Domestic Financing

NDMF National Debt Management Framework

NPC National Planning Commission

NTBs Nigerian Treasury Bills

NSIA Nigeria Sovereign Investment Authority Act, 2011

ONP Open Net Position

PDMMs Primary Dealer Market Makers

PV Present Value TBs Treasury Bills

TGF Total Gross Financing UST United States Treasury

WAIFEM West African Institute for Financial and Economic Management

WB World Bank



#### **EXECUTIVE SUMMARY**

- 1. The DMO prepared the Medium-Term Debt Management Strategy (MTDS), 2012-2015, in conjunction with other stakeholders: the Central Bank of Nigeria (CBN), the Budget Office of the Federation (BOF), the National Bureau of Statistics (NBS) and the National Planning Commission (NPC). A combined team of the World Bank/IMF and WAIFEM provided technical support.
- 2. The Report is structured in line with the World Bank/IMF guidance note for developing a MTDS. It starts with a brief background on the state of public debt, outlines the policy objectives, benefits and macroeconomic scope of the MTDS. The Report reviews Nigeria's current debt management strategy, and states the baseline macroeconomic assumptions, the sources of financing, as well as, the pricing assumptions. It also contains the cost-risk analysis of alternative debt management strategies, and the institutional arrangements for effective operationalisation of the chosen strategy.
- 3. The main objective of the MTDS is to develop a strategy that would meet the financing needs of government at minimal cost, maintain risk at a prudent level and support the development of the debt market. The objectives of Nigeria's debt management strategy are defined in broad terms in the National Debt Management Framework (NDMF) 2008-2012. In particular, the NDMF seeks to ensure that the financing needs and obligations of the Government are met at the lowest possible cost, consistent with prudent risk. The objectives also include the development of the domestic financial market, as well as, facilitate private sector participation in the funding of critical infrastructure in the economy.
- 4. In terms of scope, the Report covers only Federal and State Governments' external debt and Federal Government's domestic debt portfolio and financing needs. It takes into account macroeconomic variables and indicators, such as government expenditure and revenue, GDP growth rates (nominal and real), exports, imports, external reserves, exchange rate and inflation forecast, as well as, yield curve. The domestic debt of the sub-national governments, FGN's guarantees to the private sector, pension arrears, as well as public private partnership (PPP) related liabilities of the FGN are not included in the simulation of strategies, owing to paucity of information. The time period of the MTDS analysis is five years in line with the time frame of Nigeria's Medium Term Expenditure Framework (MTEF).



- **5.** The macroeconomic projections for the five-year period are based on a sustained average GDP growth rate of 7%, a reduction from double to a single-digit inflation (year-on-year headline inflation) and the slowing down of FGN's net financing needs from 2.2 % of GDP in 2011 to 0.7 % of GDP by 2015, in line with the FGN's commitment to reducing the overall fiscal deficit-to-GDP ratio. The expected reduction in fiscal deficit-to-GDP ratio is to allow for more growth in banking system's credit to the private sector which will, in turn support the actualization of the planned growth in GDP.
- 6. In order to determine the appropriate cost-risk strategy, the Analytical Tool (AT) developed by the World Bank/IMF is applied to review the cost-risk implications of alternative debt management strategies under four different shock scenarios as follows:
- a. Strategy 1 (S1): MTEF ASSUMPTIONS This is the baseline scenario underpinned by the MTEF assumptions, which include gradual reduction in Net Domestic Financing (NDF) from 2.2% of GDP in 2011 to 0.7% in 2015. The existing mix of sources of finance in respect of the 2010 and 2011 external and domestic debt portfolios is retained under this strategy.
- **b.** Strategy 2 (S2): REDUCE SIZE OF SHORT-TERM INSTRUMENTS AND INTRODUCE DIASPORA BOND While retaining most of the external and domestic mix under S1, S2 assumes a reduction in Nigerian Treasury Bills (NTBs) from 60% of the total projected debt issuances to 35%. The 25% reduction in NTBs is distributed into 3-year, 5-year, 10-year and 20-year FGN bonds. In addition, it is expected that Diaspora Bond will be introduced to complement the Eurobond in the international capital market.
- **c. Strategy 3 (S3): HIGHER NDF -** This comprises S2 but includes a discontinuation of the issuance of 20-year bond and the introduction of 20-year inflation-linked bond (ILB). It also assumes that the amount of other domestic long-term bonds under S2 would be increased. The mix of external finance in S2 is retained.
- d. Strategy 4 (S4): MOVE TO BLEND STATUS In contrast to S3, S4 assumes a relatively less NDF but an increased level of external financing as the country moves from IDA only to blend status. As a blend status country, it is expected that Nigeria would have a reduced access to the concessional window and shift focus to non-concessional sources of finance with bigger envelopes, and include the relatively more expensive IBRD and the ICM sources of financing. Although, this strategy may increase



exposure to currency risk, it is consistent with the goal of the authorities to speed-up economic development, particularly in infrastructure projects that require heavy and prompt investment outlays that may not be easily available from the IDA and domestic financing windows on timely basis and in desired amounts. The mix of domestic financing in S3 is retained under this strategy.

- **7.** The cost-risk analysis performed to determine a unique solution amongst the four scenarios shows a mixed result. In terms of debt-to-GDP ratio, the results are almost the same across the four scenarios. Exposure to foreign exchange risk is lowest in S3 but highest in S4 due to greater reliance on external financing. S2 has the least debts to be re-fixed within one year and is similarly favoured in terms of the average time to re-fixing total portfolio due to the effects of the sharp reduction in the size of NTBs relative to S1, coupled with the fact that the debt portfolio of S2 is made-up of entirely fixed-type debt instruments when compared to S3 and S4. Using the average term-to-maturity (ATM) of total debt portfolio, however, S4 is rated the best owing to the effects of the longer-term debt instruments. Similarly, S4 is considered ideal in terms of interest cost because of the 20-year ILB, expected to be issued at a relatively lower interest cost. The impact of these is reflected in the most favourable downward sloping NDF. S2 and S4 stand as the best two strategies but with no unique solution in the projection period.
- 8. The analysis of the cost-risk trade-offs, however, indicates that S4 clearly stands out as the most preferred strategy. This is explained by the dominance of long-term instruments and less expensive, higher external net financing. S4 also reflects a present value of Debt-to-GDP of 16.5% by end-2015, which compares favourably with the global threshold of 40% and the country-specific prudential limit of 25%. Thus, it suggests that the adoption of S4 would reinforce debt sustainability in the medium-term. In addition, the composition of the debt stock is changed from 13% and 87% as at end-2010 to 33% and 67% by end-2015, for foreign and domestic debts, respectively. This result is more broadly in line with the existing debt composition policy of 40:60 for external and domestic debt, respectively.



- 9. With regard to the redemption profile of debt beyond 2015, S4 has a much lower and a relatively smoother redemption path. S1, S2 and S3 have higher amount of NTBs than S4 which are to be refinanced annually. Thus, bunching in redemption of domestic debts is much less in S4 when compared to the other strategies, while bunching in external debt redemption is relatively large in 2017 through 2021 under S2 due to maturing Diaspora Bond and Eurobond. S4 relative to S2 shows bunching of the 10-year domestic debt and ICM bonds in 2022 to 2025, while S2 distributes the risk with the Diaspora Bonds.
- 10. The Report recommends the adoption of S4 as it meets the financing needs of the government at a relatively lower cost and prudent risk. S4 relies on long-term domestic debts and less expensive external financing, when compared with S3, the next candidate strategy using the cost-risk trade-off. The adoption of S4 would support the on-going initiatives for development of the domestic market, as well as, provide external funding at preferred cost-risk trade-off for spending on capital projects, in line with the current goal of the FGN to speed-up infrastructural developments. More importantly, S4 strategically takes into consideration Nigeria's likely up-grade from IDA only to a blend status, by taking on more funding from the non-IDA window. In addition, beyond 2015, the debt redemption profile of S4 stands out as having the smoothest path with the least amount of domestic debt maturing immediately after 2015 and a back-loaded external debt redemption profile in 2016 through 2025. The combined effect of the external and domestic debts profile, particularly, the latter, is expected to moderate refinancing risks in the near term. Thus, S4 uniquely stands out as a clear choice in terms of cost-risk trade-off, as well as, having a smoother redemption profile.

# CHAPTER ONE BACKGROUND, POLICY OBJECTIVES AND BENEFITS OF THE MTDS



#### 1.1 Background, Policy Objectives and Benefits of the MTDS

#### 1.1.1 Background

The Debt Management Office (DMO), along with other stakeholders, namely: the Central Bank of Nigeria (CBN), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS) and the National Planning Commission (NPC), developed the Medium-Term Debt Management Strategy (MTDS), 2012 -2015. This is in keeping with the government's desire to manage public debt along a more cautious path, mindful of the painful experience with debt overhang in the recent past. The essence of a formal medium-term debt strategy is to provide a quantitative and qualitative guide to public debt management by creating a **picture of the debt structure under different borrowing strategies, so as to choose the most appropriate strategy.** The World Bank/IMF and WAIFEM team provided technical support during the workshop that produced the report.

The exercise was carried out against the backdrop of the structure of the total public debt portfolio, particularly the relative size of the domestic debt stock. Nigeria's domestic debt stock rose rapidly after the exit from the Paris and London Club debts in 2005 and 2006, reflecting the pressure to over-expand the budget. In the last few years, there has been a remarkable increase in Government's expenditure explained by increases in public wage bills, overheads and other recurrent expenditures. Correspondingly, the portion of fiscal deficit which the Appropriation Act allocated for funding through domestic borrowing has also been rising rapidly.

These have amplified the financing gap, thereby necessitating recourse to more government borrowing, predominantly from the domestic debt market. The increase in government's borrowing, especially from the domestic bond market, could also be partly linked to special government's stimulus spending initiatives between 2008 and 2010. It would be recalled that due to the global economic and financial crisis, which caused dramatic shrinkage of economic activities, many governments adopted countercyclical and interventionist spending to stabilise and reinvigorate several sectors of the economy. Furthermore, the government borrowed from the domestic market to fund special national needs, such as the payment of local contractors' debts, as well as, NITEL and Nigerian Airways Staff Pension arrears. The combined effects of these on public debt include:



- i. disproportionate reliance on the domestic bond market to fund government's deficits;
- ii. high rate of domestic debt accumulation and a public debt stock skewed in favour of domestic debt the ratio of domestic and external debt stock as at end-2011 was 88:12, whereas the appropriate ratio would be 60:40;
- iii. rising debt service payments occasioned by growing debt stock, coupled with upward pressure on the average cost of fund partly due to demand pressure from the government, exacerbating the pressure from other sources; and,
- iv. the risk of crowding out the private sector.

Nevertheless, it is necessary to state that apart from serving as a source of funding Government's expenditure, domestic borrowing has been deliberately and purposefully used to develop the debt market structure and culture for long-term savings and investments. Available tenor has been significantly extended from one year and below to twenty years. The building of an elongated yield curve implies that the private sector has been enabled to commence issuance of long-dated bonds to fund the real sector and infrastructure. The increasing external recognition and inclusion of FGN Bonds by leading international financial institutions (such as, JP Morgan and Barclays Capital) in their tradable indices demonstrate that government's domestic borrowing and initiatives in the development of the domestic bond market have been executed in a manner that has enhanced the quality and strength of the domestic financial markets.

