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**MINISTRY OF FINANCE AND ECONOMIC
PLANNING (MOFEP)**

MEDIUM TERM DEBT MANAGEMENT STRATEGY

2012 - 2014

PREPARED BY

DEBT MANAGEMENT DIVISION (DMD)

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ACRONYMS

AfDB	-	AFRICAN DEVELOPMENT BANK
ATM	-	AVERAGE TIME TO MATURITY
ATR	-	AVERAGE TIME TO REFIXING
BADEA	-	ARAB BANK FOR ECONOMIC DEVELOPMENT
BOG	-	BANK OF GHANA
BRICS	-	BRAZIL, RUSSIA, INDIA, CHINA AND SOUTH AFRICA
BUA	-	BANK UNIT OF ACCOUNT
CAGD	-	CONTROLLER AND ACCOUNTANT GENERAL'S DEPARTMENT
CNY	-	CHINESE YUAN RENMINBI
CPI	-	CONSUMER PRICE INDEX
DMD	-	DEBT MANAGEMENT DIVISION
DSA	-	DEBT SUSTAINABILITY ANALYSIS
DX	-	DOMESTIC CURRENCY DENOMINATED
ECF	-	EXTENDED CREDIT FACILITY
ERFD	-	ECONOMIC RESEARCH AND FORECASTING DIVISION
EUR	-	EURO
FSD	-	FINANCIAL SECTOR DIVISION
FX	-	FOREIGN CURRENCY DENOMINATED
GBP	-	GREAT BRITAIN POUND
GDP	-	GROSS DOMESTIC PRODUCT
GHS	-	GHANA CEDI
HIPC	-	HIGHLY INDEBTED POOR COUNTRY
IBRD	-	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
ICM	-	INTERNATIONAL CAPITAL MARKET
IDA	-	INTERNATIONAL DEVELOPMENT ASSOCIATION
IFAD	-	INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT
IMF	-	INTERNATIONAL MONETARY FUND
LIBOR	-	LONDON INTER BANK OFFER RATE
LT	-	LONG-TERM
MDBS	-	MULTI-DONOR BUDGET SUPPORT
MDGs	-	MILLENNIUM DEVELOPMENT GOALS
MDRI	-	MULTILATERAL DEBT RELIEF INITIATIVE
MOFEP	-	MINISTRY OF FINANCE AND ECONOMIC PLANNING
MTDS	-	MEDIUM TERM DEBT STRATEGY
NDF	-	NET DOMESTIC FINANCING
NPV	-	NET PRESENT VALUE
PPP	-	PUBLIC-PRIVATE PARTNERSHIP
PV	-	PRESENT VALUE
SDR	-	SPECIAL DRAWING RIGHTS
SSNIT	-	SOCIAL SECURITY AND NATIONAL INSURANCE TRUST
ST	-	SHORT-TERM
USD	-	UNITED STATES DOLLAR
YEN	-	JAPANESE YEN

FOREWORD

A *Medium Term Debt Strategy (MTDS)* is a useful public debt management tool that recognizes the cost and risk trade-offs in setting sustainable borrowing limits and ensuring that debt is serviced under a wide range of shocks without risk of default.

Ghana's 2012 *MTDS* has been carefully drafted by taking into consideration the medium term fiscal framework of the economy, which among others covers prudent revenue projections and planned expenditures consistent with the Ghana Shared Growth and Development Agenda (GSGDA).

Being the second annual publication, the 2012 *MTDS* has been prepared to guide financing of the budget deficit. As indicated in the 2012 Budget Statement and Economic Policy of Government the expected budget deficit is 4.8 per cent of GDP in 2012. It is for this important reason that this strategy does not only address the appropriate mix between domestic and external debt, but also defines the terms and conditions for new borrowing within the global economic circumstances.

Government is committed and will continue to take remarkable steps towards improving public debt management in Ghana. It is in this light that we propose the review of the 1970 Loans Act to accommodate a wide range of financial instrument which will help reduce the risk associated with the debt portfolio. Currently, debt portfolio management has been facilitated through a reliable and accurate recording of public debt and close monitoring of the debt sustainability indicators. The recent Debt Sustainability Analysis (DSA) conducted together with the International Monetary Fund (IMF) in September 2012 showed the public debt to be sustainable over the medium term.

Finally, permit me to state that Government is committed to achieving better development outcomes through improved transparency and accountability in public financial management. I see the publication of this Medium Term Debt Strategy report as partly meeting this commitment.

It is my wish that this strategy paper is seen as a critical tool for informed policy decisions by all stakeholders, reducing the debt burden and other fiscal vulnerabilities and also serve to deepen relations with existing and potential investors including development partners.

Hon. Dr.KwabenaDuffuor
Minister for Finance and Economic Planning

ACKNOWLEDGEMENT

This *Medium Term Debt Management Strategy (MTDS) Paper* as prepared by the Ministry of Finance and Economic Planning outlines Government's preferred strategy to guide debt management operations in the year 2012-2014. The MTDS seeks to balance the cost and risk of both existing public debt portfolio and alternative borrowing mix. The strategy also seeks to deepen the domestic debt market.

In the face of a dwindling access to concessional external and domestic resources, Ghana (middle income oil producing country) is re-strategizing to take advantage of available concessional resources for social projects while considering borrowing on non-concessional/commercial terms for infrastructure projects, as a means to minimizing costs and refinancing risks.

To this end the 2012 MTDS plans a development financing strategy where non-concessional terms will highly be restricted to projects with high expected risk-adjusted rates of return that would otherwise not be undertaken due to lack of concessional financing. To control the growth of the public debt, Government will on a case by case basis consider the issuance of Government loan guarantees to State Owned Enterprises (SOEs) hence an expected marginal increase in contingent liabilities. To extend the maturity profile of domestic debt, treasury bonds issuance will be biased towards the medium to long tenors to create liquidity in benchmark bonds.

As you will find in this strategy document, the preparation and implementation of a MTDS is a technical exercise which requires highly skilled human resource capacity to undertake. I wish to at this point acknowledge all who contributed diversely into bringing this document into reality.

It is refreshing to note that the preparation of the 2012 MTDS document was spearheaded by staff of the Debt Management Division of this Ministry with the support from Economic Policy and Debt Department of the World Bank and Hon. Seth Terkper, Deputy Minister, MOFEP. The Ministry also recognises the contribution of the officers from the Bank of Ghana, Controller and Accountant General's Department and officers from the Economic Research and Forecasting Division, Real Sector Division and the External Economic Relations division of MoFEP. The Ministry appreciates the contribution of its staff and is particularly grateful to the core team including: Alex Tetteh, (Ag. Director, Debt Management Division), Francis Andoh (Debt Advisor to the Ministry), Cynthia A. Arthur (Head, External Debt Unit), Yaa A. Asante (Head, Domestic Debt Unit) and all the staff of the Debt Management Division.

Mr. Enoch Hemans Cobbinah
Chief Director
Ministry of Finance and Economic Planning

EXECUTIVE SUMMARY

The Government published its first Medium Term Debt Strategy (MTDS) in December 2010, covering three financial years (2011-2013). The main objective of the strategy formulation was to achieve an optimal mix of external and domestic financing at the least possible cost, subject to a prudent level of risk. On external debt, there was need to determine the right mix of concessional and non-concessional funds whilst on the domestic debt, there was the need to determine the right mix of short and long term funds with the objective of lengthening the maturity profile of debt and developing the domestic market.

At the end of the analysis, the strategy adopted for implementation in 2011 highlights the need to reduce the degree of foreign exchange exposure associated with the external debt portfolio. It also highlights the need to lengthen the maturity profile of the domestic debt by issuing longer dated instruments.

A cursory look at the implementation of the 2011 strategy showed that the strategy was fairly adhered to. Notable amongst them being the Weighted Average Time to Maturity of the domestic debt portfolio declining from 2 years in 2010 to about 1.8 years by end September 2011. As of end September 2011, the proportion of domestic debt to the public debt portfolio increased to about 50 percent. There was also an issue of the 5-Year Government of Ghana Fixed Rate Bond as part of measures to increase the maturity profile of the domestic debt.

Despite the stated benefits, the strategy was fraught with some challenges. Despite the increase in the maturity of the domestic debt portfolio by issuing 3 and 5 year fix rate bonds, the Average Time to Maturity of the public debt portfolio declined from 8 years in 2010 to 3 years by end September 2011. This is not consistent with the strategy and the set objectives. Again, with the IMF extending our non-concessional window from USD800.00 million to USD 3.4 billion there was the need to revise the strategy to incorporate these changes.

This MTDS covers three financial years spanning 2012-2014. This was developed in line with the underlying macroeconomic variables in the 2012 budget. It is also to test various strategy assumptions, which incorporates the changes that had occurred in the course of the implementing year. Four broad strategies were considered as detailed below:

- Strategy 1 (S1) was formulated in line with the actual outturn for 2011, which envisages more domestic debt borrowing (including rollovers). It also used the NDF targets as estimated in the 2012 budget statement. The strategy assumes a higher percentage of concessional financing and more short term domestic financing.
- Strategy 2 (S2) is similar to S1 as it also envisaged more domestic debt borrowing. However, it assumes a relatively higher percentage of non-concessional financing. It also assumes an international market borrowing.
- Strategy 3 (S3) again envisaged more domestic debt financing. It assumes a higher percentage of domestic long-term financing and an increase in non-concessional financing over the period. This is consistent with the medium term fiscal framework.

- Strategy 4 (S4) envisages a more aggressive switch to external debt to have a balanced currency split.

The analysis using the MTDS model, considered S3 to be the most preferred and feasible strategy. This meets the core objective of debt management in terms of the cost-risk tradeoff. S3 implies maintaining a reasonable stream of new issuance in the domestic market. It also presumes a more constrained access to concessional borrowing, which is a more realistic outlook than S4. The marginal cost of this strategy compared to S4, which is the cheapest, is only 0.1 percent of GDP under the baseline scenario.

Based on the selected strategy (S3), an annual borrowing plan was determined in line with the borrowing composition assumed in the strategy. The auction calendar will consequently be drawn based on the annual borrowing plan. The borrowing plan sets out the possible timeframe to access the international capital market.

For effective implementation of the MTDS, there is the need to develop vibrant risk management tools which should include other provisions and regulations to allow market-based liability management operations such as bond buybacks, switches, exchanges and other derivative instruments.

Since the MTDS is anchored on a macroeconomic framework, there will be regular monitoring of macroeconomic trends. Developments in the macroeconomic situations to a large extent drive the domestic market conditions and especially form investors' perception of risk associated with government instruments. There is also the need for constant monitoring and review of the performance and progress made on the MTDS. The quarterly public debt report and the annual review will be used for this purpose. The quarterly report will include a review of performance of the previous quarter, which will reveal possible risks and recommend measures to mitigate such risks in the subsequent quarter.

There is again the need to review the legal and institutional framework to ensure contemporary debt management practices in Ghana. Appropriate governing laws and guidelines must be set and also strengthen the institutions or divisions involved in debt management especially the Debt Management Division.

1.0 INTRODUCTION

Recent world economic developments is continuously widening the uncertainties in global financial and credit portfolio management. The economic slowdown and its attendant effects on growth and liquidity which cumulated into credit crunch and sovereign debt crisis have heightened the risk profile of many sovereign nations. These have not only raised the credit premiums but also called for concentrated efforts in ensuring prudence in lending and borrowing. The need for the design and implementation of a Medium Term Debt Management Strategy (MTDS) for Ghana could therefore not be overemphasized.

Objectives

Over years, the core objectives for debt management have been to ensure that government financing needs are met at reasonable costs and subject to prudent levels of risk. Another aim is to ensure that public debt levels are maintained at sustainable levels over the medium to long term horizon. Further, developing a vibrant domestic debt market, by lengthening maturity profile of the instruments and diversifying the investor base has also been a key objective.

