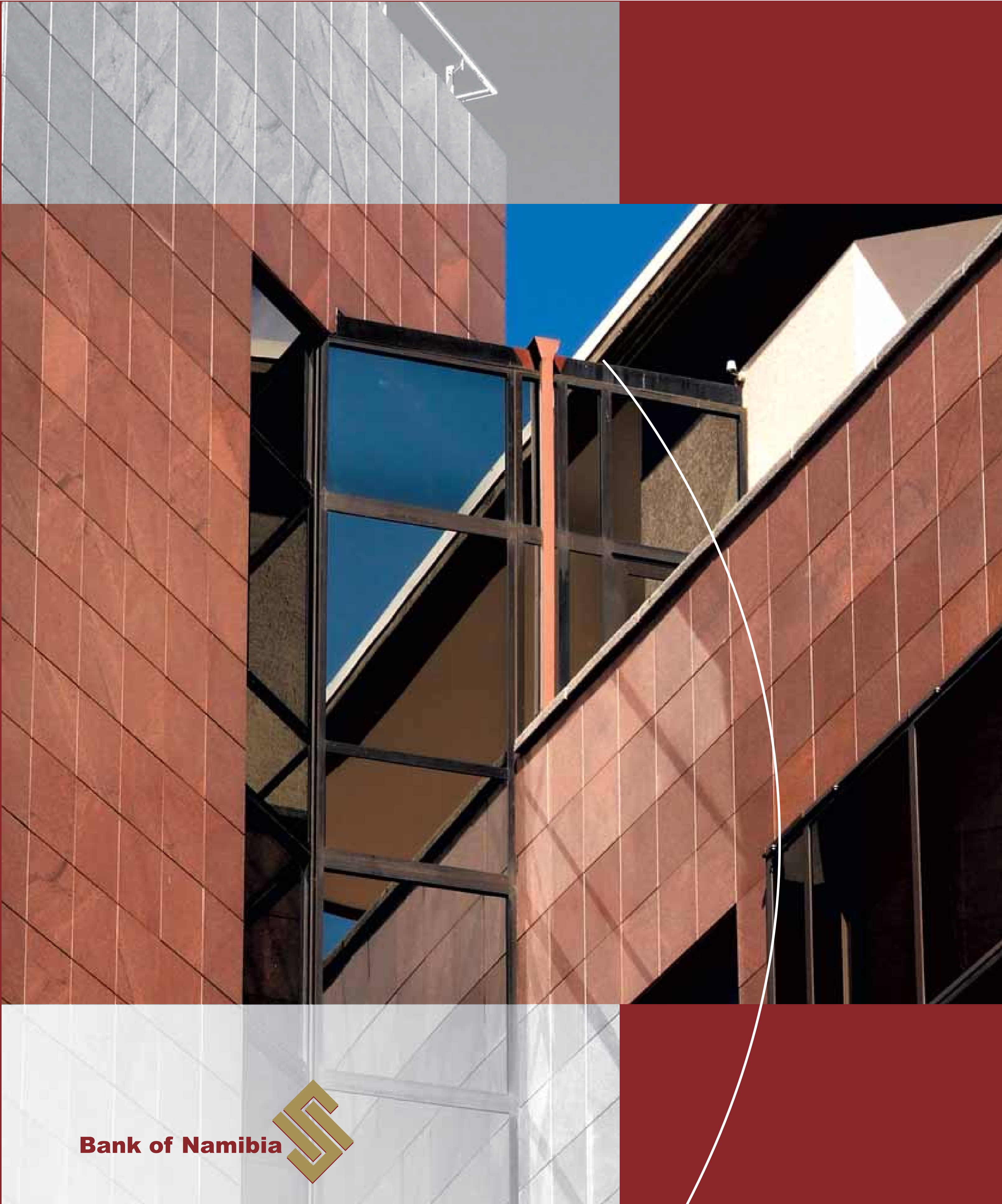


Bank of Namibia

FINANCIAL STABILITY REPORT ▪ OCTOBER 2012

Bank of Namibia
Financial Stability Report
October 2012

Volume 6
No 2

Registered Office

71 Robert Mugabe Avenue
P.O. Box 2882
Windhoek
Namibia

Financial Stability Committee

- Assistant Governor (Chairperson)
- Technical Advisor to the Governor
- Director of Research
- Director of Banking Supervision
- Director of Finance and Administration
- Director of Financial Markets
- Director Payment and Settlement Systems
- Director of Strategic Communications & Financial Inclusion
- Representative from the Namibia Financial Institutions Supervisory Authority
- Deputy Director of Investments & Domestic Markets
- Deputy Director of Analysis and Examinations
- Deputy Director of Policy Research & Forecasting
- Deputy Director of Statistics & Publications
- Deputy Director of Banking Groups & Specialised Institutions
- Deputy Director of Payment Systems Oversight and Projects

Published by the Bank of Namibia
71 Robert Mugabe Avenue
PO Box 2882
Windhoek
NAMIBIA
Tel.: +264 61 283 5111
Fax: +264 61 283 5228
http://www.bon.com.na
Enquiries: bernie.zaaruka@bon.com.na

THE BANK'S CORPORATE CHARTER

VISION

Our vision is to be a centre of excellence – a professional and credible institution – working in the public interest and supporting the achievement of the national economic development goals

MISSION

To support economic growth and development in Namibia, we

- act as fiscal advisor and banker to the Government
- promote price stability
- manage reserves and currency
- ensure sound financial systems and conduct economic research

VALUES

- We value high-performance impact and excellence.
- We uphold open communication, diversity, integrity and teamwork.
- We care for each other's well-being.

LIST OF ABBREVIATIONS

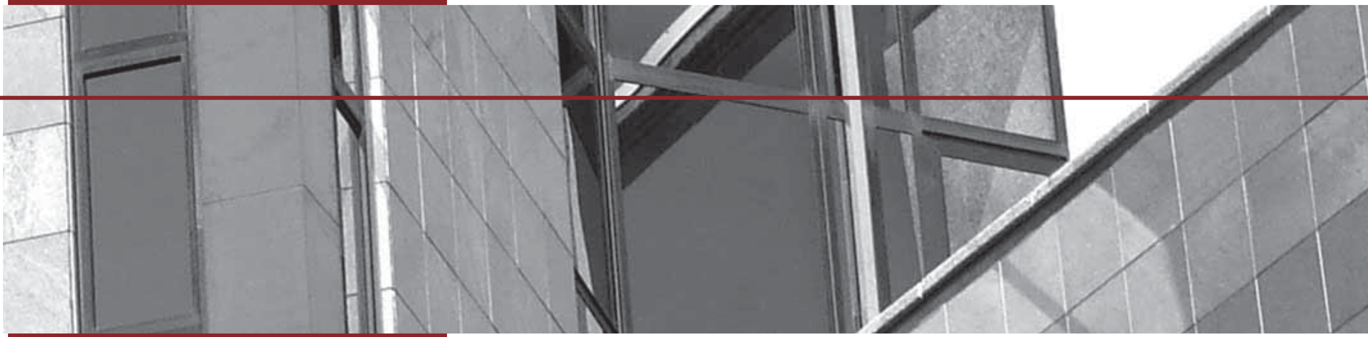
List of abbreviations

BoN	Bank of Namibia
CMA	Common Monetary Area
EMEs	Emerging Market Economies
FNB	First National Bank
FSR	Financial Stability Report
HI	Herfindahl Index
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
LHS	Left-hand Side
NAD	Namibia Dollar
NAMFISA	Namibia Financial Institutions Supervisory Authority
NISS	Namibia Inter-bank Settlement System
NPL	Non-performing loan
NSX	Namibian Stock Exchange
RHS	Right-hand Side
SA	South Africa
SACU	Southern African Customs Union
SARB	South African Reserve Bank
USA	United States of America
VIX	Volatility Index

CONTENTS

PURPOSE

The purpose of the Financial Stability Report is to assess developments in the financial system of Namibia, in the context of the global and regional financial systems, and identify risks to the system. The aim of the assessment is to encourage debate in the public and private sectors on the vulnerabilities identified, as well as serve as a warning system to possible risks. The report presents action recommendations to identified risks. Lastly, the report is published to educate the reader on the resilience of the system, and what the regulators and government are doing in order to mitigate risks to the Namibian financial system.



PREFACE

Financial Stability and the approach of the Bank of Namibia

The Bank of Namibia defines financial system stability as the resilience of the domestic financial system to internal and external shocks, be they economic, financial, political or otherwise. It can also be described as the absence of macroeconomic costs of disturbances in the system of financial exchanges between households, corporates, and financial institutions.

The financial system in Namibia consists of financial markets, instruments, institutions and infrastructure. The regulatory structure, while not strictly a part of the financial system, plays an important role in regulating and monitoring the system.

Under the mandate of Section 3(a) of the Bank of Namibia Act, 1997 (No 15 of 1997, as amended) the Bank of Namibia has an objective “to promote and maintain a sound monetary, credit and financial system in Namibia and sustain the liquidity, solvency and functioning of that system”. The stability of the financial system is critical as the system provides important services to households, corporates, and the real economy.

As such, the Bank of Namibia engages in active, on-going and formalised engagements with the Namibia Financial Institutions Supervisory Authority (NAMFISA) and the Government of Namibia, through the Ministry of Finance, to ensure a comprehensive assessment of systemic financial risks and of policy actions to ensure lasting financial system stability.

I. INTRODUCTION AND SUMMARY

Since 2009, the Bank of Namibia (BoN) has been preparing *Financial Stability Reports* that included assessment of key sectors, infrastructure and institutions that are important to the stability of the financial system. The assessments have been mainly focused on the banking institutions and payment system infrastructure.

The current *Report* contains an assessment of the stability and resilience of the Namibian financial sector[1] using available economic and financial data through September 2012. It also includes policy actions advised by the Bank of Namibia to reduce and mitigate risks to financial stability. The *Report* describes main developments in global and domestic economic and financial markets (Section II), analyses the financial position of domestic debtors and creditors (Sections III and IV), describes the payments system infrastructure (Section V), and assesses the main risks to the financial sector (Section VI). Concluding remarks and policy recommendations are presented at the end of the paper (Section VII).

Since the publication of the *Financial Stability Report* of March 2012, the global economy has remained fragile with no expected turnaround in the near term, thus posing a risk to the Namibian economy and financial sector. The fragility of the global economy is transmitted through the trade and foreign direct investment channels, with pressure coming from the country's commodity price-taking position in international commodity markets as well as from the exchange rate. As such, a prolonged deterioration of the international terms of trade can be expected to reduce the contribution of the mineral sector to economic growth, trigger further slowdown across the economy, given the sector's linkages onto the rest of the economy, and weaken the country's fiscal and external positions.

Given the external economic environment, continued prudent management of fiscal reserves, as well as the rebuilding of fiscal buffers could serve to increase Namibia's resilience to external risks. To this end, strong policy coordination among the Ministry of Finance, the Bank of Namibia (in its capacity of guardian of the domestic payment system and regulator of domestic banking institutions), and the regulator of non-bank financial intermediaries is warranted.

The commercial banking institutions in Namibia remain stable, profitable and adequately capitalised. The total assets of the banking sector continued an upward trend, although the earnings of the banking sector slowed in the first half of 2012, along seasonal patterns. Further, the sector remains compliant with regulatory liquidity requirements. The quality of banking assets improved, with the fall in NPLs to 1.4 percent. Notwithstanding the lower NPLs ratio, there is emerging risk stemming from increasing household and corporate and indebtedness that warrant monitoring. The estimated ratio of household debt to disposable income increased from just below 60 percent in the first quarter of 2003, to around 89 percent in the first quarter of 2012, with simultaneous increases in household debt service ratios.

Similarly, corporate debt levels too have been on the rise, with the ratio of corporate debt to GDP increasing to 44 percent by 2011. Although the ratio is not high by international standards, the external portion of debt sourced by local companies is relatively high due to the fact that many local subsidiaries of multinational

1 Current analysis focuses exclusively on the banking sector, however future analysis will include insight into the non-banking sector, specifically non-bank financial intermediaries, to illustrate a more holistic picture of systemic risks to the country's financial stability.

companies are indebted to their parent companies. Comforting, however, is the long-term nature of the companies' business relationship, and the magnitude and expected maturity of the underlying investment commitments, which increase the economy's potential output and add resilience to debt service capacity.

The other risk facing banking institutions is the structural nature of their balance sheets. Banking institutions' asset portfolios are heavily concentrated in long term mortgage loans, which make up 50 percent of loans to the private sector. However, the Bank of Namibia as Regulator has tools in place to ensure that the local banking institutions measure, monitor and control risks identified. Banking institutions are required to conduct regular stress testing on the impact of possible interest rate shocks on the performance of the bank. In addition, the Bank applies a 50% risk-weight to residential mortgage loans to ensure that banking institutions have an adequate capital buffer to absorb possible losses. At the same time, the Bank is investigating the possibility of introducing forward looking macro prudential tools which would require households to make a down-payment when obtaining loans for second properties to contain household leverage.

Moreover, there appears to be a maturity mismatch between assets and liabilities, with sizeable, wholesale bank deposits of non-financial corporations representing a large share of the banking institutions' loanable capacity. This said, while wholesale deposits could potentially experience volatility, this has historically not been the case. Finally, liquidity, while continuously carefully monitored and managed, remains of critical importance to financial stability and as such on-going vigilance is expected going forward.