In the same vein, the debut issuance of US\$500 million 10-year 6.75% Eurobond in January 2011 in the international capital market (ICM), represents a significant landmark in Nigeria's history. The sovereign benchmark created has opened a new window for the private sector to access relatively cheaper long-term capital from the ICM, whilst facilitating the inflow of foreign direct investment into the country.

Regardless of these positive aspects, the concern for addressing the rapid growth of the domestic debt stock in particular and the management of the total public debt portfolio in general, remains real.

#### 1.1.2 Policy Objectives of the MTDS

Against this background, the policy objectives of public debt management, going forward, include the need to:



- i. significantly reduce the rate of growth of public debt in general, and domestic debt in particular to ensure debt sustainability;
- ii. reduce the amount spent on debt service by substituting the relatively more expensive domestic debt with less expensive external debt at present, the percentage difference between the average domestic and external cost of borrowing is about 8%;
- iii. make direct budgetary provisions by creating a sinking fund for the repayment of part of maturing FGN Bond obligations instead of refinancing them;
- iv. achieve an optimal mix between domestic and external borrowing and arrive at a more balanced public debt portfolio preferably, in the ratio of 60:40 for domestic and external debt, respectively;
- v. reduce the issuance of short-term domestic debt instruments in favour of longterm instruments to hedge against refinancing and other market risks;
- vi. attain appropriate mix in terms of currency composition, interest rate structure, and concessional versus commercial borrowing;
- vii. stabilise and deepen the domestic debt market to attract more foreign investment inflows;
- viii. create more borrowing space for the private sector to access long-term funds to grow the real sector, as well as, incentivise them to assume more prominent role in the development of commercially viable critical infrastructure projects for economy growth and development;
- ix. provide debt management support for the development of critical infrastructure projects using non-debt financing options, such as PPP, to reduce direct government borrowing; and,
- x. sustain the capacity building initiatives at the Sub-national level to ensure that Sub-national governments subscribe to sound public debt management practices, fiscal discipline, build and maintain reliable debt data base for overall debt and macroeconomic sustainability of the country.

#### 1.1.3 Benefits of the MTDS

In view of the foregoing, it becomes necessary to develop the MTDS in order to operationalize public debt management objectives. The MTDS aims at creating an appropriate borrowing strategy that **meets government financing needs at lowest** 



**cost, consistent with prudent degree of risk**. It helps to imagine how the future would look like, guides choices amongst borrowing options, creates avenues for manoeuvre in times of crisis and seeks to prevent expensive mistakes through evaluation of cost-risk tradeoffs.

It provides a framework for cost and risk analysis, redemption profile and ensures that the debt structure does not dampen or amplify the magnitude of domestic and external shocks. Furthermore, the MTDS provides direction for debt management within the broad macroeconomic framework by facilitating policy coordination and identifying necessary institutional, legal and other constraints against debt management that would necessitate reforms.

#### 1.2 Macroeconomic Scope of the MTDS

The macroeconomic variables and indicators captured in the MTDS quantitative analytical toolkit or model include:

- I. Existing FGN debt, public and publicly guaranteed external debts, on-lent loans and other contingent liabilities that have direct bearing on the debt sustainability of the country;
- ii. Projected minimum domestic and external financing and borrowing requirements;
- iii. Government expenditure, primary deficit, debt service;
- iv. Government revenue (including grants);
- v. Nominal and real GDP and their growth rates;
- vi. Exports and imports;
- vii. Official external reserves and exchange rate forecast; and,
- viii. Yield curve, credit risk premium and inflation rate forecast.

The MTDS quantitative analytical toolkit is a generic template structured along the World Bank/IMF guidance note for developing a 3-5 years debt management strategy, which is required to be reviewed annually.

#### 1.3 Institutional Framework for Debt Management

The DMO is statutorily empowered to prepare the MTDS. In particular, the Debt Management Office (Establishment) Act, 2003 empowers the Office to, amongst others:



- a) prepare and implement a plan for the efficient management of Nigeria's external and domestic debt obligations at sustainable levels compatible with economic growth and development;
- b) set guidelines for managing Federal Government's financial risks and currency exposure with respect to all loans;
- c) advise the Federal Government on the re-structuring and re-financing of all debt obligations;
- d) advise the Minister on the terms and conditions on which monies, whether in Nigeria's currency or in any other currency, are to be borrowed;
- e) submit to the Federal Government, for consideration in the annual budget, a forecast of borrowing capacity in local and foreign currencies; and,
- f) prepare a schedule of any other Federal Government's obligations such as trade debts and other contingent liabilities, both explicit and implicit, and provide advice on policies and procedures for their management.

The Fiscal Responsibility Act, 2007 on the other hand, sets the criteria for public borrowing and the limits of government deficits relative to GDP. The combined import of these Acts, amongst others, is to ensure that public debt is efficiently managed. To this end, the MTDS is designed to complement other debt management initiatives, and in particular, the Debt Sustainability Analysis (DSA).

In furtherance of its mandates, the DMO since inception has been properly structured in line with international best practices to perform the tasks of designing a MTDS and conducting Debt Sustainability Analysis (DSA)<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>The Middle Office (Policy, Strategy and Risk Management Department) which drives the process is ably supported by the Front Office (Portfolio Management Department, Strategic Programmes Department and Market Development Department), and the Back Office (Debt Recording and Settlement Department), while the Organisational Resource Department provides the necessary logistic support.

# CHAPTER TWO CURRENT DEBT MANAGEMENT STRATEGY



#### 2.0 Current Debt Management Strategy

Nigeria's current debt management strategy is broadly expressed in the National Debt Management Framework (NDMF), 2008–2012. Although the quantitative details may be limited, the framework provides useful guidance for borrowing activities of the Office and its interactions with the Financial Markets.

The Framework as approved by the Federal Executive Council targets maximum ratio of external to domestic debt composition of 40% and 60%, respectively, while for prudential reasons, the authorities adopt a total debt burden threshold of not more than 25% of GDP as against the international threshold of 40% for countries Nigeria's peer group. The Framework further stipulates that new international borrowing can only be considered on concessional terms with a minimum grant element of 35%. Furthermore, it is also designed to facilitate development of the domestic bond market and create benchmarks for corporate and sub-nationals. In addition, the borrowing mix for domestic debt is guided by the allocation of 75% and 25% for long and short term debts, respectively.

The annual borrowing plan, which prescribes the mix of external and domestic financing of the overall budget deficit is usually announced with the fiscal budget. Subsequently, an annual issuance calendar that forms the domestic debt strategy in terms of instruments and maturity is published. The calendar is prepared keeping in view, market demand, secondary market liquidity and the need to maintain minimum volumes in selected instruments and targeted maturity profile.

It is important to note that the NDMF, in general, has guided the authorities in achieving prudent and sustainable debt portfolio since exiting from external debt over-hang, as well as, developing useful strategies in the choice of markets to borrow from, the instruments to use, and the limits to apply.

Nevertheless, going forward, developing a MTDS which outlines the costs and risks implications of alternative debt financing strategies has become necessary. Firstly, this is due to the increasing sophistication of the financial market, and the emerging trends in public debt management. Secondly, the size of short-term debt portfolio has grown more rapidly than expected in the recent years and cost-risk is worsening.



In summary, the MTDS provides policy makers and debt managers with the relevant information set to make choices amongst several debt financing strategies given the costs and risks trade-off. The MTDS derives its strength from the fact that it analyses the impact of changes in macro variables on each debt financing strategy and seeks to steer the economy towards an efficient cost-effective, low-risk debt portfolio.

Table 2.1 below shows the financing plan in 2011, using the MTEF prescription. It indicates that 8.8% of debt finance is sourced from external creditors, while 91.2% comes from the domestic debt market. A further breakdown reveals that financing from ICM/Eurobond, IDA/AfDF and Bilateral sources (e.g. China) constitute 35.5%, 35.4% and 28.8%, respectively, of the total external finance. The balance of 0.3% is projected to come from Islamic Development Bank. A break-down of the domestic debt is made up of about 60% NTBs and 40% FGN bonds of total domestic issuances.

Table 2.1: Current MTEF/2011 Debt Financing Strategy

Source/Instruments	% of Total Debt	% of Source/Instrument
External Sources	8.8	100
IDA	2.6	29.1
AfDF	0.6	6.3
IBRD/ADB/IDB	0.0	0.3
New Bilateral	2.5	28.8
ICM/Eurobond	3.1	35.5
Domestic Instruments	91.2	100
NTBs	54.7	60.0
3Yr	16.7	18.3
5Yr	12.0	13.1
10Yr	7.8	8.5

#### 2.1 Trends in Nigeria's Public Debt

The establishment of the DMO marked the beginning of prudent debt management, which in turn helped the Office to secure debt relief and consequently a significant reduction in external debt overhang. Total public debt as a ratio of GDP, which stood a little above 50% pre-debt relief compared with the 30% global threshold for Nigeria then, fell to about 12% by 2006 (Figure 2.1). The debt stock, however, has shown steady growth after debt relief, especially the domestic debt component owing to reliance on the domestic market to fund fiscal deficits of the Federal Government and the need to develop the domestic bond market.



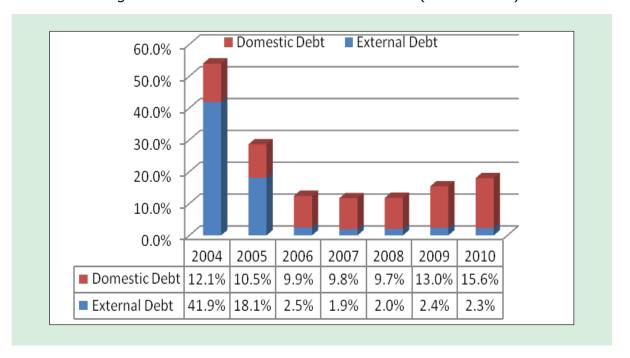
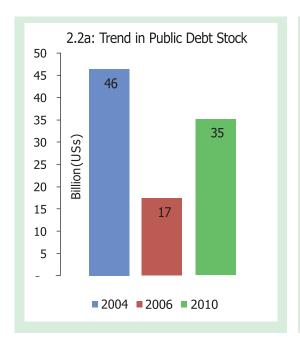
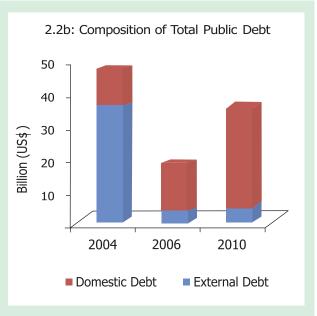


Figure 2.1: Total Public Debt as a % of GDP (2004 – 2010)

Thus, the establishment of the DMO has facilitated the rapid growth of the domestic debt market and thereby shifted emphasis from overdependence on foreign sources of financing to the domestic sources. This is evidenced in Figure 2.2, where the share of domestic debt in total debt stock rose from 22% in 2004 to 87% in 2010, reflecting the result of initiatives for rapid development of the domestic bond market based on government's decision to meet its bulk financing needs from the domestic debt market.