Scope and Coverage

The scope of coverage for public debt portfolio include all public and publicly guaranteed debt. It also includes on lend and non-guaranteed contingent liabilities¹. The scope of debt management also covers cross debt arrangements and IMF loans.

This strategy is done using the rebased national accounts and 2012 medium term budget numbers.

¹ Non-guaranteed contingent liabilities debt includes debt owed by Parastatal or institutions of which government owns more than 50% shares

2.0 REVIEW OF EXISTING MANAGEMENT STRATEGIES

Government continues to pursue an overall policy framework which aims at controlling the rate of growth of the public debt in relation to GDP with a public debt-to-GDP ratio target of around 60 percent in the medium term horizon. Public debt management strategies basically focus on getting the right mix between the domestic and external portfolio so as to maintain optimal balance in financing and cost-risk trade-off.

Table 1.0 Shows the cost-risk trade-off between the external and domestic sources of financing:

Type of Financing	Cost	Exchange Rate Risk	Refinancing Risk	Analysis/Comments	Recommendation
External Financing	LOWER	HIGHER	LOWER	Currently, external borrowing seems relatively cheaper but with more exchange rate exposure. However, this is partly mitigated where debt is contracted on an amortizing basis.	The target is to develop the domestic market to the stage where both sources will be competitively ranked.
Domestic Financing	HIGHER	NONE	HIGHER	Domestic debt is expensive, has higher refinancing risk given its relatively short maturity structure, but no direct exchange rate exposure.	

Public debt management strategy also pursued strategies to ensure prudent borrowing and that all borrowing obtains the requisite regulatory approvals. As a result, plans are far advanced for the Division to finalise and publish the borrowing procedures.

2.1 External Financing and Debt Strategy

A preliminary Debt Sustainability Analysis (DSA) conducted early this year shows that Ghana has significant borrowing space and could therefore borrow to fill the financing gap needed to achieve the MDGs and accelerate infrastructure development and growth. The analysis however, recommended a restraint on commercial borrowing since it could trigger higher risk level and would not be supported by the current Extended Credit Facility (ECF) arrangement under the programme with the IMF.

External financing strategies continue to pursue the following;

- (i) concessional borrowing (with not less than 35 percent grant element),

- (ii) limited recourse to commercial facilities for economically viable and self financing projects,
- (iii) Innovative products that employ liability sharing between government and private sector (in the form of Public-Private Partnership (PPP)) and;
- (iv) Prudent level of creating contingent liabilities and on-lend facilities.

2.2 Domestic Financing and Debt Strategy

The strategy for domestic financing is to establish benchmark Issues by issuing longer dated instruments and therefore lengthen the maturity profile of the domestic portfolio. The goal of maintaining a well-functioning domestic debt market requires a borrowing strategy to be predictive and transparent with issuance.

Domestic debt management strategies have pursued the following measures among others;

- Lower borrowing costs.
- Contain the growth of the domestic debt.
- Lengthen the maturity profile of domestic debt to reduce the rollover/refinancing risk.
- Broaden the range of instruments offered to the domestic market.

Overall the debt management strategy focussed on reducing the eminent risk associated with the portfolio. When borrowing, some of the key considerations include; the source of loan (External or domestic), maturity structure (short, medium or long term), currency combinations (US\$, Euro or local currency) interest rate structure/type (Fixed, floating or combination), management drawdown (bullet disbursement or staggered disbursement in accordance with project milestones) and managed repayment (amortising, bullet repayment or customised repayment profile).

In line with the above, the following strategic benchmarks are being pursued and will continue in the medium term as a forward looking debt strategy:

2.3 Foreign Currency Risk Benchmarks.

In external debt portfolio, a strategic benchmark of **80 percent² +/- 5percent** exposure to the **US Dollar** was pursued. Meanwhile, significant portions of Ghana's international reserves and export receipts are in US Dollars.

2.4 Interest Rate Risk Benchmark

The current structure of interest rate does not suggest any eminent interest rate risk in the debt portfolio. The floating which could pose any danger is below our strategic benchmark of 20 percent. In the medium to long term horizon a strategic benchmark range of 15 percent to 20 percent will be pursued.

² Includes the SDR component of the external debt.

2.5 Re-Financing Risk (repayment profile)

The refinancing risk management is pursued to avoid bunching of debt service obligations and/or rollover risk, which may lead to liquidity crisis and/or excessive increase in cost of debt servicing. With this strategy, bullet repayment structure and accumulation of debt servicing in one period (especially the short dated domestic debt) will be smoothed to ensure that it is aligned with flows on revenue structure to avoid liquidity crisis and high re-financing cost. No quantitative debt servicing benchmark has been set but persistent positive net out flows (disbursement less than interest and principal repayment) and the percentage of debt service maturing within 12 months will be checked.

Following the pursuit of the above strategies, we present resultant existing portfolio on public Debt in the following sections.

3.0 REVIEW OF PUBLIC DEBT PORTFOLIO (2005- SEPT. 2011)

3.1 Evolution of the public Debt (External and Domestic Debt)

Ghana's total public debt as at end-December, 2005 stood at US\$8,345 million or equivalent to 78 percent of GDP. The total public debt comprised of external debt of about US\$6,348 million and domestic debt of US\$1,997 million. In 2006, the total public debt decreased significantly to about US\$5,310 million as a result of the debt relief given Ghana under the HIPC and MDRI Initiatives. The external debt for that same year also reduced drastically to about US\$2,177 million as a result of the debt forgiveness. As at end 2007, the total public debt increased to US\$7,405 million largely on account of the maiden Eurobond issue of US\$750 million in 2007. By the end of 2009, disbursed outstanding public debt increased considerably to US\$9,304 million equivalent to about 37 percent of GDP. By end September, 2011 public debt further increased to US\$ 14,625 million (39 percent of GDP), with over US\$6.23 billion undisbursed pipeline loans. There is a near balance split between External debt and domestic debt as a share of public debt. This shows a significant increase in the domestic debt portfolio from 2006 reflecting improved market participation and activities.

Table 2.0³

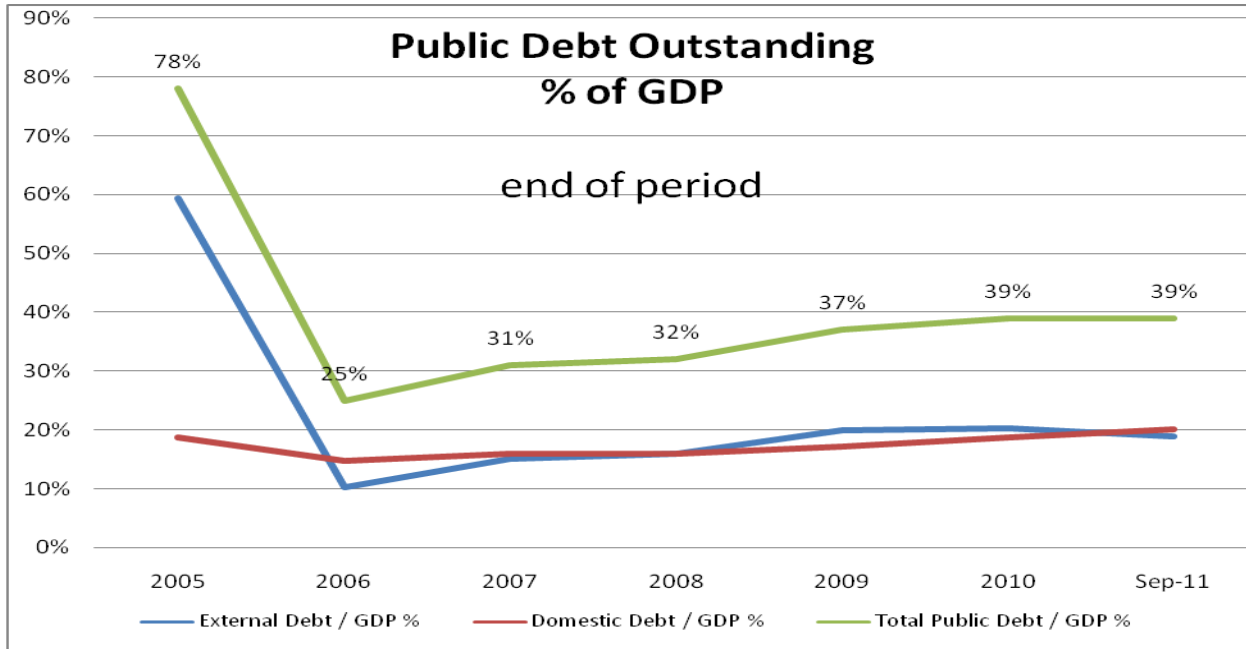
Stock Outstanding	2005	2006	2007	2008	2009	2010	Sep-11
Foreign Debt	6,348	2,177	3,586	4,035	5,008	6,234	7,103
Domestic Debt	1,997	3,133	3,819	4,038	4,296	5,784	7,522
Total Public Debt	8,345	5,210	7,405	8,073	9,304	12,018	14,625
Debt to GDP Ratio %	78	25	31	32	37	39	39
Share of Domestic Debt (%)	24	59	52	50	46	48	51

Source: DMD, MOFEP

³ GDP used in the paper is the rebased one.

The chart 1 below depicts the trends in the public debt outstanding as a percentage of GDP over the period 2005 to September, 2011. It is evident from the chart that the public debt to GDP ratio decreased sharply from about 78 percent in 2005 to about 25 percent in 2006 largely on account of the debt relief. It has however been increasing since 2007 to end 2010 but as at September, 2011 the ratio has been maintained. The external debt/GDP followed a similar trend as the public debt to GDP over the same the period. The gross domestic debt to GDP ratio on the other hand experienced a relatively stable trend

Chart 1.0



3.2 Cost and Risk Characteristics Of The Existing Debt Portfolio

Currently, external debt accounts for about 52 percent of the total public and domestic debt of about 48 percent. The entire domestic debt portfolio is denominated in local currency, GHS, while the transactional forex composition of the external debt is dollarized, and the rest of the composition as described above. The current foreign currency composition does not pose any eminent danger since significant share of international reserves and exports receipts are dominated in US dollars.

As shown in Table 3 below, refinancing risk continues to pose significant risk especially for domestic debt portfolio. The average time to maturity (ATM) of the total debt portfolio is reduced from 8.0 years in 2009 to 7.3 years in 2010, with external and domestic debt portfolios recording 12.5 years and 1.3 year respectively. The debt maturing in one (1) year is 25.5 percent of total public debt. For the external debt portfolio 3.5 percent matures in one year whilst about 47.6 percent of the domestic debt portfolio matures in one year.

Table 3.0

Risk Indicators		External debt	Domestic debt	Total debt
Amount (in millions of USD)		6,234.4	5,784.6	12,019.0
Nominal debt as % GDP		20.5	19.0	39.5
PV as % of GDP		16.1	19.0	35.1
Cost of debt	Weighted Av. IR (%)	2.3	17.8	9.8
Refinancing risk	ATM (years)	12.5	1.3	7.3
	Debt maturing in 1yr (% of total)	3.5	47.6	25.5
Interest rate risk	ATR (years)	12.0	1.2	7.0
	Debt refixing in 1yr (% of total)	13.5	54.8	34.5
	Fixed rate debt (% of total)	89.0	57.7	76.3
FX risk	FX debt (% of total debt)			53.5
	ST FX debt (% of reserves)			4.7

3.2.1 Interest Rate Structure

The interest rate structure of external debt is shown in table 3 below. It shows proportions of fixed, variable and interest free rates. It is clear from the table that external debt is predominantly fixed. The fixed rate proportion of the external debt portfolio is about 89 percent with an Average time to Refixing of 12 years. Whilst for the domestic debt portfolio, fixed rate debt is about 57.7 percent with an average time to refixing 1.2 years.