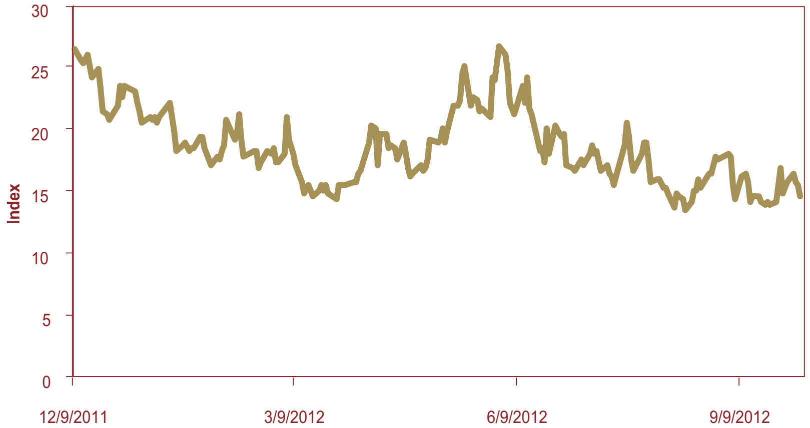
Payment systems infrastructure continues to operate with high levels of availability. Potential risks from failures in payment system infrastructure have not materialised, and are not expected to do so going forward, however efforts should continue to ensure high availability of the payment systems.

II. MACROECONOMIC ENVIRONMENT

REST OF THE WORLD

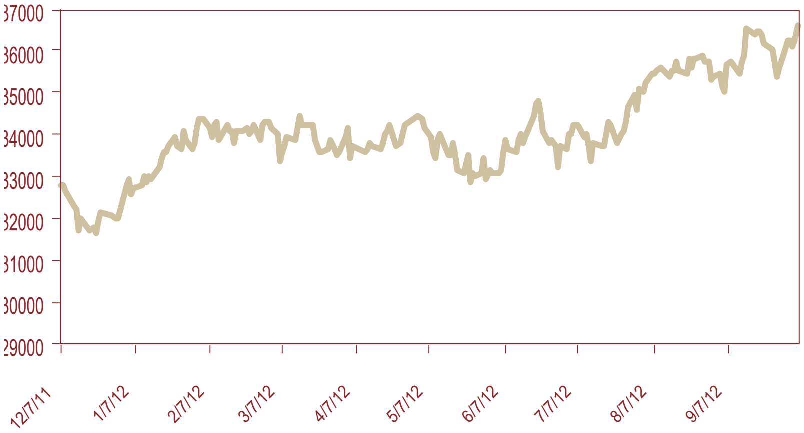
Since the last publication of the *Financial Stability Report* in March 2012, the global economic conditions have remained volatile, tending towards deterioration in the first half of 2012, with no expected turnaround in the near term. The volatile economic conditions are resultant from the enduring debt crisis in the Euro zone, the sluggish recovery of the US economy, and the negative trade and finance transmission channels from these economies to the other economies of the world (Figures 1 and 2). This slowdown is expected to continue during the remainder of the year and well into 2013.

Chart 1: The VIX edged down from the peak in May 2012, however volatility remains high.



Source: Bloomberg

Chart 2: Towards the end of Q2 2012 the JSE Africa All Share Index rose at the back of central bank easing across the major economies.



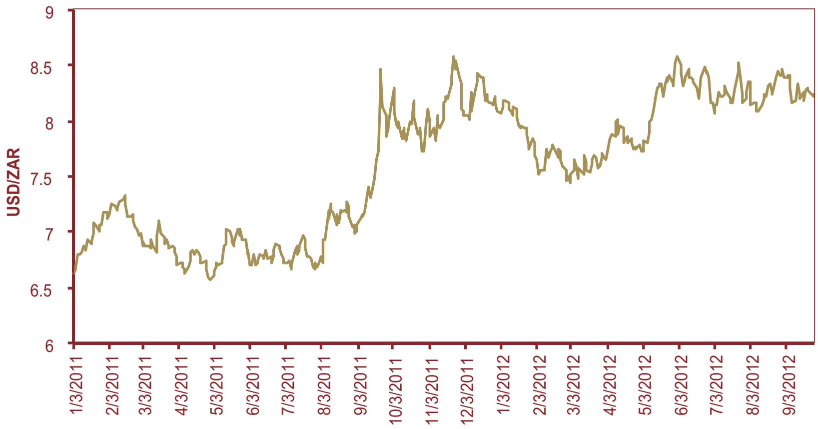
Source: Bloomberg

REGIONAL HIGHLIGHTS

Regionally, compared to the first two quarters of 2011, the Rand has depreciated, settling at a support level of just above R8.00 against the US dollar towards the end of the second quarter of 2012 (Chart 3). The observed movements in the Rand were driven by events in Europe, as well as by political events in South Africa.

Despite the depreciation of the South African Rand, inflation has remained marginally below the upper-bound of the SARB's inflation target band. Inflation in South Africa averaged an annual rate of 5.95 percent during the first half of the year, compared to an annual rate average of 4.22 percent over the first six months of 2011. The transmission mechanism of inflation from South Africa into the Namibian economy could affect the purchasing power of the Namibia dollar, as well as the ability of local individuals and corporates to service debt.

Chart 3: Currency Movements of the Rand against the US dollar



Source: Bloomberg

Exports

Namibia's primary source of export revenue is from the sale of minerals, specifically diamonds and uranium, as well as relatively low quantities of other minerals (such as zinc, gold, copper, salt and others). Namibia is an important, albeit small, player in the global diamond market, a market notoriously susceptible to broad global market confidence. Export-oriented sectors such as mining could be severely affected by a sustained low growth in the major economies such as the Euro zone, the United States, Japan and China, and the ensuing depressed demand for minerals, diamonds and uranium, in particular. Table 1 indicates the importance minerals, specifically diamonds and uranium, serve as sources of export receipts. Any negative impact in these sectors could affect the national purse and the sectors into which the commercial banking institutions are exposed.

Table 1: Major Export Receipts as Percentage of Total Exports

Export receipts	2007	2008	2009	2010	2011
Minerals	58.8	54.3	40.7	44.0	41.4
Diamonds	31.2	24.8	17.3	20.6	20.2
Uranium	19.1	19.6	17.8	17.2	15.7
Other minerals	8.5	9.8	5.6	6.2	5.5
Food and live animals	9.7	11.4	12.0	12.3	12.6
Manufactured products	30.5	27.1	23.7	22.2	22.4
Other commodities	1.0	7.2	23.6	21.4	23.5

Source: Bank of Namibia Annual Report 2011

Foreign Direct Investment (FDI)

Much of the foreign direct investment into Namibia is focused on the mining sector, specifically the uranium sector and related activities. Over the next decade, a substantial number of mines, many of which mining uranium, are expected to come into production. Most such mines' viability is dependent on international commodity prices, many of which have experienced some decline in recent years. Chart 4 illustrates the reduction in uranium price seen since 2007 (a phenomenon mirrored by a number of other minerals). Continued low commodity prices have the potential to substantially reduce FDI into Namibia.

Chart 4: Uranium Prices

Source: International Monetary Fund (IMF)

Import coverage and international reserves

In recent years, the country's external position has benefitted from sizeable SACU revenue flows and some external borrowing (2011) that added some degree of stability to the level of gross international reserves, notwithstanding the weak external environment. SACU revenue flows increased from about N$4.2 billion in 2004 to about N$13.9 billion in 2012. The surge in SACU revenue reflected a sharp increase in extra-SACU imports and excise duties in SACU member countries (particularly South Africa) that financed the Common Revenue Pool for distribution among all SACU member countries. Substantial SACU revenue helped finance countercyclical fiscal policies in the heights of the 2008 global financial crisis, while maintaining a central bank's international reserve coverage (in terms of imports of goods and services) at approximately 5.7 months, on average. Similarly, Namibia's issuance of a debut (U$500 million) Eurobond in late 2011 added further to international reserves.

Exchange Rate

The spillover effects of the turbulent global financial environment have resulted in currency volatility, as well as general market volatility, much of which has been transmitted to South Africa and other CMA member states. As Namibia is a small open economy, it has no impact on international commodity prices and, additionally, because it is pegged to the currency of South Africa, has no influence over the movements of one of its main trading currencies, the South African Rand. Movements in the Rand can affect the competitiveness of Namibian products. This, in turn, affects the country's export earnings receipts and the external position.

Investment rating and government debt

In 2011 the Namibian Government received its second investor grade rating, allowing the issuance of a debut Eurobond to international markets, at a reasonable rate of interest. Subsequently however, global and regional developments have resulted in the downgrading of the sovereign debt ratings of a number of governments, including South Africa. The reasons given for such downgrades centred on high debt levels and/or slow economic growth. Currently, Namibia's growth remains relatively high by global standards, and sovereign debt levels remain amongst the lowest in the world. Despite this, Namibia's lack of diversity in its major industries mean that labour unrest or other factors affecting potential output, could have detrimental effects on economic activity, and by extension, debt ratios in the country.

Interest rates

Interest rates in Namibia are at historically low levels, following substantial cuts from late 2008 to August 2012. During this time, the repo rate was cut from 10.5 percent to 5.5 percent. This extended period of abnormally low interest rates has meant that the cost of borrowing is relatively low, thus increasing demand for credit. At the same time, little incentive currently exists for savings, as deposit rates are highly negative in real terms. As such, stores of debt have accumulated substantially, with outstanding private sector debt to local banking institutions of over N$47 billion (Q2, 2012).

Financial intermediation

Namibian financial intermediaries face challenges, from current low interest rates, to increasing household and corporate debt levels. Low interest rates have a significant impact on profitability, and the incentives for banking institutions to lend, which in turn creates financial stability risks. Details of stability challenges emanating from the banking sector are covered in Sections IV and VI. C.

III. DEBT INDICATORS OF DOMESTIC HOUSEHOLDS AND CORPORATIONS

Debt is classified in many different ways, usually based on categorisation of either the creditor (extender of the debt) or the debtor (receiver of the debt). Debt classifications include government (sovereign), private sector, household, corporate and many more. For the purpose of this report analysis is contained to private sector debt, held by individuals (households) and corporations.

The uptake of debt, be it by governments, companies or individuals, can be highly beneficial if carried out prudently, however, it can be similarly detrimental if done recklessly. As such, much effort has been made (internationally) to identify the optimum level of debt, as well as threshold levels beyond which debt stops being a positive factor on growth, and starts to present a negative impact.

In Namibia however, the challenges surrounding debt levels are more rudimentary, as to date there has been limited research done on the compilation of debt figures for the country, beyond that carried out at the formal institutions of credit and the regulator of such. As such, this paper attempts to calculate the levels of indebtedness of Namibia's private sector (corporations and households), in order to answer the question of whether Namibia's debt levels are sustainable, and whether these levels of indebtedness could hamper macroeconomic stability.

A. Households' Debt Analysis

This section presents standard household debt ratios for Namibia using banking sector information and that derived from household survey data on informal lending facilities. The *household debt to disposable income ratio* is a measure of how much debt households have relative to their disposable income, while the *debt servicing to income ratio* looks at the cost of servicing household debt relative to household income. Both ratios are commonly used to assess the debt burden on households, both in order to see how much total debt households hold, and to gauge the repayment burden of the said debt.

Currently there is no official measure of household indebtedness in Namibia; however it is possible to estimate such given data currently available. The estimation challenges are numerable, not least that there is fairly limited monitoring or regulation of informal sector borrowing from informal institutions, as well as friends and family. The FinScope survey of 2011 indicates that the number (not necessarily reflective of value, however) of people borrowing from the informal sector as well as friends and family was approximately fifty percent more than those borrowing from formal institutions. Despite the lack of data on this topic, it remains an issue of great concern, as high levels of household indebtedness could run the risk of derailing financial stability in the country. Further, perception exists that many individuals are leveraging their financial positions to invest in housing (first properties as well as second, third to nth properties), vehicles and other productive and non-productive assets.

DISPOSABLE INCOME

One main challenge surrounding the calculation of household indebtedness is to estimate figures for household disposable income. This was done using national accounts data, information derived from the National Household Income and Expenditure Survey (NHIES) 2009/2010, and supplementary budget data. Utilising various sources (see Appendix 2) an unadjusted measure of household disposable income was derived in the region of N$30.4 billion for 2009/10 (Table 2, Appendix 1). As the NHIES 2009/2010 estimates income to be in the region of N$30 billion, this number was assumed to be of an acceptable level of accuracy[2].

Debt levels

Currently, the Bank of Namibia captures data on household borrowing from formal institutions, however does not capture information about informal debt, particularly debt of the unbanked.[3] While household borrowing from formal institutions is not wholly encompassing of total household debt, it is nonetheless illustrative of main trends and is assumed to form the largest share of household debt (Table 2). Yet, as only 65 percent of the Namibian population is banked--and thus only 65 percent of the population can be expected to own formal credit (at most)--it was assumed that the figures collected by the Bank of Namibia need to be adjusted to assess total household debt levels. In particular, it was assumed that the poorest deciles of population were unbanked[4], and as the lowest 3.5 deciles of population accrue approximately 11.5 percent of total national income, it was assumed that approximately 11.5 percent of household income was unbanked. Assuming the same debt to income ratio for the unbanked population as the banked population, the BON debt figures were inflated by 11.5 percent. This adjustment implies that the informal sector credit is 11.5 percent of the formal credit to individuals, or in 2011, N$3.3 billion[5].

