

**Report Number 78485-NA**

**REPUBLIC OF NAMIBIA**

# **Analysis and Options for Namibia's Medium-Term Debt Strategy**

June 2013

Poverty Reduction Economic Management 1  
Southern Africa  
Africa Region  
The World Bank



The World Bank



MEFMI

## CURRENCY EQUIVALENTS

(as of June 14, 2013)

9.8803 Namibian dollars = 1 U.S. dollar

## GRN FISCAL YEAR

(April 1-March 31)

## ABBREVIATIONS AND ACRONYMS

|         |   |         |  |
|---------|---|---------|--|
| AfDB    | African Development Bank                                      | JIBAR   | Johannesburg Interbank Average Rate                              |
| AIDS    | Acquired Immune Deficiency Syndrome                           | JSE     | Johannesburg Stock Exchange                                      |
| BON     | Bank of Namibia   | Libor   | London inter-bank offer rate                                     |
| CDM     | Cash and Debt Management Division                             | MEFMI   | Macroeconomic and Financial Management Institute                 |
| CMA     | Common Monetary Area  | MOF     | Ministry of Finance  |
| CSD     | Central securities depository                                 | MTDS    | Medium-term debt strategy  |
| CS-DRMS | Commonwealth Secretariat Debt Recording and Management System | MTEF    | Medium-term expenditure framework                                |
| DMO     | Debt management office  | NAD     | Namibian dollar  |
| EUR     | European euro   | NDP4    | Fourth National Development Plan                                 |
| FX      | Foreign exchange  | NPC     | National Planning Commission                                     |
| FY      | Fiscal year   | PPP     | Public-private partnership                                       |
| GDP     | Gross domestic product  | SACU    | Southern African Customs Union                                   |
| GIPF    | Government Institutions Pension Fund                          | SDMS    | Sovereign Debt Management Strategy                               |
| GRN     | Government of the Republic of Namibia                         | SOE     | State-owned enterprise   |
| HIV     | Human Immuno-deficiency Virus                                 | T-bills | Treasury bill  |
| IMF     | International Monetary Fund                                   | TIPEEG  | Targeted Intervention Program for Employment and Economic Growth |
|         |   | USD     | United States dollar   |
|         |   | ZAR     | South African rand   |

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The MEFMI-World Bank team wishes to thank members of the Ministry of Finance-Bank of Namibia working group, led by Deputy Director of Cash and Debt Management Marten Ashikoto of the Ministry of Finance, for their contributions during the training, and to Director of Asset Cash and Debt Management Angelina Sinvula of the Ministry of Finance for her overall direction of the capacity-building exercise. The team also acknowledges the comments, criticisms and suggestions provided by peer reviewer Ralph van Doorn (World Bank) and by Evans Makini Osano (IFC), Friska Parulian (IMF) and Gerson Kadhikwa (World Bank), and staff of the Ministry of Finance and Bank of Namibia.

## I. Introduction

### A. Updating Namibia's Debt Management Strategy

1. Since gaining its independence 23 years ago, Namibia has established an enviable track record of political stability, prudent macroeconomic policies, moderate growth, poverty reduction, and natural resource conservation. The country has achieved these gains while facing constraints imposed by geography, legacies of apartheid and colonialism, and the challenges of constructing a national government. Daunting challenges remain, however. Namibia suffers from chronic high unemployment, the ravages of HIV/AIDS, and one of the world's most skewed distributions of income. The structure of the economy has remained fundamentally unchanged since Independence: minerals and metals make up the majority of exports; the public sector remains the largest employer; and there has been little investment in labor-intensive manufacturing, which in many countries has absorbed low-skilled labor exiting traditional agriculture.

2. To address these challenges, Namibia is launching a number of new initiatives to transform the economy and thereby increase economic growth, create jobs, and reduce poverty and inequality. In 2011, the Ministry of Finance (MOF) tabled a bold spending package aimed at stimulating job creation that increased spending by 36 percent. The Government of the Republic of Namibia (GRN) subsequently launched a series of new strategies, starting with a new financial sector strategy and the first industrial policy, and culminating in the Fourth National Development Plan (NDP4), which was released in July 2012. These initiatives call for increased investments in public infrastructure and targeted industries, an expanded use of public-private partnerships (PPPs), and new regulations governing investment and financial market operations.

3. These initiatives have also led to dramatic changes in the size and composition of sovereign debt, thus placing debt closer to the upper limits of Namibia's fiscal targets and introducing new challenges for managing this debt. Central government debt almost doubled between 2010 and 2012: to 26.5 percent of GDP in the first quarter of 2012 from 14.1 percent in the second quarter of 2010.<sup>1</sup> The GRN issued its first bond in the international market in October 2011 with a US\$500 million Eurobond, followed in November 2012 with a R850 million issue on the Johannesburg Stock Exchange (JSE).

4. MOF began updating its debt management framework in 2012 to better address this new environment. This report is one component of a technical assistance program requested by MOF to enhance economic management. The report summarizes findings of a November 2012 mission by staff of the Macroeconomic and Financial Management Institute of Eastern and Southern Africa (MEFMI) and the World Bank, which helped the authorities develop capacity to analyze the costs and risks of alternative debt management strategies. The report follows a MEFMI-World Bank assessment of debt management procedures and institutions conducted in March 2012.<sup>2</sup> Expected future components include training in the analysis of

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<sup>1</sup> Bank of Namibia Quarterly Bulletins.

<sup>2</sup> MEFMI and World Bank, "Debt Management Performance Assessment of Namibia," March 2012.

debt sustainability and technical support for policies on sub-national finance and public-private partnerships (PPPs).

## **B. Objective and Scope of the Report**

5. This report uses the Medium-Term Debt Management Strategy (MTDS) framework developed by the International Monetary Fund (IMF) and the World Bank to analyze options facing the GRN as it prepares the new Sovereign Debt Management Strategy (SDMS).<sup>3</sup> This framework emphasizes the explicit analysis of relative costs and risks in a debt management strategy, the linkages between the debt strategy and other macroeconomic policies, and the strategy's consistency with debt sustainability.

6. The report opens with a review of the GRN's current debt management strategy, the sources of financing available to the government, and the macroeconomic environment. The report then applies the MTDS Analytical Tool to analyze costs and risks of alternative debt management strategies that were developed by MOF participants in the November 2012 capacity-building exercise.<sup>4</sup> It also examines domestic debt market development and contingent liabilities arising from government guarantees—two issues of special concern to the GRN. Finally, it discusses institutional arrangements and implementation issues.

## **II. Current Debt Management Strategy and Debt Portfolio**

### **A. Current Debt Management Strategy**

7. The SDMS of 2005 guides public debt operations in Namibia.<sup>5</sup> The strategy's objectives are to minimize the costs of government borrowing, consistent with an acceptable level of risk, and to develop the domestic debt market. In addition to these objectives, the strategy proposes changes in the institutional and legal framework for debt management, measures planned for the development of the domestic debt market, and the use of fiscal rules and debt management strategic benchmarks to guide government borrowing. The scope of the strategy is general government debt—all borrowing by the central government and parastatals, on-lending arrangements and government guarantees.

8. The SDMS also contains an analysis of debt sustainability, which tries to indicate levels of future public debt which could be considered sustainable in terms of government public finance. The SDMS lacks an evaluation of the cost and risk trade-offs of alternative strategies, including a sensitivity analysis of the main risks, such as the exchange rate and interest rate fluctuations, however.

9. The 2005 SDMS presents benchmarks for several indicators of the cost and risk of debt, which are summarized in Table 1. It should be noted that some—notably ratio of debt to exports or government revenues—are strictly speaking fiscal rules rather than debt manage-

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<sup>3</sup> Source documents are IMF and World Bank, "Guidelines for Public Debt Management," March 2001, and World Bank and IMF, "Developing a Medium-Term Debt Management Strategy—Guidance Note for Country Authorities," February 2009.

<sup>4</sup> See Annex 1 for a description of the MTDS Analytical Tool.

<sup>5</sup> The SDMS was meant to guide the debt management operations for five years, ending in 2010. Since then it has continued served as the de facto guide for the GRN's debt management activities.

ment indicators (see Box 1). Currency risk is addressed implicitly by the separate limits on external and domestic debt relative to GDP.

**Table 1: The 2005 SDMS Debt Thresholds**

| <b>Benchmark Indicator</b>                    | <b>Threshold</b> |
|---|------------------|
| <i>Domestic Debt (including hedged debt)</i>  |                  |
| Domestic debt to GDP                          | 20%              |
| Domestic debt to revenue                      | 70%              |
| <i>External Debt (unhedged)</i>               |                  |
| External debt to GDP                          | 5%               |
| External debt to exports                      | 10%              |
| <i>Guarantees</i>                             |                  |
| Outstanding guarantees to GDP                 | 10%              |
| <i>Total Debt</i>                             |                  |
| Total debt to GDP                             | 25%              |
| Total debt service to revenue                 | 10%              |
| Debt falling due within 12 months             | 20%              |
| Fixed interest rate loans as a share of total | 90%              |
| Average time to maturity (years)              | 5 years          |

Source: Ministry of Finance, Sovereign Debt Management Strategy

10. A medium-term expenditure framework (MTEF) funding strategy complements the SDMS. MOF prepared a MTEF funding strategy in February 2012 that details the government's financing composition in the medium term and provides the basis for the annual borrowing plan. The MTEF funding strategy is meant to be reviewed annually.

11. The government has generally adhered to the 2005 SDMS benchmarks, particularly those related to total debt, guarantees, and in designing the annual domestic borrowing plan. Many of the institutional reforms proposed in the SDMS have not been implemented, however. For example, it has been difficult to establish clear front-, middle-, and back-offices in the Ministry of Finance's (MOF's) Division of Cash and Debt Management due to high turnover and hiring rigidities. In addition, the 2011 Eurobond led to external debt exceeding the SDMS's threshold of 5 percent of GDP.

#### **Box 1. Fiscal Rules vs Debt Management Objectives**

A fiscal rule defines how the government should respond to deviations from an expected fiscal position, such as keeping the public debt stock below a certain level or a proportion of GDP. Fiscal rules can be also more generic such as ceiling for payroll or other kind of expenditure as well as limit for taxation (in order to contain the size of the government).

The traditional objective of debt management is to meet the government's funding needs at the lowest possible cost given a prudent level of risk. Additional debt management objectives might be to support a well-functioning securities market or to reduce budgetary volatility by smoothing the maturity profile of government debt.

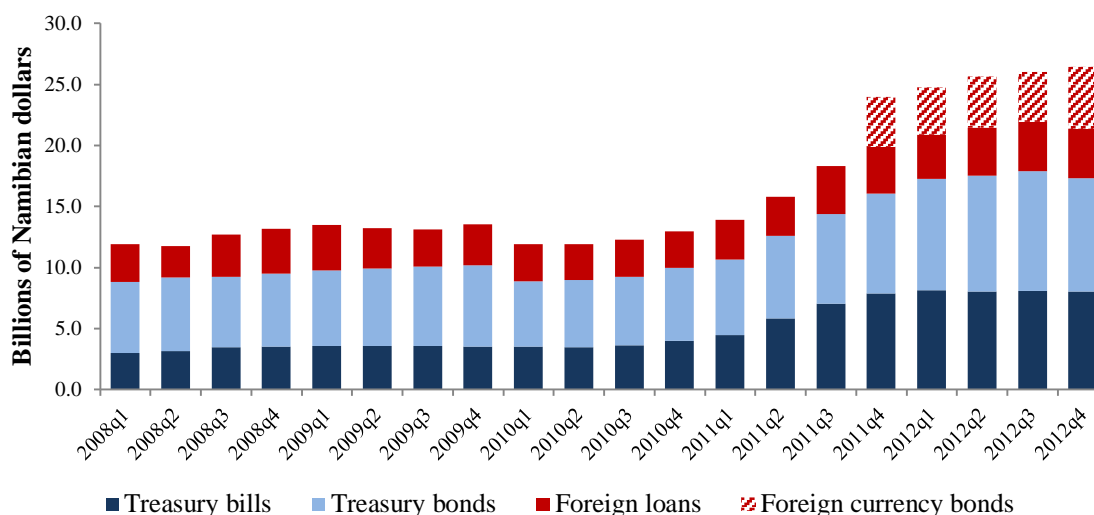
Different and separate analytical tools are used to develop fiscal rules and debt management objectives, and these are generally presented in different government documents. Fiscal rules on debt are often developed through a formal debt sustainability analysis and presented in a government's fiscal policy framework. Debt management objectives are achieved through the debt management strategy. How well a strategy meets stated debt management objectives is presented in the government's medium-term debt strategy, which targets the composition of the debt portfolio in terms of currencies, interest rate type and maturities



## B. Namibia's Existing Public Debt Portfolio

12. Central government debt has been accumulating rapidly since 2010, as shown in Figure 1, and at the close of 2012 totaled N\$26.3 billion (equal to 25 percent of GDP). The GRN relies on the domestic bond market to finance fiscal deficits, supplemented by a portfolio of external loans to finance development projects. As will be discussed below, the GRN has recently turned to international bond markets to expand its borrowing options.

**Figure 1. Central Government Debt, 2008–2012**



Source: Bank of Namibia Quarterly Bulletins and 2012 Annual Report

13. **Domestic debt:** Treasury bonds (also known as internal registered stock or government bonds) maturing between 2014 and 2030 currently make up 53 percent of the GRN's domestic debt (see Table 2).<sup>6</sup> Treasury bills make up the balance of domestic debt, and are issued in tenors of 91, 182, 273 and 364 days, with the 364 days accounting for 48 percent of total T-bills (as of December 2012). Auctions are held weekly.

14. **External debt:** Until 2011, the GRN's external debt consisted of loans from bilateral and multilateral creditors to finance development projects. This picture changed dramatically in October 2011, when Namibia issued the US\$500 million Eurobond, followed last year with the launch of the R3 billion medium-term note program on the Johannesburg Stock Exchange.<sup>7</sup> The Eurobond and the R850 million JSE bond issued in November 2012 make up 57 percent of total external debt (Table 2).<sup>8</sup>

15. A portfolio of around 50 loans from multilateral and bilateral creditors make up the balance.<sup>9</sup> Original maturities of these loans range from 9 to 50 years, most with 10-year grace periods. The lion's share of foreign loans—88 percent of the Namibian dollar value of outstanding loans—have fixed interest rates (ranging from zero to 4.27 percent). Three loans

<sup>6</sup> In July 2013 Namibia will begin issuing the GC35 bond, which will mature in 2035.

<sup>7</sup> Rand-denominated debt is classified as external debt, although the authorities treat it as not having foreign exchange risk, due to the CMA's arrangements on exchange rates and capital mobility.

<sup>8</sup> Both are 10-year bonds. The Eurobond was priced at 5.5 percent; the JSE bond at 8.26 percent.

<sup>9</sup> Loans from Japan International Cooperation Agency (JICA), Kreditanstalt für Wiederaufbau (KfW), African Development Bank (AfDB), and the Export-Import Bank of China account for 65 percent of total foreign loans. A list of outstanding external loans is presented in Table 11 on page 36 of the annex.

from the African Development Bank (AfDB) have interest rates based on the Johannesburg Interbank Average Rate (JIBAR) plus a margin of 50 basis points.