The proportion of fixed interest rate for the period under consideration has consistently remained on the high side due to multilateral, international bond and some bilateral debt which attract fixed interest rate in the external debt portfolio. The variable interest rates are mainly linked to the export credit facilities and commercial facilities whilst interest free facilities are mainly from the Chinese Government and a few bilateral creditors.

Table 4.0 Interest Rate Structure of External Debt

INTEREST RATE STRUCTURE OF EXTERNAL DEBT						
INT RATE TYPE	2006	2007	2008	2009	2010	SEP-2011
FIXED	89.96%	89.51%	89.22%	88.32%	88.64%	89.45%
VARIABLE	8.85%	8.91%	8.34%	9.40%	9.40%	8.76%
INT FREE	1.19%	1.59%	2.45%	2.28%	1.96%	1.79%
TOTAL	100.00%	100.00%	100.01%	100.00%	100.00%	100.00%

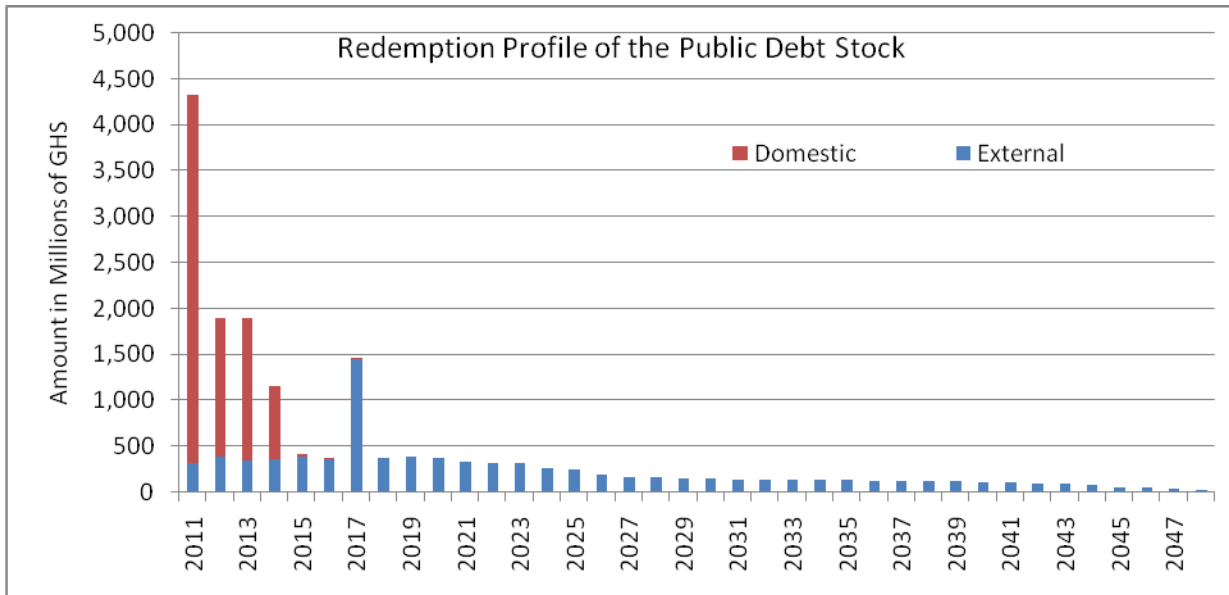
From table 3 above it is evident that interest rate risk remains relatively high in the domestic debt portfolio compared to the external debt. It is also clear from the table that about 34.5 percent of total debt would have its interest rate refixed in one year whilst 25.5 percent of the total debt is refinanced in one year. This shows that about 9 percent of the portfolio would have to be refixed every year because the interest rates are variable. The external and domestic debt portions to be refixed are 13.5 percent and 54.8 percent respectively. Even though a large percentage of the entire portfolio has to be refixed in 12 months, the average time to refixing is 7.0 years.

With cost considerations referenced to table 3 above, the interest cost is significantly higher for domestic debt than the external. Weighted average interest cost of the total public debt portfolio is about 9.8 percent with domestic debt recording about 17.8 percent whilst external debt is about 2.3 percent. The high cost is mainly as a result of expensive domestic debt both short and long dated instruments whilst the external debt is largely concentrated on cheaper multilateral concessional.

3.2.2 Redemption Profile

The redemption profile below indicates that there is significant refinancing/roll-over risk, with 25.5 percent of the debt stock maturing within the next 12 months. About 84 percent of the maturing debt within the 3 years and this is largely because most of the domestic debt portfolio has maturities up to 3 years. It is also evident from the graph that refinancing risk in the external portfolio is heavily concentrated in 2017 with the maturity of the existing international capital market bond of US\$0.75billion.

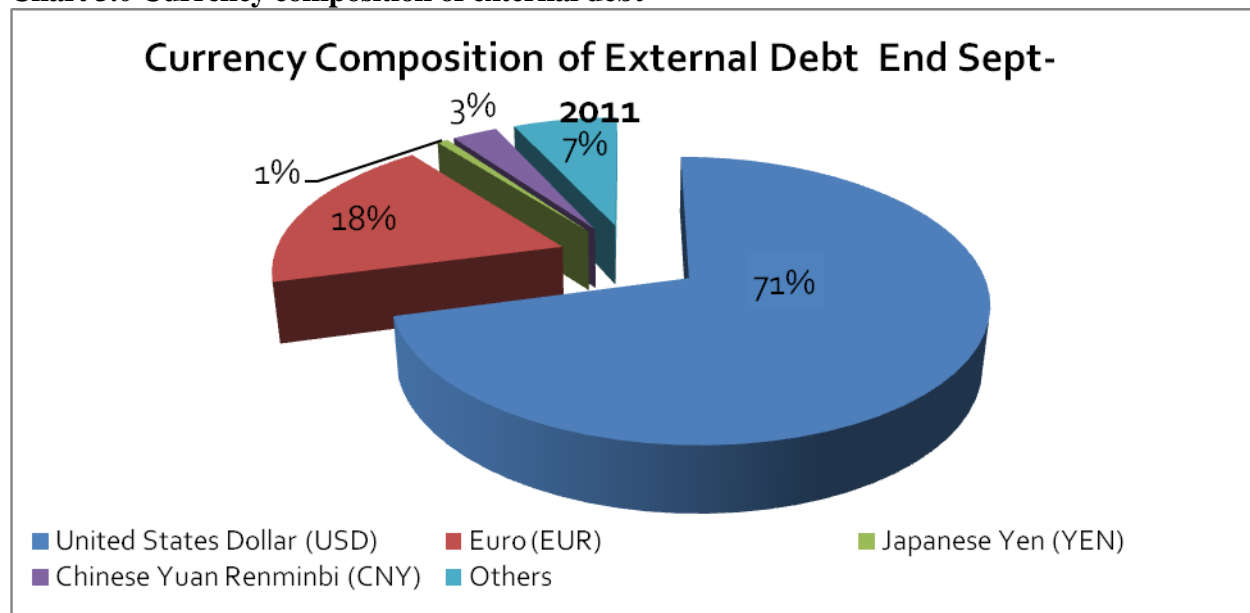
Chart 2.0 Redemption Profile



3.2.3 Currency Composition of External Debt

In terms of currency composition for the period under review, the trend shows a high dominance of the United States Dollar (USD) which includes the Special Drawing Rights (SDR) and the British Pound Sterling. The SDR emanates from some multilateral creditors such as International Development Association (IDA) and Nordic Development Fund. The loans contracted from these creditors are denominated in these currencies but repayment is done in USD. Therefore, the composition of the external debt reflects a high exposure to the US Dollars and the Euro than the other currencies such as the Japanese Yen, and Chinese Yuan. The chart 3.0 below shows the currency composition as a percentage of the total external debt.

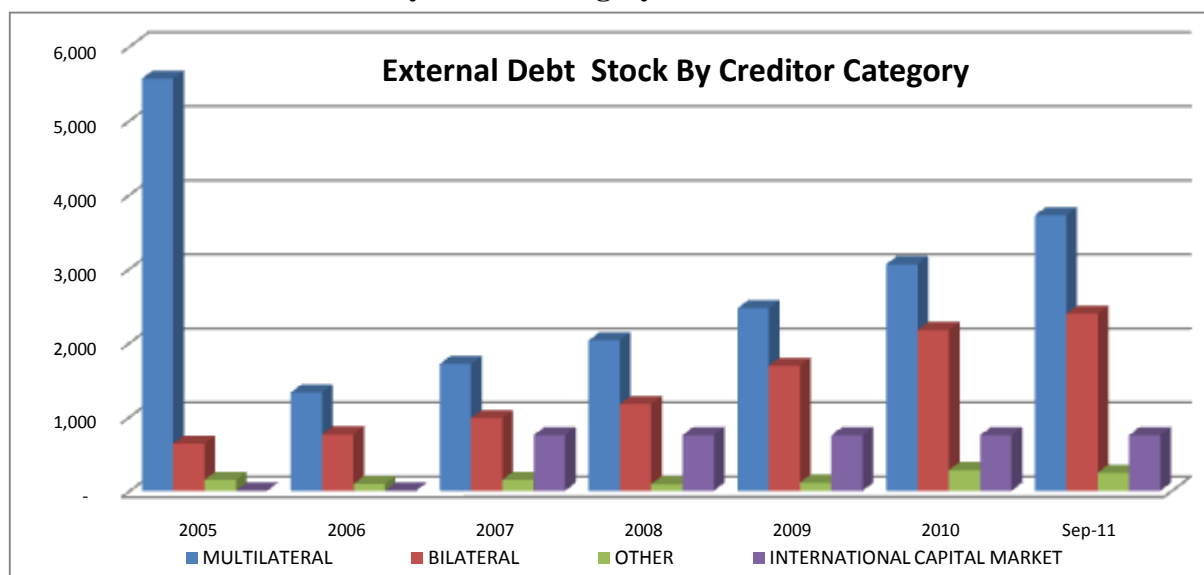
Chart 3.0 Currency composition of external debt



3.2.4 External Debt Stock by Creditor Category

Chart 4.0 below shows the external debt stock by creditor category. It shows that multilateral debt takes the largest portion accounting for about 52 percent of the total external debt stock. This is mainly from the International Development Association (IDA) and African Development Fund. Bilateral debt on the other hand constitutes about 34 percent from sources such as Spain, Kuwait and Korea, 3 percent from the commercial and other private creditors and about 10 percent for the international capital market.

Chart 4.0 External debt stock by creditor category



3.2.5 Holders of Domestic Debt Stock

The holders of the Domestic Debt Stock are categorized into the Banking Sector, Non-bank Sector and the Foreign Sector. The banking sector comprise of the Bank of Ghana and the Commercial Banks. The Non-Bank sector comprise of the Insurance Companies, SSNIT and Others (Rural Banks, Firms & Institutions and Individuals). The Foreign sector refers to the debt held by non-residents.