By end-2010, Nigeria's total public debt portfolio stood at US\$35.09bn, of which external debt was US\$4.58bn or 13% of total, while domestic debt constituted the balance of 87%. As at the end of September, 2011, the percentage composition of the debt stock of US\$40.03bn was 14.0% and 86.0% for external and domestic, respectively (Figure 2.3).

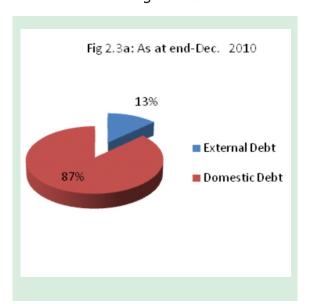
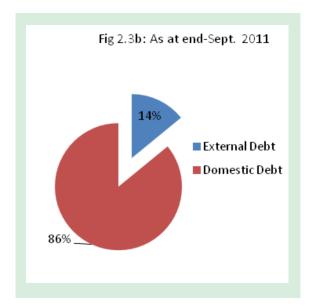


Figure 2.3: Structure of Total Public Debt by Source.



#### 2.2 External Debt

#### 2.2.1 Structure of Total External Public Debt by Creditor Category

After the exit from Paris and London Club of creditors in 2006, the composition of external debts shifted from commercial-type dominance in 2004 to mainly multilateral concessional debts (Table 2.2).

Table 2.2: Composition of External Debt by Source

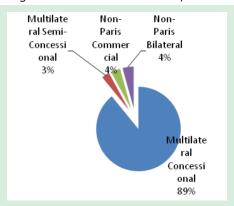
	Percentage Share					
Debt Category	2004	2006	2010	Sept. 2011		
Multilateral Concessional	3.2	49.5	89.1	79.5		
Multilateral Semi-Concessional	4.7	24.1	3.0	1.2		
Commercial	90.3	17.2	4.3	2.9		
Others	1.9	9.2	3.6	7.5		
ICM/Eurobond	-	-	-	8.9		

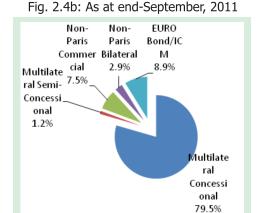


The multilateral concessional debt, which constitutes over 89.1% of the total external debt stock by December, 2010 (Figure 2.4a), however, drops to 79.5% by September, 2011. The drop in concessional debt stock reflects the effects of the 6.75% 10-year US\$500m ICM/Eurobond sourced from the commercial window, representing about 8.9% of the total external debt portfolio (Figure 2.4b). The other categories of external debt in Nigeria's portfolio include Multilateral Non-concessional, Non-Paris Club Commercial and Bilateral credits, which together constitute about 10.9% of total external debt as at December 31, 2010, and 11.6% as at end-September, 2011.

Figure 2.4: External Debt Stock by Category

Fig. 2.4a: As at end-December, 2010 Multilate Non-Non-

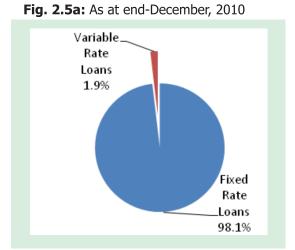




#### 2.2.2 Structure of Total External Public Debt by Interest Rate Type

Figure 2.5 indicates that over 98% of the total public debt stock as at December 31, 2010 is of fixed rate loans and only less than 2% is of variable rate origin. The variable rate loans are from the African Development Bank the last of which will mature in 2013.

Figure 2.5: External Debt Stock by Interest Rate Type



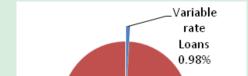


Fig.2.5b: As at end-September, 2011



#### 2.3 Domestic Debt

Domestic debt comprises marketable and non-marketable securities. Marketable securities consist of FGN Bonds (long-term: 3, 5, 7, 10 and 20 years) and NTBs (short-term: 91, 182, and 364 days). The percentage distribution between short and long term is set at 25:75, respectively. Non-marketable securities are the Treasury Bonds and Development Stock which have dropped significantly.

Instruments	As at end-Dec., 2010 Amount % of Total		As at end-September, 2011		
			Amount	% of Total	
FGN Bonds	2,901.60	63.75	3,356 43	63 11	
NTBs	1,277.10	28.06	1,607.84	30.23	
Treasury Bonds	372.9	8.19	353.73	6.65	
Development Stock	0.22	0.0	0	0.00	
Total	4,551.82	100	5,318.00	100	

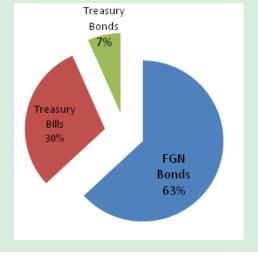
Table 2.3: Composition of Domestic Debt by Instruments (N' Billion)

Table 2.3 and Figure 2.6 illustrate the composition of domestic debt by instruments. As at end-2010, FGN Bonds and the NTBs accounted for 63.75% and 28.06% of the total domestic debt stock, respectively. Treasury Bonds amounted to N372.90bn or 8.19% while Development Stock was N0.22bn or 0.005% of the total domestic debt stock. Similar pattern of distribution was noticeable in the first three quarters of 2011, except that the Development Stock amounting to N0.22bn was fully repaid while the Treasury Bonds were partially redeemed (N19.2bn) in 2011.

Figure 2.6: Composition of Domestic Debt by Instruments & Tenor



Fig. 2.6b: By Tenor as at end-Sept., 2011





#### 2.3.1 Distribution of Domestic Debt Stock by Holders

Deposit Money Banks (DMBs) and Discount Houses put together, held about 57.23% of total government securities at the end of 2010 (Table 2.4 and Figure 2.7). These are followed by the Non-Bank Public and the CBN which held 32.06% and 7.54%, respectively while Sinking Fund Account (SFA) accounted for the remaining 3.17%. The high volume of FGN securities held by the DMBs, Discount Houses and the Non-Bank Public, about 82.29% of the outstanding issues, is attributable to the liquidity in the secondary market and the increasing acceptability of the FGN bond as a viable alternative investment instrument by investors.

Instruments	Central Bank	DMBs & Discount Houses	Non-Bank Public	Sinking Fund	Amount Outstanding
FGN Bond	72.30	1,848.25	981.05	0.00	2,901.60
NTBs	42.17	756.76	478.17	0.00	1,277.10
Treasury Bonds	228.65	0.00	0.00	144.25	372.90
Development Stock	0.02	0.00	0.08	0.12	0.22
TOTAL	343.14	2,605.01	1,459.30	144.37	4,551.82
% of Total	7.54	57.23	32.06	3.17	100%

Table 2.4: Domestic Debt by Holder Category as at end-Dec., 2010 (N' Bn)



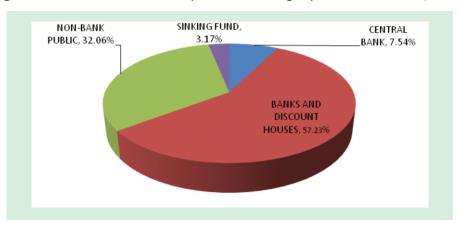


Figure 2.8 shows that 1-year securities constitute a large proportion of the total domestic debt stock (27%). This was closely followed by 3-year securities with 22% share, while the 20-year securities constitute 20% of the outstanding issues. The relative dominance of 1-3 year maturities is an indication of high exposure to refinancing risk.



20yrs 20% 10yrs 10% 10yrs 10% 3yrs 10yrs 10yrs 10yrs 20yrs 20yrs

Figure 2.8: Composition of Domestic Debt by Term-to-Maturity as at end-Dec., 2010

#### 2.4 Cost and Risk Characteristics of the Existing Debt Portfolio

The weighted average implied interest rate of the total public debt portfolio (excluding sub-nationals) was 7.7% as at end-2010. However, there was a wide difference between the implied interest rate of the domestic and external debt at 8.7% and 1.1%, respectively. This was because domestic debts were obtained at market rates, whereas external debts were mostly obtained from concessional sources (mainly IDA), at favourable terms (Table 2.5).

Risk Indicators		Domestic Debt	External Debt	Total Debt
Nominal debt as a	% of GDP	15.4	2.4	17.7
Implied interest ra	te (%)	8.7	1.1	7.7
PV Debt as % of G	GDP	15.4	1.5	16.9
Refinancing Risk	Debt Maturing in 1yr (%)	32.4	4.6	28.7
	ATM Debt Portfolio (yrs)	5.0	16.4	6.5
	Variable Rate Debt (%)	0.0	1.9	0.3
Interest Rate Risk	Debt due for re-fixing in 1yr (%)	32.4	5.6	28.9
	Average time to re-fixing (yrs)	5.0	16.4	6.5
Exchange Rate	Share of total debt (%)	13.0	87.0	100.0
Risk	ST FX Debt (% of reserves)			0.7

Table 2.5: Cost and Risk of Existing Debt as at end-December, 2010

#### 2.4.1 Interest Rate Risk

Despite the very low share of variable rate debt in the portfolio, interest rate risk is still significant - largely due to the high share of debt maturing within 1-year. The share of fixed rate debt in the total debt portfolio is over 98% while floating rate debt constitutes



only 2%. Within the domestic debt portfolio, the share of floating rate debt is approximately zero percent, while it is a little less than 2% for external debt portfolio.

#### 2.4.2 Refinancing Risk

Refinancing risk is measured by examining the share of debt maturing within 1-year, the average time to maturity (ATM), and the redemption profile (Figure 2.9). The share of debt maturing within 1-year stood at 28.7% of the total debt stock at the end of 2011. For the total debt portfolio, the weighted ATM is 6.5 years, while the ATM for external and domestic debts is 16.5 and 5 years, respectively.

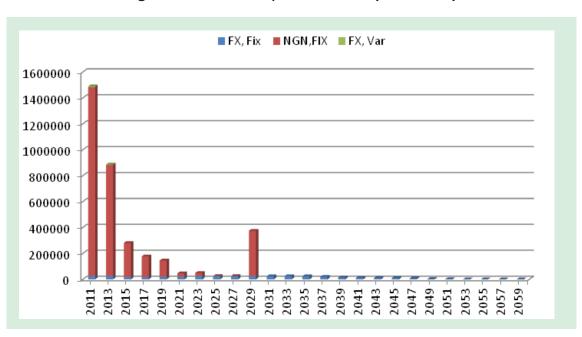


Figure 2.9: Redemption Profile (N' Million)

#### 2.4.3 Exchange Rate Risk

Exchange rate risk is low due to the low ratio of external currency denominated debt in the total debt portfolio, meaning that relatively lower amount of foreign exchange were required to settle debt obligations falling due. The total debt portfolio consists of 87% in domestic currency and 13% in foreign currency (Figure 2.10). Within the foreign currency debt portfolio, the US Dollar and the Euro have the largest shares of 44.4% and 36.6%, respectively.