**Table 2. Namibia's Public Debt Portfolio, December 2012**

| <i>Domestic Debt</i>       |               |                       |               |
|----------------------------|---------------|-----------------------|---------------|
| <b>Treasury Bills</b>      | <b>Amount</b> | <b>Treasury Bonds</b> | <b>Amount</b> |
| 91-day                     | 700           | GC14 (7.5% coupon)    | 1,530         |
| 182-day                    | 1,972         | GC15 (13.0% coupon)   | 1,647         |
| 273-day                    | 1,550         | GC17 (8.0% coupon)    | 858           |
| 365-day                    | 3,820         | GC18 (9.5% coupon)    | 1,743         |
| <i>Total T-Bills</i>       | <i>8,042</i>  | GC21 (7.75% coupon)   | 784           |
|                            |               | GC24 (10.5% coupon)   | 2,077         |
|                            |               | GC27 (8.0% coupon)    | 307           |
|                            |               | GC30 (8.0% coupon)    | 289           |
| <b>Total Domestic Debt</b> | <b>17,278</b> | <i>Total T-Bonds</i>  | <i>9,236</i>  |

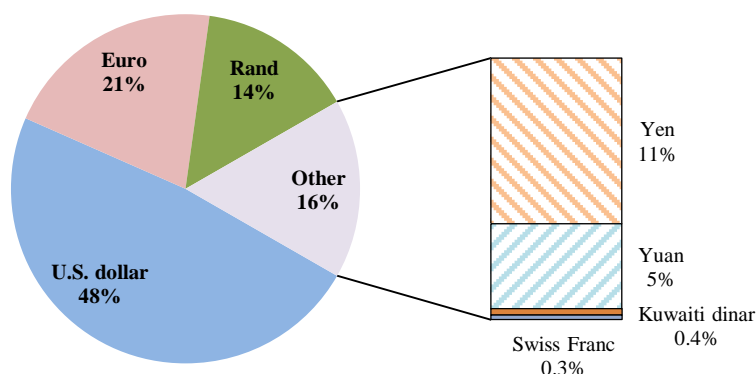
| <i>External Debt</i>                          |               |
|---|---------------|
| <b>Category of Instrument</b>                 | <b>Amount</b> |
| Eurobond (USD)                                | 4,236         |
| Bilateral, euro (all fixed rate)              | 1,637         |
| Bilateral, other currencies (all fixed rate)  | 1,186         |
| JSE Bond (ZAR)                                | 850           |
| Multilateral, fixed rate (various currencies) | 769           |
| Multilateral, floating rate (ZAR)             | 477           |
| <b>Total external debt</b>                    | <b>9,154</b>  |

Sources: Bank of Namibia and Ministry of Finance

Notes: Names of treasury bonds indicate the year when they mature. Amounts are expressed in millions of Namibian dollars.

16. As a result of the Eurobond issue, almost half of external debt is denominated in U.S. dollars (96 percent of which is the Eurobond). The euro previously was the largest single currency represented in Namibia's external debt portfolio. Figure 2 shows the distribution of external debt by currency at the close of 2012.

**Figure 2. External Debt by Currency, December 2012**



Source: Bank of Namibia

### C. Cost and Risk Characteristics of Existing Debt

17. The cost-risk characteristics of the existing central government debt portfolio are mostly consistent with the 2005 SDMS benchmarks. The ratios of total debt and domestic to GDP were 24.1 and 16.2 percent in October 2012, slightly below the SDMS’s thresholds of 25 and 20 percent, respectively. In the wake of the 2011 Eurobond issue, external public debt is now at 7.9 percent of GDP—above the SDMS’s threshold of 5 percent of GDP.

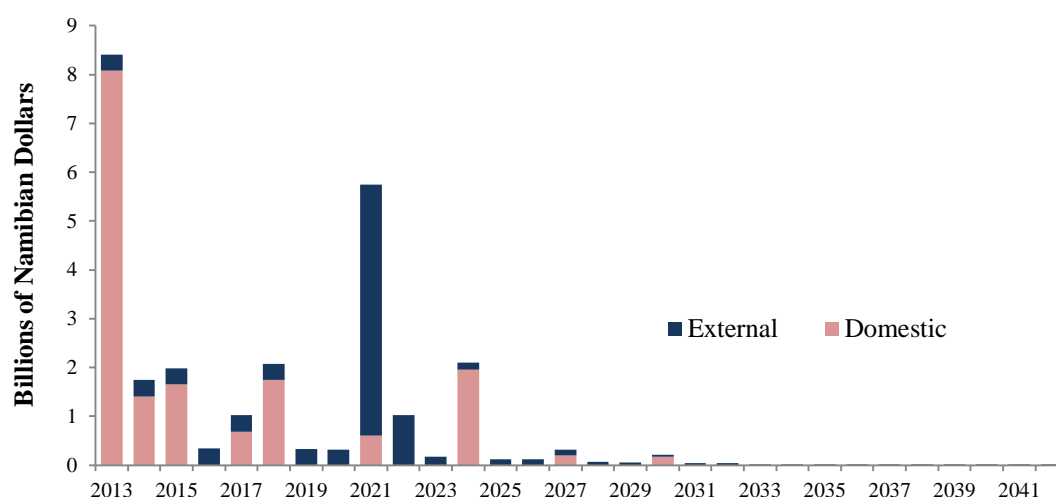
**Table 3. Cost and Risks of the Existing Debt Portfolio**

| <b>Risk Indicators</b> |  | <b>External</b> | <b>Domestic</b> | <b>Total</b> |
|------------------------|--|-----------------|-----------------|--------------|
| Nominal debt           | (share of GDP)                           | 7.9             | 16.2            | 24.1         |
| Present value of debt  | (share of GDP)                           | 7.3             | 16.2            | 23.6         |
| Cost of debt:          | Weighted average interest rate           | 3.9             | 7.8             | 6.5          |
| Refinancing risk:      | Average time to maturity (years)         | 7.8             | 3.4             | 4.9          |
|                        | Debt maturing in 1 year (share of total) | 4               | 49              | 34.3         |
| Interest rate risk:    | Average time to refixing (years)         | 7.5             | 3.4             | 4.8          |
|                        | Debt refixing in 1 year (share of total) | 9.2             | 49              | 34.3         |
|                        | Fixed rate debt (share of total)         | 94.2            | 100             | 98.1         |
| Foreign currency risk: | Foreign exchange debt (share of total)   |                 |                 | 32.7         |

Source: Staff calculations during the November 2012 mission, excludes the JSE bond

18. The cost of debt, as measured by the weighted average interest rate, is 7.8 percent for domestic debt and 3.9 percent for external debt.<sup>10</sup> The relatively small share of external debt (32.7 percent) to total debt has reduced the portfolio’s exposure to foreign currency risk, but the large share of short-term domestic debt, particularly treasury bills, which account for about 31.8 percent of total debt, exposes the debt portfolio to both refinancing and interest rate risks. Table 3 summarizes costs and risks of the existing debt portfolio.

**Figure 3. Redemption Profile of Existing Debt, 2013–2043**



Source: Ministry of Finance and team calculations

<sup>10</sup> The cost for the existing debt is calculated based on the stock of debt as of end of 2012, which was USD 2,882 million. It represents expected cost for 2013 based on the cash flow data prepared by the Asset, Cash and Debt Management Directorate. One must compare these interest rates with caution as they reflect debt denominated in different currencies.

19. The debt portfolio is exposed to large refinancing risks in 2013 and 2021. Figure 3 shows that maturities are bunched in these two years, reflecting dominance of T-bills—which account for around half of total domestic debt—and the Eurobond. It seems likely that the GRN will not encounter problems rolling over T-bills in 2013, given the nature of the domestic capital markets, which reduces the refinancing risk somewhat. Likewise, the good rating of the Namibian economy is expected to reduce the risk exposure when the Eurobond and JSE bonds are refinanced. Finally, MOF regularly transfers funds into a redemption funds at the BON to mitigate refinancing risk.<sup>11</sup>

### III. Sources of Financing

#### A. External Sources of Financing

20. Although Namibia’s external debt portfolio contains some concessional debt, future sources of external financing are largely limited to debt on semi-concessional and commercial terms, given the country’s relatively high per capita income. Namibia has entered into few new external loans since the 2005 SDMS was released.<sup>12</sup>

21. To diversify its sources of financing, the government has recently launched a ZAR 3 billion medium-term note program on the Johannesburg Stock Exchange, issuing an initial ZAR 850 million 10-year bond on November 14, 2012.<sup>13</sup> As Namibia is strongly linked to the South African economy and is a member of the Common Monetary Area (CMA), the Namibian government has a leeway in accessing the vibrant South African capital markets for financing.<sup>14</sup>

22. Financing from multilateral and bilateral semi- and non-concessional sources (some of which are relatively concessional when compared to domestic sources) is still available. Nevertheless, the government is concerned about exposing the debt portfolio into foreign currency risk, particularly at the juncture where the current level of international official reserves is relatively low.

23. Over the medium term, the government intends to continue its policy of minimizing external sources of financing. The Namibian Eurobond is trading favorably in the international capital markets with yields averaging 3.5 percent, well below the issuance coupon rate

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<sup>11</sup> As of December 2012, the Internal Registered Stock Redemption Account held N\$2.6 billion (Bank of Namibia Annual Report 2012). Such redemption accounts are a common measure to mitigate risk in countries that rely on bond market financing.

<sup>12</sup> Since 2005, Namibia has entered into loans with the Japanese International Cooperation Agency (JICA), Export-Import Bank of China, and BNP-Paribas.

<sup>13</sup> The program is being arranged by a consortium of banks, including Absa Bank, FNB of Namibia, First Rand Bank, Namibia Equity Brokers, and RMB Namibia. The initial offering was priced at 8.26 percent and was twice oversubscribed. This is the first sovereign bond issued on the JSE by an entity other than the South African National Treasury. See Government of the Republic of Namibia, “ZAR 3,000,000,000 Medium Term Note Program,” November 2, 2012, and Ministry of Finance press statement of November 14, 2012.

<sup>14</sup> CMA members are Lesotho, Namibia, South Africa and Swaziland. CMA rules provide for unrestricted transfers of funds among member countries. Namibia and the other smaller CMA members fix their currencies to the rand at par and hold foreign reserves at least equivalent to local currency issued. The rand circulates as legal tender throughout the CMA.

of 5.5 percent, which reflects favorable perceptions of the economy.<sup>15</sup> Thus, although the government is not firm on whether or when the next entry into the capital markets will take place, the option is still feasible at least in the medium term.

## **B. Domestic Sources of Financing**

24. The domestic market remains the major source for financing the government deficit. The 2005 SDMS calls for maintaining domestic debt at around 80 percent of the total government debt stock. Treasury bills and bonds have traditionally been the domestic sources of financing.

25. Treasury bills are expected to continue being an important source for meeting the government's borrowing in the medium term. As of December 2012, 47 percent of the outstanding domestic debt of N\$17.3 billion was treasury bills, with the balance being treasury bonds having tenors ranging from three years to twenty years (see Table 2 above on page 5). Commercial banks and other financial institutions prefer to invest in T-bills given their excess liquidity and liability structures. The GRN requires institutional investors (e.g., pension funds and insurance companies) to invest at least 35 percent in the local market. This guarantees demand and reduces the government's refinancing risk, consistent with the rollover policy of the government.

26. Pension funds are expected to dominate the bond market. The Government Institutions Pension Fund (GIPF) is the major holder of long-term instruments and is expected to continue playing a leading role in the long-end market.<sup>16</sup> Medium- to long-term government bonds are particularly attractive to pension funds in light of the requirement to invest 35 percent of assets locally, given the limited availability of domestic investments

## **IV. Baseline Macroeconomic Assumptions and Key Risk Factors**

27. A central tenet of the IMF-World Bank MTDS framework is that a country's debt management strategy should be underpinned by, and consistent with, the government's overall medium-term macroeconomic framework. The underlying macroeconomic assumptions and outlook should be regularly reviewed and updated as necessary. Although challenging, the authorities must understand the risks inherent in the macroeconomic projections, how these risks will impact the government's financing needs, and what implications they have for the desired currency, interest rate, and maturity composition of public debt. In some instances, significant changes in the macroeconomic environment will require a change in strategy.

### **A. Baseline Macroeconomic Assumptions**

28. The effects of the ongoing global economic slowdown on Namibia and spillovers from South Africa remain the key factors driving the current outlook. As a small open econ-

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<sup>15</sup> For example, Fitch reaffirmed its investment-grade rating of Namibian sovereign debt in December 2012, after downgrading South African debt. Moodys reaffirmed its investment-grade rating in January 2013.

<sup>16</sup> GIPF is a defined-benefit pension fund whose members are employees of the GRN and other public institutions. As of September 31, 2012, its assets exceeded NAD 55 billion (*The New Era*, November 7, 2012). Members of the board of trustees are selected equally by the GRN, public employees unions, and the Public Service Commission. GIPF's assets are managed by private asset management firms domiciled in Namibia.

omy, Namibia depends heavily on global economy performance. Given the expectations that the international crisis will continue for some time, and that the economy of South Africa may face economic and social difficulties in the coming years, Namibia's baseline outlook for the medium-term should be moderate. For the analysis in this report, therefore, we assume GDP to grow at around 4.4 percent, slightly below growth in 2011 and 2012 (currently estimated at 4.9 and 5.0 percent, respectively), but in line with the authorities' projections for the medium term.<sup>17</sup> The secondary industries will grow above average due to favorable performance in the construction sector (generated by rising government expenditures, port expansion, and energy projects). The primary sector is expected to grow below average. Trade will continue to be significant for Namibia, and exports will remain based on minerals.

**Table 4. Namibia: Selected Economic Indicators used in the MTDS Analysis, 2007–17**

|   | 2007                                  | 2008   | 2009   | 2010   | 2011   | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    |
|---|---------------------------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
|   | <i>(millions of Namibian dollars)</i> |        |        |        |        |         |         |         |         |         |         |
| Revenue and Grants                                  | 20,672                                | 23,447 | 24,017 | 23,678 | 29,962 | 32,439  | 36,344  | 39,439  | 43,118  | 46,944  | 47,897  |
| Expenditure   | 17,541                                | 21,898 | 25,712 | 28,142 | 36,743 | 38,212  | 39,637  | 44,310  | 49,072  | 54,854  | 61,813  |
| of which interest payments                          | 1,179                                 | 1,111  | 1,197  | 966    | 1,130  | 1,842   | 2,112   | 2,447   | 2,931   | 3,596   | 4,411   |
| Primary Expenditures                                | 16,362                                | 20,787 | 24,515 | 27,176 | 35,613 | 36,370  | 37,525  | 41,863  | 46,141  | 51,258  | 57,402  |
| Fiscal Balance                                      | 4,310                                 | 2,660  | -498   | -3,498 | -5,651 | -5,773  | -3,293  | -4,871  | -5,954  | -7,910  | -13,916 |
|   | <i>(in percentage of GDP)</i>         |        |        |        |        |         |         |         |         |         |         |
| Revenue and Grants                                  | 31.9%                                 | 31.8%  | 31.4%  | 28.3%  | 32.0%  | 31.9%   | 32.1%   | 31.2%   | 30.6%   | 29.9%   | 27.1%   |
| Expenditure   | 27.1%                                 | 29.7%  | 33.6%  | 33.7%  | 39.3%  | 37.6%   | 35.0%   | 35.1%   | 34.8%   | 34.9%   | 35.0%   |
| Fiscal Balance                                      | 6.7%                                  | 3.6%   | -0.7%  | -4.2%  | -6.0%  | -5.7%   | -2.9%   | -3.9%   | -4.2%   | -5.0%   | -7.9%   |
| <i>Memorandum Items</i>                             |                                       |        |        |        |        |         |         |         |         |         |         |
| GDP (millions of current NAD)                       | 64,798                                | 73,629 | 76,587 | 83,562 | 93,559 | 101,710 | 113,190 | 126,206 | 140,832 | 156,985 | 176,608 |
| Total debt to GDP                                   | 18.4%                                 | 18.2%  | 15.6%  | 16.1%  | 26.5%  | 26.4%   | 26.6%   | 27.7%   | 29.1%   | 31.1%   | 27.6%   |
| <i>Gross international reserves (end of period)</i> |                                       |        |        |        |        |         |         |         |         |         |         |
| Months of imports                                   | 3.0                                   | 3.8    | 4.1    | 2.6    | 3.3    | 3.1     | 3.0     | 2.9     | 3.0     | 3.0     | 3.1     |
| Ratio of reserves to short-term                     | 1.3                                   | 4.0    | 4.6    | 2.1    | 4.2    | 4.1     | 3.7     | 3.6     | 4.2     | 4.4     | 4.4     |

Sources: Namibian authorities, IMF country reports, team calculations

Notes: GDP is presented on a fiscal year basis; future projected debt/GDP ratios come from debt sustainability analysis projections

29. One important assumption used in MTDS AT training and maintained in this report is that the government fiscal stimulus initiated in 2011 will not come to an end soon and the current expenditures as proportion of GDP will remain at the same level as 2012. This means that for the projections using the MTDS Analytical Tool, the fiscal space won't be exhausted until FY2016–17, although capital investments, which were increased during the fiscal stimulus period, will de-accelerate slowly during the medium-term. This baseline scenario differs somewhat from MOF's February 2012 medium-term framework and other information shared during the November 2012 mission, which assumed a fiscal consolidation and to pre-crisis levels of expenditure. The medium-term macroeconomic framework used for the scenario analysis is consistent with the framework outlined by the BON using one of the scenarios in which the ratio of current expenditures to GDP is kept at the same level as was then expected for 2012.<sup>18</sup>

<sup>17</sup> NSA, "Preliminary National Accounts 2012," Mach 2013. The macroeconomic framework released by MOF after the mission (in February 2013) assumes roughly similar growth rates: 4.3 percent in 2013–14 and 4.4 percent in 4.4 in 2015–16. BON's economic outlook at the time of the mission was for growth of 4.4 percent in 2013. The IMF expects growth of 4.2 percent in 2013, 4.0 percent in 2014, and then 4.3 percent in 2015–17.