Chart 5.0 Holders of Domestic Debt

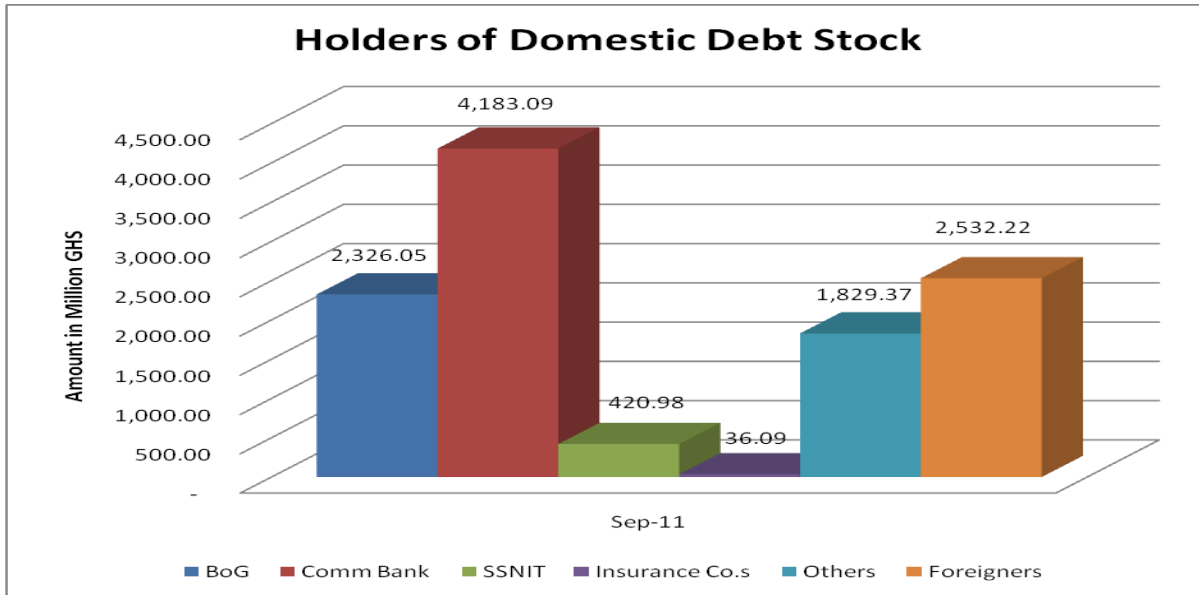
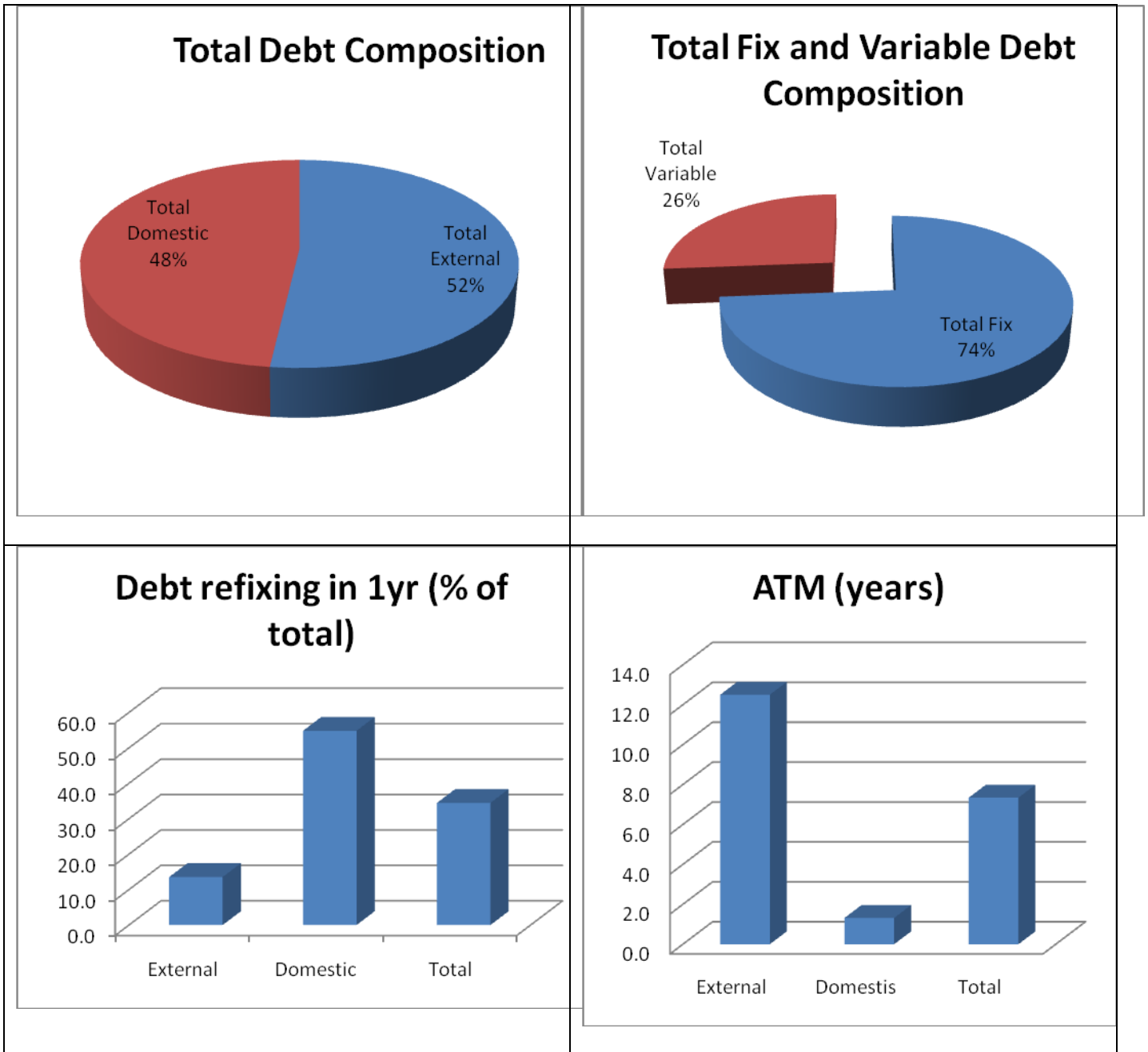


Chart 6.0 Composition of Total Public Debt



4.0 MEDIUM TERM FINANCING OUTLOOK

Ghana has currently attained the lower middle income status with rebasing of the national accounts. It is expected that with the projected economic growth largely stemming from the production of oil and therefore oil revenue flows, GDP will be significantly improved leading Ghana to attain a middle income status in the medium term horizon.

In view of the above, coupled with the current global financial conditions, it is becoming increasingly difficult to secure concessional financing and have easy access to official sector semi-concessional lending. As a result, other structured financing schemes and the international capital markets remain the possible avenues to explore in the medium term.

On the otherhand, interest by foreign investors in the domestic market is dominant. Recent auctions of the three-year and Five year T-bonds have seen robust demand. In the meduim term much focus will be placed on the longer dated instruments with maturities of up to 7 years with the view of lenthening maturity profile of the domestic debt.

4.1 Financing Assumptions

i. External Financing Assumptions

For the purpose of this analysis, we assume the following external instruments are contracted as follows;

- Concessional loans denominated in USD
- Semi-concessional loans from official creditors or export credit agencies. These are assumed to be contracted on either fixed or floating rates, denominated in U.S. dollars.
- International capital market bonds issued in US dollars, with the implicit credit spread in line with current market conditions.
- It should however be noted that, having attained a lower-middle income status, Ghana is likely to have limited access to concessional funding which currently constitutes a larger proportion of the country's external debt. In this regard, a gradual shift from concessional to non-concessional sources of borrowing is envisioned including meeting infrastructural needs by adopting the PPP approach. The primary source of such financing will be from the BRICS with a large proportion of the funds to be provided by China and Brazil in the form of mixed credits (i.e. Export Credits and Commercial loans).

The table below shows a summary of the financing terms of some major creditors.

Table 5.0 Summary of financing terms of some major creditors

Creditors	Service Charge (%p.a.)	Maturity (years)	Grace Period (years)	Commitment Fee (% p.a.)	Grant Element (%)
IDA	0.75	35	10	0.5	60.88
AfDB	0.75	40	10	0.5	63.53
IFAD	0.75	35	10	0.5	60.88
BADEA	1.00	30	10		54.91
NDF	0.75	30	10	0.5	57.75
Bilateral – Fixed	2.08	31	10	-	43.16
Commercial Banks Fix	3.85	16	6	-	14
Commercial Banks Variable	2.18	13	3	-	14.53
ICM	8.50	10	9	-	-31.60

NOTE: this table provides indicative average terms of financing from various sources.

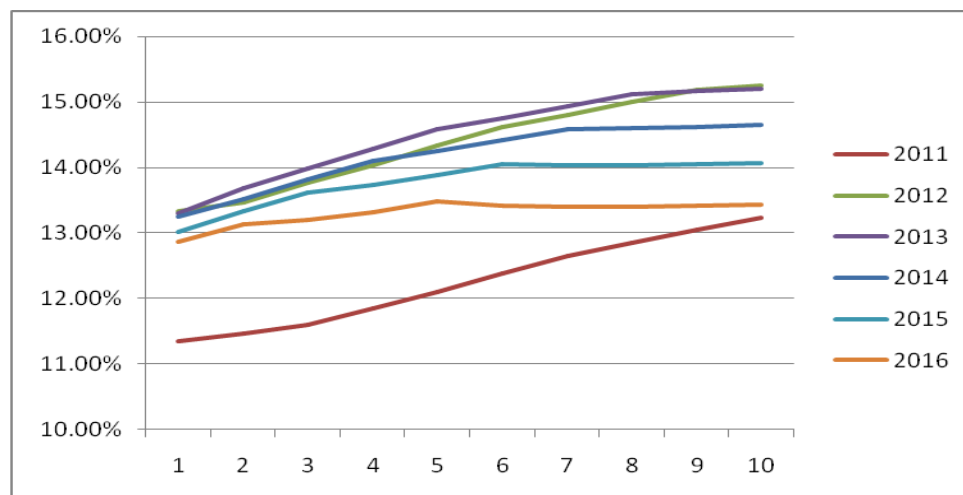
ii. Domestic Market Financing assumptions

As indicated above, Treasury bills and domestic government bonds will be issued across the curve, with potential maturities up to 7 years. The assumed pricing of new domestic borrowing is set relative to US Treasury forward rates with some adjustment to reflect credit, exchange rate and liquidity differentials.

It can be noted that, out of the total domestic debt portfolio, the total non-marketable debt accounted for is about 3.9 percent of GDP as at 2010, whilst the total marketable debt accounted for about 15.7 percent of GDP. There is the need to make efforts to gradually offload the non marketable debt unto the market.

The applicable GHS curves are shown in chart 7.0

Chart 7.0



4.2 Macroeconomic Assumptions

The macroeconomic framework underpinning this MTDS was set in line with the 2012 Budget Statement (table 6 below)

Under this current macroeconomic scenario, Government revenue including grants is projected to increase from 22.60 percent of GDP in 2011 to 23.03 percent of GDP in 2014. This increase is expected to be fuelled by improved and effective revenue collection as well as increasing oil revenue. It is also projected that Government Expenditure will increase from 24.30 percent of GDP in 2011 to 25.10 percent of GDP in 2012 largely on account of election related expenditure. Total expenditure is estimated to increase further to 21.45 percent of GDP by end 2014 and this is expected to be fuelled by infrastructure development.

The primary balance is expected to increase from 0.50 percent of GDP in 2011 to 2.20 percent of GDP in 2014. The gross financing requirement is projected to be increasing on account of increased expenditures (including interest payments and amortization).

It is expected that real GDP growth will decrease from 13.60 percent in 2011 to 9.4 percent in 2012 and then average around 8 percent and 7 percent in 2013 and 2014 respectively. It is also projected that fiscal deficits as a percentage of GDP will reduce from 4.80 percent of GDP in 2011 to 3 percent of GDP in 2014 in order to slow down the growth of public debt and bring down the share of the budget devoted to debt service, which currently consumes about 9.46 percent of GDP and 20.83 percent of government revenues.

It is also expected that arrears will be declining from 2.9 percent of GDP in 2011 to 0.43 percent of GDP in 2014 as a result of projected increased revenues.

