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NAMIBIA

FINANCIAL SYSTEM STABILITY ASSESSMENT

March 2018

The Financial System Stability Assessment for Namibia was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on February 8, 2018

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FINANCIAL SYSTEM STABILITY ASSESSMENT

February 8, 2018

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This report is based on the work of the Financial Sector Assessment Program (FSAP) mission that visited Namibia in September–October 2017. The FSAP findings were discussed with the authorities during the Article IV Consultation mission in December 2017.
Further information on the FSAP may be found at http://www.imf.org/external/np/fsap/fssa.aspx

- The FSAP team was led by Paul Mathieu, International Monetary Fund (IMF), and Alexander Pankov, World Bank (WB), and included Zsofia Arvai (IMF) and Gunhild Berg (WB) as deputy mission chiefs, Sumiko Ogawa, Jose Torres, Yunhui Zhao, (all IMF), Philippe Aguera, Tanya Konidaris, Ayanda Mavundla, Douglas Randall, Haocong Ren, Fiona Stewart, (all World Bank), Alan Ball, Biagio Bossone, Timo Broszeit, David Scott (IMF experts), Andrew Lovegrove (WB expert).

- The mission met with the Honorable Calle Schlettwein, Minister of Finance, Mr. Ipumbu W. Shiimi, Governor of the Bank of Namibia, Mr. Kenneth S. Matomola, CEO of the Namibia Financial Institutions Supervisory Authority (NAMFISA), senior staff of the financial sector regulatory agencies and relevant ministries, as well as senior managers of private sector entities.

- FSAPs assess the stability of the financial system and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.

- This report was prepared by Paul Mathieu and Zsofia Arvai, with contributions from the members of the FSAP team.

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Glossary

AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
AQR	Asset Quality Review
BCP	Basel Core Principles for Effective Banking Supervision
BIA	Banking Institutions Act
BoN	Bank of Namibia
BSD	Banking Supervision Department
BU	Bottom-Up
CAR	Capital Adequacy Ratio
CET1	Core Equity Tier 1
CIS	Collective Investment Scheme
CMA	Common Monetary Area
CAR	Capital Adequacy Requirement
CSD	Central Securities Depository
DB	Defined Benefit
DBN	Development Bank of Namibia
DGS	Deposit Guarantee Scheme
D-SIB	Domestic Systemically Important Bank
DSTI	Debt Service to Income
ELA	Emergency Liquidity Assistance
FATF	Financial Action Task Force
FIM	Financial Institutions and Markets
FMI	Financial Market Infrastructure
FSSA	Financial Sector Stability Assessment
FSB	Financial Stability Board
FSAP	Financial Sector Assessment Program
FSA	Financial Services Adjudicator
FSC	Financial Stability Council
FSI	Financial Soundness Indicator
GDP	Gross Domestic Product
GIPF	Government Institutions Pension Fund
HH	Households
HQLA	High-Quality Liquid Assets
ICAAP	Internal Capital Adequacy Assessment Process
ICP	Insurance Core Principles
IFRS	International Financial Reporting Standard

IM	Investment Managers
IMF	International Monetary Fund
LCR	Liquidity Coverage Ratio
LTI	Long-Term Insurance
LTV	Loan to Value
MA	Medical Aid
MCM	Monetary and Capital Markets
MFI	Microfinance institutions
MMF	Money Market Fund
MoA	Memorandum of Arrangement
MoF	Ministry of Finance
MoJ	Ministry of Justice
MoU	Memorandum of Understanding
MSME	Micro-, Small and Medium-sizes Enterprise
N$	Namibian Dollar
NAMFISA	Namibia Financial Institutions Supervisory Authority
NBFI	Nonbank Financial Institutions
NHE	National Housing Enterprise
NPL	Nonperforming Loan
NPS	National Payments System
NSFR	Net Stable Funding Ratio
NSX	Namibian Stock Exchange
PAN	Payments Association of Namibia
PEP	Politically Exposed Person
QIS	Quantitative Impact Study
SACU	Southern African Customs Union
SARB	South African Reserve Bank
SME	Small-and Medium-sized Enterprise
SOE	State-Owned Enterprise
SOFI	State-Owned Financial Institution
SREP	Supervisory Review and Evaluation Process
SRR	Special Resolution Regime
STeM	Stress Test Matrix
ST	Stress Test
STI	Short-Term Insurance
TA	Technical Assistance
T-Bill	Treasury Bill
TD	Top-Down

UNCITRAL	United Nations Commission on International Trade Law
UT	Unit Trust
VC	Venture Capital
WB	World Bank
WEO	World Economic Outlook
ZAR	South African Rand

EXECUTIVE SUMMARY

Namibia's financial sector is dominated by four large and heterogenous financial conglomerates, all with close ownership and funding links to South Africa. The Nonbank Financial Institutions (NBFI) sector is comparatively large (around140 percent of Gross Domestic Product (GDP) on net asset basis), in part reflecting a fully funded government pension fund. Asset managers play a central role in connecting institutional investors to financial markets and banks.

Macrofinancial vulnerabilities have built up over a period of rapid economic growth and the financial cycle has now turned down. The sovereign debt/GDP ratio has nearly doubled since 2014 which has reinforced the already strong bank-sovereign link. The rapid rise in housing prices and household debt, banks' large exposure to mortgages, and banks reliance on wholesale funding are sources of concern. A major decline in real estate prices would adversely affect bank capital and profitability. Economic and financial shocks from South Africa are directly transmitted through the common currency and integrated financial markets. The announced increase in the domestic investment requirement risks lowering future returns, reducing portfolio diversification, and exacerbating asset price inflation. Data limitations posed challenges to the risk assessment, particularly for NBFIs.

Bank and NBFI stress tests revealed some potential weaknesses. Banks remain profitable and well-capitalized under the baseline and adverse scenarios with the capital adequacy ratio (CAR) remaining above 16 percent. Both top-down (TD) and bottom-up (BU) solvency stress tests confirm that the CARs of the four big banks would be above or near the minimum regulatory CAR (12 percent), even in the severely adverse scenario. However, banks are vulnerable to counterparty and portfolio concentration risks. Liquidity stress tests suggest that three of the big banks would face moderate liquidity shortfalls in one-to-two months after the liquidity shocks, owing to their reliance on wholesale funding. Property and casualty insurers appear resilient, but some life insurers and the funding levels of pension funds are susceptible to equity markets shocks.

Financial sector oversight has been strengthened significantly since the 2006 FSAP (Appendix I), but further upgrades are needed:

- **The oversight framework is undergoing a major overhaul, with several financial sector laws under preparation.** Prompt passage and implementation of the upgraded bills on the Bank of Namibia (BoN), Namibia Financial Institutions Supervisory Authority (NAMFISA), Banking Institutions Act (BIA), Financial Institutions and Markets (FIM), Financial Services Adjudicator (FSA), Deposit Insurance, and Microlending, in line with international norms are key to improved regulation.
- **Bank Supervision**. The quality of on-site supervision has improved significantly, including with the introduction of risk-based supervision in 2008. On-site examination is intensive and challenging, supported by a detailed supervisory examination manual. Examination reports are detailed and thorough, and actions required of banks are followed up in a deliberate manner. The Prompt Corrective Action (PCA) regime provides an effective set of tools to address unsafe

and unsound practices. However, some issues remain to be addressed: update the liquidity risk framework; strengthen enforcement of loan classification; improve forward-looking risk assessments; ensure the BoN's independence; strengthen staff statutory protection; and develop working relationships with banks' external auditors. Supervisory resources in BoN need to be increased, particularly given growing responsibilities.

- **NBFI Regulation and Supervision.** NAMFISA should continue to build its technical competency and reinforce its accountability framework and relations with industry. The extensive set of new regulations, under the updated NAMFISA and FIM bills, is best implemented in a proportional manner not to overburden the regulator or industry. Operations of the Government Institutions Pension Fund should remain transparent, market-based, and comply with investment regulations and its mandate. Increases in the domestic investment requirements for institutional investors should be avoided.
- **Financial Stability and Macroprudential Framework.** In the ongoing process of strengthening the financial stability framework, the BoN should be in the lead with an explicit macroprudential mandate until the Financial Stability Council is set up. Addressing data gaps for systemic risk analysis is a priority. The macroprudential toolkit needs to expand, given high household indebtedness and banks' reliance on wholesale funding.

Further strengthening of crisis preparedness and the safety net is needed. The four large banking groups and insurers should be required to prepare recovery and resolution plans. The BoN and NAMFISA must be given full authority to promptly close and liquidate failing institutions. Cross-border sharing of information for recovery and resolution purposes needs to be established. A new deposit guarantee scheme is to be managed by the BoN, and be in line with international norms. The BoN should take steps to operationalize emergency lending assistance on short notice and resolution funding arrangements need to be arranged.

Oversight of financial market infrastructure (FMI) is strong. Approval of new legislation on securities, electronic transactions and cyber-crime should be expedited and a new payments law drafted to further reinforce the system. Implementing the single central securities depository should be a priority to enhance FMI safety and efficiency and to support capital market development. Further work to enhance cyber risk management is also needed.

Levels of financial inclusion in Namibia compare favorably to peer economies, but despite the large and sophisticated financial system, a significant share of the low-income and rural population is excluded from formal financial services. A highly-concentrated banking sector has resulted in reduced competition and innovation as banks have low incentives to invest in innovation to extend service. Financial inclusion should be promoted through digitization of social transfers, with appropriate safeguards, and an improved regulatory framework for microfinance institutions. An improved credit information system for micro, small and medium-sized enterprises (MSMEs), a secured transactions framework for movable assets, and a modernized insolvency regime would facilitate financial access for MSMEs. The mandates of state sponsored financial institutions need to be reassessed and some restructuring is needed, especially in housing and agriculture, given their very poor performance and difficult financial situations.

Table 1. 2018 Namibia FSAP: Key Recommendations		
Recommendations	**Responsible Authorities**	**Timing***
Financial Sector Oversight Framework		
Ensure prompt enactment of Banking Institutions, BoN, FIM, NAMFISA, Financial Services Adjudicator, Deposit Insurance, and Microlending Bills, in line with international norms.	Ministry of Finance (MoF)/BoN/ NAMFISA	I
Finalize the Joint Prudential Supervisory Engagement Framework between the BoN and NAMFISA.	BoN/ NAMFISA	I
Assign an explicit macroprudential mandate, including the power to issue macroprudential directives to regulators, to the BoN Board until the Financial Stability Council is set up, and address data gaps.	MoF/BoN/ NAMFISA	I
Banking Sector Oversight		
Strengthen the existing liquidity regime ahead of implementation of the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR).	BoN	I
Enforce the proper classification of loans to ensure that banks identify, monitor and manage their credit risks effectively. Undertake independent Asset Quality Review to determine the scale of under-provisioning across the sector.	BoN	I
Nonbank Financial Institutions and Capital Markets		
Strengthen the accountability and transparency framework of NAMFISA.	MoF/ NAMFISA	NT
Introduce electronic CSD, repo operations, and reporting of government bond OTC trades.	NAMFISA	I
Crisis Preparedness and Management		
Introduce a special resolution regime for banks and nonbanks to ensure effectiveness and consistency with international best practice.	BoN/ NAMFISA	I
Initiate recovery and resolution planning for the four largest banks and their holding companies, in collaboration with South African Reserve Bank (SARB).	BoN	I
Establish the Deposit Guarantee Scheme in line with international best practice.	MoF/BoN	NT
Take steps to operationalize ELA on short notice.	BoN	I
Financial Market Infrastructure		
Focus the scope of FMI oversight on systemic risk management and implement the oversight framework with special attention to operational risk and cyber resilience.	BoN	I
Development Issues		
Re-assess State-Owned Financial Institutions' (SOFI) mandates and business rationale and restructure Agribank.	MoF	I

*"I (immediate)" is within one year; "NT (near-term)" is one–three years; "MT (medium-term)" is three–five years.

MACROFINANCIAL CONTEXT

A. The Namibian Financial Sector

1. Namibia has a large, concentrated, and complex financial system (Table 2). It is dominated by four large and heterogenous financial conglomerates, all with close ownership and funding links to South Africa. As of September 2017, 10 banks were licensed in Namibia: 7 commercial banks, E-Bank, a branch of a foreign bank, and a representative office. The four large banking groups (three of them subsidiaries of South African banks) hold about 98 percent of total bank assets. More than one-half of bank loans are directed to residential and commercial mortgages, making banks vulnerable to housing price corrections. Counterparty concentration of their loan portfolios is high.

Table 2. Namibia: Structure of the Namibian Financial System

	End-2010		*End-2016*		
	In percent of total assets	*In percent of GDP*	*In percent of total assets*	*In percent of GDP*	*USD million*
Banks	**20**	**58**	**22**	**75**	**8,016**
NBFIs	**80**	**233**	**76**	**262**	**28,004**
Insurance Companies	11	31	10	34	3,666
Life Insurers	10	29	9	30	3,259
Non-life insurers	1	3	1	4	407
Pension funds	25	72	26	91	9,693
o/w: GIPF			18	64	6,840
Medical aid	0	1	0	1	99
Unit trusts/ money market funds	10	29	9	32	3,479
Asset managers	33	98	29	100	10,757
Microlenders	0	1	1	3	310
State-owned financial institutions	**n/a**	**n/a**	**2**	**8**	**868**
Total	**100**	**291**	**100**	**344**	**36,888**

Source: BoN.

2. The NBFI sector is large, with assets around 262 percent of GDP, in part reflecting a pre-funded Government Institutions Pension Fund (GIPF), with the assets of about 70 percent of GDP. Asset managers play an important role in integrating the financial system, linking institutional investors to financial markets and banks. They manage funds on behalf of pension schemes, insurance companies and unit trust products (Box 1). Accounting for this phenomenon, NBFI net assets amount to approximately 138 percent of GDP. SOFIs account for 2.4 percent of total assets of the financial sector or around 8 percent of GDP. Institutional investors hold about 50 percent of their assets in Namibia, about a third in South Africa,[1] and the rest in advanced economies.

[1] Technically, this corresponds to the whole CMA region; however, the investment is mostly in South Africa.

3. Domestic financial markets suffer from a shortage of supply and liquidity is low. While the market capitalization of the Namibian Stock Exchange (NSX) is sizeable at 10 times GDP, there are only 8 domestic equities with a primary listing on the NSX, accounting for 1.85 percent of market capitalization. The rest are dual-listed stocks, most with a primary listing on the Johannesburg Stock Exchange. The secondary market for Treasury Bills (T-Bill) and bonds is highly illiquid. Institutional investors' large capital pool has benefitted Namibia's development needs, but there is a risk that the announced increase in the domestic investment requirements will lead to asset price inflation, given a limited supply of domestic assets.

4. Levels of financial inclusion in Namibia compare favorably to peer economies, but a significant share of the population remains excluded from the formal financial sector. Despite recent progress, low-income and rural individuals, and micro, small, and medium enterprises (MSMEs) are still not well served by a highly-concentrated and high-cost banking system nor state-owned financial institutions that fall short of meeting their policy objectives. There is a trend towards greater market diversity and innovation yet new entrants have thus far not achieved scale or reached underserved consumers, mostly targeting customers with existing banking relationships.

Box 1. Financial Sector Interconnectedness

NBFIs play an integrating role in the financial system, linking institutional investors to financial markets and banks (Table 3). The bulk of pension funds' assets are managed by investment managers (IMs), with 37 percent of total assets invested through Namibian IMs and another 41 percent invested through IMs in South Africa and the rest of the world. Life insurance companies manage the majority of their investments directly, placing only 5 percent of their investments in IMs. Network analysis confirms the linkages between banks and NBFIs, as well as among institutional investors (Figure 1): banks play an intermediary role with linkages primarily through deposits; pension funds are large sources of assets that are invested through various institutions in the system; and IMs manage the assets of institutional investors connecting them to capital markets. While wholesale funding linkages between banks and NBFIs expose the banking system to higher funding risks, they also reduce concentration and provide liquidity in the financial system.