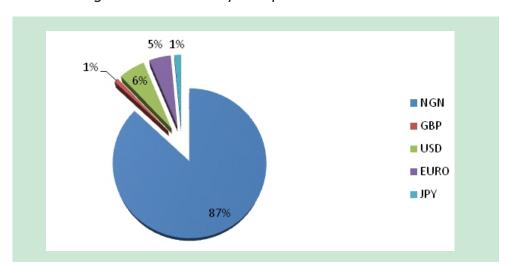


Figure 2.10: Currency Composition of Public Debt

From the foregoing, it is safe to state that the existing debt portfolio does not pose significant challenges in terms of cost and risks. The low level of refinancing risk indicates that debt service cost was low. However, reducing the level of debt maturing within one year will help minimise the risk of bunching.

# CHAPTER THREE DOMESTIC PRICING & SHOCKS



#### 3.0 DOMESTIC PRICING & SHOCKS

#### 3.1 Yield Curve

The yield curve for 2011 (Figure 3.11) was plotted using the yields on FGN Bonds and Nigerian Treasury Bills (NTBs) as at December 13, 2011. The yield curves for 2012-2015 are extrapolations of the 2011 downward sloping yield curve, which further underscore investors' expectations of drop a in future inflation and interest rates. For purposes of plotting the 2011 yield curve, the average yields on the short-end of the curve (1M, 3M, 6M, 9M and 1-year) were taken as the yield on 1 year NTBs, whereas the actual yields on FGN Bonds were used. It is further noted that the effects of CBN monetary policy measures (increase in the Monetary Policy Rate (MPR) by 275bps from 9.25% to 12%, and the raising of Cash Reserve Ratio (CRR) from 4% to 8%, as well as, the reduction in Open Net Position (ONP) from 5% to 1%, on October 10, 2011) impacted more on the short-term debt securities (NTBs) than the long-term securities, thereby, helping to amplify the shape of the inverted yield curve.

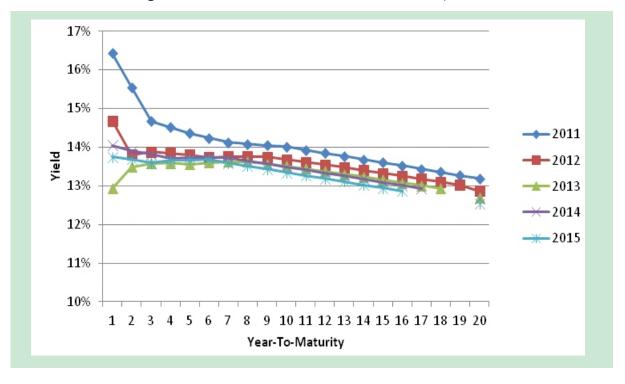


Figure 3.11: Yield Curve as at December 13, 2011

The shape of the 2011 yield curve, particularly the short-end was assumed to be influenced almost immediately by change(s) in the MPR in the same direction, while the impact on long-term interest rates could go either way. The outcome depends on the



direction and extent of the impact of the change in official rate on expected future interest rates, as well as, inflation.

Furthermore, the shape of the yield curve above can be explained by the market segmentation theory. The proponents of the market segmentation theory argue that within the different maturity sectors of the yield curve, supply and demand for funds will define the interest rate for that sector. That is, each maturity sector is independent of other maturity class. Based on this theory, investors may regard each maturity group of the FGN Bonds and NTBs as a segmented market for the purpose of determining the rates.

Therefore, in the current market structure (segmentation of the long-end from the short-end) the yield curves are downward sloping – short-term yields are higher than long-term bond yields. The short-end rates moved in line with the CBN MPR, and are also expected to trend in line with future inflation in the medium-to-long term. By implication, the long-end (10 to 20 years) is expected to slow-down further. In addition, empirical data suggests that the relative different investor groups in the different segments of the market (DMBs and pension funds) are pitched at the short and long-end of the market, respectively and this may have induced the downward sloping yield curve, which makes future issuance of long-term bonds more attractive for the government.

#### 3.2 Pricing of Inflation-Linked Bonds (ILBs)

Figure 3.12 shows the yield curves for 20-year nominal bond and 20-year ILB. The yield curve of ILB is constructed based on the real return of 3% for a 20-year nominal bond, plus projected inflation. With the introduction of the ILBs, real returns are guaranteed and investors are expected to accept lower inflation premium in line with downward trending inflation, baring other market distortions. The implication is that cost of domestic borrowing would be lower not only for the Government but also for other bond issuers. However, there exit some implied risk to Government as coupon/yield which is tied to movement in inflation can move against assumed trend in the model.



16% 14% 12% 10% Yield 8% 20Yr 6% 20Yr ILB 4% 2% 0% 2010 2011 2012 2013 2014 2015 Year

Figure 3.12: Nominal Vs Inflation-Linked 20-yr Bond Yield Curves

#### 3.3 Pricing of External Loans and Exchange Rate Assumptions

#### 3.3.1 External Loans Assumptions

**Concessional Loans** – This is discussed in detail under sources of external financing in Chapter 5.

**Market Instruments** - Focus is on pricing of market instruments which include: IBRD Fixed Rate

- The pricing of an IBRD loan is based on 6-month LIBOR plus 50 basis points spread, because IBRD loans normally come with variable rates, but can be swapped to fixed rates. However, the cost may be more because swapping variable to fixed rate is usually at a premium.
- LIBOR is approximated by 1- year US Treasury (UST) yield plus 50 basis points

#### **ICM/Eurobond**

- The pricing of the Nigeria Sovereign Bond at the International Capital Market (ICM) was based on 10-year US Treasury yield plus 520 basis point credit spread at the time of issuance in January, 2011.
- The spread, however, has been narrowed to 420 basis points to reflect current low yield on the US Treasury instruments.

#### **Diaspora Bond**

 This is priced using 5-year US Treasury (UST) yield plus 350 basis points spread



• The UST forward curves suggest that interest rates will recover within the next 2 to 5 years (Figure 3.13).

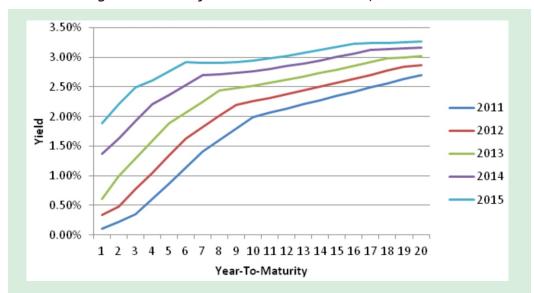


Figure 3.13: Projection of Interest Rates, 2011-2015

#### 3.3.2 Baseline Exchange Rate Assumptions

Figure 3.14 shows the exchange rate projection for the baseline and 30 percent depreciation shock in 2012. The exchange rate depreciation reflects differences in projected inflation.

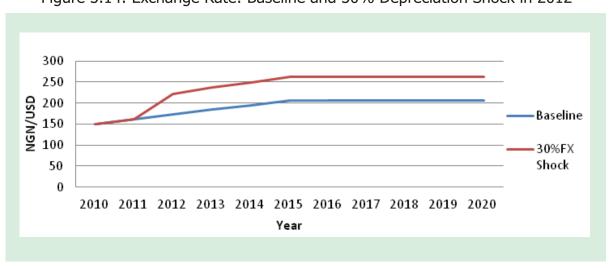


Figure 3.14: Exchange Rate: Baseline and 30% Depreciation Shock in 2012



#### **3.4 Pricing Shocks**

#### 3.4.1 Interest Rate Shock 1

**Domestic Side Factor -** Interest rate is shocked by 200 basis points across the entire maturity spectrum for all the range of debt instruments causing the domestic yield curve to assume a parallel upward shift.

**External Side Factor** - Because all the market based international instruments are derived from the forward UST yield curves, shocks are applied to the rates based on historical peaks (Figure 3.15). The chart shows the previous levels of UST rates before the onset of the global financial crises and recession during which the yields on the UST declined significantly. It is expected that future rates would go back to the previous levels.

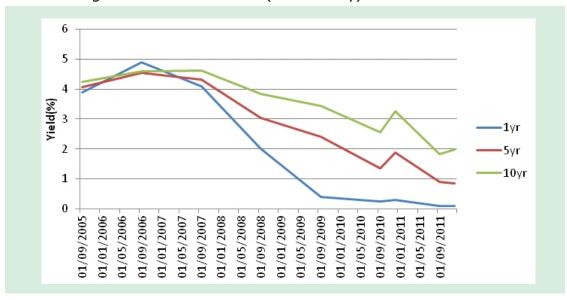


Figure 3.15: Interest Rate (US Treasury) – Historical Peaks

In order to meet the funding requirements of government through medium-term external financing, it is assumed that loans will be priced above the prevailing low interest rates. It is also assumed that the major sources of external financing would be by borrowing from the IBRD, issuance of Diaspora Bonds, as well as, further issuance of sovereign bonds at the international capital market.

**IBRD** - Borrowing from the IBRD is projected to attract a rate of 3 percentage points over the current 1-year US Treasury yield.



**Diaspora Bond -** The Nigeria Diaspora Bond is projected to attract an indicative coupon of 350 basis points above the 5-year UST yield.

**ICM -** The Nigeria Eurobond is benchmarked at 420 basis points over the 10-year UST yield.

#### 3.4.2 Interest Rate Shock 2

The domestic yield curve is shocked by 200 basis points to assume a steeper profile over the projection period.

#### 3.4.3 Exchange Rate shock

The exchange rate is projected to depreciate by 30% in 2012 owing to oil price shock. This scenario can materialize considering the level of exchange rate shock during the global financial crisis (Figure 3.16) when the rate of depreciation was about 25 percent.

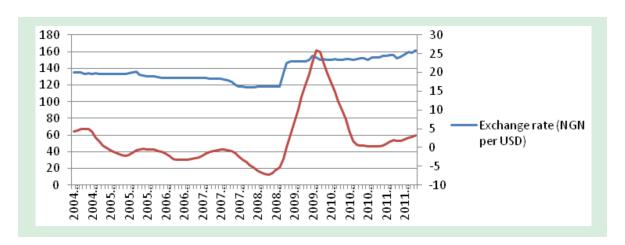


Figure 3.16: Trend of Exchange Rate Depreciation (2004 - Sept., 2011)

# 3.4.4 Combination Shock of 15% Exchange Rate Depreciation and Interest Rate Shock 1

The rationale for this scenario is that large depreciation (devaluation) is followed by rise in the domestic interest rate. In response to a depreciating currency, the first line of defense for central banks is to raise the short-term interest rate under their control. The idea is that, by making domestic assets more attractive, higher interest rates would strengthen the domestic currency.

# CHAPTER FOUR BASELINE MACROECONOMIC ASSUMPTIONS AND KEY RISK FACTORS



## 4.0 BASELINE MACROECONOMIC ASSUMPTIONS AND KEY RISK FACTORS

### 4.1 Baseline Macroeconomic Assumptions

The medium-term baseline macroeconomic assumptions underlying the analysis were drawn from the revised MTEF submitted by the Ministry of Finance and Budget Office to the National Assembly (NASS), on behalf of the Federal Government (Table 4.6).