Inflation is projected to remain a single digit by the end of 2011 and to remain in the middle single-digit range through 2012– 2014. This will largely be dependent on the overall government expenditure and revenues

Table 6; Macroeconomic Indicators (2011-2014)

	ITEM (% of GDP)	2011	2012	2013	2014
		Projected	Budget Estimate	Indicative	Indicative
	Government Revenue including Grants	22.6	22.4	22.77	23.03
	Government Revenue (Tax and Non-Tax)	20.8	20.7	21.11	21.45
	Grants	1.7	1.7	1.66	1.59
	Government Expenditure	24.3	25.1	25.51	25.44
	Government Interest Expenditure	9.5	10.9	11.17	14.86
	Government Non-Interest Expenditure	14.9	14.2	14.35	10.58
	Arrears Clearance	2.9	2.0	0.68	0.43
	Overall Balance	-4.8	-4.8	-3.5	-3.0
	Primary Balance	0.5	2.6	2.1	2.2
	Financing Requirement	-4.8	4.8	3.5	3.0
	Nominal GDP Growth	24.31	21.89	16.67	15.42
	GDP Deflator	7.10	11.90	6.70	7.30
	Real GDP Growth	13.60	9.40	8.00	7.00
	CPI (period average)	8.80	9.10	7.80	7.80
	International Reserves (USD)	5,432.00	6,374.00	7,870.00	9,399.00
	Nominal GDP (GHS Billion)	56,828,000	69,771,853	80,338,432	92,258,122

Principal Risks to the Economy

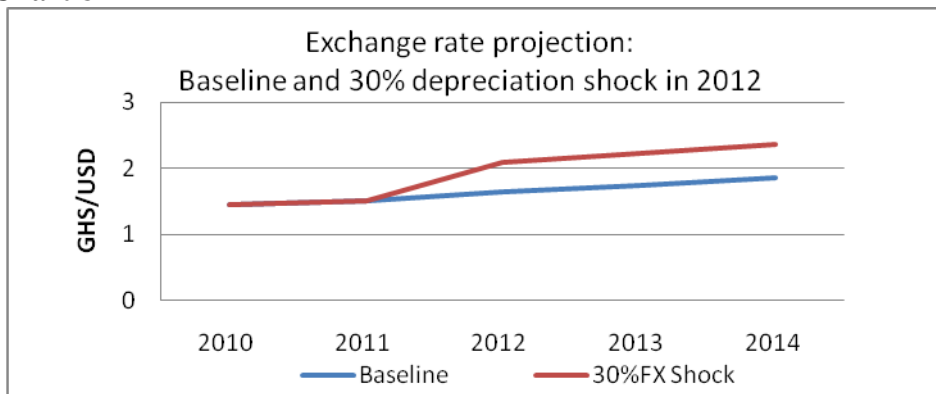
The robustness of the analysis is based on the resilience of the macroeconomic fundamentals and typically the baseline assumptions for the interest rates, exchange rates and the fiscal stance. The overall budget balance assumption is also anchored on a very optimistic GDP growth, propelled by the strong fiscal stance which is enhanced by the revenue from oil production. In view of the main macroeconomic postulations above, the following may pose risk to the macroeconomic fundamentals.

- The enhanced government revenue resulting from the oil proceeds may not materialized as envisaged in the baseline assumptions.
- A fiscal trend as observed in the four year election cycle indicates significant slippages, giving rise to excessive fiscal expansionary measures.
- This affects pricing of government securities since borrowing will increase and transmit into the monetary variables.
- Rising cost of living and interest rates also affects the value of the local currency and depreciates against the other international currencies.
- The reserves deplete as a result of trade and current account deficits and also foreign debt becomes more expensive.
- Further, the contingent liabilities could also pose additional fiscal risk.

For the purpose of this analysis, four typical shocks stemming from exchange rate, domestic interest rate, external interest rate and a combination of these are considered. It is assumed that shocks materialize in 2012, and are sustained through the remainder of the simulation horizon⁴:

- Scenario 1: *Country-specific depreciation of the GHS.* Under this scenario the GHS will depreciate by 30 percent against the Dollar in 2012 and would be sustained for the remainder of the years.

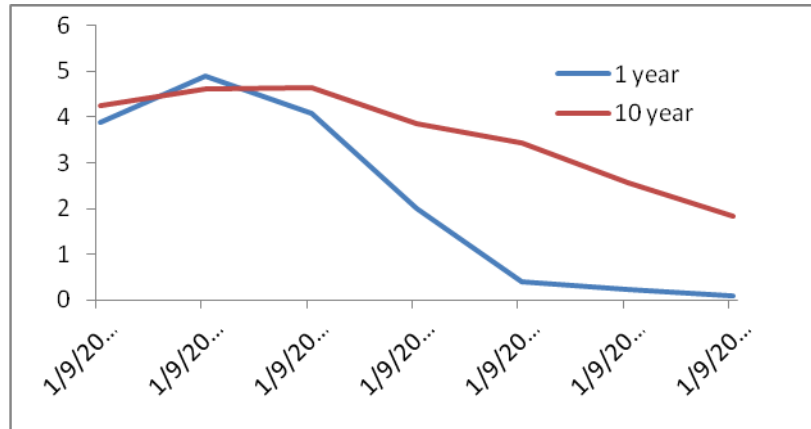
Chart 8



- Scenario 2: *Increase in domestic interest rates.* For this scenario the cost of domestic market-based borrowing will increase in all the years by two hundred basis points. Given that 2012 is an election year in Ghana it is expected that expenditure will increase and this is likely to bring about a higher inflation rate (in line with the projections in the 2012 budget statement) and investors will demand for higher rates to ensure they have a positive real return on their investments.
- Scenario 3: *increase in international interest rate.* Under this scenario, International Interest rate i.e. LIBOR will increase by 200 basis points thus shifting the international yield curve outward. This Scenario is likely to impact variable rate debt such as the IBRD loans, Commercial bank variable loans and International bonds.

⁴ Basically, this presumes that we consider the baseline macroeconomic outlook and financing assumptions highly uncertain. A more specific risk scenario could be considered on the basis of known future events, such as an election. The quantification of the shocks broadly reflects the historical standard deviation over the last 10 years.

Chart 9



The graph illustrates yields on bonds issued in the United States. The yield decreases over time for both bonds however the 10 year bond has a higher yield in comparison to the one year bond. This is because the one year bond has yields related to the Federal funds rates which have reduced over time due to the financial crisis. We considered this scenario because if the yields on these bonds go back to its level before the financial crisis (for example the one year bond rate can increase by 300 to 400 basis points) this will affect the yield that investors will expect.

- Scenario 4: *Combination of 15 percent depreciation and domestic interest rate shock.* In this scenario, the GHS depreciates against the dollar by 15 percent whilst domestic interest rates also increases by 200 basis points and in the external side interest rates will increase by 200 basis. This reflects the likelihood of an external shock that affects the exchange rate.

5.0 DESCRIPTION OF STRATEGY, METHODOLOGY AND ANALYSIS OF RESULTS

Description of strategies

To ensure a thorough analysis, four alternative financing strategies were designed to be assessed under this MTDS. The first strategy is consistent with the medium term fiscal framework for 2012 of reducing the net domestic financing (NDF) from 5.2 percent of GDP in 2011 to an average of about 2.9 percent by the end of 2014.

Charts 10 and 11 below give a pictorial view of the proportions of external and domestic financing of each strategy respectively.

Chart 10; External debt financing Strategies

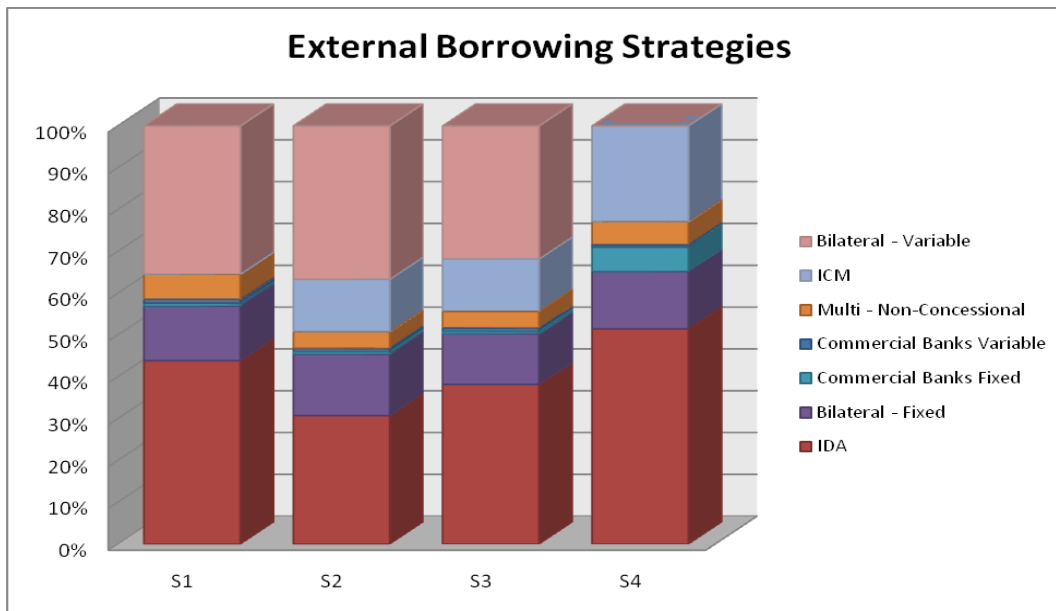
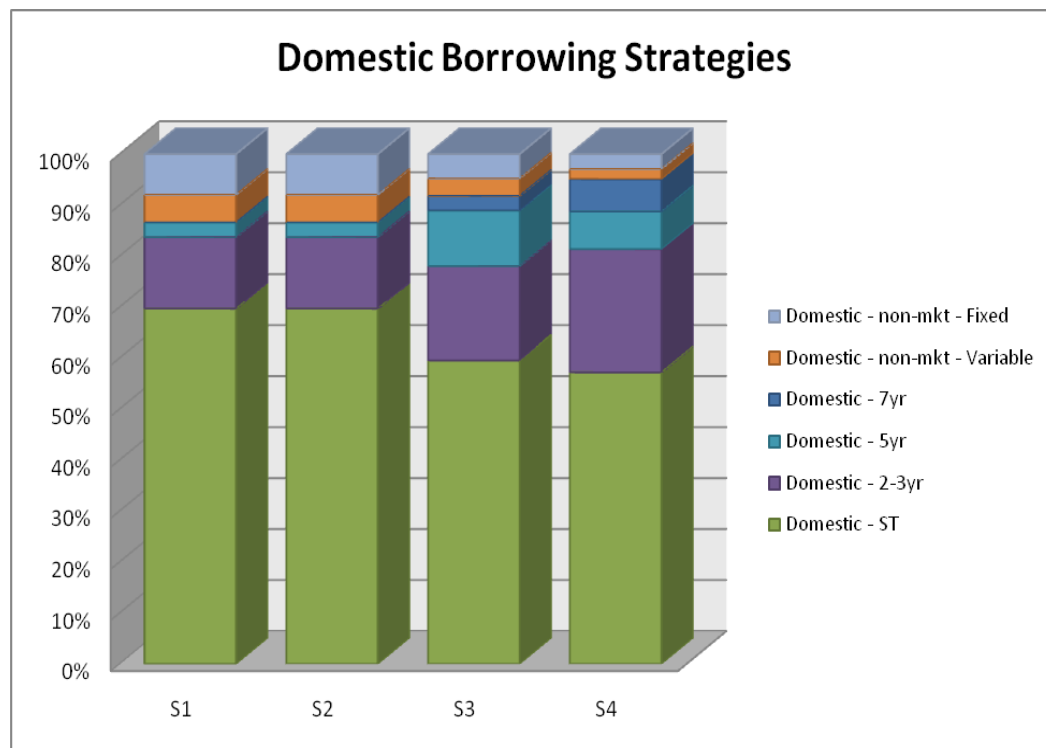


Chart 11; Domestic debt financing Strategies



- S1 is consistent with the 2012 budget and the financing assumptions follow the actual for 2011 which shows more domestic than external borrowing. The proportion of the domestic financing is expected to be reducing over time in line with the reducing Net Domestic Financing. The strategy assumes about 18 percent of external and 82 percent domestic financing. The external source of financing is expected to be about 61 percent concessional and 39 percent non concessional, while the domestic borrowing is expected to be more short term. The short term instruments represent about 70 percent of the total domestic whilst 30 percent will be in medium to long term instruments.
- S2 is similar to S1 however it assumes more non concessional external funding capacity than S1. S2 assumes 52.8 percent of concessional financing and 47.2 percent of non-concessional financing, including \$500 million envisaged to be issued in the International Capital Market in 2013. The domestic financing portion for this strategy is less than S1 by about 5 percent. It concentrates more on short term financing of about 70 percent.
- S3 is also consistent with medium term fiscal framework which envisages a heavy domestic bias but assumes more domestic long term financing in line with the debt management objectives. It envisages lengthening of the domestic maturity profile to 7 years. The short term domestic constitutes 59.4 percent and

long term borrowing of 14.6 percent made up of 2-3 year, 5 year and 7 year bonds. It also assumes a reduction in external concessional financing over the period. The average for external concessional is about 56 percent whilst that of non-concessional financing is about 44 percent including the \$500 million envisaged to be issued in the International Capital Market in 2013.