The significance of intra-group exposures on bank funding is relatively low, while the reliance on NBFI deposits varies by institution. Intra-group funding, defined as the share of deposits from companies in the same conglomerates to total deposits, account for only less than 10 percent for three banks. On the other hand, the share of bank deposits from NBFIs average around 32 percent, with IMs as the largest contributor. The average, however, masks large differences among individual banks, where they account for around 40 percent of total deposits for two banks. Intra-group asset exposures of NBFIs are generally low, except in the case of non-life insurance companies.

Table 3. Namibia: Sectoral Asset Exposure Matrix (end-March 2017)

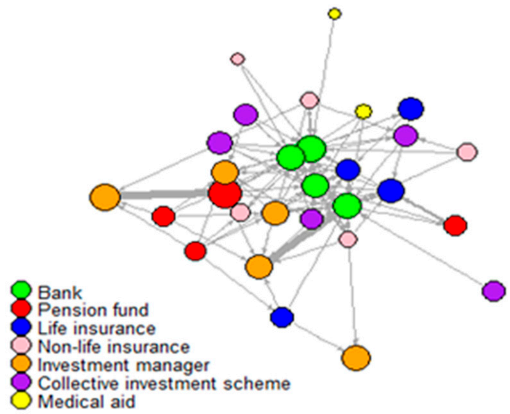
(In percent)

	Counterparts												Total	Total o/w:	
	Namibia										South Africa/				
	Banks	PFs	LTIs	STIs	IMs	CISs	MAs	Govt	Corp	HH	CMA	ROW		IMs	CISs
(in percent of sectoral assets)															
Banks	1.3	1.3	0.0	0.0	0.3	0.2	0.0	8.8	28.7	51.4	6.1	2.0	100.0	1.3	0.2
Pensions	1.9	0.0	3.5	0.0	37.2	0.0	0.0	7.8	0.0	0.0	18.2	31.4	100.0	78.3	8.5
Life Insurances (LTIs)	16.9	0.0	4.6	0.0	5.3	0.0	0.0	13.1	25.8	0.3	29.7	39.7	100.0	16.2	1.4
Non-life Insurances (STIs)	31.5	0.0	0.1	0.0	0.3	19.7	0.0	6.4	12.7	0.8	11.5	39.6	100.0	1.4	19.7
Investment Managers (IMs)	15.4	0.0	0.4	0.1	0.8	8.3	0.0	16.4	15.6	0.0	23.2	26.2	100.0	5.2	8.3
Collective Investment Schemes (CISs	30.2	0.0	0.3	0.0	13.7	0.1	0.0	10.4	4.5	0.0	32.7	8.1	100.0	28.7	0.1
Medical Aids (MAs)	21.9	0.0	0.0	0.0	60.8	0.0	0.0	2.8	0.0	0.0	14.5	0.0	100.0	75.3	0.0

Sources: Bank of Namibia; NAMFISA; companies and IMF staff calculations.

Note: Total excludes assets for which the counterpart sector is not specified

Figure 1. Namibia: Financial Sector Interconnectedness



Sources: Companies, BoN, NAMFISA, and IMF staff calculations.

Note: The size of the nodes reflects the asset size of the institution (in log scale). The thickness of the lines indicates the value of the exposure. The plot shows the network among the 31 institutions surveyed. Institutions with no linkage with other institutions in the survey do not appear in the plot.

B. Macrofinancial Conditions and Risks

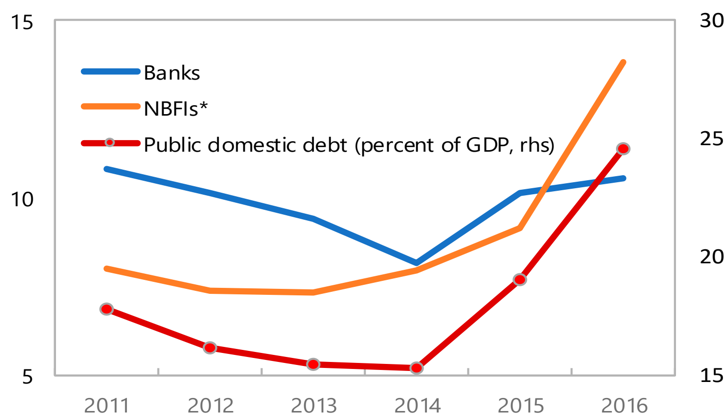
5. Economic growth was rapid in 2012–15, but slowed sharply in 2016 and further in 2017. Growth has slowed sharply as the former engines of the economy, commodity prices, revenues from Southern African Customs Union (SACU), and housing market expansion have stalled. After four years of expansionary fiscal policy, and rising public debt, a multi-year spending consolidation plan was announced, coinciding with the culmination of the construction phase of large mines.

6. A rising public debt burden is reinforcing an already strong sovereign-bank link. Given Namibia's small size, the state is a major actor in the economy, including through employment and government contracts, with a major influence on credit growth and asset quality. Government domestic debt is held almost entirely by the financial system, accounting for 12 percent of bank assets in 2016 (Figure 2). Sovereign debt, including guarantees, has nearly doubled since 2014 to 53 percent of GDP, and is projected to rise further (Table 4). The financial sector's exposure to government assets is expected to rise further with the announced increases in the domestic asset requirement from 35 to 45 percent of assets.

7. Households are highly leveraged making them vulnerable to shocks, but financial data is only partially available. The debt-to-disposable income ratio is estimated at 85 percent at end-2016, higher than in more developed countries (Figure 3). Such high leverage makes households vulnerable to shocks, but assessing their exposure is difficult as household balance sheet data is only partially available.

Figure 2. Namibia: Bank and NBFI Holdings of Government Debt
(In percent of assets)

Dependence on funding from the domestic financial system



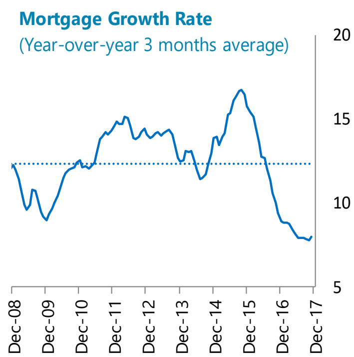
Sources: Bank of Namibia; NAMFISA; and staff estimates.
* Estimated as the residual of goverment's domestic debt stock minus the holdings of commercial banks.

8. The financial cycle has turned down sharply recently. Credit growth decelerated to about 5 percent at end-2017—the lowest rate since the global financial crisis. The deceleration cuts across both corporates and households and all credit categories. The credit-to-GDP ratio, which had rapidly accelerated since 2013, is plateauing at about 55 percent.

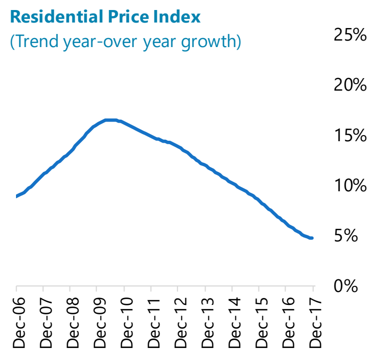
9. Banks have an elevated exposure to mortgages. Mortgages account for more than half of banks loans (two-thirds of lending to households). Real estate loans experienced double-digit year-over-year growth rates over the past ten years (12.5 percent on average), but growth peaked at end-2015 and has sharply slowed (Figure 3). This slowdown could be attributed to both lower credit demand—due to the deceleration in the economy and the 80 percent Loan-to-Value (LTV) limit set for non-primary housing introduced in April 2017— and credit supply—from tighter lending standards due to affordability concerns and a shortage of liquidity.

10. While growth is expected to recover from 2018, risks to the outlook are tilted to the downside (Table 5 and Appendix II). Domestic risks emanate from possible fiscal slippages that may undermine confidence in the government's ability to control public finances, slower growth in mining and construction; and from a sudden correction in overvalued housing prices. External risks arise from further declines in SACU revenue if growth in South Africa deteriorates; and, lower demand for key exports and subdued commodity prices, as China addresses domestic imbalances, protectionist pressures rise, and if growth in trading partners and Angola slows down. Additional risks arise from tighter global financial conditions prompted by rising US policy rates.

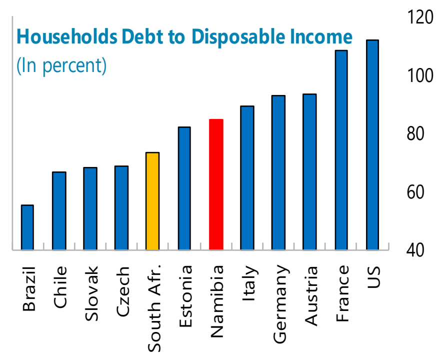
Figure 3. Namibia: Housing Sector Indicators



Source: BoN.



Source: First National Bank, IMF staff estimates.



Source: OECD; SARB; and BoN.

11. Macrofinancial risks stem primarily from a slowing economy, elevated household indebtedness, and recession in South Africa. Banks' large exposure to mortgages is a source of systemic risk against a backdrop of a prolonged rapid rise of house prices and high household indebtedness, especially for the middle to upper income segment. A major decline in real estate prices would have adverse effects on bank capital and profitability. Credit growth has declined sharply in the past few months, which will likely have a negative effect on economic growth and possibly asset quality. Recession and political instability in South Africa are directly transmitted through the common currency.

12. Namibia is a member of the Common Monetary Area (CMA) with South Africa, Lesotho, and Swaziland. Under this arrangement, the Namibian dollar is pegged at parity to the South African rand. Namibia must maintain a minimum external (rand and foreign exchange) reserve coverage to the stock of its currency issue (a currency board like arrangement). The agreement provides for a collateralized liquidity facility with SARB that was recently updated and expanded.

13. Data limitations posed challenges to the team's work, particularly for NBFIs. While NAMFISA collects data on source of funds and asset allocation, it does not analyze bilateral exposures on an institutional level, and interconnectedness data is not complete. Inadequate data on household debt and income will likely limit options for some common macroprudential instruments. Lack of granular corporate sector data precluded corporate vulnerability analysis. [2] Improving data collection would greatly benefit a more thorough assessment of financial sector vulnerabilities.

[2] Corporate leverage is elevated, but domestic banks' exposure to corporations is relatively limited, and foreign exposures appear concentrated in a few mining companies with a likely high share of intercompany loans.

ASSESSMENT OF THE FINANCIAL SYSTEM

A. Bank Resilience

14. The banking sector reports high capital ratios, solid profits and low nonperforming loans (NPLs) (Table 6). However, the NPL figures likely overstate asset quality in the banking sector due to some misclassification of assets by banks, that would also affect provisioning needs. The BoN is aware of the issue and is in the process of rectifying it. Financial and ownership connections between banks and NBFIs and foreign entities complicate the assessment of capital and liquidity adequacy of individual institutions.

15. The stress testing exercise focused on the four largest banks over a three-year horizon (2017: Q2–2020: Q2), consisted of both TD and BU stress tests (STs) (Appendix III). It comprised several approaches, including TD *solvency* and *liquidity* STs, BU STs performed by the banks (the first of its kind in Namibia), macroeconomic scenario-based[3] and single-factor sensitivity tests, as well as reverse stress tests. GDP declines of two and three standard deviations[4] for the adverse and severely adverse scenario, respectively, were assumed. Bank-level NPL ratios were projected using cross-country dynamic panel data satellite models, because as a young emerging market economy, Namibia has never experienced severe crisis or massive defaults.[5]

16. The results from macroeconomic scenario-based approach suggest that banks remain well-capitalized in the baseline and adverse scenarios, although two banks fall short of the minimum capital requirement in 2020: Q2 in the severely adverse scenario. For the TD stress tests, the total CAR would rise to 16.9 percent in the baseline scenario, and remain above 16 percent in the adverse scenario, reflecting Namibian banks' strong starting position (Figure 4). In the severely adverse scenario, the CARs of two banks would fall below the 2020 minimum requirements,[6] resulting in a recapitalization need of 2 percent of GDP. BU stress tests show similar results from the deterioration in asset quality (caused by low growth and house price decline), as well as the depressed profitability caused by low interest rates.[7] More details on the driving forces are provided in Figure 5.

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[3] The macroeconomic scenario-based stress tests covered only credit risk and did not cover market risk as the secondary government securities market is illiquid. Changes in global financial conditions also affect banks through credit risk.

[4] Using the standard deviation of the one-year growth rate.

[5] The misclassification problem is unlikely to be material enough to adjust the initial level of NPLs for the stress tests.

[6] However, they are still above or slightly below the current 10 percent minimum requirement.

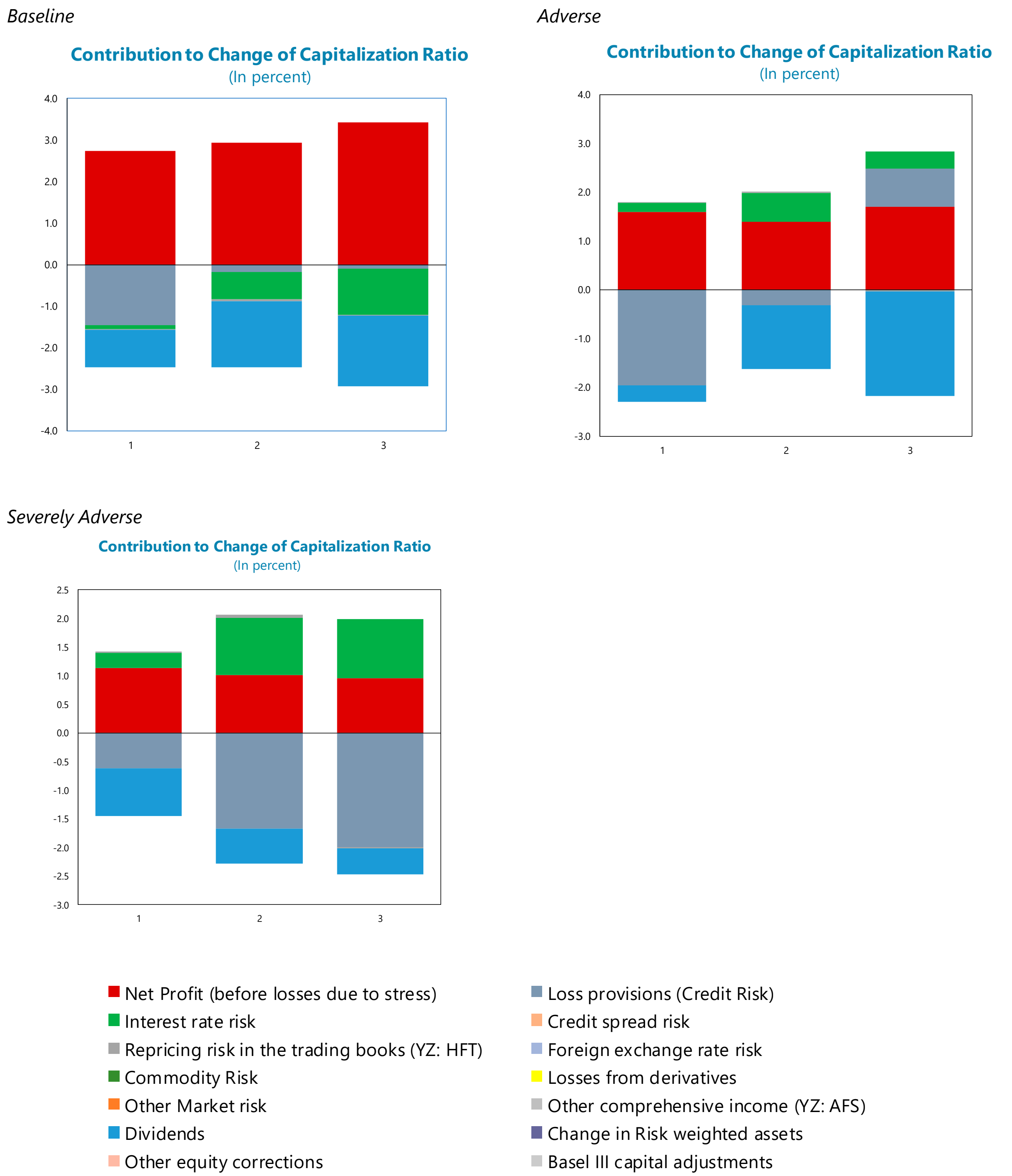
[7] Although the low interest rate tends to decrease NPL, this effect is offset by the impact of negative GDP and house price shocks.