<sup>18</sup> The BON's analysis includes several alternative expenditure scenarios, one of which informed the baseline used in the MTDS analysis presented in this report.

30. There are two main reasons that a “higher fiscal deficit” scenario was used in the analysis. First, if one assumes the fiscal consolidation that was present in the government baseline, there will be no deficit, no new increase of public debt—on the contrary, there will be a reduction in the debt. This assumption will make the analysis of the debt strategies for the future almost indifferent. Second, in light of the government’s long-term development plans, especially those indicated in NDP4, it is reasonable to assume that some additional increase in the expenditures will take place in the coming five years. As events unfolded, the MTEF that was released after the mission projected an increased deficit for FY2013/14 rather than the consolidation projected in the previous framework. This underscores the message that the analysis of debt strategies should be updated and repeated annually, or more frequently if policies or conditions change significantly.

31. This report assumes that the Namibian dollar will continue to be pegged to the rand and that monetary policy will be conducted as in the past under the CMA—policies that have served Namibia well.<sup>19</sup> Inflation, which increased recently due to food and fuel prices, is expected to decline below 5 percent a year towards the end of the medium-term. Due to the global uncertainty in international financial markets, exchange rates with major world currencies are likely to remain volatile. The rand (and therefore Namibian dollar) appreciated sharply from 2009 to 2011 when South Africa faced capital inflows as a consequence of monetary easing in the U.S. and Europe. Since mid-2011, the rand has depreciated substantially against the U.S. dollar.

## **B. Key Vulnerabilities**

32. Namibia’s open and small economy faces downside risks that come mainly from the global economic performance of industrial and emerging economies. Trade and balance of payments performance are significant to explain domestic dynamics. Specifically, the following risks could be mentioned:

- The current external environment remains unsettled. Difficulties in the Euro zone and slow recovery in the U.S. implies downside risks to commodity prices, especially minerals, which play important roles in the primary sector and exports.
- Rand exchange rate volatility implies higher volatility for the Namibian dollar and higher risk for debt management
- The downgrade of South African debt by rating agencies may have some negative spillovers in the medium-term.

33. Domestic investment may be hit by external events as well. Exports of goods and services are estimated at 44.1 percent of GDP in 2012 and will remain for a long period of time one of the key channels through which external events affect the domestic economy.<sup>20</sup> A slowdown in the global economy would reduce private investment in export industries, with spillovers on the rest of the economy. The GRN’s ability to finance development projects may be hit severely as well, through reduced tax revenue (including royalties and export tax-

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<sup>19</sup> This is in line with the latest IMF country report “Namibia: Article IV Consultations,” February 2013. Moody’s cited the peg to the rand as one important factor behind its investment-grade rating of Namibian sovereign debt (Moody’s Investors Service, “Namibia,” January 31, 2013).

<sup>20</sup> IMF, “Namibia: Article IV Consultations,” February 2013.

es on minerals exports), tightening in credit conditions, and increased uncertainty about the economic recovery worldwide.

34. The continuation of the fiscal stimulus would contribute to economic growth but could lead to deterioration of the external balance. Additional fiscal expenditures may put upward pressure on non-tradables' prices, imports, and the current account deficit. If the external balance deteriorates, foreign reserves would likely fall below desired levels needed to protect the exchange rate peg and serve as a buffer against shocks. The issuance of the Euro-bond and JSE medium-term note are attracting increased external scrutiny of Namibia's domestic economy, policies and macroeconomic indicators.

35. High unemployment and income inequality are sources of risk. The most recent data estimate the Gini index at 0.597 and the national unemployment rate at 27 percent, with the rate climbing to 35 percent in some regions.<sup>21</sup> High youth unemployment rates—56 percent for the 15–19 year old cohort and 49 percent for 20–24 years—are of special concern because they imply that the Namibian is forfeiting the demographic dividend of its large youth cohort, which if efficiently employed would contribute to economic expansion. Furthermore, labor unrest in South Africa may disrupt Namibia's supply chains or spill over to similar unrest in Namibia.

36. Transfers from the SACU common revenue pool also present a risk for the country and for the budget. Transfers are large and vary greatly from year to year—accounting for 25–40 percent of total revenue in recent years. Their future is uncertain. Transfers would decline if the South African economy slows. SACU members are negotiating changes to the revenue-sharing formula, which likely would result in lower transfers to Namibia. Either a decline or increased volatility in transfers could hinder the government's medium-term expenditure program and compromise economic growth.

37. Contingent liabilities and guarantees provided to SOEs and other entities remain a key source of fiscal risk.<sup>22</sup> Currently explicit guarantees are small—2.1 percent of GDP at the end of 2012—and well below the 2005 SDMS's threshold of 10 percent. The stock of guarantees could grow rapidly if urgently needed infrastructure investments are made as envisioned in NDP4. The DSA recently carried out by the authorities and shared with the mission does not take into account any future contingent liabilities arising from these commitments, however. Future DSAs and revisions of the SDMS should treat a proportion of the guarantees or other contingent commitments of the government as potential public debt (or expenditure). One simple way of quantifying potential government contingent liabilities is to calculate how much guarantee was called in the past as proportion of the total and then apply the ratio for the future guarantees, with the broad assumption that the past is representative of the future. If there are also on-lending operations with SOEs of subnational government, the same methodology could be applied.

38. In conclusion, the macroeconomic risks suggest that targeting domestic borrowing could be a safer strategy, but these risks need to be weighed against the high domestic interest

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<sup>21</sup> Namibia Statistics Agency, Namibia Household Income and Expenditure Survey 2009/10 and Namibia Labor Force Survey 2012. Unemployment rates include discouraged workers.

<sup>22</sup> Section VI, starting on page 21, discusses contingent liabilities stemming from government guarantees.



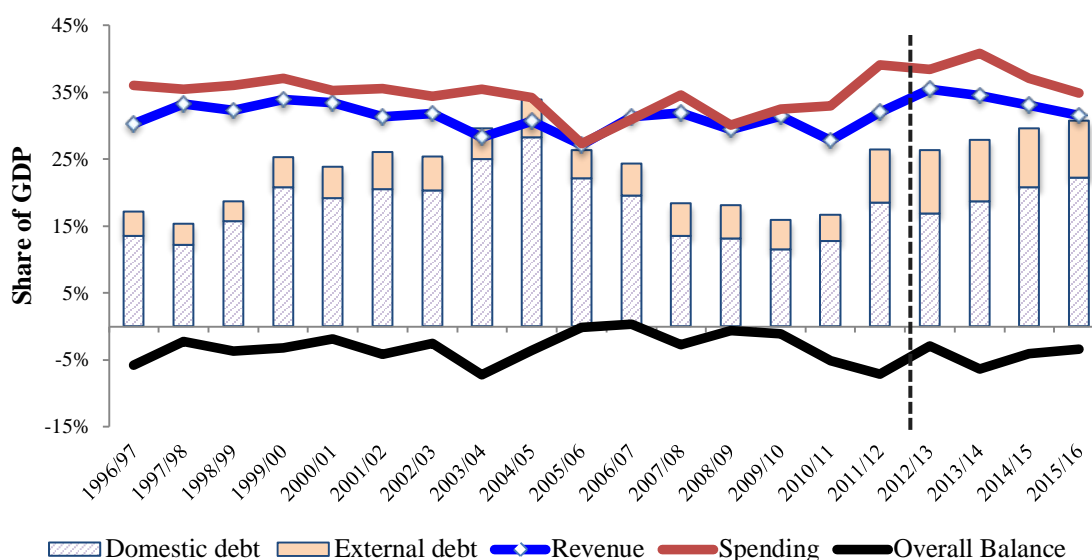
rates in a more rigorous manner. Namibia’s revised SDMS also needs to take into account developing more flexible domestic financing sources, and potential crowding out effects.

### C. Debt Sustainability

39. Historically low levels of public debt are due to prudent fiscal policies that have contributed to macroeconomic stability. During the decade and one half prior to the 2011 fiscal stimulus, overall fiscal deficits averaged less than 3 percent of GDP and debt usually fell below 20 percent of GDP, as shown in Figure 4. The budget tabled in 2011 pushed spending up to an unprecedented 40 percent of GDP at a time when revenues had barely recovered from the global economic crisis.

40. The increase in the fiscal deficit—and consequently on public debt—was due to the fiscal stimulus and an important decline in government mineral revenues that followed the global financial crisis.

Figure 4. Fiscal Trends, 1996–2016



Source: Ministry of Finance, Bank of Namibia  
Notes: Future projections from MTEF tabled in February 2013

41. The government baseline scenario assumes a fiscal balance near zero by FY2015/16. All fiscal stimulus, including the Targeted Intervention Program for Employment and Economic Growth (TIPEEG), is unwound, therefore, gross debt will fall to 21 percent by 2016/17 from around 26 percent of GDP in 2011.<sup>23</sup> It shows that following the general fiscal strategy indicated in the current MTEF, the government will be generating surplus, reducing public debt as a proportion of GDP, but will be systematically, spending less, especially in investments.

<sup>23</sup> Namibia’s medium-term (gross) public debt sustainability used the quantitative framework developed by the IMF for middle-income countries. The IMF methodology uses simple algebra on debt sustainability of a country based on various key macroeconomic indicators: government revenue, expenditure, deficit, debt-to-GDP ratio, nominal interest, GDP Deflator, real GDP growth rate, inflation rate, and interest rate.

42. In a scenario where current fiscal policies are assumed unchanged in the medium-term, gross public debt would rise to 44.2 percent of GDP by 2016/17, indicating an unsustainable trend. Unchanged fiscal policies scenario means an average fiscal deficit to GDP of about 6.2 percent in the medium-term, which would push debt above the GRN's indicative limit of 35 percent of GDP.

43. A more realist scenario of deficits averaging 4 percent of GDP would likely generate a public debt trend within historical limits. At the same time, it would create a necessary fiscal space for the government to continue to stimulate the economy and complete basic public infrastructure projects.

## V. Cost-Risk Analysis of Alternative Debt Management Strategies

44. This section applies the IMF-World Bank MTDS Analytical Tool to evaluate consequences of following a particular debt management strategy under various scenarios for macroeconomic and market variables. The Analytical Tool uses data on Namibia's current debt portfolio and macroeconomic policies discussed in the previous sections. The MEFMI-World Bank team worked with BON and MOF debt management specialists to develop illustrative debt strategies and plausible shock scenarios. The base year for the analysis is 2012, and scenarios have a five-year horizon. The output generated by the MTDS Analytical Tool is a number of cost and risk indicators. The analysis provides insight into the key vulnerabilities embedded in the specific strategy under consideration.

### A. Baseline Interest and Exchange Rate Assumptions

45. As described earlier in Section II.B, the GRN's debt portfolio contains a range of instruments with different maturities, interest rates, and currencies. To facilitate the cost-risk analysis of different debt management strategies, the team aggregated 63 external and domestic instruments recorded in the debt database as at end of October 2012 into ten instruments according to their contractual terms before applying the IMF-World Bank MTDS Analytical Tool. These instruments are: multilateral loans, bilateral loans denominated in U.S. dollars, bilateral loans denominated in euros, floating-rate external loans, Eurobonds, JSE bonds, treasury bills, and 3, 5, 10 and 15-year treasury bonds.<sup>24</sup> This section describes these different categories and presents assumptions the report makes regarding pricing and exchange rates.

#### *External sources*

46. The GRN's external debt is grouped into the following categories: bilateral loans in U.S. dollars and euros; floating-rate loans; the 10-year Eurobond; and the 10-year JSE bond (in South African rand).

- ***Bilateral loans in U.S. dollars and euros:*** We assume that the current rates are the same of the last loans of this kind contracted by Namibia. These loans typically have a maturity of 15 years with a grace period of 5 years, which result in an

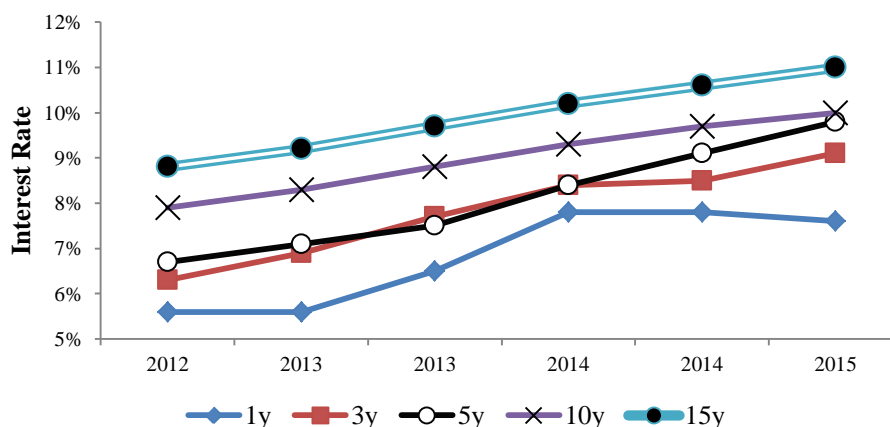
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<sup>24</sup> The instrument referred to as bilateral debt denominated in U.S. dollars includes all bilateral debt in currencies other than euros. The existing government bond debt includes bonds of maturities ranging from 3 to 20 years that are grouped into the five representative maturities.

average repayment of 10 years. We assume that rates will follow the same path as the 10-year forward U.S. Treasury.