Table 2: Household debt

N$ Million	2003	2004	2005	2006	2007	2008	2009	2010	2011
Household Debt (BoN)	10 648	12 828	15 515	18 044	19 770	21 899	23 256	25 355	28 451
Adjusted Household Debt	11 872	14 303	17 299	20 119	22 043	24 417	25 930	28 271	31 723

Source: BON Calculations

Households' debt to disposable income ratios

The estimated ratio of household debt to disposable income has been consistently higher than the corresponding ratio for South Africa, increasing from just under 60 percent in the first quarter of 2003, to around 89.6 percent in the first quarter of 2012 (Table 3 and Charts 5 and 6). The growth registered between 2003 and 2005 was due to a sizable differential between growth in disposable income (which approached zero), and credit extension to households (which experienced over 25 percent growth). Subsequently, however, until the final quarter of 2010, disposable income outgrew household debt, bringing the ratio down slightly, to around 86 percent. Since mid-2010, increasing growth in credit to households has resulted in a once again increasing household debt to disposable income ratio[6].

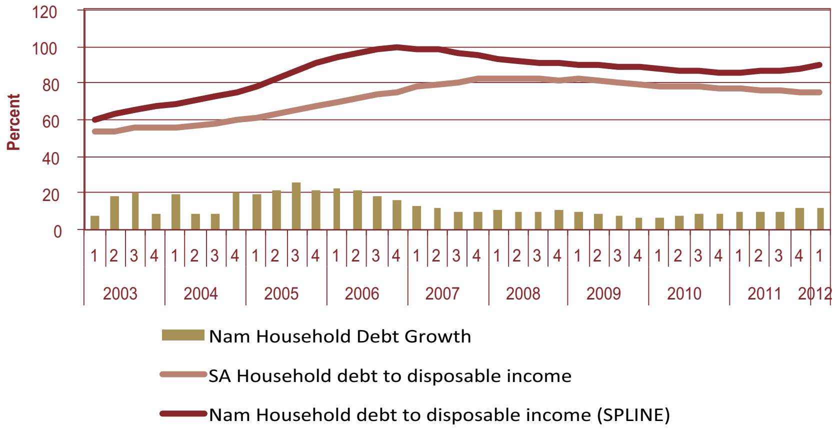
Table 3: Estimated Household Total Debt to Disposable Income Ratio

Percent	2003	2004	2005	2006	2007	2008	2009	2010	2011
Household Debt to Disposable Income	61.9	70.5	84.6	88.9	84.0	80.8	78.8	77.1	80.3
Adjusted Household Debt to Disposable Income[7]	69.1	78.6	94.3	99.1	93.7	90.1	87.9	85.9	89.6

Source: BON calculations

2 See Appendix 1, Table 1.
3 Information on formal institutions lending is collected from First National Bank of Namibia, Standard Bank of Namibia, Nedbank Namibia, Bank Windhoek, Agribank of Namibia, National Housing Enterprise, and the Namibia Post Office Savings Bank.
4 NHIES 2009/2010
5 In assessing the adjustment level for household debt, it was assumed that the poorest 35 percent of population are unbanked, however are not without debt. As such, formal sector debt levels were inflated assuming the same ratio of debt to income in the unbanked population as in the banked population. The figures derived are broadly consistent with other macroeconomic variables, such as the debt to total consumption ratio of the unbanked, which stands at approximately 32 percent. Moreover, while only 35 percent of the population is unbanked, it is likely that a larger group do not have access to debt from formal institutions of lending, despite being banked. Finally, it is possible that the banked population may also borrow from the informal market. This shall be further investigated going forward.
6 See Appendix 1, Chart 1.
7 Given the fact that the correction factor was used only for the levels of household debt, the adjusted debt to disposable income ratio increased significantly from the unadjusted ratio.

Chart 5: Household Debt to Disposable Income



Source: BON calculations

Households' debt service to income ratio (DSR)

In order to calculate the debt servicing to gross income ratio, the cost of servicing outstanding debt had to be calculated. This was done using standard amortization formulas (Appendix 2), based on total outstanding debt, total outstanding period of loan, and average loan interest rates.

As average interest rates are collected and compiled by BON, these rates were used in the calculations of debt repayment costs (Table 4). Where no specific rate existed for the classification of loan, the prime rate was used.

Table 4: Average Interest Rates by Type of Loan (end of period)

	Mortgage	Overdraft	Other (prime)	Leasing	Instalment Sale
2003	12.5%	12.5%	12.5%	10.0%	13.9%
2004	12.3%	10.9%	12.3%	11.4%	12.5%
2005	11.8%	12.3%	11.8%	9.9%	12.1%
2006	13.8%	13.6%	13.8%	11.4%	13.1%
2007	15.3%	14.8%	15.3%	12.6%	15.1%
2008	14.8%	15.0%	14.8%	11.5%	14.8%
2009	11.6%	11.3%	11.3%	10.8%	11.0%
2010	10.5%	10.3%	9.8%	9.8%	10.2%
2011	10.7%	9.8%	9.8%	9.2%	9.7%

Source: First National Bank, Nedbank, Bank Windhoek, Standard Bank, BON calculations

Average loan durations were estimated based on the type and standard durations of loans (Table 5). Average outstanding duration of loans was estimated in cooperation with local commercial banking institutions. It was assumed that overdrafts are rolled over, rather than repaid, and as such only the interest costs of overdrafts were calculated, not the repayment of principal.

Table 5: Estimated Average Outstanding Duration of Loans

Years

Mortgage	Overdraft	Other	Leasing	Instalment
16	-[8]	3	3	3

Source: BON calculations

[8] It was assumed that overdrafts are not repaid on a set repayment schedule, but rather rolled over, and dependent on cash flow.

BON collects data on various classes of loans, as extended by financial institutions reporting to the monetary authority. These classes of loan generally coincide with the rates extended by these institutions (Table 6).

Table 6: Stock of Loans (end of period)

N$ millions

	Mortgage loans	Overdrafts	Other loans and advances	Leasing	Instalment credit	Other	Total
2003	6 115	957	1 461	80	2 031	3	**10 648**
2004	7 934	1 082	1 508	74	2 227	4	**12 828**
2005	9 960	1 125	922	60	2 817	630	**15 515**
2006	11 652	1 027	1 786	73	3 165	342	**18 044**
2007	13 038	1 076	1 829	89	3 374	364	**19 770**
2008	14 502	1 227	2 106	101	3 333	630	**21 899**
2009	15 557	1 278	2 425	90	3 296	611	**23 256**
2010	16 848	1 388	2 733	126	3 616	644	**25 355**
2011	18 804	1 490	2 817	89	4 405	846	**28 451**

Source: BON

Given the above data, the total cost of debt servicing was estimated over the period 2003 to 2011 (Table 7). The estimated cost of servicing and repaying debt has increased from approximately N$2.5 billion in 2003 to approximately N$5.7 billion in 2011, implying an annual compounded growth of approximately 11 percent.

Table 7: Total Cost of Debt Servicing

N$ million	Mortgage loans	Overdrafts	Other loans and advances	Leasing	Instalment credit	Other	Total
2003	885	120	587	31	832	1	**2 456**
2004	1 133	118	603	29	893	2	**2 778**
2005	1 383	138	366	23	1 125	250	**3 287**
2006	1 805	140	730	29	1 282	140	**4 125**
2007	2 181	160	764	36	1 406	152	**4 698**
2008	2 366	185	873	40	1 382	261	**5 107**
2009	2 145	144	956	35	1 295	241	**4 817**
2010	2 178	142	1 054	49	1 404	249	**5 075**
2011	2 458	146	1 087	34	1 698	326	**5 749**

Source: BON

Despite fluctuations in all of the ratios of debt service to income (gross or disposable income), servicing rates remain higher today, than they were nine years ago (Table 8). However, it is likely that the debt burden has been shared over a greater percent of population over this period, as the country's middle class continues to grow. Despite this however, it is believed that a very small percentage of the country's population carries the burden for the largest share of total debt. For the purpose of our estimates, we have assumed that the richest 30 percent of population carries all of the formal sector debt. As the richest 30 percent of population receives approximately 68 percent of total income, this figure was used to adjust the calculations to produce an adjusted debt servicing to gross income ratio (Table 8, final column).

Table 8: Households Debt Service Burden

	Gross Income (N$ Millions)	Disposable Income (N$ Millions)	Annual Debt Servicing (N$ Millions)	Debt Servicing to Gross Income	Debt Servicing to Disposable Income	Adjusted Debt Servicing to Gross Income
2003	19 004	16 799	2 456	13%	15%	19%
2004	20 270	17 261	2 778	14%	16%	20%
2005	20 585	16 670	3 287	16%	20%	23%
2006	22 818	18 643	4 125	18%	22%	27%
2007	26 284	20 832	4 698	18%	23%	26%
2008	30 350	23 442	5 107	17%	22%	25%
2009	33 177	25 578	4 817	15%	19%	21%
2010	37 181	27 664	5 075	14%	18%	20%
2011	39 501	29 963	5 749	15%	19%	21%

Source: BON calculations

B. Corporate Debt

Analysing the level of corporate debt in the economy (in addition to assessing the magnitude of the households' indebtedness) is important as it provides an indication of possible economic stress in the real economy and alerts the regulator to vulnerabilities to the financial sector, which is often the originator of the debt. In order to glean some preliminary understanding of Namibian corporate debt a two pronged approach was taken, firstly to *assess broad levels of corporate debt* in the Namibian economy relative to GDP, and secondly, a simple study was undertaken of the current and historic *largest exposures* to the local commercial banking institutions.

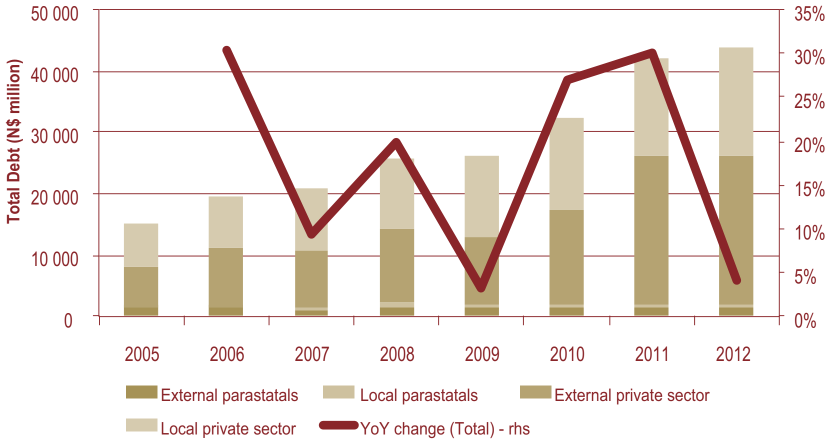
Broad corporate debt levels

Since 2005, the (nominal) corporate debt (private sector and parastatals) level in Namibia has increased annually. From around N$15 billion in 2005, total corporate debt almost tripled to N$43.8 billion in 2012. This debt is made up of debt to local institutions and debt to external institutions. Over this period, the average annual rate of growth for total corporate debt was approximately 18 percent, however, external credit to Namibian corporations grew significantly faster (approximately 21 percent per year) than local credit to local corporations (approximately 13 percent per year)[9].

The rate of growth of corporate debt has been highly volatile over the period. While credit growth was experienced every year over the period captured, in 2009, and up to the 2nd quarter of 2012, a significant decline in the rate of growth in corporate debt was experienced[10]. In both of these periods, this decline was as a result of declines in credit to Namibian companies from abroad. Given the global financial situation at these times, it is likely that parent companies of local subsidiaries put development on hold, awaiting more favourable returns, or improved financial viability. As such, debt to foreign corporations experiences slower growth, or in extreme instances, contraction.

9 Credit extended to Namibian institutions by foreign lenders includes credit to local subsidiaries of multinational companies, by their parent companies. This method of borrowing is particularly common in the mining sector.
10 Bank of Namibia, Balance of Payments data, 2012.

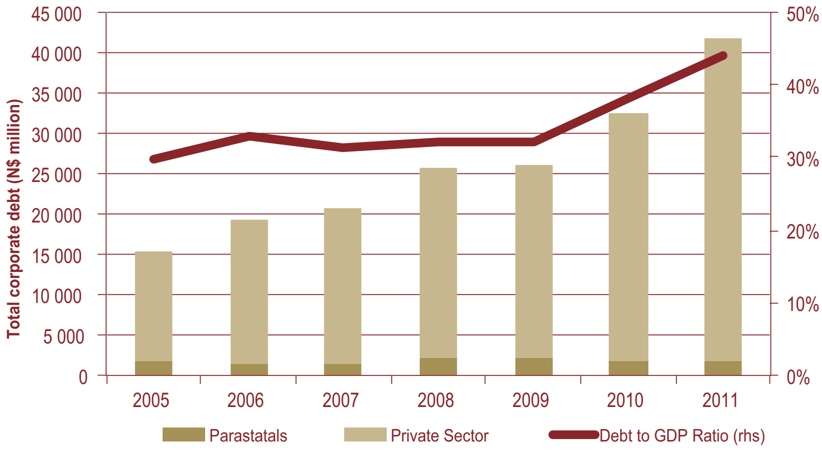
Chart 6: Credit to Corporations, 2005-2012



Source: BON

Given the growth in credit to corporations seen over the past seven years, it comes as little surprise that the corporate debt to GDP ratio has increased (Chart 7). While (nominal) GDP has been increasing at an average rate of 12 percent per year, the debt of corporations in Namibia has been increasing at a rate of approximately 18 percent per year. As such, the ratio of corporate debt to GDP has increased to approximately 44 percent (2011). While this level is high, it is not in itself a cause for concern (the EU and China have ratios of approximately 80 percent and 107 percent, respectively).

Chart 7: Corporate Debt: Domestic and External, 2005-2011



Source: BON

On the other hand, a potential cause for concern originates from the breakdown of this debt (Table 9). As can be seen in Table 10, well over 40 percent of credit to corporations was sourced externally over this period, a threshold level beyond which Reinhart, Rogoff, and Savastano (2003) believed "debt intolerance" increases. This said, as a large portion of foreign debt is owed to parent companies of multinational subsidiaries operating in Namibia, threshold levels are likely to be higher than those proffered by Reinhart, Rogoff, and Savastano (2003).