Figure 4. Namibia: Bottom-up and Top-Down Solvency Stress Test Comparisons: Macro-Scenario Approach

Source: Individual banks; and IMF staff calculations.

Figure 5. Namibia: Driving Forces of Top-Down Solvency Stress Test Results

(Macroeconomic Scenario Approach, in percent)



Source: IMF staff calculations.

17. Single factor sensitivity analyses suggest that the banking system is vulnerable to counterparty and asset-class concentration risks, especially the two banks identified in the macroeconomic scenario approach (Table 4). In the extreme event that each bank's top five borrowers default with zero percent recovery, the CARs of these two banks would fall substantially below the requirement in 2018: Q2, with one being negative. These results are driven by the banks' high *counterparty* concentration. The BoN is recommended to reduce the large exposure limit from the current 30 percent of capital to 25 percent in line with international good practice. In terms of the *asset-class* concentration risk, the default of each bank's 20 percent residential mortgages with zero recovery would reduce the aggregate CAR to 9.5 percent in 2018: Q2, and reduce the same two banks' CARs well below the capital requirement.

Table 4. Namibia: Bottom-Up and Top-Down Solvency ST Comparisons: Single-Factor Sensitivity Analyses*

	Counterparty Concentration			
	BU Weighted Average CAR	TD Weighted Average CAR	BU Number of Failed Banks	TD Number of Failed Banks
Top 3 Default (50 Percent Rcv)	14.7	13.4	0	1
Top 5 Default (Zero Rcv)	9.9	6.7	3**	2
	Asset-Class Concentration			
	BU Weighted Average CAR	TD Weighted Average CAR	BU Number of Failed Banks	TD Number of Failed Banks
10 Percent Default (50 Percent Rcv)	15.4	15.3	0	0
20 Percent Default (Zero Rcv)	10.7	9.5	2	2
	Interest Rate Sensitivity			
	BU Weighted Average CAR	TD Weighted Average CAR	BU Number of Failed Banks	TD Number of Failed Banks
500 bps Hike	15.3	15.9	0	0
1000 bps Hike	15.0	15.4	0	0

Source: Individual banks; and IMF staff calculations.
* The comparisons are done for total CARs, since the BU STs did not request tier 1 CARs for single-factor sensitivity analyses.
** Two of the three failed banks in the BU are the same as those identified in the TD.

18. Revers solvency STs confirm the results of the macroeconomic scenario approach. The aforementioned two banks are relatively weak: the threshold NPLs that would reduce their CARs in 2020 to the minimum requirement only need to be 1.1 to 1.6 times higher than the forecasted NPLs in the adverse scenario.

19. Fully-fledged cashflow liquidity STs, conducted over a six-month horizon, reveal that three of the four banks would face moderate liquidity shortfalls. The results indicate that three banks would face moderate liquidity shortfalls in one-to-two months after the liquidity shocks hit, and one bank has a shortfall amounting to 13 percent of its liabilities by the end of the sixth month. The results are caused by banks' over-reliance on wholesale funding, especially those from short-term funding sources. See Appendix III for the methodology.

20. Results from the reverse liquidity STs confirm the banking system's vulnerability to liquidity risks. The threshold wholesale run-off rates (beyond which the bank's cash inflows and asset liquidation would be insufficient to cover outflows) for three banks are about 33 percent, lower than the run-off rate that is likely to prevail under stress (45.1 percent). That is, these three banks would face liquidity shortfall if 32-33 percent of the non-retail deposits (with maturities less than six months) are withdrawn in response to, for example, a sharp correction of the South African stock market. The magnitude of withdrawals implied by these threshold run-off rates is equivalent to about 33 and 50 percent, respectively, of the deposits of investment management companies and collective investment schemes for two of the three banks.

21. Examination of bottom up STs and communications with banks reveal several potential areas for banks to improve their internal ST models. The FSAP found that: (i) banks' internal NPL models are not sufficiently responsive to macro-financial variables, and have used some seemingly *ad hoc* variables/transformations; (ii) banks' internal solvency and liquidity ST scenarios do not seem severe enough; and (iii) some banks' internal liquidity ST models could be made more dynamic.

22. Cyber risk is also an important emerging risk factor. Namibia is one of the top cyber-attack targets in Africa, and cyber risk has been singled out as the most significant risk by big banks (Box 2). Currently, banks' main cyber risk management tool is to build a stronger IT system/FMI, but the authorities should promote banks' financial risk management framework on cyber and closer inter-bank collaboration.

Box 2. Cyber Risk in Namibia: A Financial Perspective

Namibia is one of the top cyber-attack targets in Africa and banks indicate cyber risk as a significant risk.[1] All banks have allocated significant resources to information security. Banks' primary cyber risk management tool is to build stronger IT system/FMI. Their *financial* risk management frameworks on cyber are still at an early stage. The authorities have not constructed a cyber-incident dataset and have been applying qualitative approaches to regulate cyber risk. The following measures would improve resilience against cyber risk:

Require banks conduct quantitative impact assessments on liquidity. Besides continuing to require the testing and strengthening of the *technological* resilience of banks' IT and FMI, the regulations should emphasize the importance of a robust *financial* risk management framework against cyber risk. Require banks to: (1) collect more data to facilitate the study of cyber-attack patterns and cyber loss forecasting; (2) incorporate cyber risk management (beyond cyber insurance) into risk management frameworks; and (3) conduct more quantitative assessments of the impact on liquidity from operational disruption and reputational damage.

Proactively enhance closer interbank collaboration, through the creation of an interbank cyber risk committee. In October 2016, eight big U.S. banks and the U.S. government created the joint Financial Systemic Analysis and Resilience Center, a long-term strategic initiative that performs in-depth analyses of systemic risk across financial products and practices. Specifically, the committee's responsibilities can include:

Box 2. Cyber Risk in Namibia: A Financial Perspective (concluded)

- **Data sharing.** Each bank submits its data on past attacks, possibly on an anonymous basis. This would help build a more comprehensive cyber data base for the banking system, which would allow for a closer examination of, and better preparation for, cyber-attacks.
- **Cost sharing.** The committee can facilitate the sharing of risk management and FMI development costs. For example, given Namibia's rare cyber incidents, it may be necessary for banks to examine the data on cyber incidents that occurred in other countries. Through this committee, banks can share the cost of such databases.
- **Joint development of cyber risk management models.** Banks can jointly develop cyber risk management models applicable to Namibia. This would allow banks to learn from each other's risk management practices.
- **Early warning.** Banks can share (on a real-time basis) the attack attempts that their internal cyber teams detect, so that other banks can better prepare against potential attacks.

[1] According to a technology vendor, Check Point Software Technologies. https://www.namibian.com.na/152836/archive-read/Namibia-is-top-African-destination-for-cyber-criminals.

B. Assessment of the Nonbank Financial Institutions

NBFI Structure and Performance

23. The largest segment of the NBFI sector, the pension system, consisting of a universal, non-contributory pension, and private, occupational schemes, covers approximately 30 percent of the labor force (including Government Institutions Pension Fund (GIPF)). The pension market is fragmented and therefore costly. Tax incentives for the pension industry are limited and could be improved. The preservation of pension benefits is an issue as members can access their funds when changing employer, which allows for early access and leads to leakage from the system. This should be addressed to ensure the pension system meet its strategic objectives.

24. Pension funds have traditionally held well-diversified portfolios compared to global peers, but are likely to face diversification challenges from the increasingly prescriptive domestic investment requirements. About 40 percent of pension fund assets are invested domestically, with the remainder split between South Africa/CMA and overseas investments. With the announced increase in the minimum domestic investment requirement to 45 percent of assets, this diversification would decrease. The government should support the partial listing of State-Owned Enterprises (SOEs), public-private partnerships in infrastructure, and other market instruments to provide additional investible assets.

25. The insurance market is concentrated, and dominated by subsidiaries of South African financial groups. The sector consists of 14 general insurers, 16 life insurers and one state-owned reinsurer. Insurance sector assets include insured pension fund products that provide an explicit capital guarantee. These pension assets are held on the balance sheet of the life insurance companies, which introduces institutional risk, and segregation of these assets should be implemented. Medical aid funds are a small but growing element of the sector.

26. The unit trust market is large at 32 percent of GDP. Money market unit trusts invest in T-bills, certificates of deposit, and direct deposits with banks. Activity in these funds fluctuates with liquidity in the banking system, as banks compete through increased deposit rates as their liquidity needs rise.

27. Top-down solvency stress tests were performed for the insurance and pension fund sector with a "global market stress scenario" and an "emerging market stress scenario" (Appendix IV). While the majority of non-life insurers remains solvent after stress, the impact on life insurers is considerably more severe, but mainly due to idiosyncratic factors. In both scenarios, one non-life insurer and two life insurers would experience a full wipe-out of their free assets. One other life insurer's free assets would drop substantially below the CAR in the emerging market stress scenario. As Namibian life insurers are very exposed to domestic and foreign stock markets, the assumed stock price decline contributes most to the overall scenario impact. Sovereign bond holdings, accounting for 18 percent of assets, are more resilient to the assumed spread increase. A separate sensitivity analysis shows that a few insurers have very concentrated exposures towards domestic banks, mainly via deposits, making them vulnerable to contagion effects of a bank default.

28. The funding level of defined-benefit pension funds would decline significantly in the two scenarios. In both stress scenarios, funding levels would drop by up to 15 and 30 percentage points, respectively, but starting from very robust pre-stress levels above 100 percent. Similar to life insurers, the main impact would come from lower stock markets and lower interest rates in the emerging market stress scenario. GIPF could potentially draw on its reserves, specifically the employer contribution service, to recover more than half of the losses and improve its funding level. Challenges remain, however, over the medium-term as investment returns below the 12 percent currently assumed in the actuarial valuation of liabilities could gradually erode the funding level.

FINANCIAL SECTOR OVERSIGHT FRAMEWORK

A. Banking Sector Oversight

29. A full detailed assessment of banking supervision against the Basel Core Principles (BCP) was conducted (Annex I). The assessment found that an effective supervisory regime is in place and the quality of BON's on-site supervision regime has improved significantly. The BoN has also made significant progress in addressing the gaps in the regulatory framework identified in the 2006 assessment. Comprehensive regulatory regimes have been introduced for market risk, country risk and consolidated supervision, on Anti-Money Laundering/Combatting the Financing of Terrorism (AML/CFT), and effective information-sharing arrangements have been put in place with SARB. Compared to the situation prevailing in 2007, a strengthened legal and regulatory framework has been established and a risk-based approach to AML/CFT supervision has been adopted. Risk-based supervision of the banking system was introduced in 2008. To date, supervisory colleges have been held by the SARB for two of the three South African banking groups in Namibia, with prudential meetings held biennially on all three groups. Memoranda of Understanding (MoUs) have also been signed, or are in draft, with relevant overseas regulators (Zambia, Botswana, Angola, and Portugal).

30. However, a number of recommendations from the 2006 assessment remain outstanding. The 2006 assessment recommended that all ministerial input to supervisory decisions should be removed from banking legislation, but there remain instances in the legislation where decisions taken by the BoN should be passed to the Minister for his/her input. It also recommended that the state-owned deposit taking entities be brought within the supervisory remit of the BoN. The BoN Act should be amended to better protect supervisory staff, to ensure that any costs incurred by staff in the event of being sued should be defrayed. These recommendations have not yet been addressed and should be taken forward with priority.

31. The regulatory framework follows the Basel II standards, but the BoN has published an implementation plan to introduce Basel III on a phased basis for its Domestic Systemically Important Banks (D-SIBs) from 2019. The BoN intends to implement the Basel III standards sequentially, with the objective of aligning capital adequacy with best international practice. The minimum capital requirement will increase from the current 10 percent to 12 percent in 2019; however, the phase-in of deduction from Core Equity Tier 1 (CET1) has not yet been determined, as it is based on the results of a Quantitative Impact Study (QIS) from banks. The BoN will also adopt the leverage ratio, increasing the requirement from 3 to 6 percent on a phased basis, and the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). A QIS will be carried out to determine the challenges that the implementation will present.

32. There remain important shortfalls in the regulatory framework and in supervisory practice.

- **The liquidity risk framework needs to be upgraded**. The present framework does not reflect the risk posed by sudden outflows of potentially volatile wholesale deposits, which form a high proportion of banks' liabilities. The introduction of Basel III from 2019 will include the LCR and NSFR regimes. In the interim, the BoN should approve the mismatch limits that banks should meet at different time horizons, and agree any behavioral adjustments banks propose to their short-term cashflow projections.

- **Loan classification enforcement needs strengthening as banks may be misclassifying loans**. Better forward-looking risk assessments are needed. The BoN has engaged independent auditors to establish whether misclassification of assets and under-provisioning is occurring at its D-SIBs and has required a thematic review be done across all banks to determine the scale of under-provisioning across the sector.

- **The fit and proper test undertaken by BoN would be enhanced by challenging applicants in person on their background and motivation**.

- **The analytical content of processes at the BoN Banking Supervision Department (BSD) should be strengthened to support a more forward-looking risk analysis, with a stress testing framework, and supported by an effective IT system.**

- **Working relationships with banks' external auditors need strengthening**. Regular meetings with auditors should be incorporated into the supervisory framework and aim to foster a constructive and collaborative ongoing relationship.

- **Resources in the BSD are stretched and should be increased, particularly given the additional responsibilities the Department is scheduled to assume in 2018.**

33. The Joint Prudential Supervisory Engagement Framework between the BoN and NAMFISA, designed to guide how the two authorities co-ordinate their regulatory activities to avoid regulatory arbitrage, should be finalized as a matter of priority. A Memorandum of Arrangement (MoA) is currently in place with NAMFISA to enable the BoN to conduct consolidated supervision of banking groups that include domestic NBFIs. There are concerns, however, about the quality of data provided by NAMFISA on its regulated entities and, more generally, about the quality of NAMFISA's overall supervisory approach, which was reviewed separately as part of the FSAP. These supervisory deficiencies in NAMFISA give rise to concerns about BoN's ability to conduct effective consolidated supervision.

B. NBFI Oversight

34. NBFI supervision is compliance based. Several major pieces of legislation are awaiting presentation to parliament to upgrade the regulatory framework. The passage of these bills should be expedited to address the significant gaps in current regulation that introduce uncertainty and risks. Areas the new legislation aims to address include: (i) a framework for regulation and supervision of unit trusts; (ii) updated, risk-based insurance solvency requirements; (iii) improved governance for pension funds; (iv) an increased focus on market conduct; and (v) a move to risk-based supervision for all sectors. The NAMFISA Bill strengthens the institutional arrangements for the regulator, including enhancing enforcement power, and imposes greater governance and market conduct standards. The Financial Institutions and Market Bill sets out NAMFISA's powers and provides for it to issue standards on a wide range of issues.

35. A new risk-based approach to supervision will be challenging to implement, and requires a stronger partnership with industry. NAMFISA has improved its supervisory oversight over the years, however, on-site inspections are not sufficiently regular and the inexperience of supervisors may lead them to focus on non-central issues. The upcoming detailed legislative and regulatory structure could, if anything, make the authority's approach more compliance-based. The roll-out of new regulations should be implemented in a proportional and risk-based manner and carefully sequenced, as both NAMFISA and the industry risk being overloaded. Active consultation with industry is required. Proportionality and understanding the regulatory impact on industry will be a considerable challenge for NAMFISA, given skills shortages and inexperienced staff. Capacity in terms of data collection, analysis and the focus of on-site inspections needs to be improved.