- **Floating-rate foreign loans:** These are linked to the Johannesburg interbank agreed rate (JIBAR) plus a constant spread of 0.5 percent. We assume that the JIBAR will follow the same movements of the London interbank offered rate (Libor) over the next five years, and take the U.S. dollar Libor 6-month forward rates as reference.
- **Eurobond:** The 10-year Eurobond is priced using the 10-year forward U.S. Treasury plus a spread of 216 basis points (bps). This spread corresponds to the spread over U.S. Treasuries of Namibia’s outstanding 10-year Eurobond, as of November 3, 2012.
- **JSE bond:** The 10-year, rand-denominated bond issued in November 2012 on the JSE is priced identically to the 10-year bond issued in the domestic market. (The pricing of domestic bonds is explained below.)

**Figure 5. Namibia: Pricing Assumptions for external instruments**

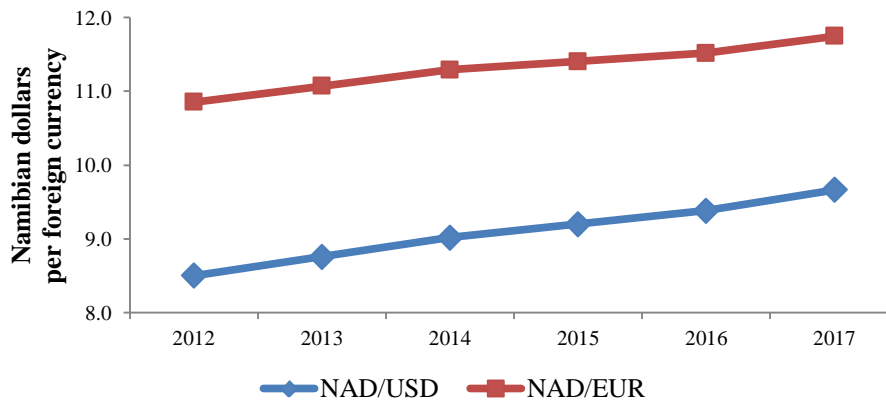


Source: Team calculations

47. For baseline currency depreciation scenarios, we took GRN projections of annual depreciation against the U.S. dollar for the next 5 years and applied it to the current NAD/USD exchange rate.<sup>25</sup> We assumed that the NAD/EUR exchange rate will follow a similar path of the NAD/USD exchange rate, but with a lower rate of depreciation due to the economic and financial problems in Europe.

<sup>25</sup> MOF, FY2012/13–FY2014/15 Medium-term Expenditure Framework.

**Figure 6. Namibia: Baseline Scenario for Exchange Rates**



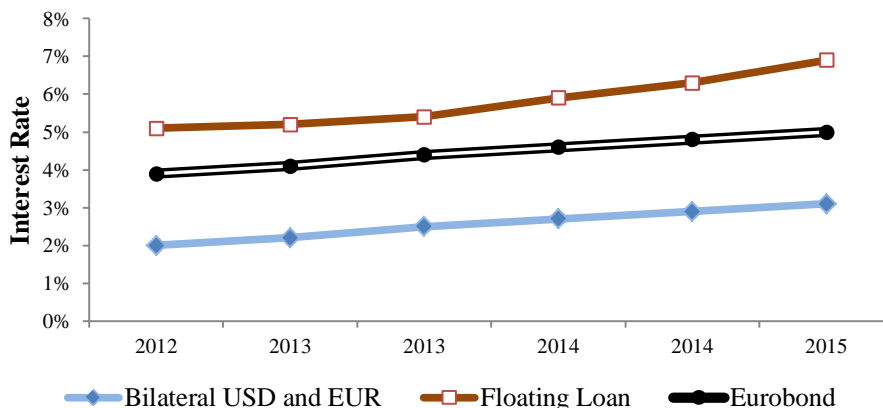
Source: Team calculations

### *Domestic sources*

48. As described above, Namibia issues T-bills of 3, 6, 9 and 12 months maturity, and currently has seven series of bonds outstanding with maturing from 2014 to 2030.<sup>26</sup> In the analysis of alternative borrowing strategies, we assume one representative T-bill of 1-year maturity and four benchmark bonds of 3, 5, 10 and 15-years maturity. The following are the pricing assumptions for these domestic instruments:<sup>27</sup>

- BON's published daily yield curve is used for domestic instruments current yields. The team then assumed that domestic yields will follow the same path as the yields of South African bonds of similar maturities.
- We took the current spreads of Namibia domestic bonds over South African bonds of similar maturities and assume that these spreads will remain constant over the period of the analysis.
- Then, we use the South African forward curve and add the spread of the Namibian bonds to price the instruments in the following five years.

**Figure 7. Namibia: Pricing Assumptions for the domestic instruments**



Source: Team calculations

<sup>26</sup> In July 2013 Namibia will begin issuing the GC35 bond, which matures in 2035.

<sup>27</sup> The steepness of the yield curve depends on more than market expectations, i.e., also the liquidity premium for longer-maturity instruments. This generates a forward curve that is steeper than would otherwise be the case.

## B. Description of Shock Scenarios

49. The cost-risk implications of alternative debt management strategies are assessed under four scenarios that combine interest and exchange rate shocks. Interest rate shocks are applied in year 2014 and exchange rate shock is applied in year 2016. In all the cases, shocks are deemed permanent.

- **Scenario 1—Exchange rate shock:** a 30 percent depreciation of the Namibian dollar against the euro and U.S. dollar.
- **Scenario 2—Interest rate shock 1:** an almost parallel shift of around 200 bps of interest rate (domestic and external), reflecting either tighter monetary conditions or risk aversion in international markets. As a reference, we modeled a downgrade scenario by the difference between the spreads over U.S. Treasuries for different tenors of Baa3 and Ba3-rated entities (Moody's). Although spreads are different for different maturities, they were all around 200 bps.
- **Scenario 3—Interest rate shock 2:** a shock with similar magnitude (200 bps) as above for the medium- and long-term maturities (equal or above 5 years), and a stress shock of 400 bps for the short term maturities (up to 3 years).
- **Scenario 4—Combined shock:** a 15 percent depreciation shock in combination with interest rate shock 1 (domestic and external).

## C. Description of Alternative Debt Management Strategies

50. Working closely with debt management specialists at MOF and BON, the team developed the following four borrowing strategies to be used in the analysis, also summarized in Table 5 on page 17.

- **S1—Current Strategy** is the GRN's current strategy (or implicit strategy) extended for the next five years. The 20/80 external/domestic debt benchmark (see Box 2 on page 21) serves as a proxy for the flow. The team assumed that 20 percent of the funding needs will be met from foreign sources (including the JSE bond) while the rest will be borrowed from the domestic market. The external funding will be mostly through U.S. dollar-denominated project finance loans and the rand-denominated JSE bond. We assume that rand-denominated bonds do not carry foreign exchange risk because of Namibia's membership in the CMA and credible currency peg. Therefore, the only foreign exchange exposure arises from the project finance loans.
- **S2—Reduced refinancing risk in the domestic market:** In order to reduce the high refinancing and interest rate risk due to T-bills, strategy S2 aims to analyze the impact of extending the maturities in the local market by shifting half of the T-bill issuances into the rest of the bonds, all else same as current strategy. This is a big shift and at the moment an extreme strategy.
- **S3—Increased FX Risk:** This strategy assumes that there is a new Eurobond issuance in 2013. Project finance loans in U.S. dollars, new rand issuances, and Eurobonds fund the increased external borrowing.
- **S4—Reduced FX risk:** Since the share of external borrowing already exceeds the 20 percent indicative limit in the 2005 SDMS, strategy S4 assumes domestic issu-

ances as in S1 but no new external borrowing at all.<sup>28</sup> This would bring the domestic/external debt ratio in line with the benchmarks in the 2005 SDMS.

51. In order to clearly analyze the impact of the alternative borrowing strategies and interpret the output, it is recommended that one characteristic is changed at a time as can be seen from the four strategies.

**Table 5. Strategies and Objectives**

| Strategy  | Key objective                                   | Domestic vs external              | Domestic                                     | External  | Feasibility   |
|-----------|---|-----------------------------------|--|---|---|
| <b>S1</b> | Current Strategy                                | 80%–20%                           | Majority in T-bills (87% of total domestic)  | Mostly project finance loans in USD (68% of total external)   | Most likely to be implemented, reflects market constraints in terms of appetite for the short term  |
| <b>S2</b> | Reduced refinancing risk in the domestic market | 80%–20%                           | Shift half of the T-bill issuances to bonds. | Same as current strategy  | Extreme strategy which can be achieved in the medium term as the market deepens and steps in order to stimulate the primary and secondary market are taken                                |
| <b>S3</b> | Increased FX risk                               | 2013: 45%–55%<br>2014–17: 65%–35% | Same as in Current Strategy                  | - Issuance of USD500 million Eurobond in 2013<br>- Project finance loans in USD and euros<br>- Higher rand issuance | There are no market constraints to implement this strategy as investor appetite for the Eurobond is most likely to continue   |
| <b>S4</b> | Reduced FX risk                                 | 100%–0%                           | Same as in Current Strategy                  | No external issuance, just some residual disbursement from existing loans   | The only constraint could be the size of the domestic market. Given only 20% of the funding is shifted to the NAD funding with big part of it in T-bills, this strategy seems achievable. |

Source: MEFMI-World Bank team

52. Table Table 6 presents the implied net borrowing—internally and externally—as a share of GDP across the four strategies.

<sup>28</sup> Even the November 2012 JSE bond issue is excluded from this strategy for illustrative purposes. The simulations were conducted before Namibia issued the JSE bond.

**Table 6. Implied Net Borrowing as Share of GDP**

| <i>External Net Borrowing</i> |       |       |       |       |       |         |
|-------------------------------|-------|-------|-------|-------|-------|---------|
|                               | 2013  | 2014  | 2015  | 2016  | 2017  | Average |
| S1                            | 1.7%  | 1.9%  | 2.1%  | 2.2%  | 2.9%  | 2.2%    |
| S2                            | 1.7%  | 1.3%  | 1.3%  | 1.4%  | 2.0%  | 1.5%    |
| S3                            | 5.1%  | 2.6%  | 2.9%  | 3.0%  | 4.1%  | 3.5%    |
| S4                            | -0.3% | -0.3% | -0.2% | -0.2% | -0.2% | -0.2%   |

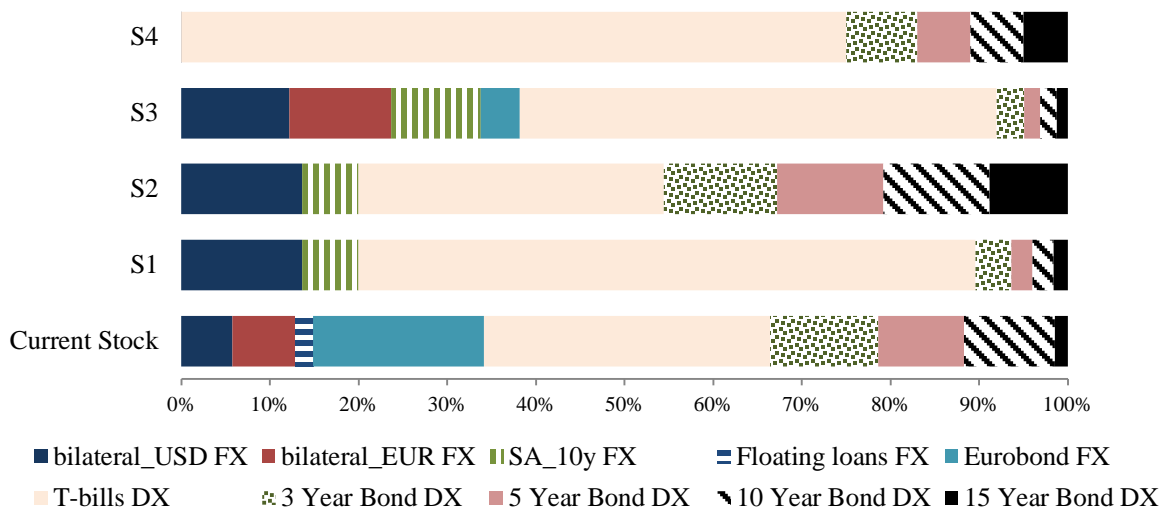
  

| <i>Internal Net Borrowing</i> |       |      |      |      |      |         |
|-------------------------------|-------|------|------|------|------|---------|
|                               | 2013  | 2014 | 2015 | 2016 | 2017 | Average |
| S1                            | 0.8%  | 1.4% | 1.5% | 2.1% | 4.2% | 2.0%    |
| S2                            | 0.8%  | 2.1% | 2.4% | 3.0% | 5.2% | 2.7%    |
| S3                            | -2.7% | 0.7% | 0.6% | 1.2% | 2.8% | 0.5%    |
| S4                            | 2.7%  | 3.6% | 4.0% | 4.7% | 7.5% | 4.5%    |

Source: Team calculations

53. Figure 8 shows the projected composition of the debt portfolio on average under each strategy, compared to the current portfolio composition.

**Figure 8. Gross Borrowing by Instrument**



Source: Team calculations

Notes: Shares are averages across 2013–17; “DX” refers to internal debt and “FX” to external (including rand-denominated debt).

#### D. Cost-Risk Analysis of Alternative Debt Management Strategies

54. The cost indicators selected in the analysis are the debt stock to GDP and interest payments to GDP ratios.<sup>29</sup> The output represents the debt portfolio at the end of 2017 and contains information on the composition of debt. The evaluation of the cost and risk indicators (see Table 7) under the baseline scenario show the following:

- Even without shocks, the “Current Strategy (S1)” does not meet any of the current strategic benchmarks and even increases the foreign exchange risk.
- Conversely, the “Reduced refinancing risk in the domestic market (S2)” strategy helps meet the refinancing and interest rate risk benchmarks. If the JSE bond is

<sup>29</sup> It is possible to choose other indicators such as the nominal amounts or as ratio of revenues, for example. This depends on the circumstances of the country and the authorities’ choice.

removed from external debt (as it does not carry foreign exchange risk), the share of external debt converges to the benchmark level (22.9 percent). Therefore, under the baseline this strategy performs well according to this criterion.

- On the other hand, the “Reduced FX Risk (S4)” strategy generates the riskiest debt portfolio in terms of refinancing and interest rate risk. This strategy allows reaching the 2005 SDMS external debt benchmark in three years, with external debt falling to 20.1 percent of GDP.<sup>30</sup>
- The “Increased FX Risk (S3)” strategy performs relatively well by reducing the refinancing and interest rate exposures of the debt portfolio, although increasing the foreign exchange risk. This strategy has the lowest implied interest rate (6 percent) and total debt to GDP (32.2 percent) compared to the other strategies, owing to lower Eurobond and loan rates.

55. The next step in the analysis is to assess the behavior of the strategies under the shocks mentioned above. Figure 9 illustrates the cost indicator (debt-to-GDP or interest-to-GDP) on the vertical axis and the maximum deviation in this cost from the baseline cost on the horizontal axis as the measure of risk. From these charts and the numeric results from the tool (see Table 7 and Table 8), it is possible to compare the strategies and observe the trade-offs between costs and risks as well as between the different types of risk. These two cost indicators react differently to the shocks:

- Debt-to-GDP responds the most to foreign exchange shocks since depreciation of the Namibian dollar affects payments of both principal and interest.
- The impact of the interest rate shocks will appear more clearly in the interest-to-GDP indicator because they directly and immediately influence the entire interest amount.