- S4 envisages a more aggressive switch to external debt to have a balanced currency split (between external and domestic borrowing). It comprises of concessional debt of an average of about 63 percent and non-concessional debt of 37 percent. For domestic borrowing, short term financing constitutes 50 percent while medium to long term financing constitutes about 50 percent.

Chart 12 Net Domestic Financing as a percentage of GDP

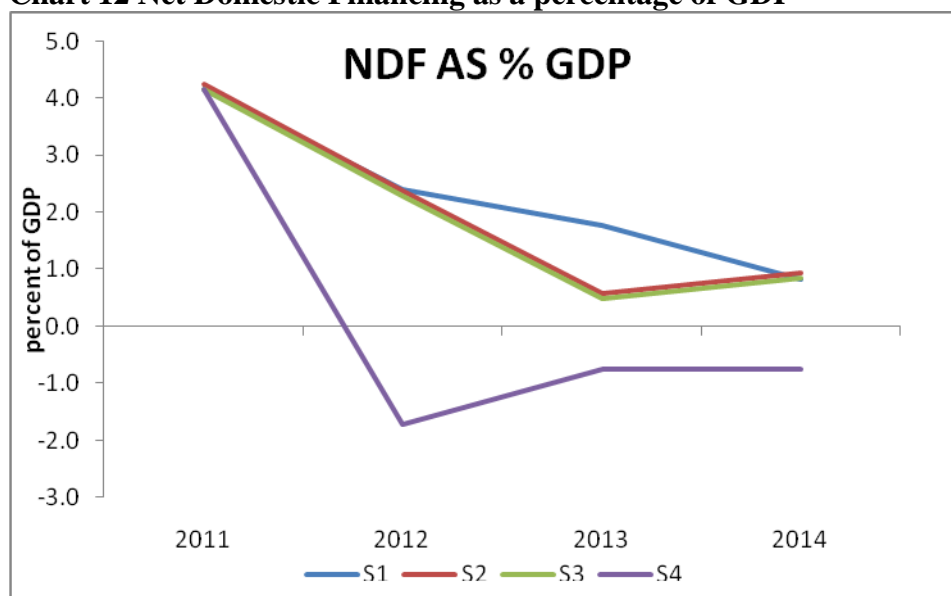


Chart 11 illustrates the trend in the assumed Net Domestic Financing (NDF) over the simulation period. It is evident that the NDF for all the strategies on average assumes a declining trend. All the strategies assume a positive NDF over the entire period except S4 which assumes a negative NDF for 2012 to 2014. Though this looks very good it is not achievable as the negative NDF would have to be finance from external sources.

Intuitively, S4 should perform well in terms of both cost and risk given the assumed extent of concessional borrowing. However, in view of the likely dry up of concessional loans to Ghana as it has attained the middle-income status, it is prudent to explore alternative options of funding and assess the cost and risk implications. In contrast, given the relatively larger share of domestic short-term debt, S1 is likely to be a more costly strategy to adopt.

Methodology for Results Analysis

The strategies have been simulated in the MTDS model under the assumptions discussed above. Discussions focused on performance of each strategy under three main cost indicators including interest/GDP, Debt/GDP and NPV of debt to GDP. The interest to GDP ratio defines the amount of resources that is required to service the debt and not available for other uses, the Debt/GDP ratio is critical in view of the strategic debt-GDP ceiling of 60 percent which is a key indicator of debt sustainability. The NPV of Debt is also relevant given the significant share of concessional and semi-concessional debt.

The risk indicators considered include Average Term to Maturity (ATM) and Average Time to Refixing (ATR) which give an indication of rollover risk and interest rate risk. The redemption profile is also considered since it gives indication of cash flow profile or liquidity pressure on the budget. These strategies are analysed in conjunction with the overall core objectives of debt management.

Overall, it is envisaged that the methodology applied and the cost-risk indicators considered will assist in obtaining the desired portfolio mix.

The resultant values of these ratios under the stress test scenario will also be analysed. Refer to figures in the appendix.

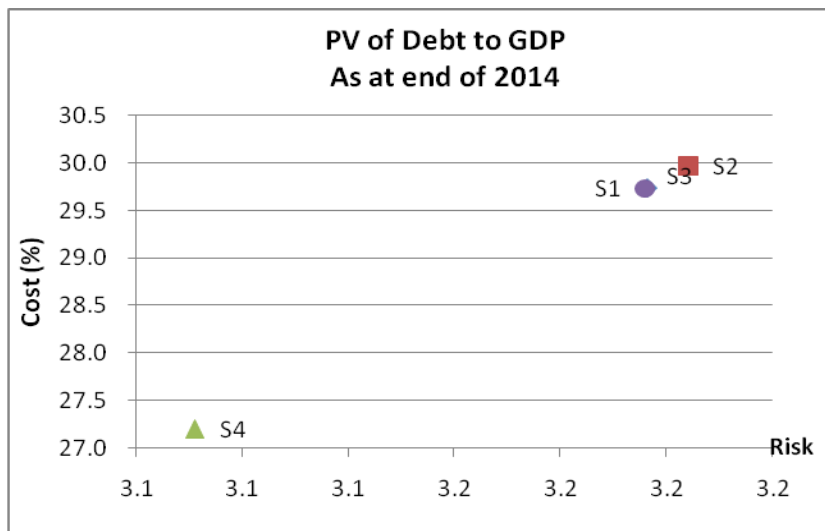
Assuming that S4 is unlikely to be feasible, the outcome of this analysis suggests that S3 is the most appropriate strategy to follow. Nevertheless, concessional debt will be maximized to the extent possible while developing strategies to enhance the domestic debt market.

Description of Results

This section describes the strategy results from the MTDS model.

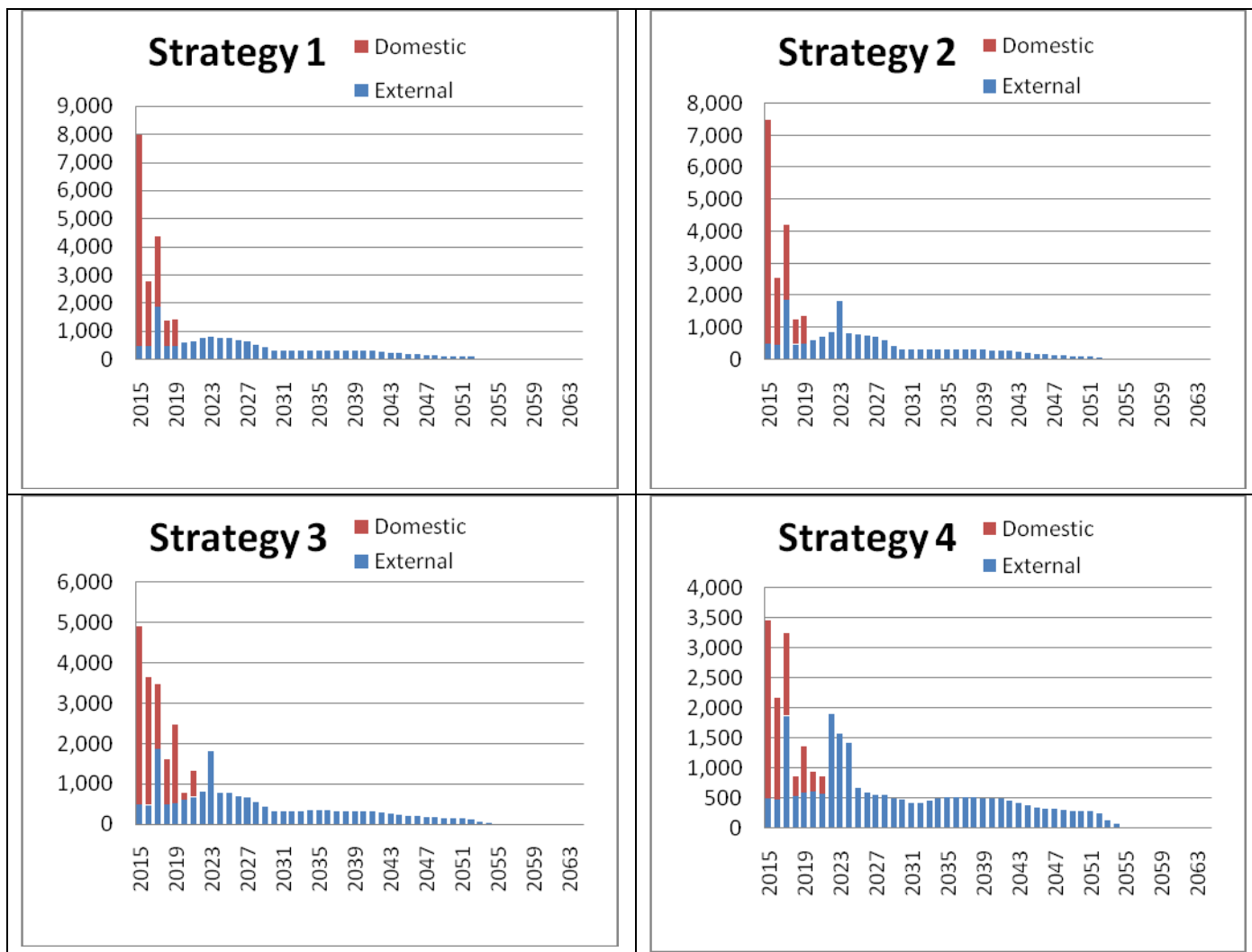
- In terms of Debt to GDP ratio, the four strategies have about the same level of cost but S4 has a lower level of risk compared to S1, S2 and S3 in that order. See chart 14 below
- In terms of PV of Debt to GDP, S4 has a more favourable risk level and lower cost compared to the other three strategies. Strategies 1, 2 and 3 have higher but similar cost and risk features.

Chart 13



- Strategy 3 has a smoother public debt redemption profile compared to the other three strategies. S3 has a lower Treasury bill redemption profile compared with S1 and S2 but higher than S4.

Chart 14 Redemption Profiles of Strategies



- Comparatively, strategy 4 has lower cost and risk levels compared to the other three strategies which have similar cost and risk levels in terms of Interest to GDP.
- It could be generalized from a snapshot basis that strategy 4 has a lower cost and risk levels compared to the other three strategies but detailed analysis proves otherwise.
- The four strategies have lower and similar nominal debt as percentage to GDP indicating an improvement in the 2010 figure. This is due to the favourable macroeconomic framework.

- Strategy 4 has a far lower average interest rate compared to the other three strategies with the four strategies showing improvement over the 2010 figure. This is as a result of assumed external concessional borrowing.
- In terms of refinancing risk, the four strategies post an improvement over the 2010 data as ATM is expected to increase irrespective of which strategy is adopted.
- In terms of interest rate risk with emphasis on debt refixing in 1 year, strategies 3 and 4 showed an improvement over 2010 data while strategies 1 and 2 posted worsening data as greater percentage of Treasury bills maturing.
- In terms of financing requirement, strategy four will require more external funding on the average compared to the other three strategies. It would require an average of about US\$2.1 billion of external financing per year largely from concessional sources.