36. NAMFISA's costs have increased considerably in the past few years, with expenditure now exceeding income, largely from higher headcount and salaries. As its operating expenses rose sharply in recent years, NAMFISA has proposed a major increase in levies which, if implemented, could result in an increase in costs to industry. The proposed increase in levies appear excessive and should be reassessed. A review of administrative and support staffing needs versus front line supervisory staff should be undertaken.

37. NAMFISA should prioritize stronger accountability as it goes through the current period of transition. Governance and accountability should be strengthened by further public reporting and the setting of response performance targets. The focus on delivering to stakeholders could be improved, as consultations with the market are not always considered substantive by the industry.

C. Macroprudential Oversight and Future Regulatory Infrastructure

38. Currently, no institution or committee is assigned an explicit macroprudential policy mandate. A Tripartite MoU among the BoN, NAMFISA, and the MoF provides a framework to exchange information and cooperate on microprudential regulation/supervision of financial institutions, and requires each authority to inform the other about major policy changes. The Financial System Stability Committee (FSSC), an interagency committee comprised of the Deputy Governor of the BoN, the Deputy CEO of NAMFISA and relevant directors, as well as MoF representatives, has been meeting quarterly on financial stability issues, but it has no decision-making authority.

39. The authorities are in the process of strengthening the institutional framework for financial stability, with setting up an interagency Financial Stability Council as one option. The draft amendments to the Bank of Namibia and NAMFISA Acts assign them responsibility for financial stability in their respective areas. The draft Financial Stability Policy Framework sets out the parameters for a high-level decision-making body, the Financial Stability Council (FSC), with representatives from the BoN, NAMFISA and the MoF, chaired by the Governor of BoN. The mandate of the Council should include the issuance of macroprudential directives to regulators and independence of the FSC should be ensured. This approach may take some time to adopt, and in the interim, while known risks persist, the authorities may wish to consider giving the macroprudential mandate to the BoN with decision-making and directive issuance powers. In the interim, before the FSC is established, coordination with NAMFISA and the MoF would be ensured by maintaining the current inter-agency coordination committee FSSC.

40. The macroprudential toolkit needs to be expanded further in light of high household indebtedness and banks' reliance on wholesale funding. The introduction of LTV limits for non-primary house purchases was a good first step. Expanding the toolkit, including by introducing Debt Service to Income (DSTI) limits and considering extending the recently introduced LTV limits to primary home purchases, would necessitate addressing data gaps for household income and debt. Requiring affordability stress testing for mortgage applications to mitigate the risk of interest rate rises is also recommended. The liquidity risk regime should be strengthened even before the introduction of the LCR and NSFR, with behavioral adjustments to cashflow projections factored into revised mismatch limits.

41. The authorities are planning a review of financial sector oversight architecture, with the view to moving to a more integrated model over the medium term. The small size of the economy, together with the conglomerate setting, suggests a premium on supervisory coordination. An integrated supervisor may be better equipped to ensure consistent regulatory standards and practices across financial sub-sectors and eliminate regulatory arbitrage in a financial system, with complex intra group linkages. An integrated supervisor may also be better positioned to deal with cross-border issues, as South Africa has recently moved to a twin peaks approach consolidating prudential oversight under SARB. It is important that the review of regulatory architecture does not result in diversion of attention and resources from immediate priorities.

D. Market Conduct Oversight

42. The market practices of financial institutions in Namibia highlight the need for strong market conduct oversight to protect consumers, and there is a need to develop a high-level, sector-wide bill that addresses core market conduct principles. The legal and regulatory framework for market conduct in Namibia is fragmented and incomplete. The draft FIM and Microlending Bills address market conduct issues, as do the draft BoN Standards on Unfair Terms. A National Consumer Protection Policy has been developed and a Consumer Credit Bill is in a nascent stage. However, these efforts have lacked coordination and limited consideration has been given to follow-on supervisory approaches or capacities. Both regulators should ensure adequate allocation of resources specifically for the development and supervision of market conduct requirements by skilled, specialized staff. BoN should establish a dedicated market conduct department or division.

43. The Financial Services Adjudicator (FSA) Bill is broadly aligned with international good practice on alternative dispute resolution, but some targeted revisions are needed. The jurisdiction of the FSA should cover the entire financial sector, including payment service providers, which are currently excluded. Efforts should be made to simplify processes and reduce formality so that financial consumers view the FSA as a truly accessible and efficient recourse mechanism.

E. Oversight of Financial Market Infrastructure

44. Namibia has a modern FMI; however, important areas are still work in progress. Since the early 2000s, the BoN has led several initiatives to put the national payments system (NPS) on a firm legal foundation (including the recognition of finality and netting) and under effective central bank oversight. As a result, the NPS infrastructure is operated safely and efficiently, and the use of electronic instruments is growing rapidly. The approval of new legislation on securities, electronic transactions and cyber-crime should be expedited, and a new NPS law should be drafted to address the weaknesses in the existing legislation. More competition should be promoted in the retail payments, and the single central securities depository (CSD) should be introduced to enhance FMI safety and efficiency and to support capital market development.

45. The BoN has developed a well-articulated oversight framework, but its scope needs to be focused. The framework, which was recently strengthened, is risk-based and correctly aims at protecting the NPS from systemic risk and smoothing the operation of the clearing and settlement systems. In the context of cyber-risk management, the BoN uses fully proprietary networks for sending payment instructions. However, the BoN concentrates its efforts more on compliance than on forward-looking analysis of NPS safety and efficiency and the identification of risks and vulnerabilities. BoN oversight action is complemented by the role of the Payments Association of Namibia (PAN), which is statutorily mandated to operate, regulate and oversee aspects of the NPS and serves as the forum for NPS stakeholder cooperation. While PAN greatly facilitates stakeholder cooperation in the NPS, its governance should better ensure that public interests prevail over the interests of individual institutions.

F. AML/CFT

46. Significant AML/CFT deficiencies were identified in Namibia's August 2007 assessment,[8] the most important of which have since been addressed. The strategic deficiencies identified led to a public listing and monitoring of Namibia's progress by the Financial Action Task Force (FATF). Since the evaluation, Namibia has made significant progress notably by criminalizing money laundering (ML) and terrorist financing (TF), implementing a freezing mechanism for terrorist assets and adopting a risk-based approach to AML/CFT supervision, in line with the FATF standards, to all "accountable institutions," which includes banks. As a result of these measures, Namibia was removed from the FATF monitoring process. Enhanced due diligence and ongoing monitoring measures for all politically exposed persons (PEPs) were also imposed on reporting entities, but neither the laws nor the regulations provide a clear definition of a PEP consistent with the FATF standard.[9] In implementation of the revised 2012 FATF standard, Namibia assessed its ML/TF risks in 2012. According to the authorities, as a result of the 2015 update to the risk assessment, Namibia identified a significant customs fraud and money laundering scheme estimated at least in the hundreds of millions of U.S. dollars, which is currently being investigated. Namibia has requested World Bank assistance to update the 2015 update to the risk assessment.

47. Going forward, Namibia should fully implement the 2012 FATF standard regarding PEPs and adequately mitigate its ML/TF risks. The lack of clarity with respect to the definition of PEPs could hamper the implementation of sound AML/CFT measures. The authorities should therefore explicitly define the notion of PEPs in line with the standard. According to the authorities, recent law enforcement cases and suspicious transaction reports indicate that the main ML/TF risks remain the same as in 2013, i.e., tax evasion, corruption/bribery, livestock theft, motor vehicle theft, and fraud. This could suggest that insufficient mitigating measures were taken as a result of the 2012 risk assessment. The current update includes a focus on customs fraud and assessment of proliferation risks, inter alia, and is anticipated to be completed in 2018. Once completed, the authorities should take adequate mitigating measures, if necessary through further strengthening of the AML/CFT framework.

[8] Mutual Evaluation of Namibia, August 2007, ESAAMLG (can be accessed here).

[9] The guidance to the Financial Intelligence Act provides a rationale for the inclusion of enhanced measures for PEPs, rather than a clear definition of which customers and beneficial owners should be considered as PEPs.

CRISIS MANAGEMENT AND FINANCIAL SAFETY NETS

48. The crisis management and financial safety net frameworks need to be further strengthened in the process of the ongoing overhaul. Currently, there is no formal crisis management framework in place, though the legal powers accorded to the BoN and NAMFISA to take remedial action against weak institutions are broadly satisfactory. The financial sector legal framework in Namibia is undergoing significant change. Proposed amendments to the Bank of Namibia Act (BoN Act), the Banking Institutions Act (BIA), a Namibia Financial Institutions Supervisory Authority Act (NAMFISA Act), and a new deposit guarantee bill, include significant upgrades, including a special resolution regime (SRR) for banks and their holding companies. A proposed new omnibus Financial Institutions and Markets Bill consolidates and harmonizes the laws regulating non-bank financial institutions, financial intermediaries and financial markets.

49. Recovery planning is undergoing a major upgrade. Proposed amendments to the BIA give the BoN explicit power to require additional information regarding plans, to require amendments to plans, and to require steps to be taken to implement elements of plans on a specific timetable. There is a need for better coordination between the BoN and NAMFISA, the latter should contribute to assessing bank holding company recovery options involving NAMFISA-regulated subsidiaries. Recovery planning by the parents of the three South African owned D-SIBs is well advanced under the purview of SARB, but there is scope to strengthen cross-border cooperation. There is a need to develop recovery planning at least for key insurers, investment managers or unit trust management companies.

50. Revisions to the resolution framework could be further improved. The current winding-up regime is largely court based, under corporate law, with some modifications related to the BoN and creditor hierarchy. The resolution regime (gone concern) should be revised to provide the BoN and NAMFISA more authority vis-à-vis courts to promptly close and put into liquidation a failing institution. The special resolution regime in the BIA amendments could be strengthened. Resolution funding arrangements need to be decided. The liquidation creditor hierarchy can be revised to further differentiate among unsecured creditors. The BoN should establish a resolution unit separate from bank supervision, and initiate resolution planning for the four large banks and their holding companies. Legal gateways need to be put in place to ensure cross-border sharing of information for resolution purposes.

51. Introducing deposit insurance is part of the major overhaul of the financial safety net. A Deposit Guarantee Scheme (DGS) Bill has been drafted with the DGS as a pay-box within the BoN covering local currency deposits up to N$25,000. All commercial banks and foreign bank branches would be required to be members. Under banks' current funding structures, less than 10 percent of deposits in any bank will likely be insured, but 90 percent of depositors would receive coverage. Under the legislative calendar the DGS Bill would become effective after the SRR is in place. The bill should allow the DGS to become a *de facto* source of resolution funding by contributing funding to a transfer of insured deposits *en masse* to an existing bank rather than pay them out, set a deadline for the start of the payout period, and make explicit provision to charge an extraordinary premium. Fiscal backstop should be considered for deposit insurance funding in the event of a major crisis.

52. The MoF, BoN, and NAMFISA are considering adopting an enhanced institutional framework for cooperation with SARB that addresses crisis preparedness in normal times and management of an actual crisis. A 2015 MoU between the BoN and SARB sets out arrangements for cooperation in supervision as well as recovery and resolution planning. The MoU should be revised and more fully implemented by addressing new legal gateways for sharing of information in the context of actual resolutions, and by enabling the BoN to require that the South African groups prepare stand-alone recovery plans for their systemically important Namibian subsidiaries and affiliates, or commit the SARB to share such stand-alone recovery plans with BoN.

53. The BoN has an adequate, but undisclosed written policy for emergency liquidity assistance (ELA) to banks. The BoN should take steps to be able to operationalize ELA on short notice, including to quickly value and perfect liens on acceptable forms of collateral. The BoN could consider disclosing relevant elements of its policy to promote preparedness, while emphasizing there can be no expectation of assured access.

54. The BoN maintains external reserves well in excess of the minimum required to guarantee the CMA arrangement. At end-June 2017, free reserves (the amount of reserves exceeding the minimum amount needed to cover currency issue) totaled N$21.3 billion, or around three times the minimum requirement to guarantee the peg. Free reserves are theoretically available to back potential emergency liquidity funding of the commercial banks in the event of stress.

55. The BoN should simplify and strengthen the liquidity management regime as it features a multiplicity of instruments, interest rates and facilities that can send confusing signals to markets. The authorities should consider implementing an interest rate corridor regime with standing facilities to simplify and strengthen liquidity management. Liquidity forecasting could be enhanced.

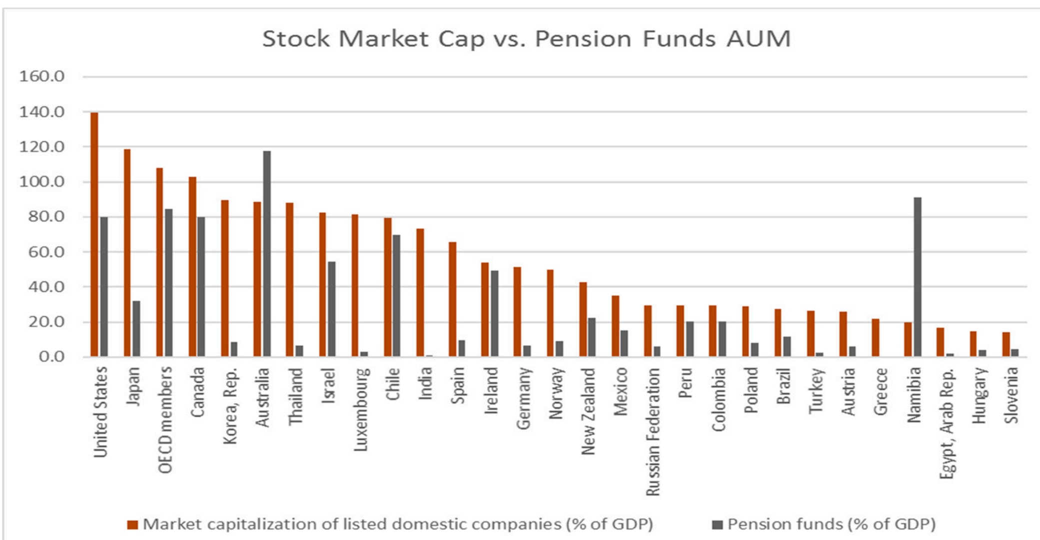
DEVELOPMENT ISSUES IN FINANCE

56. Namibia has not fully leveraged the potential of competitive and inclusive financial markets to enable poverty reduction and shared prosperity. In many respects, Namibia's financial sector exacerbates rather than mitigates economic inequalities. Despite recent progress, low-income and rural individuals, and MSMEs are still not well served by a highly-concentrated and high-cost banking system nor SOFIs that fall short of meeting their policy objectives. Targeted reforms are required to ensure that the financial sector better supports Namibia's economic development priorities; helps individuals to smooth consumption, manage risk, and achieve economic security; and enables MSMEs to grow and contribute to employment and economic growth.

A. Institutional Investors and Financial Market Development

57. Namibia's development needs have benefited from the large capital pool held by institutional investors, but there is a risk of a substantial imbalance between demand and supply in domestic markets. Namibian pension fund assets are very high compared to domestic stock market capitalization (Figure 6), and this imbalance would rise further with the increase in the minimum requirement for domestic investment for pension funds and insurance companies. At the same time, the percentage of dual listed stocks that qualify as Namibian assets, would be reduced to 10 percent, prompting a further reallocation of assets to domestic securities. Institutional investors' holdings in domestic bank deposits and government bonds are expected to further increase when funds are reallocated to domestic investments, reducing both diversification and future investment returns. In addition, there is a risk of potential asset price inflation as a large pool of funds will chase too few investments. Increases in the domestic investment requirements should therefore be avoided.

Figure 6. Namibia: Stock Market Capitalization and Pension Fund Assets Under Management



Source: World Bank and OECD Databases.

58. The limited potential pipeline for issuance will struggle to absorb all repatriated assets. SOEs could potentially contribute to the pool of listed investible assets, although many SOEs are not profitable and require improvements in corporate governance. Despite there being private companies with the size, governance and operational structures suitable for listing, most of these companies do not require equity and are unwilling to meet the transparency requirements for listing.