**Table 7. Risk Indicators of the strategies under the baseline scenario: 2012 vs 2017**

| Risk Indicators       |                                  | 2012 | Outcome in 2017<br>under different strategies |      |      |      |
|-----------------------|----------------------------------|------|---|------|------|------|
|                       |                                  |      | S1  | S2   | S3   | S4   |
| Nominal debt          | (share of GDP)                   | 24.1 | 32.4  | 32.7 | 32.2 | 32.7 |
| Present value of debt | (share of GDP)                   | 23.6 | 31.6  | 32.0 | 31.2 | 32.5 |
| Implied Interest rate |                                  | 6.5  | 6.7   | 7.2  | 6.0  | 7.8  |
| Refinancing risk      | ATM, external portfolio (years)  | 7.8  | 7.6   | 7.2  | 7.6  | 4.6  |
|                       | ATM, domestic portfolio (years)  | 3.4  | 2.8   | 5.4  | 3.0  | 3.8  |
|                       | ATM, total portfolio (years)     | 4.9  | 4.9   | 6.0  | 5.8  | 3.9  |
| Interest rate risk    | ATR (years)                      | 4.8  | 4.9   | 6.0  | 5.8  | 3.9  |
|                       | Debt refixing in 1 year (share)  | 36.0 | 38.9  | 20.1 | 26.5 | 48.6 |
|                       | Fixed-rate debt (share of total) | 98.1 | 99.5  | 99.5 | 99.5 | 99.5 |
| Foreign exchange risk | FX debt (share of total)         | 32.7 | 44.3  | 35.2 | 61.4 | 12.6 |

Source: Team calculations using MTDS Analytical Tool

56. The “Increased FX Risk (S3)” is the least costly strategy, measured by both debt-to-GDP and interest-to-GDP indicators.<sup>31</sup> It is the least risky in terms of interest-to-GDP but the most risky in terms of debt-to-GDP.

<sup>30</sup> The analytical tool produces results for 3, 4, 5 and 8 years. Therefore, it is possible to consult all the output sheets up to the horizon of the analysis, in this case the 3, 4 and 5 years.

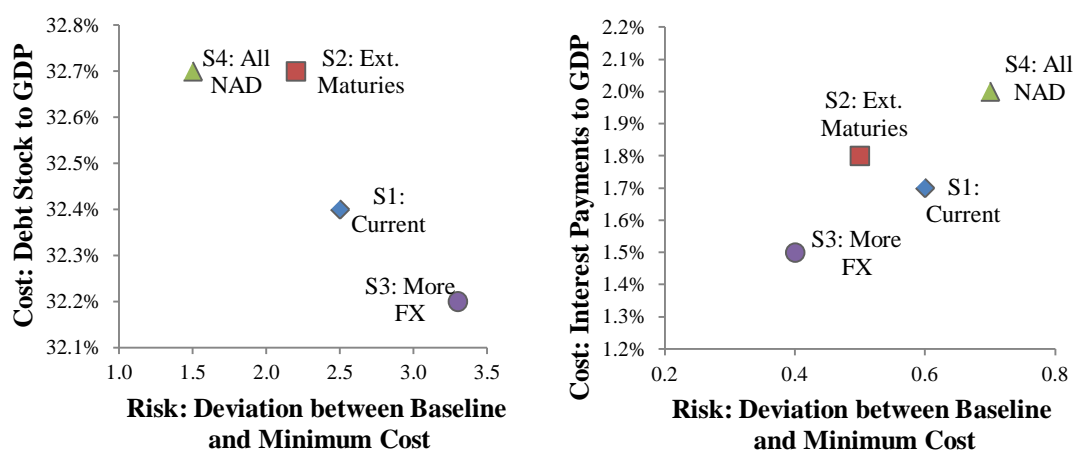
<sup>31</sup> The cost is low due to lower expected interest rate as this strategy assumes the issuance of a Eurobond which would be cheaper than the T-bills. The strategy basically shifts the T-bill issuance to the Eurobond.



57. Conversely, the “Reduced FX Risk (S4)” strategy performs in the other direction, i.e., it is the riskiest under interest-to-GDP indicator and less risky under the debt-to-GDP, while its cost is the highest, due to more expensive domestic debt compared to external debt.<sup>32</sup>

58. The “Current (S1)” and “Reduced refinancing risk in the domestic market (S2)” strategies show comparable performance for both cost indicators. Extending the maturities increases costs due to higher interest rates for longer maturities while reducing risk thanks to lower interest rate and refinancing risk.

**Figure 9. Cost-Risk Trade-offs**



Source: Team calculations using MTDS Analytical Tool

**Table 8. Debt stock to GDP as at end 2017, Baseline and Shock Scenarios**

| Shock Scenario                               | Current (S1) | Extend Maturities (S2) | More FX (S3) | All NAD (S4) |
|--|--------------|------------------------|--------------|--------------|
| Baseline scenario                            | 32.4         | 32.7                   | 32.2         | 32.7         |
| Exchange rate shock (30%)                    | 34.8         | 34.9                   | 35.5         | 34.1         |
| Interest rate shock 1 (200 bps)              | 33.2         | 33.3                   | 32.8         | 33.5         |
| Interest rate shock 2 (400 bps stress shock) | 33.7         | 33.6                   | 33.1         | 34.2         |
| Combined shock                               | 34.4         | 34.4                   | 34.4         | 34.2         |
| Maximum risk                                 | 2.5          | 2.2                    | 3.3          | 1.5          |

Source: Team calculations using MTDS Analytical Tool

**Table 9. Interest payments to GDP as at end 2017, Baseline and Shock Scenarios**

| Shock Scenario                               | Current (S1) | Extend Maturities (S2) | More FX (S3) | All NAD (S4) |
|--|--------------|------------------------|--------------|--------------|
| Baseline scenario                            | 1.7          | 1.8                    | 1.5          | 2.0          |
| Exchange rate shock (30%)                    | 1.8          | 1.9                    | 1.6          | 2.1          |
| Interest rate shock 1 (200 bps)              | 2.0          | 2.1                    | 1.8          | 2.3          |
| Interest rate shock 2 (400 bps stress shock) | 2.1          | 2.2                    | 1.9          | 2.6          |
| Combined shock                               | 2.1          | 2.2                    | 1.9          | 2.4          |
| Maximum risk                                 | 0.6          | 0.4                    | 0.4          | 0.7          |

Source: Team Calculations using MTDS Analytical Tool

<sup>32</sup> It is worth noting that the debt/GDP indicator typically better captures foreign currency risk while interest/GDP better captures interest rate risk.

### Box 2. Strategic Benchmarks

Namibia has a set of strategies to address the risks. The original benchmarks from the 2005 SDMS have evolved over time, see the table below.

|                    |  | Benchmark | 2011–12       | 2012–13 | 2013–14 | 2014–15 |
|--------------------|--|-----------|---------------|---------|---------|---------|
| <b>Actual</b>      |  |           |               |         |         |         |
| FX Risk            | External Debt Stock (including rand) / Total | 20%       | 30%           | 31%     | 29%     | 29%     |
| Refinancing Risk   | Debt falling due within 12 months            | 30%       | 39%           | 32%     | 30%     | 30%     |
|                    | Long term debt                               | 70%       | 61%           | 68%     | 70%     | 70%     |
| <b>2005 SDMS</b>   |  |           |               |         |         |         |
| FX Risk            | External Debt Stock / Total (***)            | 5 years   | 3.9 years (*) |         |         |         |
| Refinancing Risk   | Average time to maturity                     | 5 years   | 3.9 years (*) |         |         |         |
| Interest rate risk | Fixed interest share                         | 90%       | 98.1% (**)    |         |         |         |

Source: 2005 SDMS, CDM Presentation

(\*) MTDS analytical tool based on central government debt data as of October 2012

(\*\*) T-bills are considered as fixed rate debt although they carry the characteristics of floating rate debt. If defined as floating, the rate would have been 65.1%

(\*\*\*) Implied by the external debt to GDP and domestic debt to GDP limits.

The existing strategic benchmarks do not capture the different risks that the government intends to manage. For instance, the fixed/floating share benchmark can conceal the exposure to interest rate risk (depending on whether the T-bills are defined as fixed and on the maturity of the debt stock). Indeed, Namibia's debt stock is vulnerable to interest rate fluctuations even though the debt stock is almost completely in fixed rates. A better benchmark would have been the share of debt to be refixed within 1 year complemented by the average time to refixing.

The 2005 SDMS's foreign currency risk benchmark is to keep external debt—including the rand-denominated debt—below 20 percent of total debt. As a member of the CMA, Namibia's rand debt does not carry any foreign exchange risk and could be excluded from this benchmark to provide a cleaner risk benchmark.

It should be noted that the strategic benchmarks have been exceeded over time, which raises questions about their utility. More realistic but binding benchmarks should be defined and monitored. Although they cannot be achieved in the short term, as it takes time to obtain the desired debt composition, progress towards the strategic benchmarks is possible. Any deviation should be explained in detail in an annual debt management report.

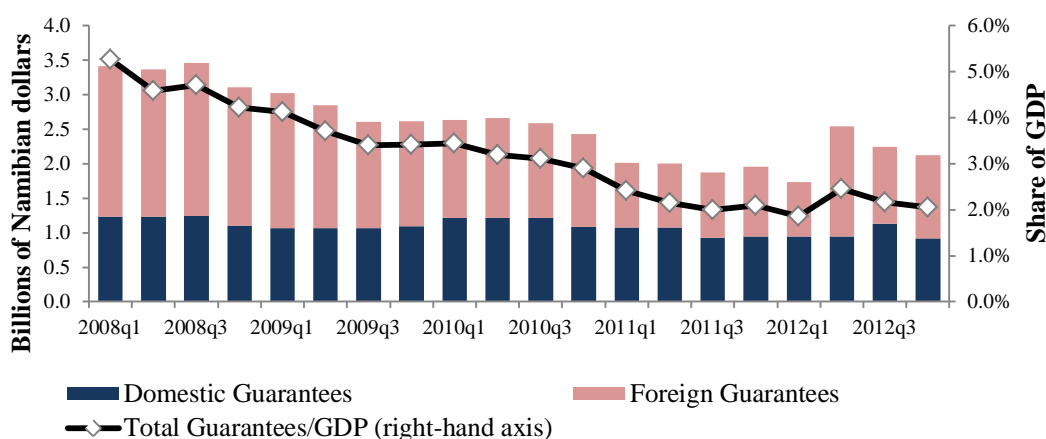
As a concrete example, the analysis shows that the ATM of 5 years can only be achieved by shifting the T-bills to longer dated bonds, which is hard to accomplish, or increasing external debt above the 20/80 benchmark, which is already exceeded.

59. This analysis of shock scenarios and alternative strategies suggests that the “Extending maturities in the local market (S2)” strategy best corresponds to the GRN's priorities of reducing interest rate and refinancing risks. It also helps to deepen the local market, which would in the medium to long term help bring the yields down and contain foreign exchange risk.

## VI. Contingent Liabilities Stemming from Government Guarantees

60. Contingent liabilities, especially those arising from guarantees and on-lending activities, have important implications for government debt management and sustainability. Guarantees issued by the GRN have been declining over the past four years, particularly guarantees for foreign loans (see Figure 10). Namibia’s loan guarantees for both foreign and domestic coverage are currently relatively small at N\$2.12 billion (equal to 2.1 percent of GDP).<sup>33</sup> This falls well below the 2005 SDMS threshold of 10 percent of GDP. Nevertheless, the ambitious investment in public infrastructure implied by NDP4—estimated by NPC at N\$187 billion over five years—part of which seems likely to be undertaken by SOEs, and growing interest in structuring development projects as PPPs suggest a need for greater scrutiny by MOF in contingent liabilities.<sup>34</sup>

Figure 10. Publicly Guaranteed Debt Stock, 2008–2012



Source: Bank of Namibia

61. The State Finance Act of 1991 makes MOF responsible for issuing and managing the government guarantees in Namibia, and the 2005 Sovereign Debt Management Strategy document describes a governance framework for the issuance and management of the government guarantees. These guidelines reported are not always followed in practice, they omit provisions that are important for managing risks of contingent liabilities, and they lack the force of law. This section of the report provides general principles in line with sound practice to ensure standardized approach could be of some guidance to CDM and the MOF.<sup>35</sup>

<sup>33</sup> Bank of Namibia Annual Report 2012. Data are as of December 2012.

<sup>34</sup> It should be noted that managing contingent liabilities arising from loan guarantees is only one small dimension of how the central government interact with state-owned enterprises (SOEs). The suggestions for enhanced risk management of loan guarantees presented in this section are no substitute for a reform of the broader SOE governance framework.

<sup>35</sup> For more guidance and support, there is need to assess the situation more in depth and develop a road map specifying the different steps for developing the guarantees framework as well as the timeline for the implementation.

## A. Overall Governance Framework

62. The 2005 SDMS established rules governing when the Minister of Finance may provide guarantees to or enter into on-lending arrangements with Namibian companies.<sup>36</sup> The BON-MOF-NPC Inter-Agency Committee reviews all proposals. Criteria for evaluating proposals are the following:

- There is a clear intervention rationale.
- Existing development finance institutions (e.g., the Development Bank of Namibia) are unable to intervene.
- The project is economically viable.
- The project is in the national interest.
- The project does not pose liquidity and credit risk exposure to the government.

63. MOF charges borrowers an annual levy on all non-statutory guaranteed and on-lent loans, set at 2 percent of the outstanding loan value, as an insurance payment against possible default.

64. In practice, decisions are taken on a case-by-case basis by CDM and the Minister of Finance, typically under pressing time constraints. Some evaluation criteria fall outside MOF's area of expertise (e.g., project viability and national interest). Equally important, the 2005 SDMS does not contain criteria for quantifying credit risk, principles on disclosing credit risk, or guidelines for managing contingent liabilities—all of which are important for a debt management office to consider when evaluating requests for guarantees.

65. An alternative to the present governance framework would be for the executive level of the Inter-Agency Committee to define the broad principles of issuing guarantees, but distribute responsibility for implementation to the respective institutions and to line ministries, according to their areas of expertise. For example, NPC would be responsible for evaluating whether a project is in the national interest, the relevant line ministry would assess technical viability, and MOF would concentrate on issuing the guarantees and managing the credit risk of the guaranteed debt portfolio.

## B. Issuance rules and procedures by the MOF

66. The guarantee sub-unit of the CDM Division consists of two staff, who take responsibility for carrying out all the procedures for the approval and issuance of the guarantees, recording all financial transactions related to guarantees, monitoring the progress of the project through lenders and borrowers, and collecting annual audited financial reports to help monitor project's performance and minimize default risks. The BON provides assistance to the CDM team in conducting assessments of guarantee operations. A draft internal Ministry of Finance document contains clear and detailed guidelines for issuing new guarantees and managing the contingent liabilities arising from them. According to this document, applications must include audited financial statements for at least five years, information about secured and unsecured debts, a medium-term forecast of the financial position, and information about how a government guarantee would assist the project. The extent to which these guide-

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<sup>36</sup> These procedures are presented in section 5.1 of the SDMS. Guarantees may be provided to private companies owned by Namibian citizens as well as parastatals. Joint ventures are eligible, but only for exposure in proportion to Namibians' equity participation.

lines are followed or how the collected documents are evaluated to assess the eligibility of the project for a guarantee was not made fully clear to the team.

67. CDM could revise the rules and procedures for clarity, simplicity and applicability. The procedures could define:

- who can apply for the guarantee, e.g., parastatal or line ministry, which level company representative, etc.,
- the timing of the application, service standards for processing by MOF, and
- which documents and approvals must to be enclosed with the application (e.g., letter from NPC specifying the project is in the national interest, letter from the line ministry stating the project is technically and environmentally viable, letter of undertaking etc.).

68. MOF could also develop a template for the financial statement requested at the time of application. The template would help standardize the information provided by the applicants and facilitate the analysis CDM would conduct to assess the credit risk arising from the transaction. In order to fulfill the tasks assigned to MOF, CDM's staff capacity to assess and manage credit risk of loan guarantees should be increased.