Table 9: Domestic and External Corporate Debt

N$ Millions	2006	2007	2008	2009	2010	2011	2012
Domestic	42%	49%	46%	52%	47%	39%	42%
Foreign	58%	51%	54%	48%	53%	61%	58%
Total Debt	19 436	20 905	25 679	26 230	32 472	41 867	43 783
YoY Change (Total)	27%	8%	23%	2%	24%	29%	5%
GDP (Nominal)	54 028	62 081	72 946	75 070	81 120	90 835	
Debt to GDP Ratio (rhs)	33%	32%	32%	32%	38%	44%	

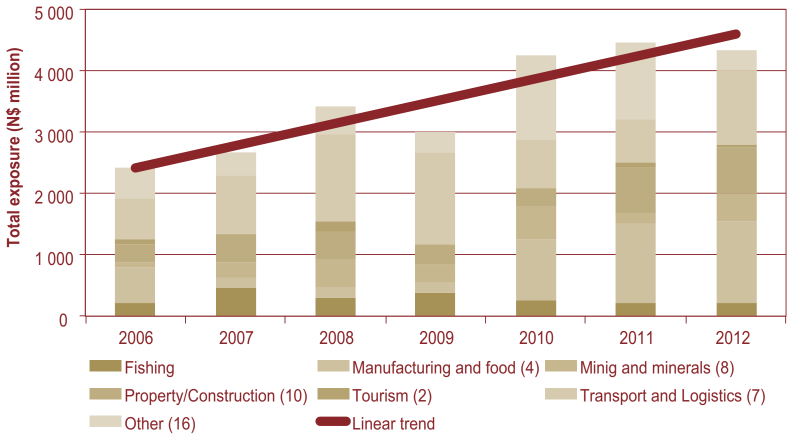
Source: BON

Large exposures[11]

Credit extended to the large corporates has been volatile over the past six years. Despite this, the trend in credit to such companies has been markedly on directional. Since 2006, credit extended to these large corporates has increased by approximately 80 percent. This was largely driven by increased uptake in debt by the mining and mineral companies (367 percent increase), property and construction companies (176 percent), manufacturing and food companies (120 percent), transport and logistics companies (79 percent) and fishing companies (18 percent). On the other hand, credit to large tourism companies declined by 35 percent, as did credit to other large corporates.

Yet, credit extended to all of the sectors classified has been volatile (Chart 8 and Table 10). Further, high volatility in domestic corporate debt suggests that large corporates borrow from local commercial banking institutions to aid short term cash flow, rather than for long term expansion (which may be funded through foreign credit or equity, for example).

Chart 8: Large exposures to Local Banking Institutions by Sector



Source: BON

Table 10: Large Exposures (in N$ millions)

	2006	2007	2008	2009	2010	2011	2011*	2012*
Fishing (5)	194	479	286	385	238	228	197	230
Manufacturing and Food (4)	607	134	160	167	1 024	1 264	1 153	1 333
Mining and minerals (8)	94	252	457	283	550	188	163	439
Property & Construction (10)	279	468	474	329	277	757	601	769
Tourism (2)	66	-	170	-	-	74	84	43
Transport and Logistics (7)	665	953	1 429	1 521	785	718	895	1 192
Other (16)	522	377	423	316	1 390	1 212	1 039	341
Total (52)	2 427	2 665	3 400	3 001	4 263	4 440	4 132	4 349
% Change YoY								
Fishing (5)		147%	-40%	35%	-38%	-4%		17%
Mining and minerals (8)		168%	81%	-38%	94%	-66%		170%
Property & Construction (10)		68%	1%	-31%	-16%	174%		28%
Tourism (2)		-100%	-	-100%	-	-		-48%
Transport and Logistics (7)		43%	50%	6%	-48%	-9%		33%
Other (16)		-28%	12%	-25%	339%	-13%		-67%
Total (52)		10%	28%	-12%	42%	4%		5%

Source: BON

* End Quarter 2.

[11] The analysis of large exposures is based on a sample of the largest 25 borrowers from local commercial banking institutions over the past seven years, as collected by the Bank of Namibia.

The overall size of these large exposures is significant in the Namibian economy (Table 11). At any time, the 25 companies to which local banking institutions are most exposed make up approximately 10 percent of total private sector credit, and between 25 and 30 percent of total private sector credit to businesses. As such, a significant concentration risk could exist.

Table 11: Largest Exposures versus total Private Sector Credit

	2006	2007	2008	2009	2010	2011	2011*	2012*
Total Largest Exposures (LE)	2 427	2 665	3 400	3 001	4 263	4 440	4 132	4 349
Total PSC	26 538	30 100	34 241	37 751	41 838	46 177	44 062	48 811
PSC to Businesses	8 148	9 976	11 210	13 155	15 013	15 876	15 909	17 550
LE to PSC	9.1%	8.9%	9.9%	7.9%	10.2%	9.6%	9.4%	8.9%
LE to Business PSC	29.8%	26.7%	30.3%	22.8%	28.4%	28.0%	26.0%	24.8%

Source: BON
* End Quarter 2.

Stock debt figures form only part of the picture however, with another critical aspect being the debt servicing cost, and corporations' liquidity positions to be able to cover such costs. Unfortunately, such servicing costs are likely to be highly variable across economic sectors, and are currently not captured completely. Yet, total foreign debt figures as captured in the balance of payments (Table 12) illustrate that a substantial amount of Namibian private sector debt is held outside the country. This debt is thought to be made up, predominantly, of corporate debt (as opposed to household). Furthermore, the servicing cost of this debt is high, approaching and surpassing at times the billion dollar mark. This said, the majority of the debt captured herein is thought to be taken out by mining companies, particularly those starting new operations in Namibia.

Table 12: Foreign Debt and Debt Servicing Burden (in N$ million)

	2007	2008	2009	2010	2011	2012*
	Q4	Q4	Q4	Q4	Q4	Q2
Total External Private Sector Debt	9 596	12 251	11 065	15 742	24 149	24 112
Total External Private Sector Debt Servicing	441	698	1 402	304	473	706

Source: BON
* End Quarter 2.

IV. Performance of the Banking Sector

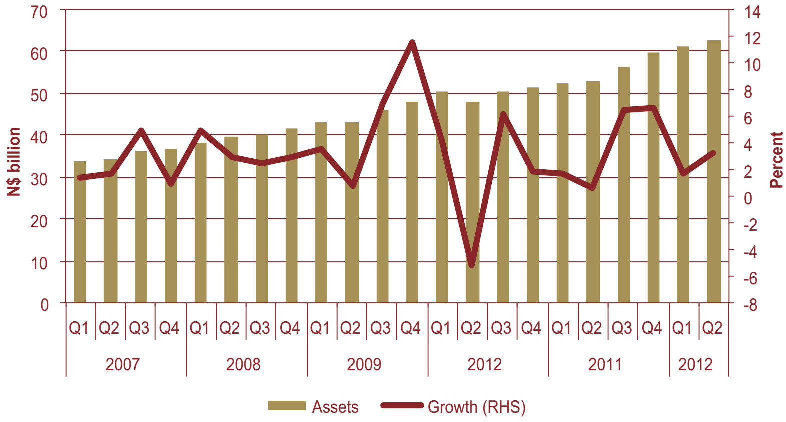
Banking sector

The Namibian banking sector is dominated by four major banking institutions, three of which are locally authorised subsidiaries of South African holding companies. Together, the four banking institutions account for almost 100 percent of banking assets and deposits. This makes the sector highly concentrated with a HHI concentration index of 2 999 points in June 2012, up from 2734 points in December 2011, against the universal threshold of 1 000 points.

Balance sheet structure risk

The total assets of the banking sector continued their upward trend in the first half of 2012, as did concentration in the residential mortgage asset class. The total assets of the banking sector grew by 3.3 percent during the first half of 2012. Most of the growth resulted from a 7.7 percent increase in net loans and advances, which accounted for 72.7 percent of total assets during the period. Within the lending category, residential mortgages and instalments debt, comprising 42.0 percent and 16.6 percent of net loans and advances, respectively, grew by 5.5 percent and 5.6 percent. It is worth noting that the growth in lending to residential mortgages and instalment debt increased at a faster pace than the increase in total advances of the banking institutions. This is of concern, especially for households, noting the high level of indebtedness discussed in the preceding section. The loan books of commercial banking institutions remain concentrated in residential mortgage lending.

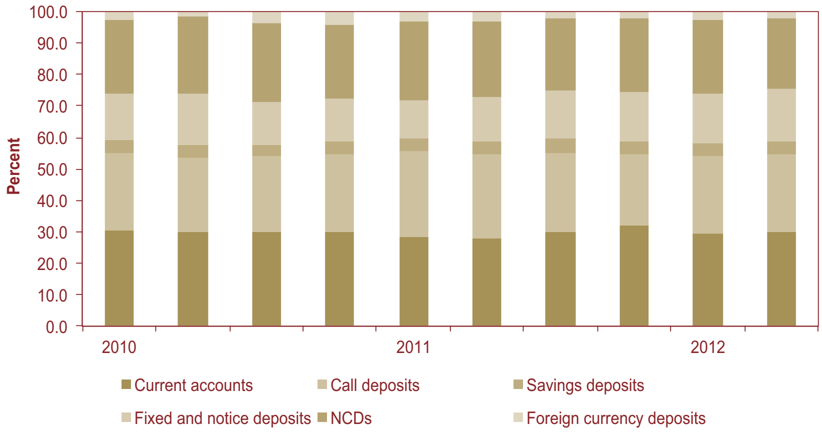
Chart 9: Banking Sector Assets and Growth Rates



Source: BON

On the liability side, growth was driven by non-bank funding (i.e., deposits). Deposits grew by 4.4 percent and comprised 98.6 percent of total funding-related liabilities during the period. The substantial growth came from the call accounts and fixed and notice deposits, which rose by 14.0 percent and 11.3 percent, respectively, and made up 24.5 percent and 16.7 percent of total deposits. The current accounts, comprising 30.0 percent of total deposits and the largest account, fell by 2.6 percent.

Chart 10: Composition of Banking Institution Deposits

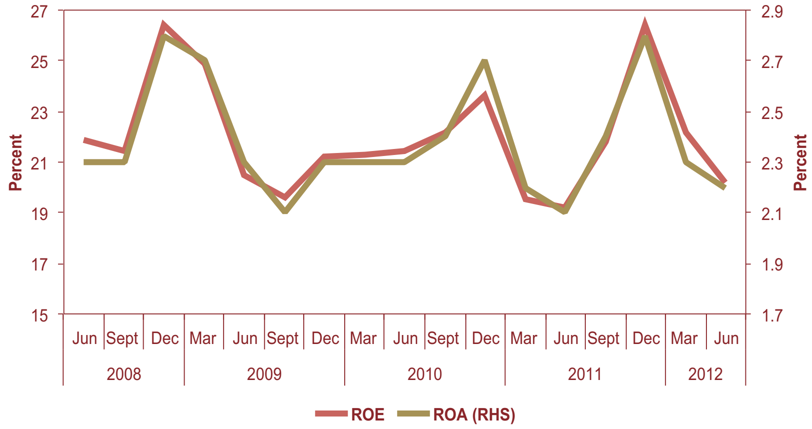


Source: BON

Earnings and profitability risk

The earnings of the banking sector slowed in the first half of 2012 along seasonal patterns, but profitability indicators remained relatively high by international standards (Appendix 1, Table 2). During the period, net interest income to gross income rose from 49.5 percent to 50.4 percent, while non-interest (other operating) expenses to gross income increased from 47.7 percent to 55.5 percent. Consequently, total income declined by 8.3 percent between December 2011 and June 2012. However, volatility in banking sector earnings may not be a concern as capital buffers are large enough to allow banking institutions to absorb periodic losses. Following the slowdown in income, the sector's profitability as measured by ROA and ROE fell from 2.6 percent and 26.4 percent at the end of December 2011, respectively, to 2.0 percent and 20.2 percent at the end of June 2012. Despite the recorded decline, the ROA and ROE remain high by international standards. It should be noted however, that timing of dividend payments and final adjustments of financial statements during the full year audit, also play a role in the movement in the ROE's of banking institutions.

Chart 11: Post-tax return on Assets and Return on Equity



Source: BON

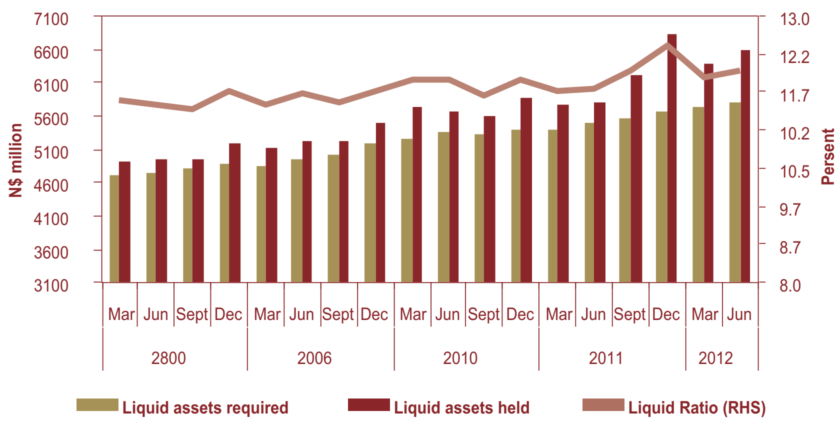
Capitalisation risk

Notwithstanding the decline in ROA and ROE, the sector increased its capital adequacy during the first half of 2012, aided by retained earnings and a fall in risk-weighted assets. The risk-weighted capital ratio (RWCR) and Tier 1 risk-based capital ratio rose, respectively, from 14.0 percent and 10.8 percent at the end of December 2011 to 15.2 percent and 12.3 percent at the end of June 2012. The reigning supervisory minima for the RWCR and Tier 1 capital are 10.0 percent and 7.0 percent, respectively.