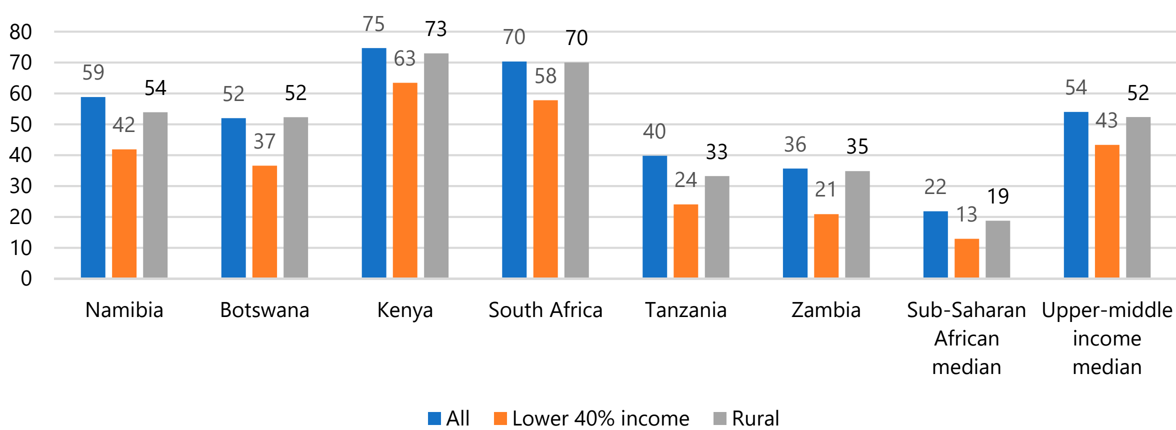
59. The bond market requires formalization, particularly with regards to post trade infrastructure, which would help facilitate further domestic investment. The lack of post trading infrastructure, particularly for clearing and settlement, brings risks to the market and reduces foreign investor participation, particularly in government bonds. All domestic securities are still issued in paper certificate form. The Companies Act of 2004 allows for dematerialization, however, legislation is still pending from NAMFISA. As a result, there is no electronic CSD. The setup of the CSD, even prior to the passing of the FIM Bill, should be a priority.

60. The government securities market would benefit from a medium-term debt management strategy (MTDS) and reinforced debt management capacity, and from measures to boost liquidity. There are large concentrations of maturities in 2020 and 2025, which may create considerable rollover risk. A rollover strategy, within a MTDS should be pursued. The secondary market for Treasury bills and bonds is highly illiquid. One measure to improve secondary market liquidity, and contribute to money market development, is to implement legislation and regulations, including amendments to the Insolvency Act to allow for netting clauses of repos and collateral, to allow for a properly functioning repo market. Technical assistance is likely needed to facilitate the development of the MTDS and the improvement of primary and secondary debt markets.

B. Financial Inclusion and SME Finance

61. Levels of financial inclusion in Namibia compare favorably to peer economies, although a significant share of the population remains excluded from the formal financial sector. According to the 2014 Global Findex survey, 59 percent of adults (ages 15+) in Namibia have an account at a formal financial institution (Figure 7). Rural residents and those in the lowest 40 percent of the income distribution are significantly less likely to have access to basic financial services. Over 50 percent of unbanked Namibians report cost, documentation, and distance as major obstacles to owning an account.

Figure 7. Namibia: Ownership of Accounts (Adults Ages 15+)



Source: Global Findex, 2014.

62. Micro, small, and medium-sized enterprises face significant barriers in accessing finance. Collateral requirements for the provision of credit make access to finance difficult for

MSMEs, especially given the lack of a secured transactions and collateral registry regime that would allow for the collateralization of movable assets. An outdated insolvency regime creates uncertainty for debtors as it does not allow for effective exit mechanisms in the event of default. It can also be a challenge for entrepreneurs who may be held personally liable in the event of default. An improved credit information system for MSMEs, a secured transactions framework for movable assets, and a modernized insolvency regime would facilitate financial access for MSMEs. Financial inclusion for the low-income and rural population should be promoted through digitization of social transfers, and an improved regulatory framework for microfinance banks and institutions.

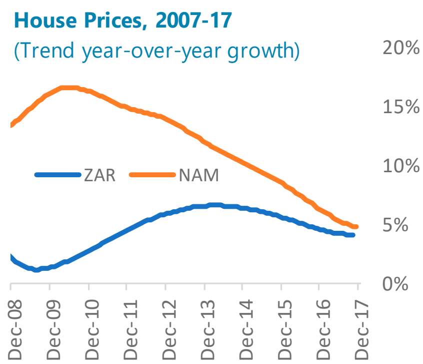
C. State-Owned Financial Institutions

63. SOFIs are an important component of Namibia's financial system with mandates to serve specific market segments. The Development Bank of Namibia (DBN) focuses on the provision of credit for infrastructure and large enterprises. Agribank provides loans, guarantees, and capacity building support for agriculture and related activities. The National Housing Enterprise (NHE) is tasked with housing construction and the provision of housing loans, with a focus on low- and middle-income households. NamPost Savings Bank (NPSB) provides basic savings and transaction services through the postal network and micro-loans to individuals.

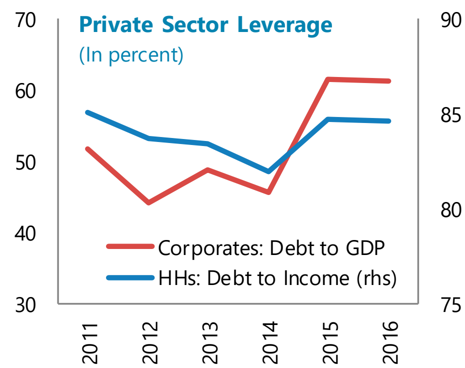
64. In a number of cases, SOFIs' mandates fail to effectively address identified market failure and performance has been very poor in recent years. Their mandates should be redefined to improve the targeting of market failures and leveraging of private capital. MoF should exercise strong ownership control over all SOFIs. The financial services businesses of NPSB should be spun off into a licensed bank with a mandate to serve rural households and MSMEs, leaving Nampost to focus on its postal and logistics activities. Agribank's lending performance and major institutional weaknesses require urgent attention. NHE's operations should be curtailed, and its mandate and business rationale re-assessed. NPSB, DBN, and Agribank should be regulated and supervised by the BoN.

Figure 8. Namibia: Macrofinancial Risks from the Housing Market and Linkages Between Banks and NBFIs

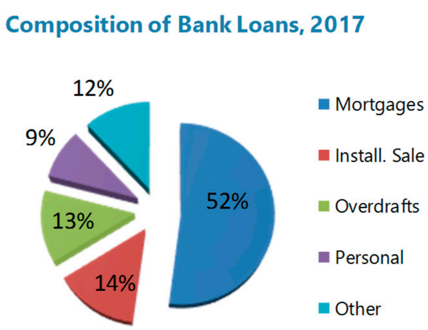
Rapidly rising housing prices....



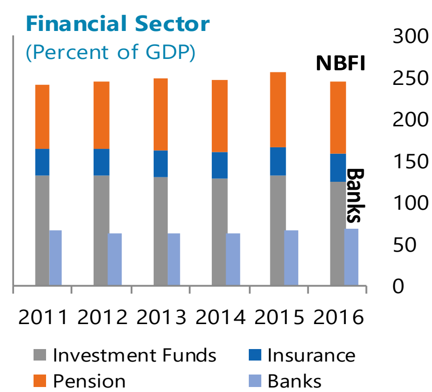
...elevated private sector indebtedness...



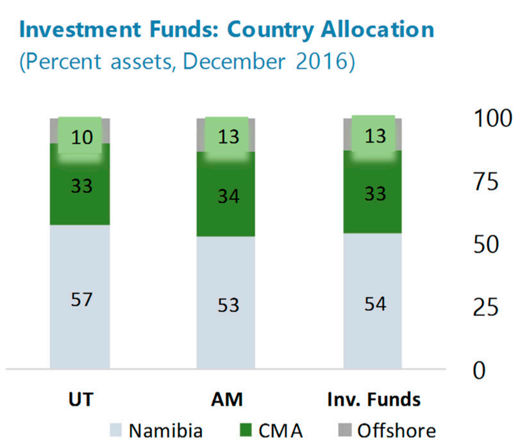
...and large concentration of banks' loans in mortgages are macrofinancial risks of concern.



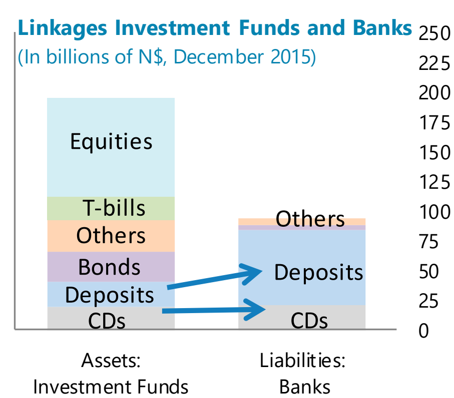
Investment funds are twice as large as commercial banks....



...hold large and volatile foreign exposures...

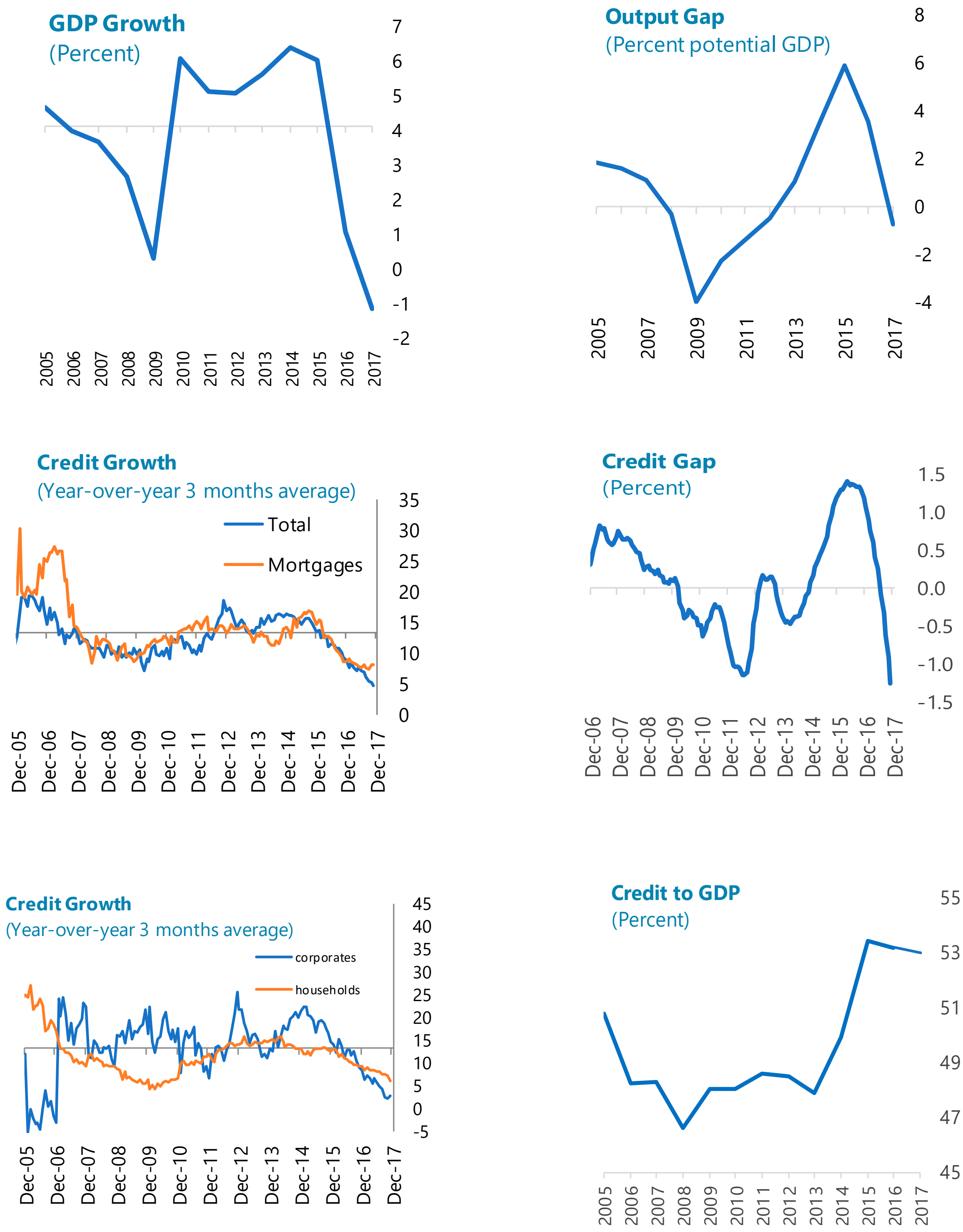


...while accounting for 50 percent of bank's funding.



Sources: First National Bank; ABSA; BoN Financial Stability Report; NAMFISA; and MCM TA Report, 2015.

Figure 9. Namibia: Bank Credit Cycle



Sources: Companies; BoN; NAMFISA; and IMF staff calculations.

Table 5. Namibia: Selected Economic Indicators, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022
				Est	Proj	Proj	Proj	Proj	Proj
	(percentage change, unless otherwise indicated)								
National account and prices									
GDP at constant prices	6.4	6.0	1.1	-1.2	1.2	3.3	3.8	3.5	3.5
GDP deflator	6.3	0.4	7.9	6.2	5.8	5.7	5.7	5.8	5.7
GDP at market prices (N$ billions)	139	148	161	169	181	198	217	237	259
GDP at market prices (Fiscal Year) (N$ billions)	141	151	163	172	185	202	222	243	266
GDP per capita (US$, constant 2000 exchange rate)	8,941	9,334	9,989	10,396	11,036	11,952	13,009	14,117	15,318
Consumer prices (end of period)	4.6	3.7	7.3	5.2	5.7	5.8	5.7	5.8	5.7
External sector									
Exports (US$)	-0.1	-13.2	4.3	13.5	9.2	7.6	6.3	3.8	3.5
Imports (US$)	9.9	-5.5	-12.7	-5.4	9.0	6.8	8.5	4.2	3.9
Terms of trade (deterioration = -)	4.2	-5.2	-7.1	0.5	1.1	-1.0	-1.4	-1.6	-1.4
Real effective exchange rate (period average)	-5.9	-1.7	-4.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exchange rate (N$/US$, end of period)	11.6	15.6	13.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Money and credit									
Domestic credit to the private sector	17.9	13.8	8.6	4.5	4.9	5.4	5.8	6.3	6.4
Base money	35.7	-5.0	24.7	10.0	10.0	10.0	10.0	10.0	10.0
M2	6.9	10.2	4.9	6.3	7.0	9.2	9.7	9.4	9.4
Interest rate (percent)	6.0	6.5	7.0	…	…	…	…	…	…
	(percent of GDP)								
Investment and Savings									
Investment	33.6	34.6	25.7	22.8	23.5	23.8	24.0	23.6	23.9
Public	7.4	9.2	9.1	7.3	7.5	7.3	7.0	6.1	5.9
Private	26.0	24.9	15.1	15.5	16.0	16.5	17.0	17.5	18.0
Change Inventories	0.2	0.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Savings	24.1	20.3	11.5	21.2	19.9	18.6	18.2	17.8	18.1
Public	0.4	-1.6	-3.6	-1.8	-3.2	-5.2	-5.0	-5.2	-5.7
Private	23.7	21.9	15.1	23.0	23.1	23.8	23.2	23.0	23.8
Central government budget 1/									
Revenue and grants	35.4	34.6	31.2	34.2	31.6	30.0	30.9	30.6	30.6
Of which: SACU receipts	12.9	11.5	8.6	11.4	9.4	7.8	8.6	8.4	8.4
Expenditure and net lending	42.1	43.2	40.5	39.4	40.1	39.9	39.9	39.4	39.9
Primary balance (deficit = -)	-5.2	-6.9	-6.7	-2.2	-5.1	-5.9	-4.5	-3.9	-3.6
Overall balance	-6.7	-8.7	-9.3	-5.2	-8.5	-9.9	-9.0	-8.8	-9.3
Overall balance: Non-SACU	-19.5	-20.1	-18.0	-16.6	-17.9	-17.6	-17.6	-17.2	-17.7
Public debt/GDP	24.8	39.4	43.2	46.5	51.4	57.3	61.9	65.7	69.7
Of which: domestic	16.2	21.3	27.9	30.4	33.9	40.1	45.5	50.3	56.1
Gross public and publicly guaranteed debt/GDP	28.4	44.2	48.6	53.7	58.9	64.5	68.8	72.3	76.3
External sector									
Current account balance									
(including official grants)	-9.4	-14.1	-14.1	-1.5	-3.6	-5.1	-5.7	-5.7	-5.7
External public debt (including IMF)	8.0	13.1	17.1	15.9	17.0	17.0	16.3	15.4	13.8
Gross official reserves									
US$ millions	1,198	1,580	1,791	2,193	2,159	2,155	1,800	1,590	1,581
Percent of GDP	10.0	16.7	15.2	17.5	16.5	15.6	12.3	10.3	9.7
Months of imports of goods and services	2.0	3.0	3.7	4.1	3.8	3.5	2.8	2.4	2.3
External debt/GDP 2/	43.0	48.2	60.2	60.6	64.4	66.3	67.3	68.5	68.7
Memorandum item:									
Population (in million)	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4

Sources: Namibian authorities and Fund staff estimates and projections.