### C. Risk Management

69. The framework for managing risks from contingent liabilities can be significantly improved. Currently the GRN manages its exposure from government guarantees through a limit set for the stock of guaranteed debt (10 percent of GDP) and a guarantee fee (2 percent of the value of outstanding loans). The guarantee levy is paid annually by the beneficiary on the amount of principal outstanding. This fee is sometimes waived on a case-by case basis. Partial loan guarantees are among the measures to contain the credit risk. There are currently no guidelines on how to assess the credit risk of guarantees. Thus no information on the risk exposure from an individual guarantee request is provided to the finance minister at the time of issuance. The overall exposure of the contingent liabilities is not monitored.

70. An efficient risk management framework would have two stages.<sup>37</sup> In the first stage—at the time of issuing the guarantees—risks are mitigated by avoiding risky counterparties to limit total exposure when selecting beneficiaries. Financial feasibility of the project, financial strength of the beneficiary, debt level of the beneficiary and re-payment performance of the beneficiary in the previous projects can be considered as the examples for plausible criteria. More specifically, MOF could choose not to issue guarantees to the beneficiaries that have arrears to the MOF.

71. In the second stage, i.e., once the guarantee are provided, credit risk management mechanisms such as guarantee fees, redemption accounts and budget appropriations are set for potential defaults. These measures require risk managers to make comprehensive risk assessments.

72. As noted earlier, the 2005 SDMS contains no guidelines for assessing credit risk. Credit risk is defined by the probability of default of the guarantee beneficiary and the amount that might be undertaken in case of default. The probability of default could be fore-

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<sup>37</sup> Colombia, Poland and Turkey are examples of countries that follow this two-step procedure.

casted through various methods and a good starting point is to explore the default history. The forecasting could be improved through the analysis of the financial statements of the beneficiaries, which could give an indication of financial difficulty. There is no one method, and the essential point is to use a consistent approach across the board. Some countries develop advanced credit risk management models and allocate internal ratings as a way to summarize the riskiness of the beneficiaries. As a start, Namibia could adopt a simple rating framework to differentiate among entities based on their riskiness. The ratings could be a useful source of information when deciding on a guarantee issuance and to assess the overall risks to the guarantee portfolio.

#### **D. Collection of Receivables<sup>38</sup>**

73. MOF signs a one-page letter of undertaking with the beneficiaries at the time of the guarantee issuance to ensure collection of the called debt in case of default. The letter is general and does not describe the details of how the recovery of the undertaken debt will be accomplished. In practice, the collection process does not work efficiently, and some parastatals accumulate arrears towards the MOF.

74. Secondary legislation detailing the principles for the creation and collection of the receivables could be developed. This would systematize the ways of collecting the called amounts such as restructuring the debt over a given period of time so that the beneficiary is able to pay. Restructured debt could carry an interest rate comparable to the government's borrowing costs to reduce the impact on the government budget.

#### **E. Transparency and Accountability**

75. Transparency and accountability are of utmost importance. This is especially relevant to contingent liabilities, given that in some countries guarantees represent concealed subsidies that are provided with no trace in the budget. It is critical that the principles, rules and procedures are publicly available, and that information on guaranteed debt and contingent liabilities is published.

76. Namibia publishes good statistics on new guarantee issuances and guaranteed debt stock (by beneficiaries and lenders) in the BON bulletins. This information could be complemented with the realized repayments (made by institution or undertaken by MOF) and repayment projections, followed by reports that discuss the developments on the guarantees and risk assessment of contingent liabilities. In addition, reflection of these numbers in the budget—through an appropriation or as a memo item, for example—would promote transparency and accountability.

77. A second way to promote accountability is to enhance accountability of the guarantees framework is to embody it into secondary legislation. Publishing the criteria and rules for issuing guarantees in the SDMS is important, but this document is not binding and does not have the force of law. It would be very powerful to incorporate the new principles and rules for issuing guarantees into secondary legislation to make them enforceable. This would also transmit a clear signal that the government is committed to building and respecting a gov-

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<sup>38</sup> A restructuring of the accumulated debt of the guarantee beneficiaries towards the MOF might be needed before developing rules on the collection of the undertaken debt.

ernment guarantee framework. Given the time it might take to prepare and enact the secondary legislation, MOF could start implementing the new framework until it formally enters into action. This would allow seeing how the implementation works to give an opportunity for improvement in the final text of the secondary legislation.

## F. Public Private Partnerships

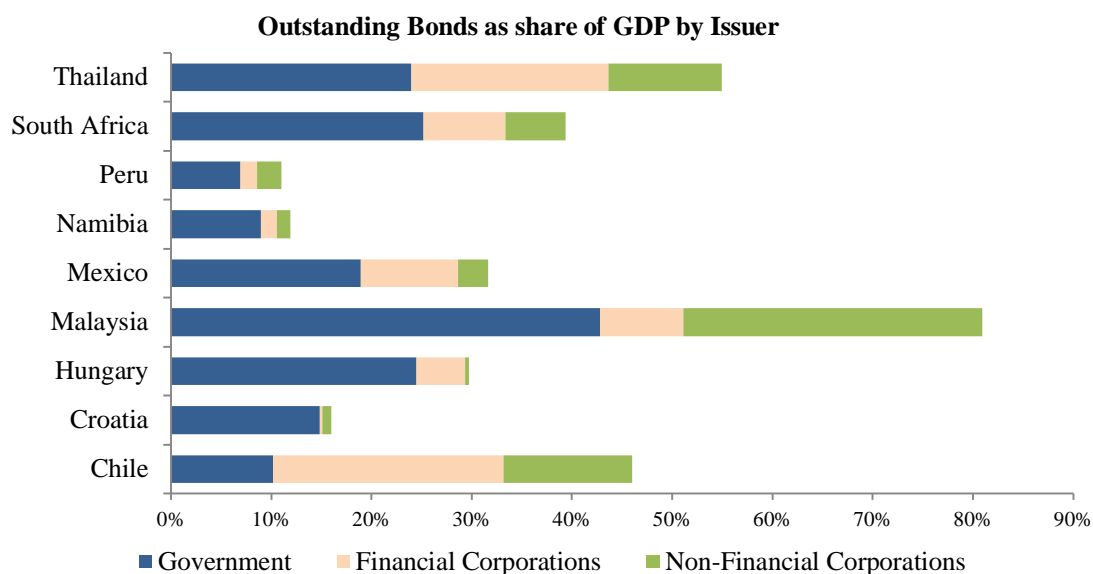
78. PPPs represent another source of contingent liability. The Namibian government contemplates to support the NDP4 goals amounting to N\$187 billion with the participation of the PPPs. The amount to be financed from the budget and traditional financing is unknown yet as well as how the PPPs projects will be structured.

79. It is often the case that government guarantees are requested under PPP schemes. In addition to a sound and robust governance framework, MOF should carefully assess the credit risk from these new contingent liabilities which can amount to significantly high amounts given the scale of the PPP projects in general. Therefore, the credit risk evaluation and management methods developed by the MOF for the loan guarantees would set the basis for dealing with the contingent liabilities due to PPP projects.

## VII. Domestic Debt Market Development

80. The feasibility of alternative debt management strategies is closely linked to the degree of development of the domestic debt market. A deep and liquid bond market facilitates the implementation of a debt management strategy and broadens the set of potential funding strategies. This section describes constraints posed by the size and structure of the government debt market in Namibia, and it offers suggestions for increasing the liquidity and depth of the market.

**Figure 11. Relative Sizes of Bond Markets, 2011**



Sources: Namibian data from IJG and BON; for other countries, values of bond issues are from Bank for International Settlements and GDP values from World Development Indicators

Notes: Government bonds exclude bills with maturities of one year or shorter



81. The debt market in Namibia is small and dominated by GRN bonds and bills. Even including corporate bonds, total domestic bond market capitalization in Namibia as a share of GDP is roughly one-quarter to one-third the size of bond markets in Chile, Hungary, Mexico, or South Africa, as shown in Figure 11.

82. Total debt issued equals N\$20.4 billion, equivalent to 20 percent of GDP (Table 10). Government securities have been described earlier. There are currently 19 bonds issued by the corporate sector: 11 by three of the four commercial banks, and eight by state-owned enterprises.<sup>39</sup>

**Table 10. Domestic Debt Securities Traded in Namibia, 2001**

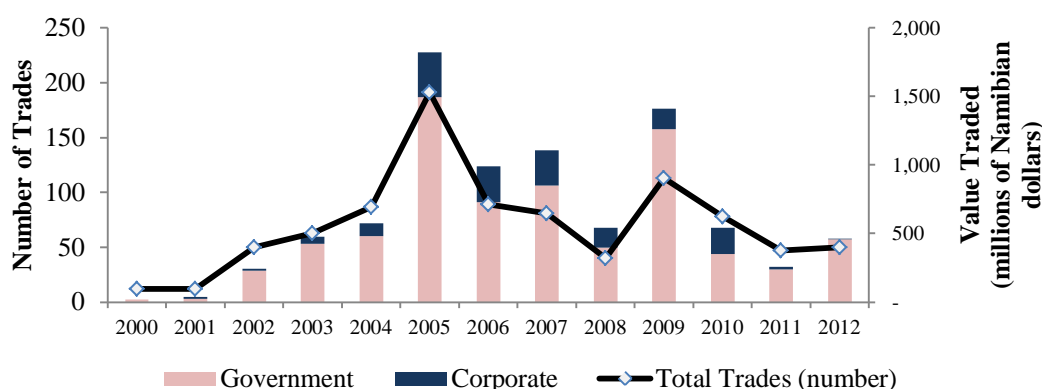
| Bonds                       | Value  | Share of GDP |
|-----------------------------|--------|--------------|
| Government (Treasury bonds) | 9,346  | 9%           |
| Corporate                   |        |              |
| <i>Banks</i>                | 1,633  | 2%           |
| <i>Non-financial</i>        | 1,428  | 1%           |
| Total corporate             | 3,061  | 3%           |
| Total bonds                 | 12,407 | 12%          |
| Treasury bills              | 8,042  | 8%           |
| Total debt securities       | 20,449 | 20%          |

Source: Bank of Namibia, IJG Securities, January 2013

Notes: Values in millions of Namibian dollars

83. Not only are there few issuers of debt, there are also few buyers—primarily the commercial banks and the GIPF, which appears to hold the majority of government debt.<sup>40</sup> This exposes the government qua borrower to demand side risk.<sup>41</sup> Combined with the limited supply of financial assets, the legal requirement that pension funds and long-term insurers invest a minimum of 35 percent of their assets in Namibia means that there are more buyers than sellers in the market for debt. The combination of these factors results in a hold-to-maturity-behavior from all relevant participants and, because of that, very few bond trades take place, as shown in Figure 12.

**Figure 12. Secondary Bond Market Trading, 2005–2012**



Source: IJG Securities, January 2013

<sup>39</sup> Banks placing bonds in the Namibian market include Bank Windhoek, FNB, and Standard Bank. The Road Fund Administration, Nampower and Telecom Namibia represent the non-financial corporate bond issuers. Issuances range from N\$10 million to N\$500 million in size. Original maturities range from 2.2 to 12.3 years. SOE bonds average slightly larger (N\$179 vs N\$148 million) and longer (8.0 vs 5.4 years).

<sup>40</sup> From evidence the mission collected, GIPF's share of outstanding bonds could be as high as 90 percent.

<sup>41</sup> A more diversified investor base is the key to reducing this source of risk.



84. Development of the market for government debt is complicated by several other factors, including the number of different series of bonds offered in the same auction, poor price discovery, the limited dialogue between the MOF and the market, the still not dematerialized bonds, the lack of information on the investor base for government debt.

85. The GRN has introduced measures to improve the primary market. The government recently started using Bloomberg platform to conduct the auctions and has published a bond page in Bloomberg with indicative pricing. These measures have been well received by the market and help fostering price discovery.

86. There is room to improve primary issuance, however. The government currently offers up to eight different series of bonds at most auctions. This does not help to create liquidity for them, especially given the small size of the total market. Best practices suggest reducing the number of current on-the-run benchmark bonds. Additionally, the government could try to smooth the total borrowing over the year in order to have a more homogeneous volume of bonds offered in the different auctions.

87. New regulations could improve the poor price discovery in the Namibian market. Although the central bank and some market participants regularly publish yield curves, this does not necessary reflect actual trades in the market. Market participants, except for the brokers, are not obliged to report their trades. Together with the structural factor of the shallowness of the market, this results in poor and scarce information about actual trades. Requiring every market participant to report its trades and publishing these at the end of day would improve (ex-post) price discovery and transparency in the market.

88. The market would also benefit from increased dialogue with MOF. Market participants seem to be hungry for information from and regular communication with the issuer. Good communication with the market helps to reduce uncertainty, and through that the cost of borrowing, and helps the government to better understand the demand side, which is essential to the design of a debt management strategy as well as to understanding the necessary measures to further develop the local market. MOF could set up an agenda of regular meetings with market participants and publish more debt management documents, such as the annual borrowing plan and semi-annual auction calendars. The DMO's front office should also tighten its communication with the market, as this would provide important feedback from the market regarding risk appetite and demand for the auctions.

89. In broader terms, the establishment of a formal forum to discuss the development of the capital markets could bring benefits to debt management and spillover effects for the whole economy. MOF and BON could formally create working group with representatives from the private and public sectors to discuss development of the private bond market and to plan concrete short- and medium-term measures to develop the government debt market.

90. Generating better information about the current investor base would improve understanding of the dynamics of the debt market. Information about the actual holders of the government securities is not available. Understanding of the actual investor base is a necessary step to the design of a medium term debt management strategy and measures to develop the domestic market.

91. The size and nature of the biggest player in the market, the GIPF, is challenging to deepen the domestic debt market. The GIPF holds the vast majority of government bonds. As a pension fund, the GIPF is a natural buy-and-hold investor. Together with its large size, this limits deepening of the market.

92. Meanwhile, some measures such as the promotion of a securities lending market could have positive effects.

93. Enhancing the infrastructure of the market would help broaden the investor base. The 2011 issuance of a Eurobond and the recent issuance in the South African market clearly show that there is foreign demand for Namibian government bonds. Attracting these investors to the local market could be a way to develop the domestic market while broadening the investor base. In fact, the government could benefit more from the proximity to the South African market, which is a large market with relevant presence of international investors. But, in order to do that, it is necessary to put in place an adequate infrastructure.

- The fact that bonds are not dematerialized (i.e., they are issued and traded in paper form) prevents non-residents from investing directly in the Namibian market for government debt.
- Creating a central securities depository (CSD) is an important step to develop the bond market. It would provide an appropriate infrastructure to the bond market, providing more confidence to investors (especially South African and other foreigners). Having a single CSD could also facilitate the monitoring of the trades (price discovery) and the holders of the bonds
- There is no derivatives market, which typically adds liquidity to the bond market.

94. The above mentioned fact that bonds are not dematerialized is not only important for broadening the investor base, but might be one of the main bottlenecks for market development in the short term. Other measures will not have positive effects if bonds are still materialized and the overall market infrastructure is poor. A manual and certificated process is very unlikely to promote market liquidity.

95. Additionally, the current regulation does not provide a sound legal environment to the development of the repo market and the launch of a primary dealers program, one of the recent attempts of the government, requires changes in the current legal framework, namely the Insolvency Act.<sup>42</sup> On its turn, an active repo market can play a significant role in the development of the bond market, encouraging commercial banks to invest more in government securities.

96. The government faces trade-offs when issuing new instruments. The government has been analyzing the possibility of issuing inflation-linked bonds and launching a retail debt program. Although these instruments might reach new investors and consequently broaden the investor base, because the size of the market and other restrictions mentioned before, adding new instruments might mean draining liquidity instead of adding it to the market.