Liquidity risk

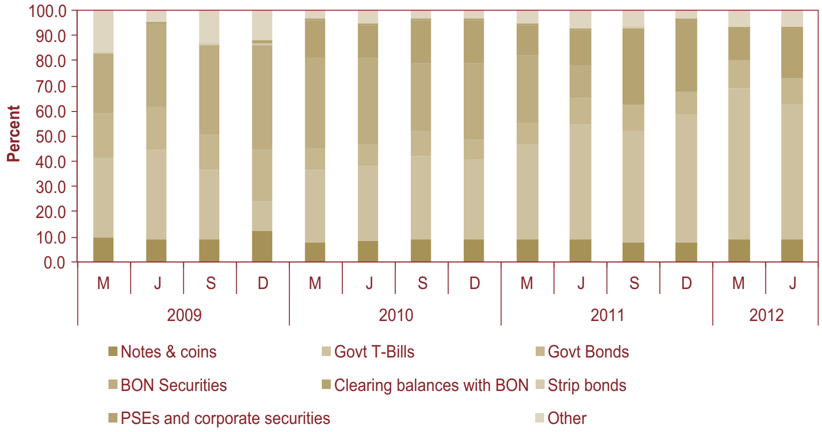
The banking sector remained compliant with regulatory liquidity requirements in the first half of 2012, with the composition of liquid assets remaining almost unchanged. The liquid asset ratio (liquid assets to total assets), one the two core indicators of financial soundness in the banking sector, fell from 12.4 percent at the end of the second half of 2011 to 11.1 percent at the end of the first half of 2012, but remained above the 8.0 percent trigger level (Chart 12). During the same period, the ratio of liquid assets to short-term liabilities, the sector's second core financial soundness indicator, declined from 22.2 percent at the end of December 2011 to 19.7 percent at the end of June 2012. The latter ratio has a 10.0 percent threshold. The decline in the ratio followed a 6.1 percent fall in liquid assets, compared with the same ratio at December 2011, while short-term liabilities rose by 5.7 percent. The banking sector also complied with the regulatory minimum asset holding requirements, of 10 percent of average total liabilities, with an average excess stock of N$1.6 billion (or 22.4 percent) during the first half of 2012. This compared with an average excess holding of N$2.3 billion (or 31.3 percent) at the end of December 2011. The composition of liquid assets remained almost unchanged between December 2011 and June 2012. The Government Treasury bills remain the highest liquid asset class at 53.4 percent as at June 2012. This is an increase from 50.6 percent as at December 2011.

Chart 12: Liquid Assets and Liquidity Ratio



Source: BON

Chart 13: Structure/Composition of Liquid Assets

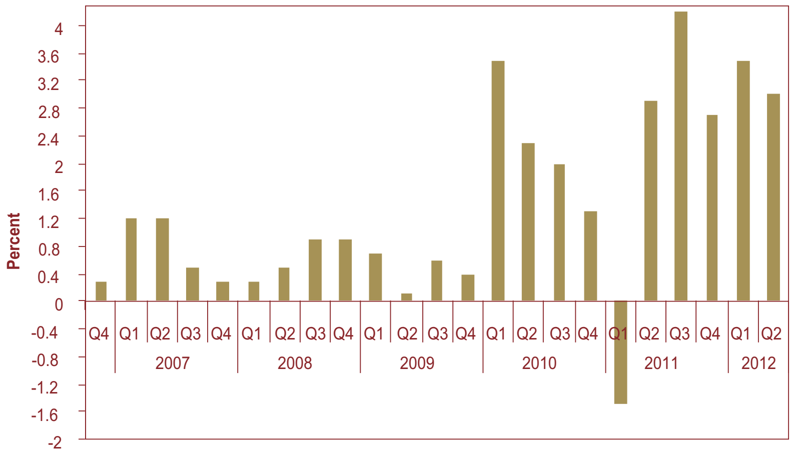


Source: BON

Foreign exchange risk

The banking sector remains well protected against movements in foreign exchange rates, according to its net open position. The ratio of mismatches, or net open position, of foreign currency assets and liabilities to capital in the banking sector rose from 2.7 percent at the end of December 2011 to 3.0 percent at the end of June 2011 (Chart 14). The rise in the ratio came as Tier 1 capital fell by 29.0 percent while net open position rose by 14.8 percent. Despite the increase, the ratio still remained well below the regulatory limit of 20 percent.

Chart 14: Net Open Position as per cent of Tier-1 capital



Source: BON

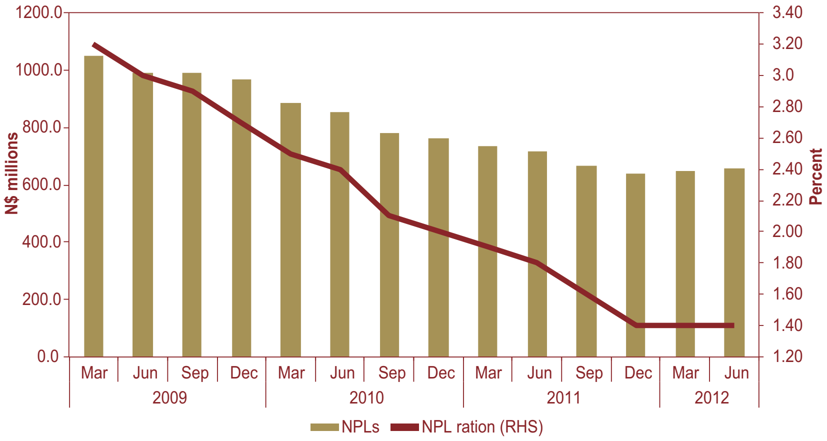
Interest rate risk

The domestic banking industry faces limited interest risk according to assessments by the Bank of Namibia. Interest rate risk measures the interest-sensitivity of assets and liabilities to changes in interest rates. As such, interest rate risk is the likely danger of a loss in interest income or qualifying capital funds due to movements in interest rates. As of end-June 2012, simulation results show that if interest rates were to decline by 200 basis points, the cumulative impact on banking institutions' net interest income over the following 12 months would be about N$276 million. For a comparable change in interest rates, the aggregate impact on the economic value of the industry would be a decline of N$29.6 million or 0.5 percent of the sector's capital funds.

Credit (asset/loan quality) risk

The quality of the banking assets improved, as credit risk continued to decline, although the sector remained beset with a high loan concentration in mortgages, which makes up over half of NPLs. Lending to the private sector averaged more than 70 percent of banking assets during the first half of 2012, with credit risk remaining the greatest risk on the asset side of the banking balance sheet. The proportion of non-performing loans (NPLs) to total loans continued to decline, falling albeit, slightly from 1.5 percent at the end of December 2011 to 1.4 per cent at the end of June 2012.

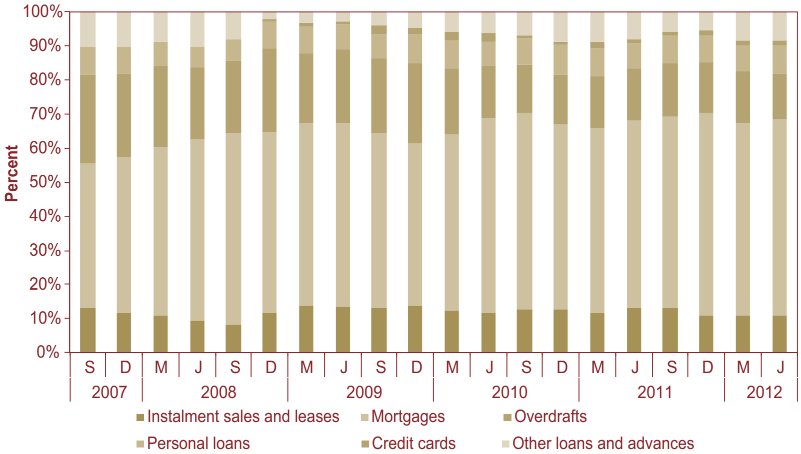
Chart 15: Banking Asset Quality



Source: BON

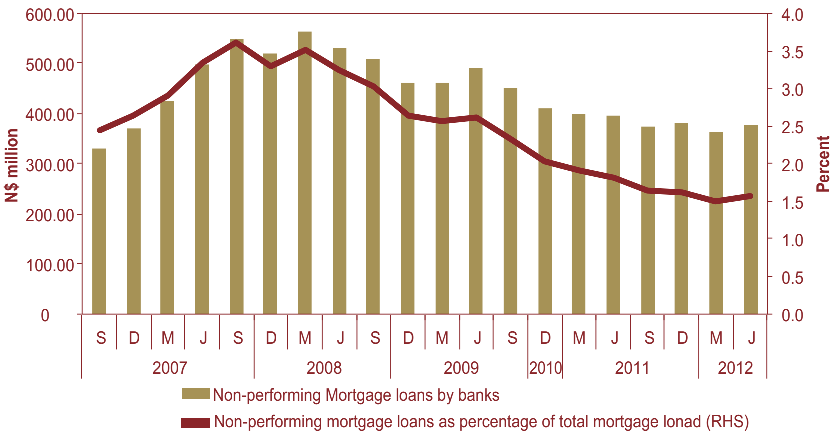
The fall in the NPL ratio was mainly a result of a decrease in non-performing mortgage loans, which made up 57.6 percent of total NPLs during the period (Chart 16). The lower interest rate environment that has prevailed since January 2009 appears to have improved the debt servicing ability of bank borrowers (whose ability to make interest and amortisation payments on their loans improved). At the same time, the proportion of non-performing loans, net of provisions, to total qualifying capital remained low despite edging up from 0.6 percent at the end of the second half of 2011 to 0.8 percent at the end of the first half of 2012.

Chart 16: Non-Performing Loans by Category



Source: BON

Chart 17: Non-performing mortgage loans



Source: BON

V. Financial System Payments Infrastructure and Regulatory Developments

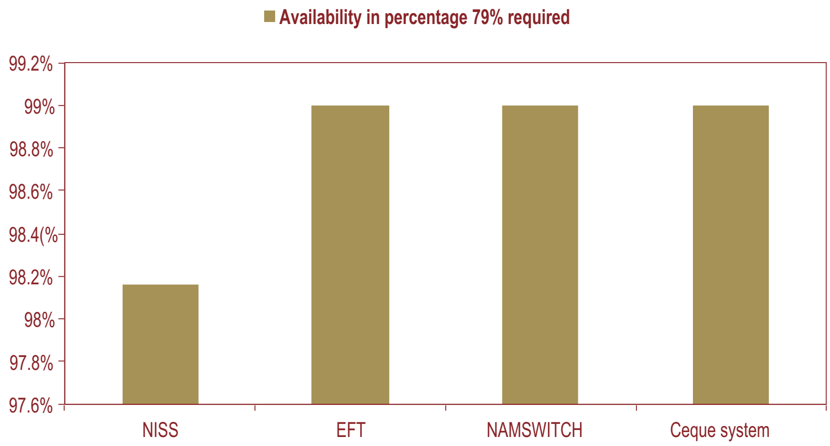
Financial system payments infrastructure

Two payment systems are operated in the country, namely the Namibia Interbank Settlement System (NISS) which is operated and overseen by the Bank of Namibia and deals with high-value and interbank transactions; and the retail settlement system, which is operated by Namclear[12], overseen by the Bank of Namibia and deals with EFT, cheque processing and card transactions. An efficient functioning of NISS allows transactions to be completed safely and in a timely manner, contributing to overall economic performance. Safe and efficient payment systems are fundamental to promote financial stability, while enhancing the efficiency of the financial system and the economy as a whole.

Operational vulnerabilities contribute to various risks in payment systems which may lead to disruptions that affect the stability of financial markets, and undermine public confidence. During the second half of 2012, the Bank of Namibia executed various onsite and off-site payment system oversight activities to ensure the safe, secure, efficient and cost-effective operation of the national payment system. Going forward, the Bank, as part of its oversight activities, will continue to place emphasis on the operational robustness, security, timeliness and contingency planning for systemically important payment systems.

The functioning of the system is measured by operational availability[13] and in this regard both the NISS and the retail payment system maintained high availability over the first half of 2012.

Chart 18: Payment System Availability



Source: BON

During the first quarter of 2012, NISS availability ratio was 98.16 percent, compared to 99.55 percent in the fourth quarter of 2011, and the system experienced 2 operational failures: the longest lasting 4 hours and 19 minutes and, overall, the NISS was not available for 7 hours and 7 minutes. The failures were resolved in accordance with the Bank's regulations and pose no danger to Namibia's financial stability. Additionally, analyses and measures to prevent such incidents in the future were undertaken.

The EFT availability ratio stood at 99 percent and 38 operational disruptions or settlement delays were identified in the system during the first quarter 2012, which were temporary and due to extension requests by participants. Such disruptions resulted in entire EFT net position or off-setting settlement not being executed within the stipulated time frame and were an increase from 25 disruptions experienced in the last quarter of 2011. The overseer (Bank of Namibia) participated in the incident analyses and discussed with the system's operator the measures to prevent such incidents in the future.