Analysis of Strategies

Strategy 1 has the highest domestic borrowing which is concentrated in the **short-term**. From table 8 below, it is the second lowest cost strategy in terms of the debt stock to GDP. It therefore produces a comparable higher fiscal adjustment cost to maintain debt sustainability (Debt/GDP) than S4. Further, **S1** has the lowest ATM of 8.5 years and also in terms of refixing it has the highest percentage of about 39.9 percent within 12 months after S2. This strategy is not in line the debt management objective of lengthening the domestic debt profile.

Table 7.0 Risk Indicators of the Strategies

Risk Indicators		2010	As at end FY2014			
		Current	S1	S2	S3	S4
Nominal debt as % of GDP		39.5	33.9	33.9	33.9	33.7
PV as % of GDP		35.1	29.7	30.0	29.7	27.2
Implied interest rate (%)		9.8	7.2	7.1	7.1	5.7
Refinancing risk	ATM External Portfolio (years)	12.5	14.1	13.4	13.8	15.7
	ATM Domestic Portfolio (years)	1.3	2.0	2.0	2.7	2.5
	ATM Total Portfolio (years)	7.3	8.5	8.5	9.1	12.3
Interest rate risk	ATR (years)	7.0	7.5	7.4	8.1	12.0
	Debt refixing in 1yr (% of total)	34.5	39.9	39.1	27.9	16.0
	Fixed rate debt (% of total)	76.3	64.7	65.4	76.7	89.8
FX risk	FX debt as % of total	53.5	53.2	56.6	56.6	73.3
	ST FX debt as % of reserves	4.7	2.9	2.9	2.9	2.9

Table 8.0 Summary of Cost/risk Indicators

Debt Stock to GDP ratio as at end 2014

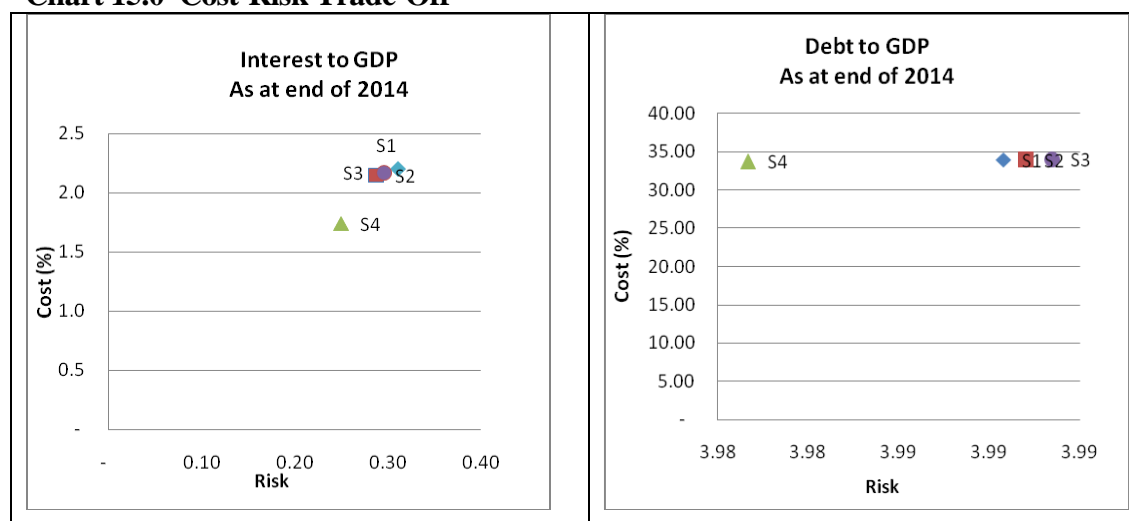
Scenarios	S1	S2	S3	S4
Baseline	33.9	33.9	33.9	33.7
Exchange Rate Shock (30%)	4.0	4.0	4.0	4.0
Interest Shock 1	0.5	0.5	0.5	0.4
Interest Shock 2	0.1	0.1	0.1	0.2
Combined Shock (15% depreciation and IR Shock)	2.5	2.5	2.5	2.4
Max Risk	4.0	4.0	4.0	4.0

Interest Payments to GDP Ratio as at end 2014

Scenarios	S1	S2	S3	S4
Baseline	2.2	2.1	2.2	1.7
Exchange Rate Shock (30%)	0.1	0.1	0.1	0.1
Interest Shock 1	0.2	0.2	0.2	0.2
Interest Shock 2	0.0	0.1	0.1	0.1
Combined Shock (15% depreciation and IR Shock)	0.3	0.3	0.3	0.2
Max Risk	0.3	0.3	0.3	0.2

Strategy 2 is similar to S1 in terms of risk, cost and redemption profile. The only difference is the international capital market borrowing in 2013. It has high domestic borrowing. Also its portion of external debt is increased by about 3.4 percent of the total public debt in relation to S1. Since the domestic debt portfolio in S2 is mainly short term it makes it vulnerable to interest rate shocks. S2 has the lowest ATM and ATR of 8.5 years and 7.4 years respectively. It is evident from the maturity profile in chart 13 that a greater percentage (39.1 percent) of the debt needs to be refixed within 12months. At the end of 2014 the foreign exchange debt under this scenario is expected to be about 57 Percent.

Chart 15.0 Cost-Risk Trade-Off



Strategy 3 is also similar to S1 and S2 but has more long term domestic financing. In terms of interest to GDP the strategy lies between S2 and S4 whilst in terms of Debt to GDP, it is the most risky with a marginal difference of 0.01 percent between the most risky and least risky strategy. S3 has the second highest ATM and ATR of 9.1 years and 8.1 years respectively. Its amortization profile is much smoother. Compared to S1 and S2. At the end of 2014 the foreign exchange debt under this scenario will be about 57 percent. This strategy is more consistent with the objective to develop and lengthen the domestic market.

Strategy 4 seems most desirable in terms of all the indicators. It has the highest ATM of 12.3 years ATR of 12.0 years and the lowest debt refixing of 16.0 percent in 12 months. S4 focuses more on the use of external funding capacity and reducing domestic debt. This implies borrowing more on the external concessional sources and from the international capital market to pay off part of the domestic debt. At the end of 2014 the foreign exchange debt under this scenario is expected to be about 73 percent, and this increases the strategy's exposure to exchange rate risk. This rather seems unrealistic and unachievable.

The difference in performance under a range of other cost indicators is marginal, especially as all indicators improve relative to the 2010 position. The other risk indicators measured by the ATM, recorded similar results, with S4 being the best strategy. Amongst the strategies, S4 has the highest percentage of external debt in the portfolio by the end of 2014. It is evident from table 7 that S1 has an ATM of 8.5 years, whilst the ATM for S3 is 9.1 years better than S2 of 8.5 years. It is clear that given the likely dry up of concessional funding, S3 seems to support the core objectives of developing a vibrant domestic market.

Implied Amount under each Strategy

Table 9 shows the implied amounts that should be borrowed under each scenario. Currently, it may be difficult to implement the foreign borrowing strategies as envisaged in S4 and is also prudent risk management to mitigate the likely exchange rate risk associated with S4. Strategy 3 seems to play a middle role between S2 and S4. S2, S3 and S4 all envisage a strong presence on the International Capital Market while S1 envisions robust domestic market activities in the short term.

Table 9.0

	S1	S2	S3	S4
Implied gross borrowing (annual average)	1,592.96	1,840.26	1,843.77	3,008.70
Foreign borrowing (GHS mn)	1,592.96	1,608.89	1,612.69	2,318.62
Official sector borrowing	0	231.37	231.08	690.08
International capital market securities	7,707.00	7,248.02	6,985.81	4,359.42
Domestic borrowing (GHS mn)	5,372.43	5,052.48	4,159.27	2,493.75
Tbills / 1-year bonds	1,079.84	1,015.53	1,293.07	1,053.06
Medium-term bonds (3-year)	223.27	209.97	962.83	599.36
Long-term bonds (5-10years)	1,031.46	970.04	570.64	213.25
Non-marketable	9,299.96	9,088.28	8,829.58	7,368.12
Total				
	S1	S2	S3	S4
Implied net borrowing (annual average)	1,177.96	1,425.26	1,428.77	2,593.71
Foreign borrowing (GHS mn)	1,177.96	1,193.89	1,197.70	1,903.63
Official sector borrowing	0	231.37	231.08	690.08
International capital market securities	1,551.82	1,290.27	1,290.27	-34.73
Domestic borrowing (GHS mn)	767.05	644.53	13.52	-350.61
Tbills / 1-year bonds	24.35	-39.95	237.59	-2.42
Medium-term bonds (3-year)	174.49	161.19	914.05	550.58
Long-term bonds (5-10years)	585.93	524.51	125.11	-232.28
Non-marketable	2,729.78	2,715.53	2,719.04	2,558.98

6.0 SELECTION OF STRATEGY

Considering the above analysis, Strategy 3 seems feasible and most preferred in terms of the core objectives of the debt management and takes a middle position in cost-risk tradeoff. Strategy 3 implies maintaining a reasonable stream of new issuance in the domestic market and is more in line with the core objectives to extend maturities in the domestic market than S1 and S2. It also presumes a more constrained access to concessional borrowing so may be more realistic in its outlook than S4, which is the most competing strategy with S3. The marginal cost of this strategy relative to S4 which is the cheapest is only 0.1 percent of GDP under the baseline scenario. Similarly, since it is only marginally more risky than S1, **S3** is therefore the adopted financing strategy for this analysis.

6.1 Stress Test

In view of the potential risks in the macroeconomic framework identified above, an alternative scenario-stress test is considered and its impact assessed on the alternative strategies. Under this macroeconomic scenario, it is assumed that oil revenues are not as strong as anticipated and therefore total revenue projected for 2014 will be approximately 33 percent below the GHS21,000 million projected in the baseline. Consequently, the gross financing requirement increases by an average of over GHS500 million per annum. It is also assumed that about GHS500 million of such contingent liability will crystallize in the medium term. Again, it is anticipated that, for any possible fiscal slippages, additional amounts of GHS800 million and GHS700 million could be expended in 2012 and 2013 respectively. Overall, with a weaker macroeconomic outlook signaling dire fiscal straits, sovereign credit quality would worsen and attract an increased premium of about 200 basis points. The alternative macroeconomic stress test is simulated with the alternative financing strategy and the pricing assumptions to assess the impact.

The results of the strategies under this alternative macroeconomic scenario is set out in Appendix I. Overall, while the absolute levels of key indicators change, the relative ranking does not. **S2** is only marginally more costly and risky than **S3** indicating that the strategy choice (**S3**) would be relatively robust to a more pessimistic macroeconomic outlook.

6.2 Implementing the MTDS

(I) Developing the Associated Annual Borrowing Plan

The borrowing composition assumed in the MTDS analysis provides the basis for determining the annual borrowing plan to accompany the selected strategy to meet the financing requirement for the fiscal year.

The proposed borrowing plan for both external and domestic debt is set out in table 11 below. It does not only set out the planned borrowing amounts but also frequency of issuance and purposes of borrowing.

The domestic borrowing plan would be translated into a potential auction calendar for Treasury bills and bonds. The auction calendar is derived by determining the required number of auctions and the typical size of an auction. This is carefully structured so that issuance calendar is not too crowded and do not compete with each other. The planning of the calendar also takes into account government cash position and budget outturns in the fiscal year. The plan also envisages that the long dated instruments will be used for specific projects.

External borrowing plan anticipates two utilization options; project and budget support (program) and is based on commitments. Budget support loans are mainly under the concessional loans under the Multi-Donor Budget Support (MDBS) arrangements. The semi-concessional and international capital market facilities are mainly project tied. The plan set out the possible timeframe to access the international capital market.