Table 4.6: Baseline Macroeconomic Projections (N' Million & as % of GDP unless otherwise indicated)

Description	2010	2011	2012	2013	2014	2015
FGN Total Revenues	3,089,200	3,348,120	3,644,660	3,908,280	4,189,170	4,407,140
(incl. Grants)	(10.6)	(8.7)	(9.1)	(8.4)	(7.6)	(6.8)
FGN Primary	3,578,000	3,989,640	4,189,520	4,269,420	4,476,350	4,605,920
Expenditure	(12.3)	(10.4)	(10.5)	(9.1)	(8.2)	(7.2)
FGN Expenditure	3,993,000	4,484,740	4,749,100	4,861,180	4,967,880	5,068,890
	(13.7)	(11.7)	(11.9)	(10.4)	(9.1)	(7.9)
FGN Interest	416,000	495,100	559,580	591,760	491,530	462,970
Expenditure	(1.4)	(1.3)	(1.4)	(1.3)	(0.9)	(0.7)
International Reserves (US\$' M)	32,347	33,742	37,797	42,507	49,350	54,801
GDP	29,206,000	38,427,060	39,904,260	46,714,320	54,788,420	64,377,490
Exchange Rate (NGN/US\$, end of period)	149.2	153.6	158.3	161.4	163.0	164.7

As a result of various reforms undertaken by Nigeria, especially with respect to development of the domestic debt market, the negative impact of the global financial crisis on the economy has been mild. Average real GDP growth rate was about 7.9% for 2004-2007, compared to the average of 6.3% recorded between 2008 and 2009. In 2010, the macroeconomic performance improved significantly recording a real GDP growth rate of over 7%. A similar impressive performance is expected in 2011 and in the medium-term. It should be noted that the creation and sustenance of the oil-price-based fiscal rule and Excess Crude Account (ECA) acted as a major buffer to cushion the effects of oil price volatility and to mitigate effects of revenue shortfalls.



The external reserves fell from over US\$42 billion in 2009 to about US\$32 billion as at end of December, 2010. It is expected that the external reserves would improve due to a sustained high oil prices and increased oil production output. The inflation rate, though still double-digit, has moderated significantly from the peak of 15.1% in 2008 to about 11% as at end-2010, while it is expected to moderate to a single digit in the medium-term.

Based on the MTEF projection, revenue is projected to increase significantly and relatively faster than expenditure, while the level of budget deficit is expected to trend downward in the same period. The projected increase in government's expenditure reflects its plan to increase spending in the priority sectors of the economy. The deficit would be financed mainly through domestic borrowing which would represent about 2% on the average in 2012-2015.

Monetary policy, in addition to reforms in the banking sub-sector, have been directed towards maintaining overall financial system stability. Benchmark interest rate has progressively risen over time following the policy operations of the monetary authorities.

Going forward, it is expected that overall macroeconomic outlook would improve under the baseline scenario. The GDP is expected to grow significantly, with higher growth rate expected from the non-oil sector of the economy as a result of improved bank lending to the real sector, while inflation would moderate to a single digit in the medium-term. It is also expected that the exchange rate would remain stable in the medium-term. Collectible revenues and fiscal balance are projected to improve following sustained high oil prices and increased oil production, as well as, the planned government's policy to remove fuel subsidies.

### 4.2 Risks to the Baseline Macroeconomic Projections

### 4.2.1 Output Risks

**Oil Sector** — Since income from export of crude oil accounts for about 80% of government's revenue, the economy is susceptible to oil shocks both in the price and volume of production. It is expected that the world economy will continue on the path of recovery from the impact of the global financial crisis. Any further adverse shock to the world economy may worsen the sovereign debt crises mainly in the euro zone which can



impact on the oil prices adversely with substantial effect on Nigeria's revenue flow. This may lead to deterioration in fiscal and current account imbalances.

**Non-Oil Sector -** Apart from oil, agriculture is another significant source of Nigeria's revenue and a major component of the GDP. Adverse weather conditions could result in decreased output in the sector, with resultant negative effect on the economy. In addition, the on-going reforms in the banking sector seem to have constrained banks' lending to the real sector of the economy. Thus, if banks' credit to the real sector fails to pick up significantly, it may lead to a slow-growth in GDP.

### **Balance of Payments Risks**

Nigeria's current account deficit could deteriorate considerably if the current sovereign debt crises in the euro zone countries persist, as it may lead to weaker external demand and lower oil prices. Furthermore, if there is a double-dip recession in the global economy there could be a reduction in Foreign Direct Investment (FDI) and remittances may worsen, potentially adding pressure on the exchange rate.

### **Fiscal Risks**

Nigeria is currently at low risk of public debt distress. This is evidenced by the result of the yearly Debt Sustainability Analysis (DSA) conducted by the DMO to assess the current and future debt ratios in relation to global thresholds, and with a view to finding measures that could be employed to reduce the debt burden. The scope of the 2011 DSA was expanded to cover both the external and domestic debts of the Federal and State Governments. Also, if government succeeds with the implementation of the fuel subsidy removal, additional fiscal space would be created to improve government's fiscal position.

Nevertheless, government's fiscal position is still vulnerable to a few risks including the balance of payments and output risks. A negative shock in oil demand will put pressures on government's revenues, thus widening the fiscal deficit that would lead to new borrowings. Moreover, the cost of borrowing by the government would likely rise if interest rate in the economy continues its upward trend following further monetary policy tightening by the CBN. In the external front, financing through the concessional window is usually limited and may shrink further as Nigeria moves from IDA only to blend status, which would necessitate the shifting of focus to the relatively expensive market-based funding windows.



### 4.2.2 Contingent Liability Risk

The estimated Federal Government's contingent liability as at end of December, 2010 was N2.589tn, while the projection for 2011 is N4.47 trillion (Table 4.7). Given a 2010 GDP figure of N29.206tn, the ratio of outstanding contingent liability to GDP was 9.4% by end-2010, while the projection for 2011 is 16.1%.

Table 4.7: Federal Government's Contingent Liabilities (N' Million)

Liability Type	2010	2011 Projection
Pension Arrears	1,499,663.41	1,391,257.45
Contractors Liabilities <sup>2</sup>	-	226,521.52
Pending Liabilities <sup>3</sup>	83,368.62	83,368.62
AMCON Guarantee⁴	1,150,000.00	3,000,000.00
TOTAL	2,733,032.03	4,701,147.59

### 4.2.3 Monetary Risks

Inflation risk in Nigeria remains high despite the primary focus of recent monetary policy to reduce the inflationary pressures from a prolonged double-digit to a single-digit inflation rate. The CBN had raised the Monetary Policy Rate (MPR), i.e. short-term benchmark rate, by as much as 575 basis points in 2011 to reach 12% by end-October, 2011 as part of the measures to control inflation. If the balance of payments risks enumerated above materialize, the depreciation of the local currency may become inevitable with potential pass-through to domestic price levels, which may accentuate the inflationary pressure. Also, the planned removal of fuel subsidy by the Federal Government has the potential to cause additional inflationary pressure in the short-term. In addition, any drastic fall in agricultural output as a result of any adverse weather condition and continued limited lending to the real sector by the deposit money banks will have similar adverse impact on inflation.

<sup>&</sup>lt;sup>2</sup>Local Contractors Liabilities for 2011 is the actual verified figure as at March 31, 2011.

<sup>&</sup>lt;sup>3</sup>Judgment Debts as supplied by the Federal Ministry of Justice (adapted from the 2011 DSA Report).

<sup>&#</sup>x27;The total commitment of AMCON for the purchase of NPLs and Banks recapitalization may amount to about N3 trillion. However, so far the Federal Government of Nigeria has only issued FGN Guarantee of N1.742 trillion. It is likely that AMCON will soon approach the Ministry of Finance/DMO for additional FGN Guarantee. It is also important to note that adequate arrangement has been put in place (Sinking Fund, recovery of NPLs, etc) to ensure that the FGN Guarantee on AMCON Bonds does not crystallize.



As part of measures to mitigate exchange rate risks, it is important that government continues to keep the ratio of foreign currency denominated debt at low levels. Government should also sustain the implementation of prudent monetary policy measures in order to reduce volatility in exchange and interest rates. Table 4.8 presents the summary of the macroeconomic risks and the implication for the MTDS.

Table 4.8: Macroeconomic Risks and Implications for Debt Management Strategy

Macro Factors	Risk Level	Implications for Debt Management
<b>Balance of Payments</b>		Sustain low ratio of forex debt to total debt
Exchange rate exposure	Low	stock.
FDI and remittance	Medium	Improve Asset-Liability Management ( ALM) of
volatility		foreign currency to mitigate forex risk.
		Increase reserve coverage and smooth service
		profile.
Fiscal Risks		Maintain smooth debt profile and try to shield
Revenue volatility	High	debt from interest rate risk
Contingent Liabilities	High	Maintain smooth debt profile
Monetary Risks		
High Inflation	Medium	Reduce rollover risk through tenor elongation

## CHAPTER FIVE SOURCES OF FINANCING



### 5.0 SOURCES OF FINANCING

Nigeria applies a mix of external and domestic financing sources in funding its borrowing requirements. Part of the country's post-debt relief borrowing policies, is to combine the two sources of financing in the ratio of 40% and 60% for external and domestic sources, respectively. Whereas the external source is expected to be predominantly concessional loans, the domestic debt component is expected to be largely of long-dated Federal Government of Nigeria (FGN) bonds.

### 5.1 External Sources

The existing external sources of finance utilized by Nigeria as at end-2010 include:

- a) International Bank for Reconstruction and Development (IBRD)
- b) International Development Association (IDA)
- c) International Fund for Agricultural Development (IFAD)
- d) European Development Fund (EDF)
- e) African Development Fund (AfDF)
- f) Islamic Development Bank (IDB)
- g) African Development Bank (AfDB)
- h) Exim Bank of China
- i) Exim Bank of Korea
- j) Other Commercial Creditors/ICM

The external portfolio of the country as at the end of 2010 was mainly made up of multilateral loans with average term to maturity of 16.4 years. There were ten sources of credit windows with an outstanding total of US\$4.58bn as at end-December, 2010. Table 5.9 shows the percentage distribution and other features of the various sources of external finance. Given the country's current policy to borrow largely from the concessional window, 92.71% of the total external debt portfolio was sourced from this window as at December, 2010.

The current external borrowing windows available to the country are broad enough to support various borrowing strategies under the MTDS framework. In addition, the ongoing initiative to issue a Diaspora Bond in the second quarter of 2012 would further diversify the external creditor base.