1/ Figures are for fiscal year, which begins April 1.

2/ Public and private external debt.

Table 6. Namibia: Financial Sector Indicators, 2010–June 2017

(In percent, unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17
Banking indicators													
Capital adequacy													
Capital to assets	8.4	7.8	8.0	8.6	10.3	10.9	10.4	10.6	10.8	11.1	11.0	10.9	10.5
Regulatory capital to risk-weighted assets	15.3	14.0	14.2	14.4	14.7	14.3	15.3	15.2	14.8	15.1	15.6	14.8	15.3
Regulatory tier I capital to risk-weighted assets	11.1	10.8	10.9	11.5	11.9	11.8	12.2	12.3	12.3	12.4	12.0	11.2	12.4
Asset quality													
Large exposure to capital	130.0	147.0	135.0	112.5	170.9	212.5	123.9	126.3	113.8	125.1	129.9	123.7	148.0
Nonperforming loans to total gross loans	2.0	1.5	1.3	1.3	1.5	1.6	1.6	1.6	1.8	1.5	1.4	2.0	2.2
Earnings and profitability													
Trading income to total income	6.5	9.3	7.4	6.5	5.9	6.5	8.0	9.4	6.2	4.6	3.6	5.5	4.7
Return on assets 1/	3.5	3.7	3.3	3.1	3.6	4.8	3.3	2.2	3.6	3.5	3.0	3.0	2.9
Return on equity 1/	41.9	47.1	40.5	31.4	34.9	56.5	31.4	21.2	31.1	32.6	27.7	27.9	27.5
Interest margin to gross income	51.3	54.2	58.8	54.7	56.8	57.4	58.0	57.9	58.3	56.7	36.8	59.0	57.4
Noninterest expenses to gross income	57.3	52.3	54.0	54.8	52.8	51.6	51.7	54.1	53.7	51.0	33.6	55.5	56.0
Personnel expenses to noninterest expenses	49.5	51.5	58.1	50.3	49.7	101.7	118.4	107.6	53.8	49.5	53.9	52.7	54.5
Liquidity													
Liquid assets to total assets	10.7	12.4	10.9	10.7	11.6	11.7	10.8	11.4	10.7	11.4	9.7	10.6	13.6
Liquid assets to short-term liabilities	19.1	22.2	20.7	19.7	21.1	21.9	21.3	23.0	22.5	23.5	19.5	22.7	28.4
Customer deposits to total (non-interbank) loans	106.3	114.7	106.4	102.5	98.6	95.2	100.0	95.0	94.1	95.4	94.5	95.8	99.6
Exposure to foreign exchange risk													
Net open position in foreign exchange to capital	1.3	2.7	2.8	1.7	2.4	5.1	1.0	0.5	4.3	2.7	3.1	-0.8	-0.4
Foreign currency-denominated loans to total loans	0.1	0.3	1.3	2.0	1.4	1.5	1.2	1.3	1.0	0.9	0.7	0.6	0.7
Foreign currency-denominated liabilities to total liabilities	3.7	1.9	2.5	3.7	3.3	3.7	3.0	4.9	3.4	2.8	4.3	4.0	4.7
Memorandum item:													
Holdings government debt to risk-weighted assets	5.7	10.2	9.8	10.2	9.8	10.4	10.1	10.1	9.9	10.1	9.3	9.2	10.8

Sources: Bank of Namibia and IMF staff estimates.

1/ Before taxes.

Annex I. Report on the Observance of Standards and Codes: Basel Core Principles

1. This assessment of the implementation of the Basel Core Principles for Effective Banking Supervision (BCPs) in Namibia has been completed as part of the 2017 FSAP undertaken by the International Monetary Fund (IMF) and World Bank. It reflects the regulatory and supervisory framework in place as of the date of the completion of the assessment. It is not intended to represent an analysis of the state of the banking sector or crisis management framework, which have been addressed in the broader FSAP exercise.

INFORMATION AND METHODOLOGY USED FOR THE ASSESSMENT

2. An assessment of the effectiveness of banking supervision requires a review of the legal framework, and detailed examination of the policies and practices of the institution responsible for banking regulation and supervision. In line with the BCP methodology, the assessment focused on banking supervision and regulation in Namibia and did not cover the specificities of regulation and supervision of other financial intermediaries, which are covered by other assessments conducted in this FSAP.

3. This assessment was against the Revised Core Principles Methodology issued by the BCBS in September 2012. This assessment was performed according to a significantly revised content and methodology as compared with the previous BCP assessment for Namibia carried out in 2006, which was conducted under the former BCP methodology. It is important to note that this assessment cannot and should not be compared to the previous undertaking, as the revised BCPs have a heightened focus on risk management and its practice by supervised institutions and its assessment by the supervisory authority, raising the bar to measure the effectiveness of a supervisory framework.

4. Both essential and additional criteria have been assessed, but only essential criteria have been graded by the assessors. In order to assess compliance, the BCP Methodology uses a set of essential and additional assessment criteria for each principle. Only the essential criteria (EC) were used to gauge full compliance with a CP. The additional criteria (AC) are recommended best practices against which the Namibian authorities have agreed to be assessed but not rated.

5. An assessment of compliance with the BCPs is not an exact science. To determine the compliance with each principle, the assessment has made use of five categories: compliant; largely compliant, materially noncompliant, noncompliant, and nonapplicable. The assessment of compliance with each CP is made on a qualitative basis to allow a judgment on whether the criteria are fulfilled in practice. Effective application of relevant laws and regulations is essential to provide indication that the criteria are met.

6. The assessors reviewed the framework of laws, regulations and other materials provided and held extensive meetings with officials of the Bank of Namibia's Banking Supervision Department, banks, and a local accounting firm. The authorities provided a self-assessment of the CPs, responses to an additional questionnaire, and full and free access to supervisory documents and files, staff and systems. The standards were evaluated in the context of Namibia's financial system's structure and complexity. The team extends its thanks to the staff of the BON for their co-operation, productive discussions, and hospitality.

PRECONDITIONS FOR EFFECTIVE BANK SUPERVISION

7. **An effective system of banking supervision needs to be able to develop, implement, monitor, and enforce supervisory policies under normal and stressed conditions.** There are a number of elements or preconditions that are necessary for effective supervision:

- **Sound and sustainable macroeconomic policies:** See section on Macrofinancial Context, part B in this report.

- **A well-established framework for financial stability policy formulation:** See section on Financial Sector Oversight Framework, part C.

- **A well-developed public infrastructure:** Section 294 (2) of the Companies Act 2004 requires annual financial statements of a company to be prepared in conformity with generally accepted accounting practice. Namibia adopted international accounting standards in 2005 and intends to introduce IFRS 9 from 1 January 2018. The disclosure framework in Namibia requires banks to provide sufficient information in a timely fashion to enable users to gain a reasonable understanding of the key financial and regulatory risks that they are running. On financial market infrastructure, see section on Financial Sector Oversight Framework, part E.

- **A clear framework for crisis management and financial safety nets:** See section on Crisis Management and Financial Safety Nets.

- **Effective market discipline:** Given the market dominance of the four big banks, there are concerns about bank competition and consumer protection, including the banks' ability to charge excessive fees due to considerable market power. Recent entrants have not managed to increase competitive pressures, and are disadvantaged in their development by the lack of strong parent companies and challenges to attract liquidity given the market dominance of the four big banks. The restriction on foreign shareholding contemplated in the draft Banking Institutions Bill could further stifle competition by limiting the possibility of a large foreign bank to enter the market. At the same time, the current market practices of the four big banks raise concerns about fair and transparent pricing, and point to the need for strong market conduct oversight.

MAIN FINDINGS

A. Responsibilities, Objectives, Powers, Independence, and Accountabilities (CPs 1–2)

8. **The BoN's supervisory responsibilities and powers are generally well established.** The banking supervisory responsibilities and objectives of the BoN are clearly enshrined in legislation and there is no evidence to suggest that the BoN's secondary objective to promote economic development has compromised the setting of prudential standards. The legal

framework for banking supervision provides the BoN with the necessary powers to license banks, set prudential regulations and to take timely action against banks in the event of breaches in compliance with laws and to promote safety and soundness issues.

9. The BoN's independence in supervisory operations should be made unambiguously clear in legislation through the removal of all references to ministerial input in supervisory decisions. Banking legislation should also be amended to ensure that any staff sued for actions undertaken in the course of their duties have their legal costs covered and that, in the event of the dismissal of the Governor or his senior staff, the law should require the reasons for such dismissals to be disclosed publicly.

B. Ownership, Licensing, and Structure (CPs 4–7)

10. Legislation defines clearly the activities that banks are allowed to undertake, but there are certain state-owned entities which are not subject to BoN supervision. Two state-owned entities which currently take public deposits are currently outside BoN supervision (NAMPOST and NHE) and should be brought within the supervisory remit of the BoN. The remaining two state-owned entities should similarly be brought under the BoN's supervisory remit if they commence deposit-taking activities at some point in the future. The Authorities should review the oversight arrangements for the co-operative sector and consider whether the regime should be strengthened by being brought under the supervisory remit of the BoN.

11. Existing regulations cover all the key elements of an effective licensing framework, but the desk-based approach to assessing the fitness and propriety of major shareholders and of Directors and senior management of an applicant bank is a key weakness. The BoN should introduce interview procedures with key officers (Directors/Principal Officers/senior management and, as appropriate, with major shareholders) to assess their knowledge and relevant experience for the roles they intend to fill, and of the key assumptions underpinning the financial projections.

12. The BoN has the appropriate legal powers to approve and reject applications by prospective owners of a bank on both a consolidated and solo bank level and to approve or reject acquisitions or investments by a bank. However, the BoN should introduce a requirement into legislation that banks should notify the supervisor of any material change in the standing of existing shareholdings which may give rise to changes in their fitness and propriety.

C. Ongoing Supervision (CPs 8–10, 12, 15)

13. The BoN has made substantive changes in moving toward the implementation of a risk-based approach, but further enhancements are necessary. The combination of an off-site CAMELS assessment and on-site SREP risk assessment methodology provides senior management with an effective overall view of the current risk profile of banking groups, but the use of two separate risk methodologies is potentially duplicative and the risk analysis is not sufficiently forward-looking. The BoN should introduce a more forward-looking assessment of bank's risk profiles into its supervisory approach drawing on the financial projections and stress testing/scenario analysis data that are available to supervisors in Internal Capital Adequacy

Assessment Process (ICAAP) submissions. Pending amendments to the current banking legislation, the BoN does not currently have formal resolution plans in place to take action to resolve banks in an orderly manner and does not, as a matter of course, request copies of existing bank recovery plans.

14. The regulatory and prudential reporting framework is comprehensive with banks and controlling companies submitting a wide range of information to the BoN. The BoN has the ability to fine banks for non-compliance with reporting requirements, but may wish, in addition, to consider taking specific corrective actions against bank management in cases of continual non-compliance.

15. The process for validating and inputting regulatory data is heavily reliant on manual intervention. The BoN has conducted a feasibility study for a new automated data collection system. This is an important initiative and the installation of a new system should be expedited.

16. The regulatory framework for consolidated supervision is comprehensive. The BoN applies quantitative capital and liquidity ratios at the consolidated group level and has an effective monitoring regime of the ratios through regular reports. Qualitative consolidated supervision procedures meet the stated Principles. Meetings with group management of bank holding companies are held to discuss strategy and group risks at supervisory college meetings and as part of on-site examinations. MoUs are in place with relevant overseas authorities and an MoA is in place with NAMFISA to enable the BoN to conduct effective consolidated supervision. Risks to the wider groups arising from banks and NBFIs are raised in bilateral discussions between the relevant authorities and incorporated in the BoN's overall group risk assessment. However, until risk-based supervision has been fully embedded in NAMFISA's procedures and processes, BoN may not be able to place full reliance on its supervision of the NBFI sector. The two authorities are drawing up a Joint Prudential Supervisory Engagement Framework (JPSEF) which should enable the BoN to compensate for any practical shortcomings in NAMFISA's current supervisory approach. The Framework should be finalized as a matter of priority.

17. BoN regulations form a comprehensive risk management framework for banks to follow, but they are spread over a number of different regulations. Given the importance of effective risk management to the supervisory framework, the BON may wish to consider consolidating these individual requirements into a separate Determination that would provide greater clarity to industry. The BoN's on-site Risk Based Supervision manual provides comprehensive guidance to supervisors on how to evaluate banks' risk management functions, but the guidance is also spread across different sections of the manual. Again, for clarity, a separate section on risk management procedures might be helpful to supervisors. The BoN regulations do not currently require banks to develop robust and credible recovery plans, but this will be addressed when the draft BIB 2017 is enacted.

D. Corrective and Sanctioning Powers (CP 11)

18. The legislative and regulatory framework provides the BoN with sufficient tools to address unsafe and unsound practices within a bank or banking group in a timely fashion. Evidence was cited of actions taken by the supervisory authority in the recent past.

E. Cooperation and Cross-Border Banking Supervision (CPs 3, 13)

19. The BON has Memoranda of Understanding and a Memorandum of Agreement either in place or in draft with all relevant domestic and overseas regulators. The MoUs/MoA provide for open and effective exchange of information in formal supervisory colleges and through bilateral exchanges of information. There is evidence to suggest that co-operation with overseas authorities is effective, but weaknesses in NAMFISA's supervisory approach raise concerns about BoN's ability to conduct effective consolidated supervision of banking groups. The draft MoUs with Angola and Portugal should be finalized and the Authorities should consider publishing all of the signed MoUs to enhance accountability and transparency

F. Corporate Governance (CP 14)

20. The corporate governance framework in Namibia is robust, comprising both NAMCODE requirements for publicly listed companies and detailed BON regulations for all banks. The internal guidance provided to supervisors on how to assess banks' corporate governance compliance with the regulatory framework is comprehensive and examination reports evidence that reviews by supervisors are detailed and cover all key areas. Evidence was also provided of action taken by the BoN to address weaknesses identified by supervisors in Board oversight and Committee structures.

G. Capital, Risks, Problem Assets, Provisions and Large Exposure (CPs 16–19, 22–25)

21. The BoN requires banks to calculate their capital requirements in accordance with the standardized approaches of Basel II, and is in the process of adopting Basel III. Capital is calculated on a consolidated and solo basis for all banks. Although the BoN has the authority to impose additional capital requirements on individual banks, it has not yet set minimum capital ratios including capital add-ons for banks based on their individual risk profiles. BoN introduced a leverage ratio (6 percent) in 2007 and is planning to require its D-SIBs to adopt the Basel III leverage ratio on a phased basis from January 1, 2019, maintaining a minimum ratio of 6 percent.