Table 10.0 Borrowing Plan for Financial year 2012

Domestic/External Borrowing	% of subtotal	% of total	GHS million	Frequency	Purpose/ Use of funds
Total Borrowing		100	9,351		
Domestic	100	81	7,552		
Domestic - Short term	73	59	5,513	Weekly	Support Government liquidity requirement
Domestic - 2-3yr	14	11	1,057	2 year monthly 3year quarterly	Support Government liquidity requirement and projects
Domestic - non-mkt – Fixed	5	4	378	Varied	Securitization
Domestic - non-mkt – Variable	8	6	604	Varied	Securitization
External	100	19	1,799		
Multi – Concessional	50	10	899	Varied	Budget Support/programmes
Bilateral – Fixed	10	2	180	Varied	Projects
Bilateral – Variable	40	8	720	Varied	Projects

Table 11.0 Borrowing Plan for Financial year 2013

Domestic/External Borrowing	% of subtotal	% of total	GHS million	Frequency	Purpose/ Use of funds
Total Borrowing		100	10,103		
Domestic	100	74	7,462		
Domestic – ST	50	37	3,731	Weekly	Support Government liquidity requirement
Domestic - 2-3yr	30	22	2,239	2 year monthly 3year quarterly	Support Government liquidity requirement and projects
Domestic - 5yr	12	9	895	Semi Annually	Projects
Domestic - 7yr	2	1	149	Annually	Projects
Domestic - non-mkt – Variable	3	2	224	Varied	Securitization
Domestic - non-mkt – Fixed	3	2	224	Varied	Securitization
External	100	26	2,641		
Multi – Concessional	25	7	660	Varied	Budget Support/programmes
Bilateral – Fixed	10	3	264	Varied	Projects
Bilateral – Variable	30	8	792	Varied	Projects
ICM	35	9	924	Once	Projects

(II) Other issues to facilitate the implementation of the MTDS.

For effective implementation of the MTDS, there is need to develop vibrant risk management tools which should include other provisions and regulations to allow market-based liability management operations such as bond buybacks, switches, exchanges and other derivative instruments.

There is also the need for active investor-relations and market consultation to get up to date information on the market. This will help determine a prior the investor appetite for the various instruments before it is done.

The strategy also addresses any possible slippages in terms of significant changes to the broad parameters of the MTDS. Table 12 below sets out the possible adjustments that could be effected in case of significant changes in the parameters.

Table 12.0 Possible Switches

	Possible Short fall Instruments	Switch to
External	Type Semi-Concessional Concessional ICM	Available concessional Semi- concessional Semi- concessional
Domestic	Instrument 1 year 2 year 3 year 5 year 7 year	Any over subscribe Instrument/Term Loan Any over subscribe Instrument/Term Loan Any over subscribe Instrument/Term Loan Any over subscribe Instrument/Term Loan Any over subscribe Instrument/Term Loan

There is also the need for constant monitoring and review of performance and progress made on the MTDS. The quarterly public debt report and the annual review will be used for this purpose. The quarterly report will include a backward looking review of performance of the previous quarter, which will reveal possible risks and recommend measures to mitigate in the subsequent quarter.

Since the MTDS is anchored on a macroeconomic framework, there will be regular monitoring of macroeconomic performance. Developments in the macroeconomic situations to a large extent drive the domestic market conditions and especially form investors' perception of risk for government papers/instruments.

The plan is that even though the MTDS is a medium term report, it will be reviewed annually. If there are significant and sustained deviations in the outturns relative to the targets and assumptions in the MTDS report , the report will be revised accordingly.

Above all, there is the need to review the legal and institutional framework to ensure contemporary debt management practices in Ghana. Appropriate governing laws and guidelines must be set and also strengthen the institutions or divisions involved in debt management especially the Debt Management Division.

Finally, it is envisaged that the annual revision of the MTDS would be subjected to the appropriate regulatory approvals or will accompany the annual budget statement to Parliament as a supporting document.

7.0 CONCLUSION

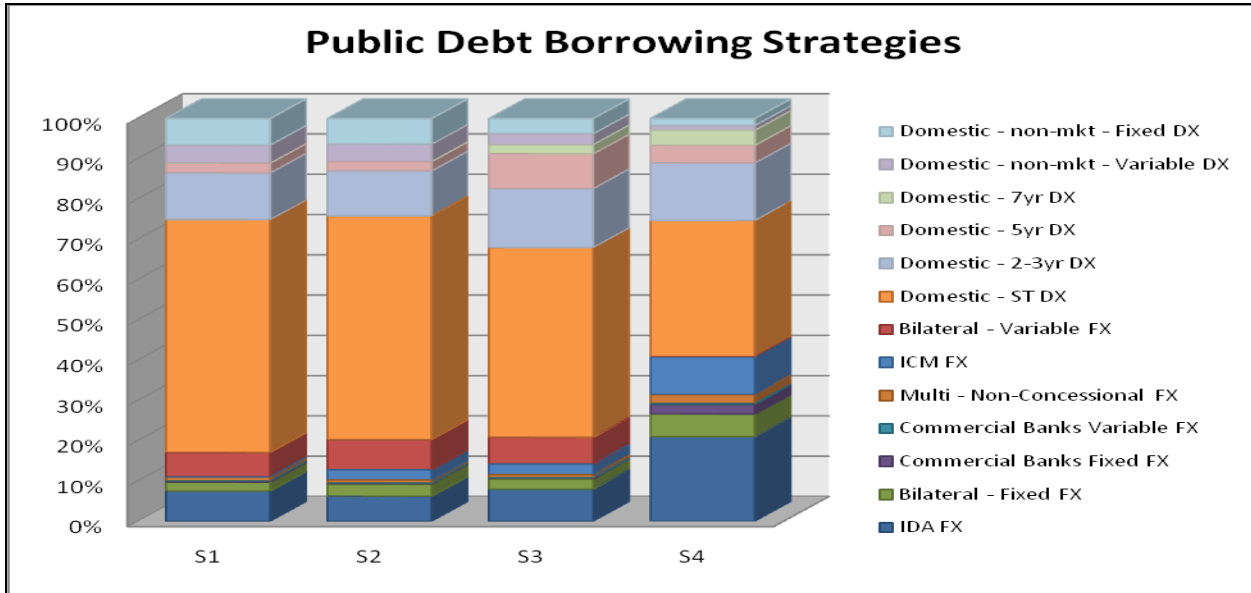
By the end of the implementation period; the MTDS is expected to achieve the following;

- (i) Concessional funding will remain the preferred source of funding
- (ii) Domestic market be smoothen and well functioning;
- (iii) Domestic market to serve as potential alternative sources of funding (diversify sources).
- (iv) Improve market liquidity and therefore cover credit premium.
- (v) Adopt a Financing Strategy that will minimize the portfolio risk.
- (vi) Attain prudence in public debt management; Streamline issuance (Calendar).

Overall, the public debt portfolio is maintained at sustainable levels and less risky than it is currently.

Appendix I

Public debt financing Strategies



Appendix II

Alternative Financing Strategies										
	2011		S1		S2		S3		S4	
	Likely borrowing split		Heavy Domestic Bias		External Funding Capacity,		Domestic Bias		Balanced Currency Split	
			More ST Domestic		More ST Domestic Incl. ICM bond of \$500mn 2013		More LT Domestic		Split ST and LT Domestic & More Concessional with ICM \$500mn 2013	
	of external/domestic	of total	of external/domestic	of total	of external/domestic	of total	of external/domestic	of total	of external/domestic	of total
Domestic	100.0%	91.0%	100.0%	83.0%	100.0%	78.0%	100.0%	77.3%	100.0%	50.0%
ST-1 year	70.0%	63.7%	69.7%	57.9%	69.7%	54.4%	56.0%	43.3%	50.0%	25.0%
2-3 year	14.0%	12.7%	14.0%	11.6%	14.0%	10.9%	19.7%	15.2%	30.0%	15.0%
5 year	3.0%	2.7%	2.9%	2.4%	2.9%	2.3%	14.0%	10.8%	10.0%	5.0%
7 year	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	3.1%	10.0%	5.0%
Standard Loans	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Non-Marketable-Variable	5.0%	4.6%	5.4%	4.5%	5.4%	4.2%	2.7%	2.1%	0.0%	0.0%
Non-Marketable-Fixed	8.0%	7.3%	8.0%	6.6%	8.0%	6.2%	3.7%	2.9%	0.0%	0.0%
External	100.0%	8.3%	100.0%	17.0%	100.0%	22.0%	100.0%	22.7%	100.0%	50.0%
Concessional (IDA)	68.0%	5.6%	40.0%	6.8%	26.7%	5.9%	35.0%	7.9%	50.0%	25.0%
Concessional (AfDF)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Concessional (Bilateral Fixed)	22.0%	1.8%	11.3%	1.9%	14.0%	3.1%	10.7%	2.4%	13.0%	6.5%
Commercial Banks (Fixed)	5.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	3.0%
Commercial Banks (Variable)	6.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Multi-Non-Concessional	0.0%	0.0%	6.7%	1.1%	5.0%	1.1%	5.0%	1.1%	6.0%	3.0%
ICM-Non-Concessional	0.0%	0.0%	0.0%	0.0%	11.7%	2.6%	11.7%	2.7%	25.0%	12.5%
Bilateral-Variable Non Concessional	0.0%	0.0%	42.0%	7.1%	42.7%	9.4%	37.7%	8.6%	0.0%	0.0%

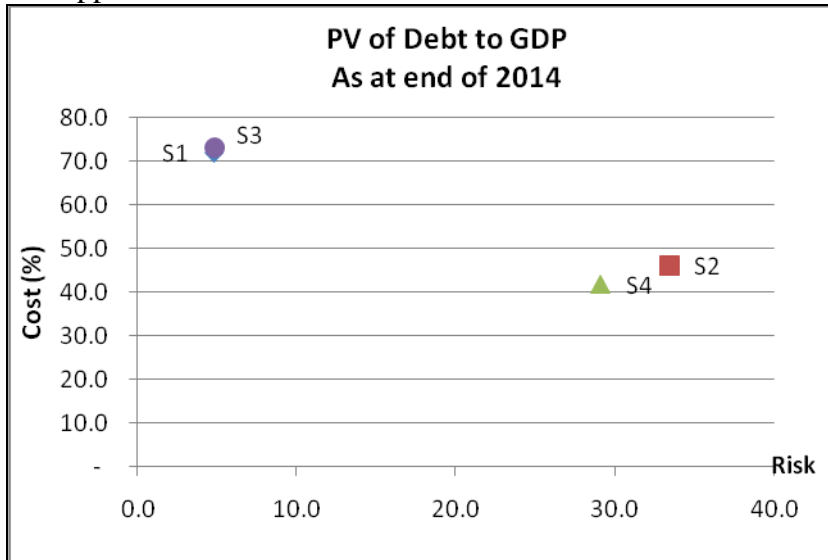
Appendix III

OTHER KEY INDICATORS

	2010	Simulation Horizon			
		S1	S2	S3	S4
Cost Indicators (Coverage over simulation period)					
Implied interest rate	9.8	7.2	7.1	7.1	5.7
interest/revenues	15.6	9.6	9.3	9.4	7.5
Risk indicators(end simulation horizon)					
% of DX in debt portfolio	46.5	46.8	43.4	43.4	26.7
ATM(years)	7.3	8.5	8.5	9.1	12.3
% of debt refixing within 12months	34.5	39.9	39.1	27.9	16
% of debt refinancing within 12 months	7.3	8.5	8.5	9.1	12.3
% of DX debt refinancing within 12 months	54.8	58.1	58.2	35.0	37.0
Implied net borrowing (% of GDP) (average over simulation)					
Net domestic borrowing		2.3%	2.0%	2.0%	0.2%
Net external borrowing		1.5%	1.9%	1.9%	3.4%

Results Analysis of Macroeconomic Stress Test

Appendix IV



Appendix V