Table 5.9: Basic Features of Nigeria's External Financing Sources as at end-December, 2010

S/N	Creditor Type	Typical Interest (%)	Grace Period (Yrs)	Maturity (Yrs)	Concessionality
1	IDA	0.75	10	40	High*
2	IFAD	0.75	10	40	High
3	IBRD	4.40	5	20	Nil
4	ADF	0.75	10	50	High
5	IDB	Amount Based	7	25	Low
6	AfDB	Variable	6	20	Nil
7	Exim Bank of China	3.00	4	9	Low
8	Exim Bank of Korea	3.50	5	20	Low
9	ICM	6.75	9	10	Nil
10	EDF	1.00	10	40	High

<sup>\*</sup>Basic concessionality threshold is 35%

Meanwhile, it is expected that access to concessional sources of financing would be gradually reduced as Nigeria moves from low to middle income status. This will enhance the borrowing space and enable the country to leverage more on the commercial borrowing windows of multilateral and bilateral institutions. For instance, the total pipeline commitments negotiated in 2010 amounts to USD919.60m, which are mainly from the Exim Bank of China.

The fiscal authorities are proposing a debut issuance of Diaspora Bond with a maturity of 5 years to be issued in the second quarter of 2012. The bond would strategically diversify the funding mix of the country's external portfolio and would leverage on the hitherto untapped investment opportunities among Nigerians in Diaspora.

### 5.2 Domestic Sources

The domestic debt issuance strategy of the government has been identified as follows:

- a) Increased tenor elongation through issuance of long-dated debts instruments;
- b) Increased debt issuance by sub-nationals and corporate;
- c) Planned introduction of new debt instruments such as inflation-linked bonds;
- d) Deepened and improved market liquidity with the planned introduction of buybacks, switches and bilateral repos amongst others; and,



e) Planned gradual reduction in the level of Federal Government's deficit to have positive effect on macro variables such as inflation, foreign exchange and interest rates.

It is expected that the effective implementation of the above strategies in the medium to long term would strengthen the domestic debt market, improve liquidity status and further deepen the market's absorptive capacity to effectively provide adequate borrowing space for sub-national and corporate debt issuances.

### **5.2.1 Types of Domestic Debt Instruments**

The following are the existing sources of domestic debt financing:

- Overdraft from the CBN
- Loans from Commercial Banks
- Issuance of Securities
  - Nigerian Treasury Bills (NTBs)
  - FGN Commercial Papers (FGN CPs)
  - Promissory Notes
  - FGN Bonds (various tenors)

Overdrafts, Loans from Commercial Banks, NTBs and FGN CPs are short-term cash management instruments, while Bonds are medium to long-term of 3 - 20 year tenor. Promissory Notes can be short or long.

The domestic debt market of the country has grown significantly over the last 5 years with the build-up of benchmark instruments in the 3-year, 5-year, 10-year and 20-year FGN Bonds. To further deepen the market and offer investors with alternatives, the authorities plan to introduce Inflation-Linked Bonds (ILBs) in the second quarter of 2012. This is expected to further diversify the domestic debt instruments, increase liquidity and deepen the domestic capital market in general.

### 5.3 Market Size

The average monthly primary market issuance is about N70bn per auction, while the total par value of the portfolio was N13.67tn as at end of 2010. The DMO undertakes monthly auctions of FGN Bonds through the Primary Dealer Market Makers (PDMMs), comprising the Deposit Money Banks (DMBs) and the Discount Houses. The level of subscription, N2.267tn as at end 2010 relative to issued amount of N1.073tn, shows a 111.32% rate of oversubscription and indicates a ready captive market for FGN Bonds and a fairly large borrowing space (Table 5.10).



Table 5.10: FGN Bonds Issuance in 2010 (N' Million)

MONTHS	ISSUE AMOUNT (N)	SUBSCRIPTION (N)	ALLOTMENT (N)
January	75,000.00	166,530.11	93,500.00
February	75,000.00	197,285.08	75,000.02
March	70,000.00	224,200.95	70,000.00
April	80,000.00	191,167.93	140,000.00
May	80,000.00	95,708.65	80,000.00
June	80,000.00	229,336.93	80,000.00
July	105,000.00	211,727.07	105,000.00
August	105,000.00	202,861.61	126,461.61
September	120,000.00	320,390.13	192,301.84
October	142,810.00	160,068.10	122,937.97
November	70,310.00	126,941.47	89,238.35
December	70,000.00	141,542.38	70,000.00
TOTAL	1,073,120.00	2,267,760.41	1,244,439.79 <sup>1</sup>

Amount allotted includes N146.66 billion non-competitive bids

The major bond subscribers were the Deposit Money Banks (DMBs), followed by Non-Bank Financial Institutions and Discount Houses (Table 5.11).

Table 5.11: Summary of Auction Results of FGN Bonds Issued in 2010

Total Amount Offered	₩1,073.12b	
Total Subscription Range of Bids (Yield) Range of Coupons		N2,267,760.41 m 5.00% - 19.99% 4.00% - 15.00%
Category of Subscribers/Holders	Amount ( <del>N</del> 'Million)	% of Total Allotment
Deposit Money Banks	571,556.34	45.93
Discount Houses	103,661.59	8.33
Pension Funds	180,399.88	14.5
Non-Bank Financial Institutions	269,577.41	21.66
Foreign Investors	88,201.97	7.09
Individuals	553.78	0.04
Other Institutional Investors	2.45	
Total Allotment	1,244,439.79	100



### **5.3.1 Sovereign Yield Curve**

Prior to 2010, secondary market sovereign yield curves have maintained the usual relationship between yields and term-to-maturity (TTM) for FGN bonds with minimal distortions, thus reflecting market stability and growing level of investor confidence. However, the curve exhibited some form of inversion at the long-end of the market (7-year, 10-year and 20-year categories) by end-2010 and 2011 (Figure 5.17). This has been variously attributed to market shocks and volatility occasioned by CBN's monetary policy actions, government's expansionary fiscal policy, as well as, low investor confidence due to ongoing reforms in the money and capital markets.

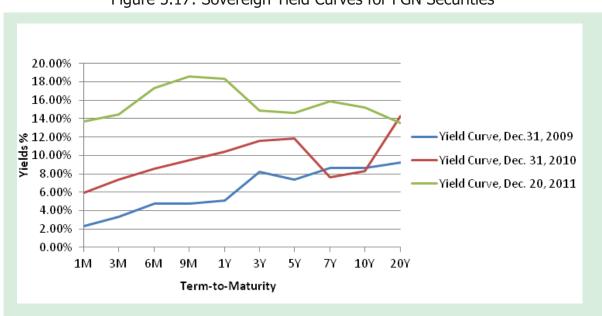


Figure 5.17: Sovereign Yield Curves for FGN Securities

### 5.3.2 Bond Holders

Classification of bondholders by residency shows that resident investors accounted for N668,121.65m or 91.96% of bonds allotted in 2009, and N1,156,237.82m or 92.91% in 2010. The balance of N58,378.35m or 8.04% and N88,201.97m or 7.09%, for 2009 and 2010, respectively, were taken by non-resident investors (Table 5.12).

### **5.3.3 Pension Funds**

It is projected that in the medium-term, the growing pension assets will form a captive market for FGN securities since at least, 25% of the assets are statutorily required to be invested in government securities. As at end-2010, the total pension asset amounts to



Table 5.12: Allotments of FGN Bonds by Residency Classification as at end-Dec. 2010 (N' Million)

	200	9	2010			
Classification	Amount	% of Total	Amount	% of Total		
Residents	668,121.65	91.96	1,156,237.82	92.91		
Non-Residents	58,378.35	8.04	88,201.97	7.09		
Total	726,500.00	100.00	1,244,439.78	100.00		

N2.029tn, out of which N829.20bn or 40.85% is invested in FGN securities. Pension fund managers have been instrumental to the proposed introduction of ILB to enable them align their liabilities with an appropriate asset class.

### 5.4 New Initiatives

The DMO is in the process of introducing various initiatives in order to effectively manage the domestic debt portfolio. Some of these initiatives include:

- a) Inflation-Linked Bonds
- b) Buy-Backs
- c) Switches
- d) Sinking Fund
- e) Appropriate Securities Lending Framework

Government will still remain a key player in the domestic securities market as is the case in other emerging economies to sustain established benchmarks, meet the needs of investors (liquidity and compliance) and fund budget deficits. However, the trend from 2009 to date, suggests that the other segments of the bond market (Sub-national and Corporate) are projected to grow significantly within the medium to long term and ultimately lead to a reduction in the relative size of Federal Government's activity in the domestic securities market.

The risk of crowding out other borrowers by the Federal Government, if any, remains low and is expected to narrow further as on-going policy initiatives continue to encourage debt issuances by corporates and sub-nationals. Meanwhile, the proposed fiscal consolidation embedded in MTEF, will effectively moderate government's domestic borrowing, while other measures aimed at promoting savings (Pension, Insurance and Foreign Investment) are expected to increase investible funds.



Furthermore, government is also making efforts to reduce direct debt creation by introducing an appropriate framework for issuing FGN Guarantee for eligible private sector investors to finance infrastructure development. New frameworks to support derivatives and securitization are expected to be put in place, while market processes and infrastructure would be made more efficient and transparent, to further deepen market liquidity and viability.

# CHAPTER SIX ALTERNATIVE STRATEGIES AND COST & RISK ANALYSIS



### 6.0 ALTERNATIVE STRATEGIES AND COST & RISK ANALYSIS

### **6.1** Description of Alternative Strategies

The cost-risk implications of alternative debt management strategies are assessed under four scenarios as follow:

- a. Strategy 1 (S1): MTEF ASSUMPTIONS This is the baseline scenario underpinned by the MTEF assumptions, which include gradual reduction in Net Domestic Financing (NDF) from 2.2% of GDP in 2011 to 0.7% in 2015. The existing mix<sup>7</sup> of sources of finance in respect of the 2010 external and domestic debt portfolio is retained in this strategy. It implies that the domestic versus external mix as were applied under the baseline remained unchanged: domestic gross borrowing instruments consists of 60% in NTBs; and, 18.3% in the 3-year, 13.3% in the 5-year, 8.4% in the 10-year bond as a share of total domestic borrowing. In the external front, about 35% is accounted for by the 10-year Eurobond, 30% each by IDA and bilateral loans, while the remaining 5% belongs to AfDF loan. The mix of sources of financing of 87% and 13%, respectively, in total gross financing needs over the period will be retained.
- b. Strategy 2 (S2): REDUCE SIZE OF SHORT-TERM INSTRUMENTS AND INTRODUCE DIASPORA BOND While retaining most of the external and domestic mix under S1, S2 assumes a reduction in the composition of NTBs from 60% in S1 to 35% of the total projected debt issuances for S2. The 25% reduction in NTBs is distributed into 3-year, 5-year, 10-year and 20-year FGN bonds so that their respective share becomes 20%, 20%, 15% and 10%. In addition, it is expected that Diaspora Bond will be introduced to complement the Eurobond in the international capital market.
- **c. Strategy 3 (S3): HIGHER NDF -** This strategy comprises S2 but in the domestic front, there will be a discontinuation of the issuance of 20-year bond and this will be replaced by 20-year Inflation-Linked Bonds (ILBs). It also assumes that the amount of other domestic long-term bonds under S2 would be increased in S3. The reduction in NDF is less aggressive and approaches about 1.2% of GDP in 2015. The mix of external finance in S2 is retained in S3.
- **d. Strategy 4 (S4): MOVE TO BLEND STATUS -** In contrast to S3, S4 assumes a relatively less NDF, which is estimated to reach 0.5% of GDP in 2015. The increase in external financing compared to S1, S2 and S3 is expected to come from non-traditional sources as Nigeria moves from IDA only to blend status. As a blend status

<sup>&</sup>lt;sup>7</sup>See Table 6.14 for the percentage distribution of Gross Borrowing requirements over the projection period. Existing mix means that types of instruments used earlier were replicated in subsequent period. It does not necessarily refer to having the same size or value of respective instruments, which could be the case in some instances.



country, it is assumed that Nigeria would have a reduced access to the concessional window and thereby be encouraged to shift attention to the non-concessional sources of finance, which include the relatively more expensive IBRD and a return to the ICM, Diaspora Bond and for new bilateral credits. Although, this strategy may increase exposure to currency risk, it remains consistent with the goal of the authorities to speed-up economic development, particularly in infrastructure projects that require heavy and prompt investment outlays that may not be easily available from the IDA and domestic financing windows on timely basis and in desired amount. The mix of domestic financing in S3 is retained under this strategy.