97. Finally, active liability management operations could help the government to cope with refinancing risk and exchange old securities for standardized ones. While the concentra-

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<sup>42</sup> Because of the size of the market and the reduced number of players, a careful analysis should be done about the costs and benefits of putting a primary dealer program in place.

tion of issuances in fewer benchmark bonds helps to improve liquidity in the secondary markets, it also represents an increase in the refinancing risk because of the higher volumes in single maturity dates. A good way to deal with this potential negative impact is to implement active liability management operations, such as switches or buybacks. Switches and buybacks could also be used by the government to exchange old bonds that are still in the market for the new standardized bonds, what would help to foster the process of providing more liquidity to these bonds.

## **VIII. Legal, Institutional and Implementation Issues**

### **A. Legal Framework**

98. Namibia's overall long-term debt management objectives and strategy, along with policy level decisions, are defined by MOF and approved by the cabinet. The implementation of the strategy is achieved by the technical-level entities at MOF and BON.

99. Namibian legislation fulfills minimum requirements related to the existence, coverage and content of the legal framework for debt management. In the future, when the legislation is revised, it is recommended that clear debt management objectives and requirements for audits and reporting to parliament be included.

### **B. Institutional Arrangements**

100. The managerial structure for government related borrowings and debt-related transactions, as well as to issue guarantees and on-lending are well established. MOF has the overall responsibility for the preparation and implementation of debt management strategy and coordination with other entities, especially the BON.

101. The clear separation of front-, middle- and back-office functions within the debt management office as outlined in the 2005 SDMS have not yet been implemented. The back office is need revamping including training more staff, as there is only one staff conversant with the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS) used to manage external debt. Likewise, there is a need to procuring a secure server to house information on all foreign and domestic loans. Currently, the external debt is recorded on a single workstation.

### **C. Annual Borrowing Plan**

102. The desired debt composition in a medium-term debt strategy provides the basis for the annual borrowing plan, through which the government seeks to find an appropriate balance between meeting debt management objectives, increasing spending on new priorities (including development projects), and developing the domestic financial markets. In Namibia, MOF and BON jointly determine the annual borrowing plan, taking into account medium-term expenditure framework, the capacity of the local market, interest and exchange rate forecasts, and monetary and foreign reserve developments. This collaboration is expected to continue when developing the annual borrowing plans for the coming (2013/14) fiscal year and under the GRN's revised SDMS. The domestic borrowing plan is translated into the auction calendar for government securities, which BON posts on its website.

103. The IMF-World Bank MTDS framework provides a number of guidelines that could be considered when implementing the new SDMS.

- The annual borrowing plan should be informed by updated analysis of risks and costs, as described above.
- In terms of external debt, the plan set out the possible timeframe to access the international capital market.
- Include purposes of borrowing in the annual borrowing plan
- Publish the annual borrowing plan
- Include proposed amounts in the auction calendar
- The calendar should be well structured and (a) avoid crowded issuance dates so issuances won't compete with each other; (b) take into account government cash position and budget outturns in the fiscal year.

#### **D. Implementing, Disseminating, Monitoring and Reviewing the Debt Strategy**

104. Namibia's revised SDMS should incorporate a comprehensive framework for regular monitoring and review. Furthermore, although debt strategies are developed for a medium-term horizon, they should be updated annually. If there are significant deviations in the outturns relative to targets or in the assumptions underlying the strategy, it should be revised accordingly. There is also the need for active investor-relations and market consultation to get up to date information on the market (see Section VII). This will help determine a priori the investor appetite for the various instruments before it is done

105. **Statistical reporting:** A first step is to release regular debt portfolio reports that include key cost and risk indicators. BON reports public debt stocks and flows in its quarterly bulletins and annual reports. MOF's annual budget documents report levels of central government debt, spending on debt, and sources of financing that will be used to meet the government's borrowing needs. The FY2012/13–2014/15 MTEF document announces an intention to begin publishing a debt statistical bulletin on an annual/quarterly basis in the future. This would make an important contribution to increasing transparency in public financial management, increase accountability, and contribute to strengthening the development of Namibian capital markets. In addition information in existing BON and MOF reports, a good debt statistical bulletin would report cost and risk indicators such as those used in the analysis above and presented in Table 3 on page 6. It is also important to report data on contingent liabilities, especially arriving from guarantees and on-lending activities, as these have implications on debt sustainability levels and debt management.

106. **Annual review:** Besides expanding statistical reporting, the government should regularly review performance of the SDMS, comparing outcomes against the debt management objectives and assessing whether underlying assumptions remain valid. MOF's annual budget documents should include a specific section on debt management for this purpose. Reporting annually on debt to Parliament would enhance the overall transparency of debt management operations and ensure accountability.

## IX. Conclusions

107. The 2005 SDMS was good. Combined with prudent fiscal policies, the SDMS has helped Namibia manage public debt effectively. How could it be improved?

108. **Crunch the numbers.** The fundamental message that emerges from this review is that an explicit analysis of costs and risks of alternative debt strategies in the face of plausible economic shocks should inform the revised SDMS. Applying the MTDS Analytical Tool to several possible debt strategies in the face of plausible economic shocks suggests that a strategy that emphasizes longer maturities in the domestic market performs better against the GRN's risk priorities than does the current strategy. The MTDS Analytical Tool also illustrates the trade-offs between relying more on external versus domestic markets for financing, which are important to consider when preparing the new SDMS: A strategy of borrowing more aggressively from international sources reduces borrowing costs but increases exposure to the risk that these costs could rise unexpectedly, while the domestic bond market provides financing with lower risks but higher costs.<sup>43</sup>

109. **Repeat analysis frequently.** A related message is that it is essential to repeat this formal analysis regularly to ensure that the SDMS remains consistent with economic conditions and the GRN's policy priorities. As a small and relatively open economy, Namibia is continually exposed both to adverse shocks but also to new opportunities that influence the ability to meet debt management objectives in the SDMS. The analysis undertaken during the November 2012 capacity building mission should be repeated by the working group revising the SDMS, using the latest macroeconomic and fiscal policy framework. In the future, it would be appropriate to update the debt management strategy annually.

110. **Rationalize guarantee issuance.** Although the stock of debt guaranteed by the GRN is relatively small, it seems likely to grow in the future, and reforming the framework for issuing government guarantees would help the GRN reduce its exposure to contingent liabilities. One priority is for MOF to introduce a system for analyzing the credit risk of all new requests. A second priority is to reallocate responsibilities for reviewing requests, assigning to the relevant line ministry the tasks of evaluating project feasibility and to NPC the decision on whether a project is in the national interest.

111. **Improve bond market institutional infrastructure.** Dematerializing government bonds, establishing a central securities depository, and requiring that all bond trades be reported and published would enhance debt market efficiency through improved price discovery and reduced transactions costs. The 2005 SDMS identified several legal and regulatory reforms that are prerequisites to undertaking these measures.

112. **Increase transparency and accountability.** Publishing the borrowing plan, increasing information contained in the auction calendar, circulating a regular debt bulletin containing comprehensive information on public and publicly guaranteed debt, and releasing an annual evaluation of the SDMS would contribute to greater transparency and accountability. Incorporating

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<sup>43</sup> For example, the MTDS Analytical Tool provides one means for the authorities to assess how well the 80/20 benchmark and other rules correspond to their risk preferences and cost constraints in the face of plausible shock scenarios.

porating reporting provisions into secondary legislation and submitting the debt strategy to parliamentary review would also strengthen accountability.

## X. Annexes

### Annex 1: Description of the MDTS Analytical Tool<sup>44</sup>

The MTDS Analytical Tool (AT) is an integral part of the MTDS Toolkit, developed by staff of the International Monetary Fund and the World Bank to provide a quantitative analysis as input to the MTDS decision-making process. The AT is a spreadsheet-based application that allows projecting cash flows as a function of the following data:

- existing debt
- macroeconomic assumptions, i.e. the primary balance
- new borrowing strategies
- financial variables, including interest rates and exchange rates.

The tool then simulates different cash-flows under various scenarios. The output of the tool is a quantification of the costs and risks associated with a particular debt management strategy.

The AT facilitates the quantification of costs and risks for each strategy under consideration. By illustrating the consequences of following a particular strategy under various scenarios for macroeconomic and market variables, it gives insight into the key vulnerabilities embedded in the specific strategy under consideration. The output, generated by the AT is a number of cost and risk indicators, for example annual interest payment-to- GDP and the nominal stock of debt-to-GDP. Risk is measured in terms of the increase in cost, given a particular macro and market scenario, relative to the baseline. The AT different cost and risk indicators, allow countries to focus on those measures most relevant for their needs.

The AT has been designed to show the details of all cash flow calculations at every step of the process. Intermediate cash flows as well as spreadsheet functions are explicitly shown at every stage, allowing the user to track the assumptions underlying the analysis. Thus, the AT is not only useful for the quantitative analysis underlying a debt strategy, but is also a useful device for building capacity in the debt office. Finally, once the desired debt management strategy is implemented, the AT can be used to measure adherence to the strategy, and reevaluate the cost-risk alternatives should there be a change in market conditions or the authority's risk preference.

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<sup>44</sup> The following is taken from World Bank and IMF, "Developing a Medium-Term Debt Management Strategy: The Analytical Tool," May 2009.

## Annex 2: External Debt

**Table 11. Foreign Loans Outstanding, 2012**

| <b>Creditor</b>                 | <b>Original Amount</b> | <b>Interest Rate</b> | <b>Year Issued</b> | <b>Original Maturity</b> | <b>Remaining Principal</b> |
|---------------------------------|------------------------|----------------------|--------------------|--------------------------|----------------------------|
| People's Republic of China      | RMB100,000,000         | Free                 | 1991               | 15                       | RMB 65,595,879             |
| African Development Fund        | JPY93,221,240          | 0.75%                | 1992               | 50                       | JPY 82,500,685             |
| African Development Fund        | USD1,689,708           | 0.75%                | 1992               | 50                       | USD 1,529,186              |
| African Development Fund        | CHF327,857             | 0.75%                | 1992               | 50                       | CHF 295,072                |
| African Development Fund        | EUR1,736,949           | 0.75%                | 1992               | 50                       | EUR 1,563,254              |
| African Development Fund        | USD2,718,217           | 0.75%                | 1993               | 50                       | USD 2,473,578              |
| African Development Fund        | CHF3,293,126           | 0.75%                | 1993               | 50                       | CHF 2,996,745              |
| African Development Fund        | JPY254,938,990         | 0.75%                | 1993               | 50                       | JPY 231,994,487            |
| African Development Fund        | EUR1,331,324           | 0.75%                | 1993               | 50                       | EUR 1,061,324              |
| African Development Fund        | EUR3,119,185           | 0.75%                | 1993               | 50                       | EUR 1,953,951              |
| African Development Fund        | EUR271,656             | 0.75%                | 1993               | 50                       | EUR 247,207                |
| Kreditanstalt für Wiederaufbau  | EUR3,269,180           | 2.00%                | 1993               | 21                       | EUR 1,753,624              |
| European Investment Bank        | EUR3,000,000           | 2.00%                | 1994               | 20                       | EUR 453,300                |
| Kreditanstalt für Wiederaufbau  | EUR12,424,393          | 2.00%                | 1994               | 21                       | EUR 7,276,706              |
| Nordic Investment Bank          | EUR1,971,765           | 0.75%                | 1994               | 30                       | EUR 1,695,718              |
| Nigerian Trust Fund             | USD4,150,480           | 0.75%                | 1995               | 50                       | USD 1,686,229              |
| Arab Bank for Econ.Dvlp.t       | USD1,150,000           | 3.00%                | 1996               | 15                       | USD 355,000                |
| Kreditanstalt für Wiederaufbau  | EUR14,316,173          | 0.75%                | 1996               | 30                       | EUR 11,457,029             |
| Kreditanstalt für Wiederaufbau  | EUR2,045,168           | 2.00%                | 1996               | 21                       | EUR 1,382,168              |
| Kreditanstalt für Wiederaufbau  | EUR1,417,047           | 2.00%                | 1996               | 31                       | EUR 1,118,047              |
| Kreditanstalt für Wiederaufbau  | EUR8,129,541           | 0.75%                | 1996               | 32                       | EUR 6,984,247              |
| Kreditanstalt für Wiederaufbau  | EUR7,209,216           | 2.00%                | 1996               | 20                       | EUR 5,229,493              |
| Arab Bank for Econ.Dvlp.t       | USD2,937,049           | 3.00%                | 1997               | 20                       | USD 1,300,653              |
| Kreditanstalt für Wiederaufbau  | EUR5,777,598           | 2.00%                | 1997               | 21                       | EUR 4,230,940              |
| Kreditanstalt für Wiederaufbau  | EUR9,561,158           | 2.00%                | 1997               | 21                       | EUR 6,769,474              |
| European Investment Bank        | EUR2,500,000           | 3.00%                | 1999               | 15                       | EUR 1,304,750              |
| European Investment Bank        | EUR10,500,000          | 3.00%                | 1999               | 15                       | EUR 5,211,150              |
| Kreditanstalt für Wiederaufbau  | EUR8,896,479           | 2.00%                | 1999               | 20                       | EUR 7,339,595              |
| Kreditanstalt für Wiederaufbau  | EUR6,135,503           | 2.00%                | 1999               | 20                       | EUR 5,675,340              |
| Kreditanstalt für Wiederaufbau  | EUR7,672,466           | 2.00%                | 1999               | 21                       | EUR 6,736,802              |
| European Investment Bank        | EUR4,000,000           | 3.00%                | 2000               | 9                        | EUR 529,954                |
| Eksportfinans ASA               | EUR6,906,225           | Free                 | 2000               | 10                       | EUR 345,311                |
| Kuwait Fund for Arab Ec. Dev    | KWD5,162,115           | 3.00%                | 2000               | 17                       | KWD 2,860,465              |
| African Development Bank        | ZAR202,420,718         | JIBAR                | 2001               | 15                       | ZAR 121,452,431            |
| Arab Bank for Econ.Dvlp.t       | USD7,600,000           | 3.00%                | 2001               | 20                       | USD 6,102,000              |
| Instituto de Credito Oficial    | EUR6,328,532           | 0.35%                | 2002               | 20                       | EUR 6,174,178              |
| Kreditanstalt für Wiederaufbau  | EUR5,084,460           | 2.00%                | 2002               | 21                       | EUR 4,960,460              |
| African Development Bank        | ZAR193,470,368         | JIBAR                | 2003               | 15                       | ZAR 135,429,258            |
| Arab Bank for Econ.Dvlp.        | USD6,525,129           | 3.00%                | 2003               | 20                       | USD 6,159,129              |
| Banco Bilbao Vizcaya Argentaria | EUR16,988,577          | 4.27%                | 2003               | 11                       | EUR 6,842,074              |
| Instituto de Credito Oficial    | EUR16,988,578          | 0.40%                | 2003               | 20                       | EUR 16,563,864             |
| African Development Bank        | ZAR246,760,000         | JIBAR                | 2004               | 15                       | ZAR 189,182,667            |
| Kreditanstalt für Wiederaufbau  | EUR883,767             | 0.75%                | 2005               | 30                       | EUR 883,767                |
| BNP Paribas                     | EUR13,427,212          | Free                 | 2006               | 12                       | EUR 12,309,194             |
| Japan Int'l Cooperation Agency  | JPY10,091,000,000      | 0.90%                | 2006               | 11                       | JPY 8,649,414,000          |
| Export-Import Bank of China     | RMB41,000,000          | 2.00%                | 2008               | 12                       | RMB 33,296,685             |
| Export-Import Bank of China     | RMB300,000,000         | 2.00%                | 2008               | 15                       | RMB 238,206,981            |
| Kreditanstalt für Wiederaufbau  | EUR7,045,000           | 2.00%                | 2008               | 20                       | EUR 4,045,000              |
| BNP Paribas                     | EUR31,861,702          | Free                 | 2011               | 12                       | EUR 31,861,702             |

Source: Ministry of Finance

Notes: Remaining principal amounts as of October 2012.