The Cheque System availability ratio stood at 99 percent and overall, 233 operational disruptions or settlement delays were identified in the system during the first quarter 2012, which were temporary and related to extension requests by participants. Such disruptions, an increase of 288 percent from

12 Namclear is owned by the commercial banking institutions
13 Operational availability is defined as the time the system is up to ensure transactions, more specifically between 08H00 and 17H00

Q4 of 2011, resulted in the entire Cheque settlement not being executed within the stipulated time frame. The Bank of Namibia participated in the incident analyses and discussed with the system's operator the measures to prevent such incidents in the future.

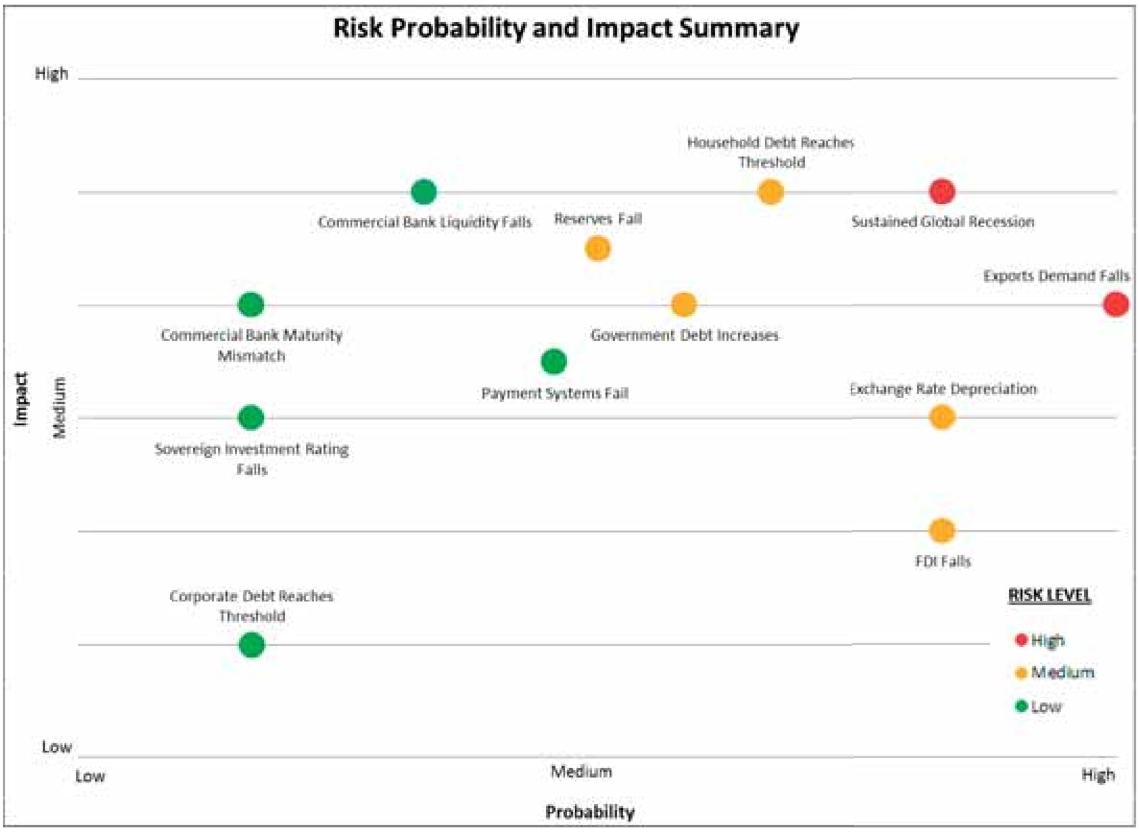
The NamSwitch system ensured card payment authorisation and calculated the domestic card transaction net position. The availability ratio stood at 99 percent and no operational disruption or settlement delay was identified in the system during the first quarter 2012. The NamSwitch system was the sole inter-bank card transactions processing centre carrying out domestic settlement, thus it is regarded as a systemically prominent system.

Counterfeit card fraud continues to be the dominant card fraud category, contributing 98.8 percent of the overall card fraud gross loss, with the majority (88.7 percent) of the counterfeit card fraud occurring within Namibia. ATM withdrawals contributed 72.1 percent of the counterfeit card fraud, compared to 90 percent during the fourth quarter of 2011. Overall, fraud rates for card payments and withdrawals recorded by the Namibian schemes during the first quarter of 2012 stood at 0.05 percent, which is an increase on the previous quarter (0.003 percent during fourth quarter 2011). Counterfeit and alteration and forgery are the dominant cheque fraud, contributing 44.4 percent and 55.4 per-cent respectively to the overall cheque fraud gross loss, compared to 43.9 percent and 47.7 percent respective during the fourth quarter of 2011. Online banking fraud decreased by over 70 percent.

Regulatory developments. The legal framework of the settlement and clearing systems of interbank payments is managed and/or overseen by the Bank of Namibia, and its functional and technical solutions and procedures are secure and modern. The evaluation and management of the risk that can occur in the settlement and clearing systems are done according to internationally acknowledged principles and good practices.

VI. Risk Analysis

This section presents the BoN's analysis of the main risks to the stability of the domestic financial system. Consistent with earlier sections in this Report, the analysis identifies risks arising from: (i) the external macroeconomic environment, (ii) trends with household and corporate debt, and (iii) trends with the domestic banking institutions' financial soundness indicators. The graphical representation below presents a summary of the risks identified in this section, specifically focusing on the probability of the risks identified materialising, as well as their (likely) impact on the financial stability of Namibia, should they materialise.



A. Risks stemming from a weak external environment

Exports

As a small open economy, Namibia is exposed to the headwinds of the global trade and finance trends (Box 1). As noted above, Namibia's exports largely revolve around minerals, which make up approximately 41 percent of total exports (2011)[14]. Other major exports include manufactured products (approximately 22 percent) and food and animals (approximately 13 percent). Currently over 50 percent of total Namibian exports are destined for Europe (approximately 56.7 percent including the Euro zone, the United Kingdom, Switzerland and Sweden), and as was seen in the recession of 2008/2009, demand for these exports, particularly luxury items such as alluvial diamonds, could be expected to drop, resulting in lower quantities demanded, at lower price.

As diamonds alone make up approximately 20 percent of total exports, a lasting depressed demand for the precious stones would have significant impact on overall exports. As a luxury good, diamonds are likely to see reduced demand from Europe and the US if on going financial crises perpetuate. In 2009, diamond exports fell by some 15 percent, while export value fell by some 40 percent. Diamonds were not alone in experiencing such price and volume contractions however. In the aforementioned recession, the price of many primary commodities (bar "safe haven" commodities such as gold) plummeted, and should this re-occur in the context of a lasting crisis in Europe, Namibia's exports stand to suffer.

Foreign Direct Investment

Waning commodity prices for many minerals, particularly, could be expected to reduce the incentives for continued and increased FDI inflows. As such, flows play a substantial role in assuring that the balance of payments remains balanced, as well as in growth and employment. Significant reductions in mining FDI inflows could have a negative impact on the economy, given the sector's economic and financial linkages onto the rest of the economy.

Import coverage and international reserves

Should Namibia's exports suffer a substantial contraction, without a similar correction in imports, it is likely that Namibia's import coverage could fall substantially, from the 2011 level of 3.4 months of imports of goods and services[15].

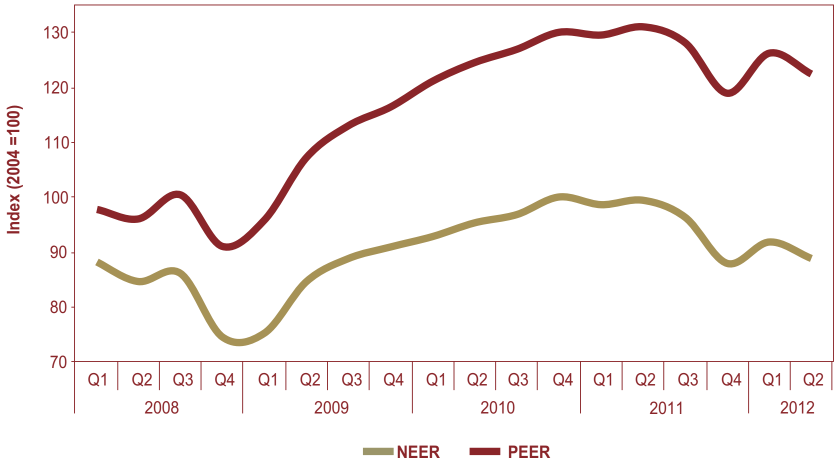
Moreover, the country's international reserves position would be vulnerable to the evolution of the domestic fiscal balance. A difficult international environment would reduce export and corporate income taxes, thus weakening the fiscal position. The eventual increase in the national debt would depend on the government's success in striking a balance between adjustment and financing. All in all, the ensuing debt service costs (interest and amortization) will depend, inter alia, on the government's ability to: (i) place new debt at moderate levels of real interest rates, (ii) develop a credible medium-term strategy for containing the government's primary deficit; and (iii) judiciously allocate any unexpected SACU revenue windfall.

Exchange Rate

As Namibia's currency is pegged to that of South Africa, the country has little control over currency movements. Recent depreciation of the Rand against major currencies may have marginally aided the export of Namibian goods (Chart 19). However, current exchange rate volatility makes it possible that the aforementioned depreciation will be balanced by appreciation in the future, negatively affecting exports, while making imports relatively cheaper.

14 *Bank of Namibia Annual Report 2011*
15 International Monetary Fund (2012), World Economic Outlook

Chart 19: Namibia: Nominal and Real Effective Exchange Rate Indices (increase reflects appreciation of the national currency)



Source: BON

Investment rating and government debt

Following sovereign rating and outlook downgrades in South Africa, it is possible that Namibia may be subject to similar scrutiny going forward. Major reasons for the downgrade of South Africa by Moody's Investor Service culminated around on-going labour unrest, coupled with slow economic growth. Given Namibia's regional integration, outlook downgrades, while unlikely, cannot be ruled out (see Risk Probability and Impact Summary chart).

Interest rates

The current historically-low levels of international interest rates have significantly reduced interest income on positive net foreign asset positions of domestic banking institutions--including the Bank of Namibia--and that of nonbank financial intermediaries. As evidenced by the experience following the Second World War, negative real interest rates in international markets could be a long-lasting regularity globally, with important negative implications over the net worth and precautionary reserves of key domestic financial institutions.

With interest rates at historically low levels, it is highly likely that in the future interest rates will increase. With current high levels of debts (Section III, above), such monetary tightening could potentially expose duress, particularly in households and where positions have been highly leveraged at times of low rates (see Risk Probability and Impact Summary chart).

Box 1. Headwinds in Global Financial Markets: An Overview

Risks to the global financial system increased during the first two quarters of 2012 when compared to the last quarter of 2011. This was mainly due to increased sovereign funding pressures as sovereign yields in southern Europe rose sharply as the result of erosion of the investor base. Although the European Central Bank's three-year long-term refinancing operations eased funding strains and led to a rallying across asset markets, the rally proved short-lived amid growing unease of the strength of the global economy. Policy uncertainty and possible exit from the euro area which had followed the Greek elections in May, coupled with concerns about the banking sector of Spain, had increased risk aversion in the markets, with some measures of financial market stress surpassing those of November 2011. The IMF GFSR characterised the cycle of turmoil as a cycle of stress build-up, the beginning of a crisis, policy response relief, followed by political resistance to (further) deep changes, which thus ultimately leads to a build-up of stress again.

To avert the situation, the ECB provided refinancing operations; notwithstanding however, peripheral banking institutions and firms conditions remained strained as reflected in interbank funding and their asset base. Interbank conditions remain strained, with limited activity in unsecured term markets, and liquidity hoarding by core euro area banking institutions. Consequently there developed funding strains on the banking institutions, despite the efforts by the ECB, thus putting pressure on the banking institutions to cut back on assets. This development was noted by the GFSR in April 2011. The reduction in balance sheets of banking institutions however, continued in first quarter of 2012, albeit as a slower pace than the fourth quarter of 2011.

In the USA, the risk to the financial markets lies in how the current fiscal space is consolidated. The United States fiscal space was characterised by the fact that Federal Reserve policy was no longer providing support to growth as it did in 2009-2010, though the federal deficit was declining as a share of GDP. Although the US government benefited from low interest costs, the low-interest low-growth dynamic emerged and the low-interest trend is expected to reverse over time as monetary policy normalises. Coupled with an aging population and the rising cost of health care, current US budgetary trends may be unsustainable and convergence of tax cuts expiring and automatic spending cuts kicking in at year-end could result in a fiscal tightening equivalent to more than 4 percent of GDP if no policy action is taken. Emerging markets faced risks stemming from the fragile global economy and financial markets, and home grown vulnerabilities, especially the diminishing policy space. The risks associated with the Euro Area saw capital inflow into alternative markets, such as those in emerging markets, which brought about the risks of excessive currency appreciations. Coupled with the lack of export competitiveness was the fact that most regulators in emerging market economies, such as China, had run out of policy space as recourse to counter sluggish growth.

Source: U.S. Department of Treasury, Financial Oversight Council Annual Report, 2012. IMF Global Financial Stability Report, April 2012. IMF Global Financial Stability Report Market Update, July 2012

B. Risks stemming from private sector debt levels

Households' debt

International comparisons for the ratio of household debt to disposable income are few and far between for developing countries, and as such, the comparison below is reliant on developed countries and South Africa. As can be seen in Table 13, the estimated ratio for Namibia is neither the top nor bottom. Concerning perhaps is the fact that Namibia's ratio is estimated to be higher than that of South Africa, and that the trends of the two countries are currently moving in opposite directions (Namibia having an upward trend). Further, while many countries' households have deleveraged significantly since 2008 (McKinsey, 2012), this was not experienced in Namibia, where only slowed growth was experienced between 2008 and mid 2010. More recently, the trend has turned in Namibia, and households appear to becoming more indebted again, relative to their incomes. South Africa has made a significant effort to encourage household deleveraging over recent years; however, this has been met with limited success due to the lack of incentive to save as a result of negative real interest rates in the country. The same perhaps, could be said of Namibia.