### 6.2 Analysis of Net Financing under the Strategies

Figure 6.18 shows a declining NDF in all the strategies over the 5-year projection period. However, the rate of decline is faster in S4 than in any of the other three strategies. S4 assumes more external net financing relative to others as shown in Figure 6.19. Note that S4 also includes the issuance of 20-year ILB.

The total NDF as a percentage of the GDP, declined gradually under S4 than others, reaching 0.5% by end-2015. However, with respect to net external financing, S4 shows a rising trend indicating the higher share of external finance under the strategy relative to others as shown in Figure 6.19.

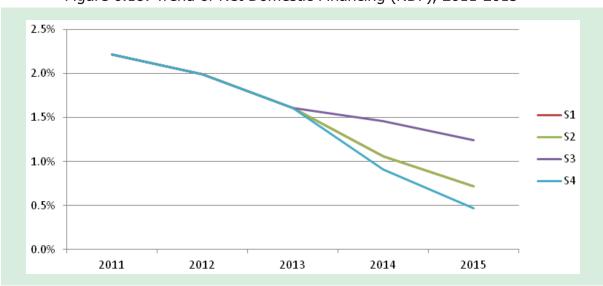


Figure 6.18: Trend of Net Domestic Financing (NDF), 2011-2015



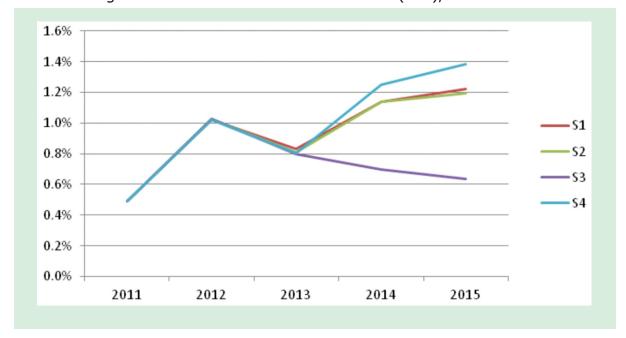


Figure 6.19: Trend in Net External Finance (NEF), 2011 - 2015

### 6.3 Composition of Domestic and External Borrowing

In Figure 6.20, S3 and S4 indicate reduced reliance on IDA window. Diaspora Bond is introduced in S2 and retained in S3. The IBRD window is introduced in S4 while borrowing from the commercial window of the ICM is projected to increase. S3 puts less pressure on external net financing when compared to S2 and S4.

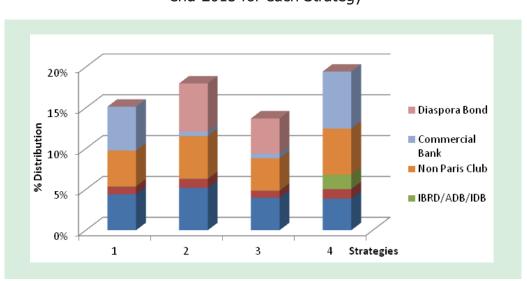
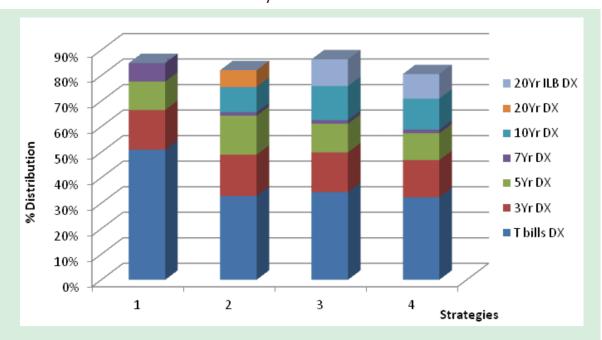


Figure 6.20: External Financing Mix by Sources as a % of Total Gross Financing by end-2015 for each Strategy



Strategies 2, 3 & 4 rely more on long-term debt instruments compared to the baseline (S1). In particular, the nominal 20-year bond in S2 is replaced by 20-year ILB under S3 and S4 while the size of 7-year issuance is reduced sharply in S2, S3 and S4. In addition, 10-year bond is re-introduced in S2 and with increased volume of issuances under S3 & S4. Domestic net financing is lowest in S4 when compared to other strategies (Figure 6.21).

Figure 6.21: Domestic Financing Mix by Instruments as a % of Total Gross Financing by end-2015





### **6.4 Costs & Risks Analysis**

Table 6.13: Costs & Risks Analysis

	Risk Indicators	2010		As at end-2015			
		Current	S1	S2	<b>S3</b>	<b>S4</b>	
Nominal Debt a	s % of GDP	17.7	17.8	17.8	17.7	17.7	
PV Debt as % o	of GDP	16.9	16.6	16.5	16.6	16.5	
Implied Interes	t Rate (%)	7.7	10.4	10.2	10.1	9.8	
Refinancing Risks	ATM External Portfolio (yrs) ATM Domestic Portfolio (yrs)	16.4 5.0	14.4 3.6	13.1 6.3	13.1 7.4	13.4 7.5	
	ATM Total Portfolio (yrs)	6.5	7.0	8.4	8.9	9.4	
Interest	ATR (yrs)	6.5	7.0	8.4	6.6	7.4	
Rate Risks	Debt Refixing in 1yr (% of Total)	28.9	24.7	14.0	27.7	24.6	
	Fixed Rate Debt (% of Total)	99.7	100.0	100.0	87.0	88.2	
FX Risks	FX Debt as % of Total	13.4	30.9	30.8	25.5	32.5	
	ST FX Debt as % of Reserves	0.7	0.5	0.5	0.5	0.5	

Note: ATM=Average Term to Maturity; ATR =Average Time to Refixing; ST= Short Term

**Nominal Debt to GDP:** Relative to the baseline, the ratio of nominal debt to GDP of the four strategies remained broadly the same. This is because of the robust assumption for real GDP growth, which more than compensates for the rise in the level of debt (Table 6.13).

**Implied Interest Rate**: Compared to the baseline, the implied interest rate rose in all the strategies but was least in S4 due to the introduction of ILB. This is, however, subject to the assumption of low inflation target over the projection period and the downward sloping yield curve used in the model, as well as, the shift to less expensive external financing relative to domestic financing.

**Refinancing Risk**: The ATM is high in all the strategies because of the shift from short to long-termed debt instruments. However, amongst the strategies, S1 has relatively low ATM, which stands at 7 years, reflecting much higher refinancing risk due to the relative dominance of short-term debt instruments in the strategy.



S3 and S4 are preferred strategies because of the increased tenor elongation made possible by the issuance of 20-year ILB and more 10-year instruments.

With regard to the total debt portfolio, S4 with ATM of 9.4 years stands as the most preferred when compared to all the other strategies and the baseline.

**Interest Rate Risk:** S2 appears most desirable when compared to other strategies and the baseline, owing to the more years it has, to re-fix the entire portfolio. S2 is also considered better in terms of debt due for re-fixing within one year.

The introduction of 20-year ILB in S3 and S4 altered the proportion of debt on fixed rate when compared to the baseline, S1 and S2, respectively. About 13% and 11.8% of domestic debt are subject to variable interest rate following the introduction of 20-year ILB under S3 and S4, respectively.

**Foreign Exchange Rate Risk:** Due to increased reliance on external financing, all the strategies are significantly higher than the baseline in terms of exchange rate risk. Amongst the four strategies, S3 has the least foreign currency exposure of 25.5% of total debt portfolio because of much reliance on domestic financing. S4 on the other hand has foreign currency debt component of 32.5% and is therefore, more exposed to exchange rate risk than any of the other three strategies. Overall, the short-term foreign exposure remains insignificant.

### 6.5 Analysis of Cost-Risk Trade-off

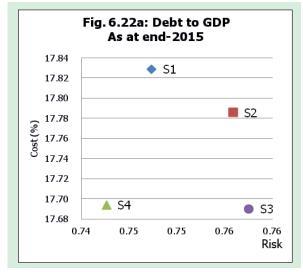
**Debt to GDP:** In terms of cost, S4 & S3 are almost the same level of cost although S4 entails lower risk relative to S3. The difference between the lowest and highest cost is, however, only about 0.02% of GDP (Figures 6.22).

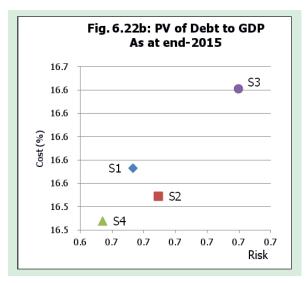
**PV of Debt to GDP**: Using the PV of debt, S4 is still preferred to S3 as the former clearly stands out both in terms of cost and risk.

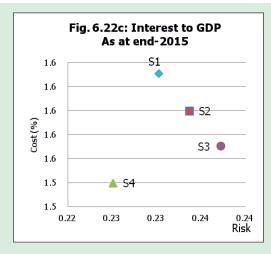
**Interest to Revenue (including Grant):** S4 has the least cost/risk combination when compared to S1, S2 & S3.

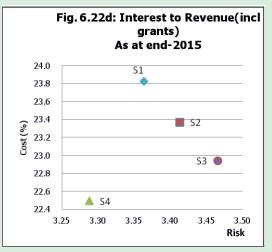
**Interest to GDP:** The outcome of Interest to GDP is similar to interest to revenue.











S3 has a relatively low cost when compared to S2 and S1. This is due to the introduction of ILB which is based on a downward sloping yield curve assumption that makes long-term bonds less expensive than short-term instruments. S1 is more expensive because of the high volume and yield of NTBs.

Overall, S4 clearly stands out as the preferred strategy both in terms of cost and risk. The reason being that it is dominated by long-term domestic debt and less expensive external net financing relative to domestic financing. The results suggest the benefit of maximizing semi-concessional debt, while reducing the share of new short-term debt issuance in the domestic market. As inflation is projected to fall over the period, the inclusion of ILBs in the domestic long-term debt instruments is a less expensive means of lowering cost, while at the same time providing an alternative asset class that is highly



in demand by the pension funds. It will also enable the maintenance of a minimum level of domestic debt issuance to ensure that the liquidity of the domestic bond market is sustained over the period.