## **Annex 3: Main Functions and Required Skills in a Debt Management Office**

The functions and required skills of the three main divisions of a debt management office (DMO)—namely, the front, middle and back offices—are described in this annex, as requested by MOF. In addition, there is a similar description for a legal unit of a DMO, which is sometimes included in one of the other offices.

### **1. FRONT OFFICE -PORTFOLIO MANAGEMENT UNIT**

The front office (FO) or portfolio management unit is responsible for the analysis and efficient execution of all portfolio transactions, consistent with the debt management policy and strategy. The degree of sophistication of its functions will largely depend on the types of funding available for that particular country. Typically there will be a learning curve as countries advance from official sources (concessional and non-concessional multi-lateral and bi-lateral) to more market-based funding, both domestic and international. The learning curve continues as the DMO starts using debt transactions such as exchanges and buy-backs, as well as hedging transactions including derivatives such as currency and interest rate swaps. The FO may also be involved in transactions of on-lending to sub-national governments and extending guarantees of various types to other government entities and/or the private sector. In some countries it may also be involved in executing cash management operations.

#### **1.1 Typical Front Office Functions**

- Designing and executing funding transactions, both from domestic and international sources of funding. This may involve an analysis of competing financial proposals across different currencies, markets, maturities and transaction structures. Steps can include the evaluation, negotiation, pricing, launch of bond issues/contracting of loans, and subsequent market monitoring
- Designing and executing trading and hedging transactions, to move the actual debt portfolio closer to the strategic targets or benchmark (e.g. including debt buy-backs and exchanges, interest rate and currency swaps, etc.)
- Continuous monitoring and reporting of market conditions, including analysis of its potential investor base, both domestic and international
- Managing investor relations, possibly both domestic and international
- Investing foreign currency liquidity and any excess cash balances associated with the government's daily departmental cash management (in countries where the DMO is responsible for cash management)
- Analyzing projections of funding needs (in partnership with the middle office and Treasury/fiscal unit) and giving input on implications for a funding strategy
- Providing input on the design of a sovereign's funding strategy (together with middle office)
- Offering advice on government policy initiatives to foster the development of the primary and secondary government bond markets
- Offering advice on possible market reaction to new fiscal information
- Evaluating funding requests by SOEs and sub-nationals (relevant in some countries, and possibly in partnership with the middle office) which would result or not in an au-

thorization from the DMO for their contracting new debt; or possibly in on-lending by the central government

- Evaluation of expected cost/pricing of contingent liabilities such as guarantees (e.g. by the central government to SOEs or sub-nationals) (in some countries and possibly in partnership with the middle office, sometimes the middle office takes the lead).

## 1.2 Front Office Skills Required

The mix of skills will be important, and will differ according to the level of development of the country and the markets being sourced for funding and debt management transactions.

The degree of training required will depend on whether the new staff already has the required type and level of skills, or whether it is necessary to build up some or most of these modules:

- Advanced finance and financial markets know-how (money markets, international and domestic debt markets, primary and secondary markets, main players, etc.)
- Knowledge of non-market sources of funding, e.g. IFI's and their funding characteristics
- General macroeconomic notions
  - In particular, links of debt management with monetary policy, cash management and fiscal policy
- Knowledge of the role of a modern debt management office and within it, the functions and responsibilities of the three main divisions
- Public policy skills (e.g. to carefully manage relations with the markets in a suitable context, and understanding risk-taking in a public sector context).
- Strong communications skills (e.g. for managing investor relations, negotiations, etc.)

More precisely, knowledge of:

- Analysis, pricing and execution of :
  - funding transactions ( domestic and international; capital markets, non-capital markets)
  - debt management related transactions, such as derivatives including currency and interest rate swaps, debt exchanges (e.g. by maturity,) buy-backs of illiquid bonds, etc.
  - guarantees extended by central government
- Conceptual framework for portfolio and risk management, the role of strategic targets and/or benchmarks in public debt management, and the role of the front office in complying with a benchmark
- Monitoring of, and reporting on, different financial markets and market participants, both domestic and international; (including knowledge of Reuters, Bloomberg, etc.)
- Relationship management with market intermediaries and investors
- Public finance and cash management and how to determine the government's funding needs;
- Domestic government money market and bond markets, so as to be able to provide advice on policy initiatives to foster the development of the primary and secondary government markets

- Investment of foreign currency liquidity and excess cash balances associated with daily cash management (in those countries where the DMO is also in charge of cash management).
- Pricing of guarantees and other contingent liabilities, and methodologies for evaluating expected cost (with middle office staff)
- For some offices, evaluation of funding requests by public entities such as SOEs and sub-nationals, so as to provide them with the corresponding authorization (with middle office staff)
- English language training, if transacting in the international markets
- Specialized IT training (related to pricing of transactions, market monitoring and reporting, practical knowledge of Bloomberg, Reuters, etc.)

## **2. MIDDLE OFFICE – ANALYSIS AND COMPLIANCE UNIT**

The core competence of the middle office (MO) is the design of a public debt strategy, for final authorization of senior government authorities, which will involve risk/cost modeling and an analysis of macroeconomic and market constraints. Another important but more operational function is monitoring and compliance. In those countries where the DMO is also involved in cash management the MO will participate in proposing a strategy for managing the portfolio of cash surpluses.

### **2.1 Typical Middle Office Functions**

Middle office (MO) functions typically include:

- Risk modeling of the aggregate debt portfolio (initially deterministic scenario analysis and subsequently stochastic simulations)
- Analysis of potential constraints on debt portfolio management (macroeconomic, financial market, etc.) and their influence on debt strategy
- Debt strategy formulation and design of strategic targets and/or benchmarks
- In some DMOs, acting as Secretariat to a Debt Management Committee which advises the Finance Minister on debt management strategy, both on design and monitoring of execution.

Many MO's in debt offices also handle one or more of the following areas:

- Monitoring compliance with the established portfolio and risk management policies including regular reports monitoring market and credit risk
- Performance assessment (if there is active trading vis-à-vis the strategic targets,)
- Preparation of input to the state budget (reports on debt servicing forecasts, etc.)
- Operational risk control (together with back office)
- Producing reports on debt management for different parties (e.g. the finance minister, the debt management committee, legislature, multilaterals), etc. and providing input on debt management to the corresponding website (working closely with the Back Office)
- New product development (together with front office)
- Debt sustainability analysis, in conjunction with other government units and the central bank (ideally this would be carried out by the Fiscal Policy Unit, not the DMO)
- For some DMOs, the MOF may be involved in analyzing cost risk trade-offs and designing a strategy for the management of cash surpluses.

## 2.2 Middle Office skills required

The skills requirements listed below are needed to create a strong Middle Office function. The mix of skills will be very important for the success of a middle office, and will differ according to the level of development of the country, the ambition of the Ministry of Finance for the development of this area and the level of risk exposure of the government to different types of financial risk. In general terms there is a need for the following:

- Advanced technical skills in finance and risk analysis, in particular, risk quantification and portfolio management
- Financial market skills; given the impact from debt management on debt market development, an understanding of the workings of the local markets is also important
- Experience in managing the types of market, credit and operational risks associated with the middle office's responsibilities.
- Public policy skills – an understanding of the role of debt management within the context of the overall macroeconomic policies. Preferably some experience in public sector financial management and some macroeconomic knowledge for analyzing integration with the rest of the economy
- Strong mathematical and modeling skills
- IT skills are necessary for quantification of cost and risk of the government's debt; at a minimum, advanced knowledge in the use of spreadsheets, but ideally strong skills in different analytical software packages. For many countries, a practical knowledge of Bloomberg/Reuters is required.
- Strong communication skills – ability to translate analysis into material that can be the basis for the Minister's decisions on debt management

More specifically, good working knowledge of:

- Debt risk indicators and reporting on debt portfolio profile
- Risk modeling of debt servicing cash flows; scenario analysis, stochastic analysis
- Debt strategy design, and the influence of other considerations apart from cost/risk tradeoffs, on the debt management strategy (e.g. the need to develop the domestic money and debt markets)
- ALM framework for public debt management (and possibly cash management)
- How to monitor compliance with the established portfolio and risk management policies including regular reports monitoring market and credit risk
- Performance assessment (if there is active trading vis-à-vis the strategic targets)
- Preparation of input for the Government budget (reports on debt servicing forecasts, etc.)
- Operational risk control (together with back office)
- Producing reports on debt management for different parties (e.g. the Finance Minister, the Debt Management Committee, Congress, multilaterals), etc. and providing input on debt management to the corresponding website (working closely with the Back Office)
- New product development
- Debt Sustainability Analysis, in conjunction with other government units and the central bank (ideally this would be carried out by the Fiscal Policy Unit, not the DMO)

- For some DMOs, the MOF may be involved in analyzing cost risk trade-offs and designing a strategy for the management of cash surpluses.

### **3. THE BACK OFFICE**

The core competence of the back office is operational, involving transaction confirmation, settlements, reconciliation and payments, as well as maintaining records of new contracts, disbursements, payments, debt restructuring and on-lending. In some countries the DMO may be requested to have a register of debt of sub-national entities.

#### **3.1 Typical Back Office Functions**

The typical responsibilities of the back office (BO) are:

- Confirmation of the transactions undertaken by the front office, i.e. independently verifying with the counterparty's back office that the terms of the transaction are as the front office stated;
- Settlement of the transactions once they have been confirmed, i.e. issuing/receiving payment instructions to/from counterparties;
- Reconciliation of bank and custody accounts to ensure that they agree with the organization's own records.

In addition, there are usually a number of administrative functions that are undertaken by the BO, including:

- debt registration and management of the debt data base (which may include not only the central government debt, but also debt of sub-nationals and SOEs, as well as guarantees of various sorts)
- administering loan documentation
- external reporting requirements (together with the middle office, but at a minimum providing basic statistics)
- operational risk management, including business continuity and disaster recovery arrangements, as well as documented guidelines for overall operational risk management
- managing the relationships with fiscal agents (e.g. the central bank)

#### **3.2 Back Office Skills required**

The BO handles very significant transactions and processing errors can be extremely expensive. Improved technology can help reduce the incidence of these, but few systems are fail-safe. Therefore the BO requires professional staff with strong operational skills, including strong numeric skills, attention to detail, an ability to follow procedures and identify quickly when exceptions have occurred. More senior settlements staff will need negotiation skills, to manage exceptions with counterparties, and be able to stand up to front office staff, who typically enjoy a higher status in the organization.

The degree of training that will be required will depend on the extent to which the DMO can "buy" as opposed to "build" the skills it needs. To obtain the specialized knowledge listed

above, the vendors of IT systems (e.g. DMFAS and COMSEC) and operators of payment and custody systems and exchanges usually provide training.

External training may also be possible in areas where the local private sector has similar requirements, e.g. the management of operational risk, training in market instruments for settlements staff.

In most DMOs, there is significant on-the-job training of back office staff in addition to external sources, because of the unique mix of instruments and IT systems that a sovereign borrower uses. Also, all organizations have developed procedures to manage operational risk which, while similar in principle, may differ in detail. For this reason, it is important that sufficient senior staff is retained to train new employees and ensure continuity of knowledge in the organization. This can be supplemented by cross-training and rotation through different positions.

In order to perform their role, BO staff requires specialized knowledge that will reflect the environment in which they work, including:

- Basic finance and financial markets
- Basic accounting
- Administration of loan documentation
- Strong IT skills
- the rules and conventions of the payment systems, custody systems and exchanges that they use (both in the local and international markets), as well as how to use any electronic interfaces with these entities;
- an understanding of the financial instruments in which their organization transacts;
- management of the IT systems the organization uses for transaction processing and debt recording (e.g. COMSEC, DMFAS etc).
- administrative procedures of the lenders and/or donors from which they borrow;
- other procedures and requirements of external organizations, e.g. for reporting purposes.

More specific public debt management skills required would include:

- Debt registration and database management in the particular IT system being used by that DMO
- Reporting and statistics required by third parties (e.g. IFI's) and by law
- Settlement and payment systems in use and for potential use
- Operational risk management for DMOs

## **4. LEGAL UNIT**

Debt managers must ensure that they receive appropriate legal advice and that the transactions they undertake incorporate sound legal features. As such the legal unit, or the lawyers incorporated in one of the main units e.g. MO, have an important role to play.

### **4.1 Typical Debt Office Legal Functions**

Typically, the legal staff/unit of the debt management office should:

- Actively contribute towards ensuring that the DMO's operations are conducted according to the law.
- Provide assistance in the form of legal research and advice, especially on new operations such as derivatives (e.g. swaps)
- Participate in the drafting of the regulations governing the activities of the DMO, and the primary and secondary markets of Government securities.
- Take an active part in negotiations on contracts, and ensure that the "legal" clauses do not excessively bind the borrower, that the borrower can fulfil its obligations without undue hardship, and that the contract at least is not stricter than the contracts entered into by other sovereign borrowers with similar credit status.

#### **4.2 Debt Office Legal Skills required**

The degree of sophistication of its skills requirements will largely depend on the types of funding available for that particular country. Typically there will be a specific set of legal skills required for countries obtaining funding from official sources (concessional and non-concessional multi-lateral and bi-lateral), and then a learning curve for legal skills related to more market-based funding, both domestic and international.

The legal skills learning curve continues as the DMO starts using debt transactions such as exchanges and buy-backs, as well as hedging transactions including derivatives such as currency and interest rate swaps. The FO may also be involved in transactions of on-lending to sub-national governments and extending guarantees of various types to other government entities and/or the private sector. In some countries it may also be involved in executing cash management operations.

As long as the DMO only borrows and enters into transactions in the domestic market, it is enough that the lawyers have solid knowledge of the domestic legal system, particularly financial and public law. Once the DMO transacts in foreign markets, broader skills and knowledge are required, as the foreign legal system will determine what the borrower legally can do. As most of the foreign capital markets have some form of consumer protection, the lawyer should be aware and check that the requirements for soliciting and offering securities to retail investors have been met.

Also, loan documentation becomes more complex once the borrower enters foreign markets. Here the sovereign must be prepared to follow the rules of the market. The banks/investors normally want the same protection as they have when lending to main corporate borrowers, i.e., representations and warranties, default clauses (sometimes even cross-defaults and cross-acceleration clauses), negative pledge, and a waiver of sovereign immunity. Apart from being capable in reading and understanding these loan contracts, the lawyer also must be a skilled negotiator. The legal unit normally is the only function within the DMO which keeps record on the contractual restrictions on the sovereign.

Once the borrower enters the international derivatives market, the legal issues become even more complicated. The standard agreement used, the ISDA agreement, is complex. The lawyers also must check if the contract is enforceable against the counterparty, which is gov-

erned by the counterparty's home jurisdiction. If some kind of credit support for the exposure is called for, foreign rules on pledges also need to be reviewed.

More specific needed skills include, but are not limited to, knowledge of:

- Public sector law, in particular, law for public sector indebtedness, on-lending, guarantees, etc.
- Securities law, both domestic and international
- Basic finance for lawyers, including financial markets and IFIs and official sources of funding
- Financial instruments, both domestic and international, and hedging instruments, and debt-related transactions and their contracts(e.g. debt exchanges and buy-backs, guarantees and on-lending contracts)
- Legal negotiation of funding and bond issuance contracts
- Drafting of regulations governing the DMO
- Basic international securities legislation
- Important clauses in international financial agreements
- Structure of the ISDA agreement and related legal issues in derivatives transactions