Also, Namibia appears to have a household debt servicing ratio (DSRs) that is high by international standards. Indeed, according to a sample of countries reported by the Bank for International Settlements, and based on preliminary estimates, Namibia appears to be amongst the countries with a relatively high debt servicing cost, particularly when adjusted for income inequality.

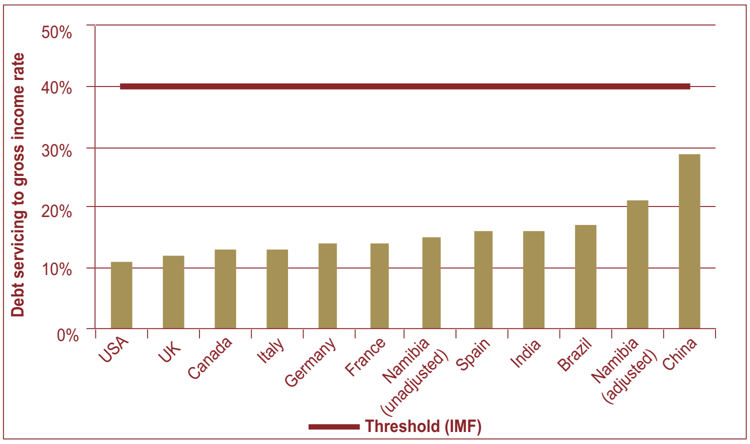
While Namibia is not at threshold level of DSR above which individuals are likely to experience financial duress, trends warrant monitoring (Chart 20). This threshold level varies in the literature. The IMF (2011) estimates this threshold to be a ratio of approximately 40 percent, while Kempson (2002) estimates the ratio to be approximately 50 percent.

Table 13: International Comparison of Debt Indicators

	Household debt to disposable income		Household Debt Servicing Ratio (DSR)	
UK	145%	2012	12%	2011
Canada	136%	2012	13%	2012
Spain	124%	2012	16%	2011
Japan	122%	2008		
USA	112%	2012	11%	2012
Namibia	89%	2011	21%	2011
Germany	95%	2011	14%	2011
France	93%	2008	14%	2012
South Africa	75%	2012		
Italy	70%	2008	13%	2012
Brazil			17%	2011
India			16%	2011
China			29%	2011

Source: OECD, SARB, BON, BoC, Fed, BOE, BIS

Chart 20: Debt Servicing to Gross Income



Source: BIS, BON calculations

Corporate debt

Broad corporate debt levels

Broad levels of corporate debt are steadily increasing relative to GDP, and are likely to surpass 50 percent of GDP within the next two years should current trends persist (in both GDP and corporate debt extension). While this level in itself is not necessarily a cause for concern (other nations have significantly higher levels of corporate debt), the breakdown of such debt into local and external debt does warrant some careful monitoring. The reason being that external corporate debt exceeds (and at times, by some margin) 40 percent of total corporate debt. As literature (Reinhart, Carmen, Rogoff and Savastano, 2003) suggests that threshold levels of external debt around 40 percent lead to "debt intolerance", in Namibia however, this may not be the case, as a substantial portion of foreign debt is owed to parent companies of large multinationals operating in Namibia. This introduces a different debt dynamic, and is likely to increase growth and output in the future.

Large exposures

The nature and extent of the largest corporate exposure to commercial banking institutions is little cause for concern. While the largest twenty five companies exposures to domestic commercial banking institutions usually makes up approximately 10 percent of total private sector credit, and up to 30 percent of total private sector credit to businesses, it appears that the majority of this credit is used to aid cash flow, rather than long term debt for expansion (mortgages etc.), and as such it is taken up and paid back on a fairly regular basis, leading to significant volatility in the credit levels lent to the large corporations. Further, the outstanding balance of the majority of the large corporations in the sample is well below the credit limit that is available to them. It is generally believed that the level of exposure of the largest corporations to commercial banking institutions is little cause for concern, however minor concentration risks may exist. In particular, multinational mining corporations generally finance the bulk of their operations from abroad, largely through parent companies' loans.

C. Risks stemming from the banking sector

Banking institutions

As noted above, the commercial banking institutions in Namibia are generally well-capitalized and profitable. Financial soundness indicators, although somewhat under stress in recent years, still remain at comfortable levels by international standards. Going forward, however, a number of risks need to be carefully monitored by the regulator:

- The banking institutions' asset portfolios are heavily concentrated in long-term mortgage loans that make up 50 percent of the loans to the private sector. Moreover, there appears to be a maturity mismatch between assets and liabilities, with wholesale bank deposits of non-financial corporations representing a sizeable share of the banking institutions' loanable capacity. This said, while wholesale deposits could potentially experience volatility, this has historically not been experienced.

- Given the global economic environment resulting in a low nominal interest rate environment, real interest rates on bank deposits have been declining since late 2010 and are currently substantially negative, thus discouraging savings. Although a great part of savings in Namibia is in contractual savings, and thus tend to be interest insensitive, there is still a chance that financial intermediaries will reallocate funds from financial assets to non financial assets with a resultant effect of lowering liquidity of banking institutions.

VII. Concluding Remarks and Policy Recommendations

A. Macroeconomic environment

***Background:* The evolution of global trade and finance could heavily influence financial conditions in a small open economy like that of Namibia.** A lasting deterioration in international terms of trade would reduce the contribution to growth of the mineral export sector and result in depressed overall economic activity, given the sector's economic and financial linkages onto the rest of the economy. Also, declining international commodity prices are likely to reduce potential FDI inflows, thus weakening the country's balance of payments. On the financial front, low interest rates in international money markets are likely to impinge on the financial worth of domestic bank and non-bank financial intermediaries, which are net creditor vis-à-vis the rest of the world. Moreover, uncertainties and/or volatility in main international and domestic tax receipts could result in deterioration in the overall fiscal balance, a marked increase the level of the national debt and its service costs, and a weakening of the central bank's international reserve position.

South Africa is currently facing a plethora of challenges to their macroeconomic environment that may be eventually passed on to other CMA member states. The challenges facing the South African authorities are from abroad, such as high currency volatility and low demand for exports, to domestically, such as unemployment and poverty, giving rise to inequality and labour unrest. The aforementioned challenges have resulted in a negative outlook being place on South Africa by international ratings agencies, as well as a downgrade of South Africa's government credit rating by one such agency. As South Africa is more exposed to global financial markets than many of her neighbours and regional trading partners, it tends to transmit many global occurrences through to the said countries through financial and non-financial channels.

Policy recommendations:

- Addressing the financial vulnerabilities arising from a weak international environment demands preventive policy actions to limit the build up of systemic financial risks and minimize negative impacts on the real sector. In this context, strong policy coordination among the Ministry of Finance, the Bank of Namibia (in its capacity of guardian of the domestic payment system and regulator of domestic banking institutions), and the regulator of non-bank financial intermediaries is warranted. Fiscal solvency, along the implementation of a sustainable medium-term fiscal consolidation framework, as included in the 2011/12 MTEF, is critical to rebuild policy buffers in the event of a prolonged and volatile external environment.

- Due to challenges with regards to increasing imports and potential declines in export demands, export diversification should continue to be pursued. Currently, imports are experiencing growth significantly above that of exports, resulting in imbalance in the current account. As such, efforts to increase exports as well as export diversity should continue to be pursued, as should efforts to increase import substitution within a competitive framework, to reduce imports, and bolster the country's external position.

B. Private Sector Debt: Households and Corporations

Background: **Currently, the private sector in Namibia appears to be, on average, highly leveraged.** The household debt to disposable income ratio of approximately 89 percent is high by world and regional standards, as is the debt servicing to income ratio (21 percent). Further, very little data currently exists on the breakdown of household debt across the population. Given the high levels of income inequality, high levels of debt inequality too can be expected, however whether such is distributed in line with income, is currently unclear.

Policy recommendations:

- Household indebtedness warrants close monitoring, as the ratio of household debt to disposable income and the debt service to income ratio are currently high and experiencing strong upward trends. It is imperative that lending institutions remain vigilant in their extension of loans, taking into account the impact that income shortfalls due to negative shocks to income and rising interest rates may have on the repayment capacity of borrowers.

- The Bank of Namibia as Regulator has tools in place to ensure that the local banking institutions measure, monitor and control risks identified. Banking institutions are required to conduct regular stress testing on the impact of possible interest rate shocks on the performance of the bank. In addition, the Bank applies a 50% risk-weight to residential mortgage loans to ensure that banking institutions have an adequate capital buffer to absorb possible losses. At the same time, the Bank is investigating the possibility of conducting a study on the use of the loan-to-value ratio for second properties to contain household leverage.

Background: **While corporations in Namibia do not appear to have critically high levels of debt at the current point in time, the trends in corporate debt suggest that debt levels relative to GDP are on the increase.** Further, while no immediate risk appears to exists, relatively few relatively large companies continue to hold a significant amount of the credit issued by Namibian banking institutions, presenting potential concentration risk. Finally, the breakdown of locally and externally issued credit to corporates in Namibia shows that a substantial portion of credit to corporations is sourced from outside the country, and at levels of over 40 percent, it is believed that such external credit may have a slight negative impact on growth (i.e., debt intolerance thresholds), particularly should it continue to grow. This said, as much of the debt owed to foreign companies is to the parent companies of multinationals operating in Namibia, it is likely that such negative impact will be negligible at conventional threshold levels. Moreover, completion of these foreign-financed projects will add to the country's potential output and debt service capacity in the future.

Policy recommendations:

- Current levels of corporate debt to GDP are generally at an acceptable level so no immediate action is required, however the trends in such warrant monitoring going forward.

C. Performance of the Banking Sector

Background: Financial soundness indicators suggest that domestic banking institutions are liquid, profitable and solvent.

Policy recommendations:

- To address the risk arising from the maturity mismatch between the assets and liabilities of banking institutions, the Bank encourages banking institutions to have more diversified funding sources. Banking institutions are also required to conduct regular stress testing and have formal, well-developed contingency funding plans as primary tools for measuring and managing liquidity risk. The Bank of Namibia therefore expects banking institutions to manage funding and liquidity risk using processes and systems that are commensurate with the institution's complexity, risk profile and scope of operations[16].

[16] The Bank of Namibia monitors and regulates liquidity risk to commercial banking institutions through its off-site and on-site examinations, and monitors the liquidity of individual banking institutions and the industry as a whole in terms of compliance with regulatory requirements. This is done through the analysis of monthly submissions of liquidity risk and minimum liquid asset returns. Furthermore, the Bank through on-site examinations assesses the adequacy of a banking institution's liquidity risk management framework and suggests steps banking institutions should take if these are deemed inadequate.

D. Financial System Payment Infrastructure and Regulatory Developments

***Background:* The minimisation of the likelihood of systemic risks is the most important aspect of settlement and clearing systems.** Operational vulnerabilities contribute to various risks in payment systems which may lead to disruptions that affect the stability of financial markets, and undermine public confidence. The Bank, as part of its oversight activities, continues to place emphasis on the operational robustness, security, timeliness and contingency planning for systemically important payment systems.

Policy recommendations:

- The *Report* welcomes efforts that are currently undertaken which conform to internationally accepted principles and good practices and urge the continuation thereof.

Selected References

Cecchetti, S. Mohanty, M. and Zampolli, S (2011), *The Real Effects of Debt*, BIS Working Papers, Bank for International Settlements, Switzerland.

Fin Mark Trust, (2011), Fin Scope Consumer Survey 2011, Namibia, Fin Mark Trust, Namibia.

Government of the Republic of Namibia (various years), Budget Documents, Government of the Republic of Namibia, Windhoek.

Government of the Republic of Namibia (2010), *National Household Income and Expenditure Survey (NHIES) 2009/2010: Preliminary Report*. Government of the Republic of Namibia, Windhoek.

International Monetary Fund (2011), *United Kingdom: Vulnerabilities of Household and Corporate Balance Sheets and Risks for the Financial Sector Technical Note*, International Monetary Fund, Washington D.C.

International Monetary Fund, (2012), *World Economic Outlook*, International Monetary Fund, Washington D.C.

Kempson, E. (2002), *Over-Indebtedness in Britain*, Personal Finance Research, United Kingdom.

McKinsey Global Institute (2012), *Debt and Deleveraging: Uneven progress on the Path to Growth*, January.

Reinhart, C. and K. Rogoff (2010), “Growth in a Time of Debt,” *National Bureau of Economic Research Working Paper*, National Bureau of Economic Research, Boston, US.

Reinhart, C., K. Rogoff, and M. Savastano (2003), “Debt Intolerance,” *Brookings Papers on Economic Activity*, Vol. 34, No. 1, pp. 1–74.