With regards to the redemption of debt beyond 2015 (Figure 6.23d), S4 stands out as having a much lower and a relatively smoother redemption profile. It is observed that S1 (Figure 6.23a) has the highest amount of NTBs which needs to be refinanced annually. The bunching of redemption is much less in S4 relative to other strategies with respect to domestic debt. Bunching in the redemption profile for



external debt is more prominent in S2 (Figure 6.23b) and S4, in 2017 through 2021 due to maturing Diaspora and Euro Bonds. Comparing S2 and S4, S4 shows a bunching of 10-year domestic bonds and ICM in 2022 to 2025 whereas S2 distributes the risk with the 5-year Diaspora Bond maturing earlier.

### **6.7 Distribution of Gross Borrowing**

Table 6.14: Percentage Distribution of Gross Borrowing by end-2015

New Debt Categories	Category	S1	S2	S3	S4
IDA - Fixed	FX	4	5	4	4
AfDF - Fixed	FX	1	1	1	1
IBRD/ADB/IDB - Fixed	FX	0	0	0	2
IBRD/ADB/IDB - Floating	FX	0	0	0	0
Bilateral - Fixed	FX	0	0	0	0
China - Fixed	FX	4	5	4	6
Commercial Bank - Fixed	FX	5	1	1	7
Diaspora Bond	FX	0	6	4	0
NTBs	DX	51	33	34	32
3Yr	DX	16	16	16	15
5Yr	DX	11	15	11	10
7Yr	DX	7	1	1	1
10Yr	DX	0	10	13	12
20Yr	DX	0	7	0	0
20Yr ILB	DX	0	0	10	10
External Debt	FX	15	18	14	19
Domestic Debt	DX	85	82	86	81
Total		100	100	100	100

Table 6.14 shows the new debt categories and percentage distribution of external and domestic borrowing under the four strategies in terms of currency composition. S4 has a slightly higher external and lower domestic distribution within the projection period. On the other hand, Table 6.15, which is divided into two parts show the actual amount projected for each source and instruments, as well as, the percentage distribution relative to the total. Total debt stock is projected to reach about US\$55,438 million and S4 is nearer the preferred ratio of 40:60 between external and domestic financing, with 33:67, respectively.



Table 6.15: Distribution of Gross Borrowing as at end-2015

			As at e	nd 2015					As at er	d 2015	
	FY2010	% of Total		FY 2010		(USD N	(lillion				
Outstanding by Instrument	Current	S1	S2	S3	S4		Current	S1	S2	S3	S4
IDA	11	13	13	12	11		3,761	7,385	7,319	6,459	6,363
AfDF	1	2	2	2	2		374	1,193	1,151	989	1,206
IBRD/ADB/IDB-Fixed	0	0	0	0	2		39	43	43	34	1,230
IBRD/ADB/IDB-Floating	0	0	0	0	0		87	0	0	0	0
Bilateral-Fixed	1	0	0	0	0		183	0	0	0	0
China	0	7	7	5	7		0	3,850	3,821	2,941	4,087
Commercial -Fixed	1	9	1	1	9		203	4,806	490	490	5,140
Diaspora Bond	0	0	8	6	0		0	0	4,319	3,206	0
NTBs	24	16	6	7	5		8,186	9,014	3,384	4,001	2,971
3Yr	19	15	12	11	10		6,532	8,396	6,437	6,305	5,512
5Yr	16	16	19	14	13		5,417	9,192	10,498	7,709	7,137
7Yr	3	11	2	2	2		956	5,949	955	955	955
10Yr	9	4	16	20	19		3,059	2,099	8,866	11,210	10,373
20Yr	17	7	15	7	7		5,934	3,934	8,445	3,934	3,934
20Yr ILB	0	0	0	13	12		0	0	0	7,192	6,532
External	13	31	31	25	33		4,648	17,277	17,143	14,119	18,025
Domestic	87	69	69	75	67		30,084	38,584	38,584	41,307	37,413
	100	100	100	100	100						
Total							34,732	55,861	55,726	55,426	55,438

### **6.8** Summary of Results

All the results of the four strategies point to S3 and S4 as the most favourable strategies for the MTDS. However, S4 uniquely stands out as a clear choice in terms of risk parameters, cost/risk trade-offs and smoother redemption profile. While S3 may appear more attainable in the short-term, the risks will be higher in the medium term, thus, still making S4 a better strategy.

**S4** is, therefore, recommended for adoption as it is capable of providing the financing needs of the government at minimal cost, and prudent of risk. S4 relatively relies on long-term domestic debts and less expensive external financing, when compared with S3, the next candidate strategy. The adoption of S4 would sustain the on-going initiatives for the development of the domestic debt market, as well as, provide external funding at preferred cost-risk strategy for capital projects in line with the current goal of the FGN to speed-up infrastructural projects. More importantly, S4 strategically takes into consideration Nigeria's likely move from IDA only to a blend status, by taking on more funding from the non-IDA/concessional window. In addition, beyond 2015, the debt redemption profile for S4 stands out as having the smoothest path with the least amount of domestic debt maturing immediately after 2015 and a



back-loaded external debt redemption profile in 2016 through 2025, which would help to moderate the refinancing risks in the near term. In summary, the analysis of the results of the simulations point to borrowing options under S4 as the most preferred.

### 6.9 Policy Implications of S4

The policy implications of adopting S4 include:

- Debt issuance programme to ensure that the share of short-term debt (new) issuance in the domestic debt market by the FGN is reduced drastically to 5% by end-2015;
- ii. This would reduce refinancing risks often associated with short-dated instruments;
- iii. Domestic borrowing would be substituted with relatively less expensive longterm external financing;
- iv. Share of external commercial debt would increase from 8.2% as at end-2011 to more than 16.0% by end-2015;
- v. Government will be more able to develop more infrastructure projects and meet the goals of Vision 20:2020 with relatively less expensive debt portfolio; and
- vi. The composition of external and domestic debt stock would be in line with the strategic policy of 40:60 external to domestic debt ratio by end-2015: external debt to rise from 13.6% in 2011 to 33% in 2015; domestic debt to drop from 86.4% to 67%; and,
- vii. This will create ample borrowing space for the private sector to access long-term funds from the domestic debt market to develop the real sector and commercially viable critical infrastructure projects in the country: specifically, this will address the fears of crowding out the private sector.

# CHAPTER SEVEN INSTITUTIONAL ARRANGEMENTS AND OTHER ISSUES OF IMPLEMENTATION



## 7.0 INSTITUTIONAL ARRANGEMENTS AND OTHER ISSUES OF IMPLEMENTATION

### 7.1 Legal and Institutional Arrangements

The existing institutional and legal frameworks support the development of the MTDS, particularly the enabling DMO Act, 2003 and the Fiscal Responsibility Act, 2007, that put a limit of 3% on fiscal deficit to GDP, which is consistent with the MTEF. The legal framework provides clear authorization to set guidelines for managing government's financial risk and currency exposures, advice government on re-structuring and refinancing of all debt obligations, as well as, on the terms and conditions under which monies are to be borrowed. The performance of these statutory functions necessitates the preparation and implementation of a strategy for the efficient management of the nation's debt obligations at sustainable levels and in line with economic growth and development objectives.

Accordingly, the DMO, in collaboration with other stakeholders, including the WB/IMF and WAIFEM teams, developed the MTDS, 2012-2015. The MTDS Analytical Tool combined the MTEF's macroeconomic assumptions, debt data and market assumptions to chart a course for future borrowing that minimizes costs and risks.

To ensure the effective implementation of the strategy, there is need to seek the buy-in of the monetary and fiscal authorities. Implicit in the design of the MTDS framework is the assumed close cooperation between monetary and fiscal authorities for enhanced policy coordination. It also assumes that borrowing plans are based on cash flow projections over the period, which should be insulated from policy shocks as much as possible. In addition, for accountability and market transparency, MTDS, also provides the basis for a regular and systematic interaction with investors to rally support for the introduction of a more robust auction calendar and new products in the market.

It is expected that the effective implementation of the chosen debt management strategy together with other recommendations contained in the DSA would strengthen the quality of the nation's debt management and portfolio.

It is pertinent to re-emphasise that while the analysis recognises the implications of existing contingent liabilities, such as those associated with AMCON Bonds and local



contractors' debts, these were not included in the present MTDS due to inadequate information. It is expected that future MTDS will incorporate public and publicly guaranteed debts and liabilities. Other variables that may be included in future MTDS are the domestic debt data of the sub-nationals and the likely effects of the Nigeria Sovereign Investment Authority Act, 2011 (NSIA) on the overall national deficit/debt.

Meanwhile, there is need to continue to strengthen the existing technical capacity in terms of manpower for econometric analysis. The MTDS process requires the retention and continuous re-training of competent staff for effective and efficient application and implementation of the MTDS and the Analytical Tool (AT). In addition, complete, accurate, and timely debt data are a necessary prerequisite for developing the MTDS. To this end, the Commonwealth Secretariat-Debt Management and Recording System (CS-DRMS) 2000+ for both external and domestic debt, used by the DMO has been useful in generating the required loan-by-loan output for the MTDS. The data on loan guarantees, on-lending portfolio and sub-nationals domestic debt data not captured by the CS-DRMS have to be regularly updated to enable a more comprehensive analysis of the public and publicly guaranteed debt.

### 7.2 Developing a Borrowing Plan

To effectively operationalize the chosen strategy, the borrowing plan should be based on cash-flow projections, which takes into account likely timing of cash flows across government's accounts throughout the fiscal year. Current government's borrowing plan, however, is not based on forecasts of monthly cash balances due to the absence of a single treasury account. Meanwhile, the current plan informally takes account of, and adjusts to market demand conditions, where necessary. In addition, any significant deviation from the strategy at any particular time should be noted and attempts made to ensure appropriate adjustment and rebalancing during the rest of the programme period.

At present the borrowing plan is based on the Appropriation Act, which specifies the amount to be borrowed for overall budget support. The annual issuance calendar that is reviewed every quarter is drawn based on the approved amount, and these have helped investors' planning and confidence building.

### 7.3 Disseminating the Strategy

The MTDS and the chosen debt strategy should be published and disseminated to



relevant stakeholders. In particular, it is important for the DMO to meet with the PDMMs, pension/insurance funds managers and other market stakeholders to discuss the chosen strategy. In line with current practices, frequent meetings with market participants and the DMO should be organized to gauge the amount or size of prevailing market liquidity and markets' preference for specific instruments. As earlier stated, publication of the borrowing plan is a key ingredient of domestic market transparency. This should give sufficient guidance to investors on the likely issuance of debt across different segments of the market so that they can plan their investment strategies accordingly.

### 7.4 Monitoring and Review of the Strategy

Like the DSA, an annual review of the MTDS is imperative and this should be carried out on a rolling five year basis in line with the MTEF.



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