22. The legislative and regulatory framework for credit risk in Namibia was found to be effective. It requires banks to establish credit risk management processes that provide a comprehensive view of their credit risk exposures. The BoN's internal on-site guidelines for credit risk reviews are very comprehensive. Evidence was cited that supervisors conduct thorough and challenging on-site inspections of banks' credit risk processes.

23. The BoN requires banks to classify the asset quality of their loans into five prescribed categories and to make provisions accordingly. Although the BON's regulations on provisioning are clear, there is evidence from on-site examinations that banks may be misclassifying loans, resulting in lower reported NPLs and inflated regulatory profits. The extent to which such misclassification is occurring is unclear, but is potentially material. The BON should investigate the extent of the potential misclassification and under-provisioning as a matter of urgency.

24. The BoN's prudential limits for concentration risk do not comply with international best practice. The BoN sets a limit on total exposures to a single person of 30 percent, whereas best practice is for the limit to be set at 25 percent. The BoN should amend its regulation accordingly. Notwithstanding this issue, the BoN's on-site and off-site processes are effective and ensure that banks have adequate policies and processes in place to monitor concentration risk against internal and BoN-prescribed limits.

25. The level of market and interest rate risk run by Namibian banks is very low, but the regulatory framework for both risks is very comprehensive. The BoN has issued detailed requirements for industry on how to calculate capital requirements for all elements of market and interest rate risk.

26. The BoN's quantitative liquidity risk framework is weak. Banks are required to hold a stock of liquid assets calculated at 10 percent of their average total liabilities to the public in the previous month. This requirement is not tailored to the specific liquidity requirements of individual banks and does not reflect the risk posed by sudden outflows of potentially volatile corporate deposits, which form a high proportion of banks' liabilities. Banks are also required to monitor and report liquidity maturity mismatches at different time horizons, but the mismatch limits and calibration of cashflows are set by the banks themselves. The BoN is planning to introduce the LCR and NSFR regimes from January 1, 2019. When in place, these frameworks will address the quantitative weaknesses in the current liquidity risk framework. In the interim, the BoN should strengthen the liquidity regime by approving the mismatch limits that banks should meet at different time horizons, and agreeing any behavioral adjustments the banks propose to their short-term cashflow projections. The maturity mismatch regime should cover both domestic and foreign currency liquidity mismatches.

27. The BoN has a robust regulatory framework for assessing the quality of operational risk management at individual banks. Given the heightened threat of cyber-attack, the BoN should strengthen its IT cyber risk capacity.

H. Other Regulation, Accounting, and Disclosure (CPs 20, 26–29)

28. The BoN's existing definition of a related party does not explicitly extend to holding companies, but this will be addressed when the draft determination BID 11 has been issued. The BoN receives detailed returns from holding companies on intra-group exposures, but draft BID 11 will extend the reporting by solo banks of their related party lending. Supervisors verify through the on-site examination process that all transactions to related parties are advanced on an arm's length basis, on terms and conditions no more favorable than those offered to the public, and that exposures to related parties are written off in accordance with standard policies and processes. The BoN should consider undertaking a thematic review of related party lending reporting when BID 11 has been issued to ensure that banks and banking groups are capturing all connected loans under the revised definitions.

29. The BoN has established an effective on-site examination program to assess the adequacy of banks' internal control frameworks and evidence was cited of remedial action required by banks to address control weaknesses. The framework will be enhanced when the draft circular BIA 2/16 has been issued. This will clarify supervisory expectations of banks' internal audit functions, outline the role, duties and responsibilities of internal auditors to the Board and external auditors, and provide a uniform practice on internal auditing.

30. The BoN does not make full use of the knowledge that external auditors have on the quality and effectiveness of a bank's internal control systems in its supervisory framework. The BoN should aim to develop a closer and more effective working relationship with banks' external auditors. As a minimum, the BoN should introduce regular meetings with the external auditors into its supervisory process.

31. With regard to the AML/CFT framework, compared to the situation prevailing in 2007, a strengthened legal and regulatory framework has been established in Namibia and a risk-based approach to AML/CFT supervision in the banking sector has been adopted. The Financial Intelligence Center (FIC) is staffed with sufficiently high skilled human resources and makes use of technical tools and procedures. The regulation (FIAR) issued in 2015 is detailed and the FIC took its first enforcement measures in December 2015.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments	
Core Principle	**Comments**
1. Responsibilities, objectives and powers	The banking supervisory responsibilities and objectives of the BoN are clearly enshrined in legislation and there is no evidence to suggest that the secondary objective to promote economic development has compromised the setting of prudential standards. The legal framework for banking supervision provides the BoN with the necessary powers to license banks, set prudential regulations and to take timely action against banks in the event of breaches in compliance with laws and to promote safety and soundness issues.
2. Independence, accountability, resourcing and legal protection for supervisors	The operational independence of the BoN in supervision should be made unambiguously clear in legislation through the removal of all references to ministerial input in supervisory decisions. In addition, in the event of the dismissal of the Governor or his senior staff, the law should require the reasons for such dismissals to be published. Staff within BSD are currently stretched and additional responsibilities are planned for the Department in the year ahead. Resource planning and budgetary processes are well designed, but there is a need to ensure that skill shortages, when identified, are filled in a timely fashion. As credit and liquidity are two of the main risks in the sector, it is important that management ensure that there is sufficient depth in BSD of both specialisms in the event of unexpected departures. Expertise in cyber risk should also be built up. Staff sued for actions undertaken in the course of their duties should have their legal costs covered.
3. Cooperation and collaboration	The BoN has Memoranda of Understanding and a Memorandum of Agreement either in place or in draft with all relevant domestic and overseas regulators. The MoUs/MoA provide for open and effective exchange of information in formal supervisory colleges and through bilateral exchanges of information. There is evidence to suggest that co-operation with overseas authorities is effective, but weaknesses in NAMFISA's supervisory approach raise concerns about BoN's ability to conduct effective consolidated supervision of banking groups (See BCP 12). The draft MoUs with Angola and Portugal should be finalized and the Authorities should consider publishing all of the signed MoUs to enhance accountability and transparency.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)	
Core Principle	**Comments**
4. Permissible activities	Legislation defines clearly the activities that banks are allowed to undertake, but there are certain state-owned entities which are not subject to BoN supervision. The two-state-owned deposit-taking entities currently outside BoN supervision (NAMPOST and NHE) should be brought within the supervisory remit of the BIA 1998. The remaining two entities should similarly be brought under the BoN's supervisory remit if they commence deposit-taking activities at some point in the future. The Authorities should review the oversight arrangements for the co-operative sector and consider whether the regime should be strengthened by being brought under the supervisory remit of the BoN.
5. Licensing criteria	Although the regulations cover all the key elements of an effective licensing framework, the desk-based approach to assessing the fitness and propriety of major shareholders and of Directors and senior management of an applicant bank is a key weakness. The BoN should introduce interview procedures with key officers (Directors/Principal Officers/senior management and, as appropriate, with major shareholders) to test their knowledge and relevant experience for the roles they intend to fill, and of the key assumptions underpinning the financial projections.
6. Transfer of significant ownership	The BoN has the appropriate powers to approve and reject applications by prospective owners to become substantial shareholders of a bank on both a consolidated and solo bank level. The BoN should introduce a legal requirement into the BIA that banks should notify the supervisor of any material change in the standing of existing shareholdings which may give rise to changes in their fitness and propriety.
7. Major acquisitions	The BoN has the legal powers to approve or reject acquisitions or investments by a bank. As the criteria against which the application is assessed are not prescribed in the legislation, they should be made public by the BoN in order to enhance accountability and transparency.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)	
Core Principle	**Comments**
8. Supervisory approach	The combination of an off-site CAMELS assessment and on-site SREP risk assessment methodology provides senior management with an effective overall view of the current risk profile of banking groups. The risk analysis is not, however, sufficiently forward-looking, with the emphasis placed on identifying the current risk profiles of banking groups. Financial projections and stress testing/scenario analysis data are available to supervisors in ICAAP submissions, but are not subject to effective challenge or analysis. The BoN is planning to develop an analytical framework for stress testing but should broaden this framework to introduce a more forward-looking assessment of bank's risk profiles into the supervisory approach. Pending amendments to the current banking legislation, the BON does not currently have formal resolution plans in place to take action to resolve banks in an orderly manner. It does not, as a matter of course, request copies of existing bank recovery plans, but should do so.
9. Supervisory techniques and tools	The BoN employs separate on-site and off-site teams to assess the risks that banking groups are running, the combination of which provides senior management with a good sense of the overall risk profile of each bank or banking group. However, the use of two separate risk methodologies (CAMELS and SREP) is potentially duplicative and confusing and should be rationalized. The allocation of supervisory resources is risk based, with more senior staff and greater time devoted to the higher risk and systemically important banks. The process for validating and inputting regulatory data is heavily reliant on manual intervention following a decision to withdraw the previous Banking Supervision Application (BSA) on the grounds that it was not fit for purpose. The BoN has conducted a feasibility study for a new automated data collection system. This is an important initiative and the installation of a new system should be expedited.
10. Supervisory reporting	The regulatory and prudential reporting framework is comprehensive with banks and controlling companies submitting a wide range of information to the BON. The BON has the ability to fine banks for non-compliance with reporting requirements, but may wish, in addition to consider taking specific corrective actions against bank management in cases of continual non-compliance.
11. Corrective and sanctioning powers of supervisors	The legislative and regulatory framework provides the BoN with sufficient tools to address unsafe and unsound practices within a bank or banking group in a timely fashion. Evidence was cited of actions taken by the supervisory authority in the recent past.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)	
Core Principle	**Comments**
12. Consolidated supervision	The regulatory framework for consolidated supervision is comprehensive and covers all the essential aspects of the Principle. The BoN applies quantitative capital and liquidity ratios at the consolidated group level and has an effective monitoring regime of the ratios through regular reports. Qualitative consolidated supervision procedures are compliant with the Principle. Meetings with group management of bank holding companies are held to discuss strategy and group risks at supervisory college meetings and as part of on-site examinations. MoUs are in place with relevant overseas authorities and an MoA is in place with NAMFISA to enable the BON to conduct effective consolidated supervision. Risks to the wider groups arising from banks and NBFIs are raised in bilateral discussions between the relevant authorities and incorporated in the BoN's overall group risk assessment. However, until risk-based supervision has been fully embedded in NAMFISA's procedures and processes, BoN may not be able to place full reliance on its supervision of the NBFI sector. The two authorities are drawing up a Joint Prudential Supervisory Engagement Framework (JPSEF) which should enable the BoN to compensate for any practical shortcomings in NAMFISA's current supervisory approach. The Framework should be finalized as a matter of priority. The BoN should also develop a formal policy for assessing whether on-site examinations of a banking group's foreign operations are necessary or whether additional reporting is required. It should also formally assess the quality of supervision conducted by host supervisors.
13. Home-host relationships	Information sharing and co-operation arrangements between the BoN and SARB are open and effective. Regular contact in the periods between the biennial supervisory colleges held by the two authorities should be encouraged to promote continued effective supervision of cross-border banking groups and to facilitate technical knowledge sharing. The first college meeting with the Botswanan and Zambian authorities is scheduled for 2018; MoUs with both authorities are in place. The BON should develop procedures for conducting on-site examinations of cross-border affiliates of Namibian banks. The BoN should also assess in practice whether the local operations of foreign banks are conducted to the same standards as those required of domestic banks.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)	
Core Principle	**Comments**
14. Corporate governance	The corporate governance framework in Namibia is robust, comprising both NAMCODE requirements for publicly listed companies and detailed BoN regulations for all banks. The internal guidance provided to supervisors on how to assess banks' corporate governance compliance with the regulatory framework is comprehensive and examination reports evidence that reviews by supervisors are detailed and cover all key areas. Evidence was also provided of action taken by the BoN to address weaknesses identified by supervisors in Board oversight and Committee structures.
15. Risk management process	BoN regulations form a comprehensive risk management framework for banks to follow, but they are spread over a number of different Determinations. Given the importance of effective risk management to the supervisory framework, the BoN may wish to consider consolidating these individual requirements into a separate Determination that would provide greater clarity to industry. The BoN's on-site Risk Based Supervision manual provides comprehensive guidance to supervisors on how to evaluate banks' risk management functions, but the guidance is also spread across different sections of the manual. Again, for clarity, a separate section on risk management procedures might be helpful to supervisors. The BoN regulations do not currently require banks to develop robust and credible recovery plans, but this will be addressed when the BIB 2017 is enacted.
16. Capital adequacy	The BoN requires banks to calculate their capital requirements in accordance with the standardized approaches of Basel II, and is in the process of adopting Basel III. Capital is calculated on a consolidated and solo basis for all banks. Although the BoN has the authority to impose additional capital requirements on individual banks, it has not yet set minimum capital ratios including capital add-ons for banks based on their individual risk profiles. BoN introduced a leverage ratio (6%) in 2007 and is planning to require its D-SIBs to adopt the Basel III leverage ratio on a phased basis from January 1, 2019.
17. Credit risk	Credit risk is a major risk in the Namibian banking sector. It is therefore essential that the BoN has a robust regulatory framework that ensures banks identify, monitor and manage their credit risks effectively and that the BON supervisory processes are sufficiently comprehensive and challenging to ensure banks are held to high prudential standards. The legislative and regulatory framework was found to be effective. It requires banks to establish credit risk management processes that provide a comprehensive view of their credit risk exposures. The BoN's internal guidelines introduced in 2015 setting out the on-site procedures for credit risk reviews are very comprehensive and detailed. Reviews by the assessors of credit risk examination reports evidence that supervisors conduct thorough and challenging on-site inspections of banks' credit risk processes.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)	
Core Principle	**Comments**
18. Problem assets, provisions, and reserves	The BON requires banks to classify their loans in terms of asset quality into five prescribed categories and to make provisions accordingly. Although all banks have adopted international accounting standards, the BoN does not rely on the audited provisions to provide a true and fair representation of the quality of a bank's asset portfolio as the BON provisioning matrix is more conservative than the existing incurred loss provisioning regime in IAS 39. Banks will, however, be required to adopt the more conservative expected loss provisioning methodology of IFRS 9 from January 1, 2018, which is likely to result in higher provisions being required. Although the BoN's regulations on provisioning are clear, there is evidence from on-site examinations that banks may be misclassifying loans, resulting in lower reported NPLs and inflated regulatory profits. The extent to which such misclassification is occurring is unclear, but it is potentially material. The BoN should investigate the extent of the potential misclassification and under-provisioning as a matter of urgency.
19. Concentration risk and large exposure limits	The BoN's prudential limits for concentration risk do not comply with international best practice. The BoN sets a limit on total exposures to a single person of 30 percent, whereas best practice is for the limit to be set at 25 percent. The BoN should amend its regulation accordingly. Notwithstanding this issue, the BoN's on-site and off-site processes are effective and ensure that banks have adequate policies and processes in place to monitor concentration risk against internal and BON-prescribed limits.
20. Transactions with related parties	Banks are required in current legislation and regulations to have policies and procedures in place that determine their approach to entering into exposures to connected parties. The existing definition of a related party does not explicitly extend to holding companies, but this will be addressed when the draft definition BID 11 has been issued. The BON receives detailed returns from holding companies on intra group exposures, but draft BID 11 will extend the reporting by solo banks of their related party lending. Supervisors verify through the on-site examination process that all transactions to related parties are advanced on an arm's length basis, on terms and conditions no more favorable than those offered to the public, and that exposures to related parties are written off in accordance with standard policies and processes. The BoN should consider undertaking a thematic review of related party lending reporting when BID 11 has been issued to ensure that banks and banking groups are capturing all connected loans under the revised definitions. The BON may wish to consider employing external experts to conduct such a review.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)