APPENDICES

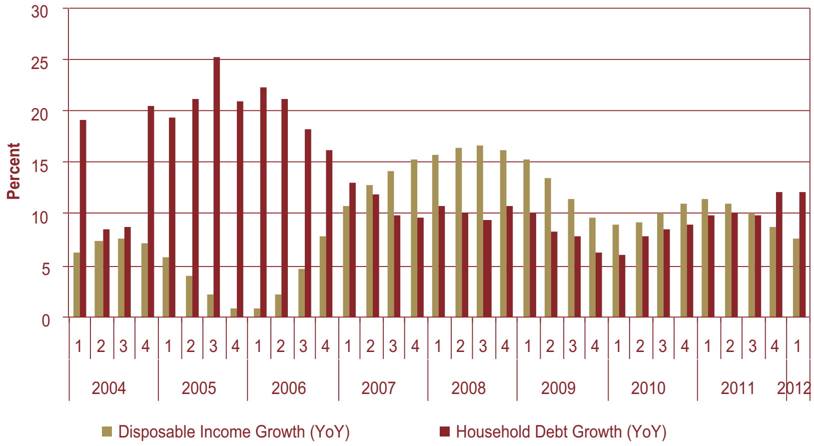
Appendix 1: Additional Information

Table 1: Unadjusted Household Disposable Income, 2003-2011

N$ Million									Estimate
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Social Pensions	368	427	452	556	642	804	832	912	955
Veterans	12	12	14	17	20	95	200	223	922
Pensions to Judges	1	1	1	4	12	22	25	27	30
Pensions to Office Bearers	43	23	52	69	96	64	50	14	8
Maintenance grants, foster parent allowances	57	51	80	97	100	157	196	273	335
Sub-Total	**482**	**514**	**599**	**743**	**870**	**1 142**	**1 302**	**1 449**	**2 251**
Compensation of employees	16 881	18 787	19 630	21 508	24 835	28 480	31 065	35 657	37 843
Primary incomes									
+ receivable from the rest of the world	2 123	1 483	955	1 310	1 449	1 870	2 112	1 524	1 658
Sub-Total	**19 004**	**20 270**	**20 585**	**22 818**	**26 284**	**30 350**	**33 177**	**37 181**	**39 501**
-Income tax on Individuals	2 295	2 580	2 844	3 257	3 629	4 383	4 965	5 729	6 332
Sub Total	**2 295**	**2 580**	**2 844**	**3 257**	**3 629**	**4 383**	**4 965**	**5 729**	**6 332**
Total (Disposable Income)	**17 190**	**18 205**	**18 339**	**20 304**	**23 525**	**27 109**	**29 515**	**32 901**	**35 419**

Source: National Accounts, Various Budget Documents

Chart 1: Growth Rates of Household Debt and Household Disposable Income



Source: BON calculations

Table 2: Banking Sector Financial Soundness Indicators

Structure	Dec 09	Jun 10	Dec 10	Jun 11	Dec 11	Jun 12
Number of banking institutions	4	5	5	5	5	5
Total assets of banking institutions (N$ million)	‘47,669	47,699	51,501	52,782	59,971	62,886
Assets/GDP	63.5	61.1	63.5	61.4	66.0	65.5
Capital Adequacy (%)						
Tier 1 leverage ratio	7.8	8.6	8.3	8.7	7.8	7.7
Tier 1 capital ratio	11.7	11.4	11.1	11.1	10.8	10.5
Total RWCR	15	15.2	15.3	14.7	14	14.5
Asset Quality						
NPL/Total gross loans	2.7	2.4	2	1.8	1.5	1.4
Gross overdue/ Total loans and advances	8	4.7	4.3	4.5	3.5	3.9
Provisions/Total loans	1.8	1.8	1.5	1.5	1.4	1.3
Provisions/NPLs	66.2	74.8	78.6	84.6	94	94.3
Specific provision/NPLs	28.7	30.5	30.3	31.3	33.3	
Earnings and Profitability						
Return on assets	2.1	2.1	2.5	1.9	2.6	2.0
Return on equity	21.2	21.4	23.6	19.2	26.4	20.2
Net interest margin	4.5	4.9	5.2	4.9	5.7	5.4
Cost to income ratio	57.9	62.5	57.3	60.1	52.3	61.4
Liquidity (%)						
Liquid assets to total assets	10.0	10.5	10.7	10.2	12.4	11.1
Total loans/Total deposits	85.3	87.7	86.6	89.1	82.2	84.5
Total loans/Total assets	72.8	74.9	74.1	76.1	71	73.0

Source: BoN

Appendix 2: Methodology – Household Debt

This paper uses two measures to attempt to estimate the extent of household indebtedness in Namibia. Firstly, the ratio of household debt to household disposable income; and secondly, the debt servicing cost of household debt to gross household income. As there is no measure of household indebtedness, there is currently no measure of national household disposable income, so both must be calculated, or proxied. Similarly, there is currently no accepted debt servicing cost calculated, so this too must be estimated.

Disposable income

Using data from the National Account and National Budget a broad indication of disposable income was calculated from the following equation:

National disposable income = wages and salaries + inward remittances + pensions + subvention to veterans + other social grants – personal income tax……………………………………………………………….(1)[17]

Wages and salaries, personal income taxes, and inward remittances were collected from the national accounts published by the National Statistics Agency (NSA). This data includes salaries paid by the public and private sectors, however does not capture informal sector activities or subsistence farming in their entirety. Pensions, subvention to veterans, and other social grants data were collected from the National Budget documentation from 2003 to 2012, and capture all transfers from government to households.

Given that not all income is captured in the national accounts and budget documentation, an effort was made to estimate the excluded part of such. A comparison was carried out between the 2009/2010 National Household Income and Expenditure Survey (NHIES 2009/2010) with regards to income and consumption, and the figures calculated in equation 1 above.

Household debt

A measure of household debt was taken from BON statistics on household credit from formal institutions (including First National Bank of Namibia, Standard Bank of Namibia, Nedbank Namibia, Bank Windhoek, Agribank of Namibia, National Housing Enterprise, and the Namibia Post Office Savings Bank).

However, the FinScope survey of 2011 indicates that only 65 percent of the Namibian population is currently banked with formal financial institutions. As such, approximately 35 percent of the population remains unbanked. While a significant percentage of the population is unbanked, this is not to say that they do not have debt in some form or other. As there are no data on non-bank credit extension to households, it was assumed that only 65 percent of the country's households have absorbed the total household debt recorded by BoN.

Also, we assume that those who are unbanked are more likely to be lower income earners than those who are banked. As such, while we assume that only 65 percent of the population are banked, using data from the NHIES on income deciles, we assume that those unbanked form the three and a half lowest income deciles. Further, due to a lack of data informing the contrary, we assume that the unbanked population has the same income to debt ratio as the banked population (implying significantly lower nominal debt however). Finally, as we have no evidence otherwise (and despite common perception and/or anecdotic evidence); we assume that there is not substantial household debt in the banked population that is not captured by credit from formal institutions to households.

Debt service to income ratio (DSR)

In order to calculate the debt service to income ratio, the following standard formula was used to estimate the repayment cost of debt (principal and interest).

$$A = 12\left(\frac{\left(\frac{r}{12}\right)p}{1-\left(1+\frac{r}{12}\right)^{-12n}}\right) \quad \text{.......... 2)}$$

[17] Outward remittance data was unavailable

Where A is the annual debt servicing cost, r is the annual interest rate, p is the principal (outstanding) and n is the period of the loan (outstanding).

The above calculation was estimated for the disaggregated household debt figures collected by BON, using different values for the interest rates, outstanding principal and outstanding period of loan. The outstanding principal amounts were simply those recorded by BON in each of the following categories: mortgage loans, overdrafts, other loans and advances, leasing, instalment credit and other. Outstanding period of loans were estimated based on consultation with local commercial banking institutions. The average interest rates for the various classes of loans are collected by BON, and were used unaltered. For those loan classifications for which no average rate existed (i.e., other loans and advances and other), the prime rate was used as a benchmark.

Once the cost of servicing debt had been calculated, this was divided by the gross income (unadjusted) based on the calculation in equation 1, excluding the subtraction of income tax (so as to derive gross, rather than net income).

$$DSR = A/I^G \quad \text{.......................................} \quad \textbf{(3)}$$

Where DSR is the debt service to income ratio, A is the annual debt servicing cost, and IG is gross income.

As it is broadly believed that a relatively small percent of the population holds the vast majority of the nation's formal sector debt, an adjusted ratio was calculated. This adjustment assumed that the wealthiest 30 percent of the population (representing 68 percent of the income[18]) held all of the formal sector debt.

Appendix 3: Methodology – Corporate Debt

Broad corporate debt levels

In order to assess the overall level of corporate indebtedness in Namibia, a simple calculation was done adding corporate debt to local institutions (private sector and parastatals, as collected by BoN) to the international investment position (IIP) figures on private sector debt to external institutions. It was assumed that all private sector debt owed to foreign institutions was borrowed by corporations rather than households. The overall debt figures were then calculated as a share of nominal GDP.

Large exposures

The sample of the largest exposures to local commercial lending institutions encompasses on average approximately ten percent of total (locally issued) private sector credit extension for the period under review. Information on these large exposures to the Namibian commercial banking institutions was aggregated and assessed by sector. A total of 52 companies were assessed, including five fishing, four manufacturing and food, eight mining and minerals, ten property and construction, two tourism, seven transport and logistics and the remaining 16 from various other sectors.

While the largest exposures to the commercial banking institutions are certainly important for local financial stability, it must be cautioned that a number of these big corporate clients (and other corporates) tend to have other avenues of funding, usually from outwith the country. As such it is not possible to capture every aspect and nuance of corporate debt to give a perfect picture and it should thus be noted that the size and influences of the enterprises in the sample under review is such that their debt will not be wholly covered, as debt issued instruments and funding from sources outside of the commercial banking institutions are not available - for that a rigorous study of the complete audited financial statements would be needed, something which is currently not possible[19].

[18] NHIES, 2010
[19] Not all the companies in the sample make their balance sheets and income statements publically available. Few of the sample companies are public companies.

Appendix 4: Estimation challenges

The challenges that surround determining a level of household indebtedness in Namibia are numerable, but not insurmountable. As with many such exercises, the primary challenge is overcoming data constraints, irregularities and (perceived) inaccuracies. As a result of this, a large number of assumptions must be made, which may, or may not be correct. Some of these assumptions may have a significant impact on calculations and data, thus if incorrect, may yield inaccurate results.

More specific challenges include:

Currently there is limited information on the breakdown of credit to individuals, whether banked or unbanked. The assumption that is made is that all households share the same debt burden, which clearly may not be the case. It is possible that (in the extreme) 10 percent of the households hold all the debt, and 90 percent have none. This is unlikely, but equally unlikely is that all households have equal debt. Given that Namibia is a very unequal society, it is likely that debt is similarly unevenly distributed (possibly in the inverse, if one assumes that the less wealthy need, and thus withdraw, more debt)

Currently, there is no measure of the extent of informal sector debt, and thus it is unclear whether such debt is significant in comparison to incomes and formal sector debt. Should such debt be substantial relative to either, there may be cause for concern. Measuring such informal sector debt is challenging, if not impossible, particularly in cases when such debt is informal loans between family and friends. In a country with a significant unbanked population, such as Namibia, it is likely that such informal sector debt will be relatively large (relative to formal sector debt) when compared to more developed countries with higher percentage of the population banked (assuming that individuals prefer to borrow from banking institutions if possible).

Household debt to disposable income does not analyse the full balance sheet of individuals, and thus does not necessarily illustrate risk. As many Namibians hold substantial assets, be it livestock, property or otherwise, their debt levels may be highly sustainable. Should such individuals hold a substantial share of total household debt, there is perhaps less cause for concern than if such debt was in the hands of those without assets. Similarly, comparing the debt to disposable income ratio of Namibians to that of other nations may be ill advised as Namibians may have more, or fewer, assets on their personal balance sheets.

Further challenges surround the assumptions made in the calculations, more details of which can be found in the next section.

Key Assumptions

Income

Challenge	Assumptions	Shortcomings
Determining disposable income	We assume that we capture the majority of the sources of income in the country	It is possible (likely) that we have missed some sources of income. We rely on such omissions being negligible, however this may not be the case.
Calculating the extent to which our calculations underestimate disposable income over time	We assume that the difference between the NHIES 2009/2010 income figures and our estimates are constant, or close to, over time.	It is highly unlikely that this differential is constant over time, however it may be close . On the other hand, it is possible that the similarity between our estimate and the NHIES may be the exception, rather than the norm.

Debt

Challenge	Assumptions	Shortcomings
65 percent of the population is banked, but does this mean 65 percent of the income is banked?	We assume that while 65 percent of the population is banked, significantly more than 65 percent of the household income is banked. We assume that the poorest 35 percent of the population are unbanked, and thus (with NHIES data) only 11.5 percent of the income is unbanked.	It is highly likely that the penetration of banking in the poorest sectors of society is lower than in the richer sectors, however, to assume that all of the poorest 3.5 deciles of population are unbanked is likely to be inaccurate.
It is likely that the unbanked population is leveraged to some degree, however no data exist on such.	Due to lack of data indicating otherwise, we assume that the unbanked population has the same debt to income ratio as the banked population.	It is unlikely that this is the case. It may be that borrowing from banking institutions is easier than borrowing from informal lenders, which would suggest that the debt to income ratio for those borrowing from formal lenders may be higher. On the other hand, it may be the case that (as per previous assumptions) the poorer sectors of the population are unbanked, but require credit to survive, and are thus more highly leveraged than the richer, banked, sectors of population.
It is possible that those sectors of society that are banked may have formal and informal sector credit.	We assume that they do not.	Simply given the lack of evidence to the contrary, we assume that individuals with access to bank credit, do not borrow from the informal sector. This may be wrong.

Other

Challenge	Assumptions	Shortcomings
It is unlikely that the debt and income of the nation are shared equally.	As limited data exists to shed light on the distribution of household debt, we assume that it is equally distributed amongst all household. We further assume that income is similarly evenly distributed.	While we know that income is unevenly distributed, we do not know how household credit is distributed. It is unlikely that debt is distributed equally, or relative to income.

NOTES

NOTES

Bank of Namibia