Core Principle	Comments
21. Country and transfer risks	The regulatory framework for banks to establish and maintain policies and procedures to identify, measure, report and control country risk is comprehensive. The BoN has detailed examination procedures in place to assess banks' compliance with prevailing regulations but no examination of banks' risk management systems has been undertaken to date. Although country risk is not considered material in Namibia, the BoN should build in a review of banks' country risk to confirm this view, and that banks are managing their country and transfer risk effectively.
22. Market risk	Market risk run by Namibian banks is very low, with market risk weighted assets representing less than one percent of the total risk weighted assets for each of the four major banks. The key market risks run by the banks are FX risk and interest rate risk—there is no equity position risk and only very small commodity risk. It was noted, however, that the four major banks have trading books, but supervisors were not aware what assets were included in these books. This should be investigated. Notwithstanding the low level of market risk being run, the market risk regulation is very comprehensive, setting out detailed requirements for industry on how to calculate capital requirements for all elements of market risk. The on-site RBS manual provides detailed guidance to supervisors on how to assess a bank's approach to managing its FX and interest rate risk only. In practice, a full FX risk review has been undertaken at only one major bank. As the banking sector develops, banks' exposure to market risk is likely to increase. Given its risk based approach to supervision, the BoN has rightly devoted its limited on-site resources to assessing higher priority risk areas in banks, but the BoN should monitor carefully the development of banks' exposures to market risk and update its regulatory framework and supervisory guidance accordingly.
23. Interest rate risk in the banking book	IRRBB is not a material risk for banks in Namibia, but the BoN has a detailed regulatory framework for banks to follow and devotes sufficient resources to monitoring the risks that banks are running. The RBS manual was updated in 2015, since when two banks have been subject to comprehensive IRRBB reviews.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (continued)

Core Principle	Comments
24. Liquidity risk	The BoN's quantitative liquidity risk framework is weak. Banks are required to hold a stock of liquid assets calculated at 10 percent of their average total liabilities to the public in the previous month. This requirement is not tailored to the specific liquidity requirements of individual banks and does not reflect the risk posed by sudden outflows of potentially volatile corporate deposits, which form a high proportion of banks' liabilities. Banks are also required to monitor and report liquidity maturity mismatches at different time horizons to the BON, but the mismatch limits and calibration of cashflows are set by the banks themselves. The BoN is planning to introduce the LCR and NSFR regimes from January 1, 2019. When in place, these frameworks will address the weaknesses in the current liquidity risk framework. In the interim, the BON should strengthen the liquidity maturity mismatch regime by approving the mismatch limits that banks should meet at different time horizons, and agreeing any behavioral adjustments the banks propose to their short-term cashflow projections. The maturity mismatch regime should cover both domestic and foreign currency liquidity mismatches. The BoN is currently undertaking a QIS to determine banks' ability to comply with the LCR and NSFR regimes, and to assess whether any national discretions in their implementation will be required. The BoN should consider the provision of Technical Assistance to support its implementation of the LCR and NSFR regimes.
25. Operational risk	The BON has developed a robust regulatory framework and a comprehensive on-site manual for assessing the quality of operational risk management at individual banks. The draft regulation on outsourcing should be issued. Given the heightened threat of cyber-attack, the BoN should strengthen its IT cyber risk capacity and ensure that bank's IT controls are suitably robust. A draft Determination on Information Security (BID-30), which is scheduled to take effect on March 1, 2018, will require banks to establish robust information security programmes to protect against information security vulnerabilities or security incidents.

Table 1. Summary Compliance with the Basel Core Principles—Detailed Assessments (concluded)	
Core Principle	**Comments**
26. Internal control and audit	The regulatory framework requires banks to have effective internal control frameworks and sets clear guidelines on the elements that banks should consider when designing their framework. These cover the key criteria in the BCP. The BoN has established an effective on-site examination program to assess the adequacy of banks' internal control frameworks and evidence was cited of remedial action required by banks to address control weaknesses. However, on-site monitoring should be strengthened through regular meetings with Board Audit Committees, internal auditors and compliance officers. The framework will be enhanced when the draft circular BIA 2/16 has been issued. This will clarify supervisory expectations of banks' internal audit functions, outline the role, duties and responsibilities of internal auditors to the Board and external auditors, and provide a uniform practice on internal auditing.
27. Financial reporting and external audit	Banking groups are required by law and regulations to maintain adequate and reliable records and to prepare their financial statements in accordance with prevailing IFRS. The BoN does not, however, make full use of the knowledge that external auditors have on the quality and effectiveness of a bank's internal control systems in its supervisory framework. The BoN should aim to develop a closer and more effective working relationship with banks' external auditors. As a minimum, the BON should introduce regular meetings with the external auditors into its supervisory process.
28. Disclosure and transparency	The disclosure framework in Namibia requires banks to provide sufficient information in a timely fashion to enable users to gain a reasonable understanding of the key financial and regulatory risks that they are running. The BON should monitor the developments in banks' disclosures to ensure that its regime continues to mirror international best practice.
29. Abuse of financial services	Compared to the situation prevailing in 2007 (Mutual Evaluation of Namibia, August 2007, ESAAMLG), a strengthened legal and regulatory framework is in place and Namibia has adopted a risk-based approach to AML/CFT supervision in the banking sector. The Financial Intelligence Center (FIC) is staffed with adequately skilled human resources and technical tools and procedures. The regulation (FIAR) issued in 2015 is detailed and the FIC took its first enforcement measures in December 2015. However, the absence of a straight-forward definition of politically exposed persons (PEPs) could hinder the impact of FIC supervision. The authorities should therefore define the notion of PEPs in line with the standard. The FIC should expedite signature of MoUs with Botswana, South Africa and Zambia.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles

Reference Principle	Recommended Action
Principle 2	All references to Ministerial input to supervisory decisions should be removed from banking legislation. In the event of the dismissal of the Governor or his senior staff, the law should require the reasons for such dismissals to be published. Staffing and skill shortages, when identified, should be filled in a timely fashion. The Banking Supervision Department is under-resourced in terms of numbers and would benefit from the recruitment of additional staff with specific credit, liquidity and cyber risk management expertise. Staff sued for actions undertaken in the course of their duties should have their legal costs covered.
Principle 3	The draft MOUs with Angola and Portugal should be finalized. Authorities should consider publishing all of the signed MOUs with overseas authorities to enhance accountability and transparency.
Principle 4	The two-state-owned deposit-taking banks currently outside BON supervision (NAMPOST and NHE) should be brought within the supervisory remit of the BIA 1998, as amended. The two remaining entities should similarly be brought under the remit of the Act if they commence deposit-taking activities in the future. The Namibian authorities should review the oversight arrangements for the co-operative sector and consider whether the regime should be strengthened by being brought into the supervisory remit of the BON.
Principle 5	The BON should introduce interview procedures with key officers (Directors/Principal Officers/senior management and, as appropriate, with major shareholders) as part of its fit and proper assessment procedures.
Principle 6	Legislation should be amended to require banks to notify the BoN if they become aware of information on a substantial shareholder which may affect their fitness and propriety.
Principle 7	The BoN should publish the criteria against which applications for mergers, acquisitions or other material investments are assessed.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles (continued)	
Reference Principle	**Recommended Action**
Principle 8	The BoN is planning to develop an analytical framework for stress testing but should broaden this framework to introduce a more forward-looking assessment of bank's risk profiles into the supervisory approach. The BoN should request copies of existing bank recovery plans.
Principle 9	The use of two separate risk methodologies (CAMELS and SREP) is potentially duplicative and confusing and should be rationalized. Introduction of a new automated regulatory data collection system to reduce the level of manual intervention in collating and validating supervisory returns should be expedited.
Principle 10	The BoN has the ability to fine banks for non-compliance with reporting requirements, but may wish, in addition to consider taking specific corrective actions against bank management in cases of continual non-compliance.
Principle 12	The BoN and NAMFISA should finalize as a matter of urgency the Joint Supervisory Framework. The BoN should also develop a formal policy for assessing whether on-site examinations of a banking group's foreign operations are necessary or whether additional reporting is required. It should also formally assess the quality of supervision conducted by host supervisors.
Principle 13	The BoN should develop procedures for conducting on-site examinations of cross-border affiliates of Namibian banks. The BoN should also assess in practice whether the local operations of foreign banks are conducted to the same standards as those required of domestic banks.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles (continued)	
Reference Principle	**Recommended Action**
Principle 15	Given the importance of effective risk management to the supervisory framework, the BoN may wish to consider consolidating the risk management requirements in individual Determinations into a separate Determination to provide greater clarity to industry. The BoN should provide industry with guidance on its requirements in respect of resolution policies when the draft BIB 2017 is enacted.
Principle 18	The BoN should undertake an Asset Quality Review of D-SIBs to establish the appropriate level of provisioning required under the BoN's loan provisioning matrix. The BoN should explore with the external auditors of the D-SIBs the reasons for differences in provisioning levels between those raised in accordance with IAS 39 and those under the BoN's loan provisioning matrix.
Principle 19	The BoN sets a limit on total exposures to a single person of 30 per cent, whereas best practice is for the limit to be set at 25 per cent. The BON should amend its regulation accordingly. BON should require all material concentrations to be regularly reviewed and reported to the bank's Board.
Principle 20	The BoN should consider undertaking a thematic review of related party lending reporting when BID 11 has been issued to ensure that banks and banking groups are capturing all connected loans under the revised definitions. The BON may wish to consider employing external experts to conduct such a review.
Principle 21	The BoN should build reviews of banks' country risk management into the examination program to ensure the effectiveness of banks' systems and controls.
Principle 22	The BoN should monitor carefully the development of banks' exposures to market risk and update its regulatory framework and supervisory guidance accordingly.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles (concluded)	
Reference Principle	**Recommended Action**
Principle 24	The existing maturity mismatch liquidity regime should be strengthened ahead of implementation of the LCR and NSFR. Behavioral adjustments to cashflow projections should be agreed with individual banks and factored into revised mismatch limits, which should be agreed by the BON. The BoN should consider requiring banks to assess their compliance with the BCBS LCR and NSFR requirements ahead of implementation to identify any national discretions that need to be built into the final regime. The LCR and NSFR regimes will need to be complemented by an enhanced, more robust, qualitative liquidity framework. The BoN should develop a regulatory regime to identify, monitor and set prudential standards that limit banks' foreign currency liquidity mismatches.
Principle 25	The draft regulations on outsourcing and data security should be issued.
Principle 26	The BON should introduce regular meetings with Board Audit Committees, internal auditors and compliance officers into its routine supervisory process.
Principle 27	The BoN should aim to develop a closer and more effective working relationship with banks' external auditors. As a minimum, the BON should introduce regular meetings with the external auditors into its supervisory process.
Principle 29	The authorities should define the notion of Politically Exposed Persons in line with the prevailing standard. The FIC should expedite signature of MoUs with Botswana, South Africa and Zambia.

THE AUTHORITIES' RESPONSE TO THE ASSESSMENT

32. The Namibian Authorities (Bank of Namibia, Namibia Financial Institutions Supervisory Authority and Ministry of Finance) wish to express their sincere gratitude to the joint IMF-World Bank FSAP mission team for the conduct of a comprehensive and full scope FSAP during 2017.

33. The assessment has come at an opportune time as the Authorities are embarking on some reform projects aimed at enhancing the efficiency, resilience and hence the stability of the financial system. These include, but are not limited to, the introduction of an appropriate legal framework for financial stability; the development and introduction of the deposit insurance scheme; the implementation of Basel III; the consolidation and harmonization of the laws regulating financial institutions, financial intermediaries and financial markets in Namibia - to mention but a few. Great benefits have been drawn from this FSAP exercise.

34. We regard such assessment to be important not only for the enhancement of the stability and efficiency of the financial system but also for aligning the financial system's regulatory aspects to the best international standards and practices. The Authorities further value the opportunities granted to respond to the comments or findings by the FSAP Team and spirit in which these issues have been dealt with during the consultation.

35. The Authorities noted and welcome the findings of the assessment as contained in both the detailed assessment compliance and the technical reports. The mission highlighted few outstanding findings since the last FSAP of 2006 and new findings for FSAP 2017. Going forward, the Authorities rededicate their efforts towards addressing these findings and are confident that these will be completed within appropriate timeframes. To this end, the actions to address these findings will be included in our respective annual work programs/plans to ensure effective implementation thereof.

Appendix I. Status of 2006 FSAP Recommendations

Recommendation	Timing	Status	
Upgrading the Regulatory and Supervisory Framework			
Strengthen NAMFISA by appointing an experienced and respected CEO. NAMFISA should: i) collect, compile, and analyze data from the NBFI sector, ii) carry out effective on- and offsite supervision, iii) and fully implement current solvency frameworks.	Immediate.	The new CEO was appointed from within NAMFISA in 2016. The 'New Dawn' strategy is currently under implementation. Staffing, costs and spending have risen substantially above comparable regulators in other jurisdictions. Improving supervisory oversight and solvency frameworks is dependent on the passing of the NAMFISA and FIM Bills in order to implement the full regulatory structure, however supervision is still considered onerous and misfocused. The passing of the FIM Bill will support the launch of the new risk-based supervision model, which is currently under development, however this will require a significant upskilling of staff.	Not done. In process.
Address weaknesses in banking supervision such as the lack of skills and consolidated supervision.	Immediate.	Comprehensive regulatory regimes have been introduced for market risk, country risk and consolidated supervision, on AML/CFT, and effective information-sharing arrangements have been put in place with SARB. Supervisory colleges have been held for two of the three South African banking groups in Namibia, with prudential meetings held annually on all three groups. Domestically, an MoA is in place with NAMFISA to enable the BoN to conduct consolidated supervision of banking groups that include domestic NBFIs. There are concerns, however, about the quality of data provided by NAMFISA on its regulated entities and, more generally, about the level of NAMFISA's overall supervisory competence. Supervisory resources at BoN are stretched and should be increased, particularly given the additional responsibilities the Department is scheduled to assume.	Partially done. In progress.
Address policy concerns arising from the last GIPF actuarial review and require annual reviews.	Immediate.	An in-depth review of the next GIPF actuarial review (due 2018 – 3-year cycle in-line with international standards) is required by NAMFISA – including the calculation of reserves.	Not done.

Recommendation	Timing	Status	
Supervise deposit taking specialized financial institutions on the same basis as commercial banks.	Immediate.	Nampost Savings Bank submits regulatory returns to BoN, but not formally supervised.	Not done.
Amend laws to regularize money market unit trusts and unit-linked insurance products, regulate asset managers, and introduce an "appointed actuary" concept.	Immediate.	This will be part of the FIM Bill amendment.	Not done. In progress.
Give NAMFISA a clear mandate to regulate market conduct.	Immediate.	Forthcoming legislations (FIM, NAMFISA, FSA and Microlending Bills) require to implement or fully strengthen market conduct oversight. Application of the new risk-based supervision model should be supportive.	Not done. In process.
Build capacity to monitor systemic financial stability as well as more general developments in the sector.	Medium to longer-term.	The Financial System Stability Committee meets four times a year to assess risks and vulnerabilities and publishes a financial stability report once a year. Regular stress testing exercises are undertaken that addresses only the banking sector. Furthermore, the Bank of Namibia has signed MoUs on cross-border supervision and regulation with SARB, Bank of Botswana and Bank of Zambia. Supervisory colleges were also established to closely monitor and share information on foreign owned banking institutions operating in Namibia and vice versa. A Division dedicated to dealing with banking groups and special financial institutions was established in the BSD Department.	Mostly done.
Adopt a risk-based supervision framework for the NBFI sector.	Medium to longer-term.	A fully-fledged risk based supervision framework will be implemented following the enactment of the FIM Bill.	Not done. In progress.
Amend the NAMFISA Act in tandem with revisions to Namibia's financial services laws.	Medium to longer-term.	The NAMFISA Bill has still not been passed.	Not done. In progress.
Creating Domestic Investment			
Study further proposals to compel further investments in domestic assets; do not implement the proposal to require 5 percent	Immediate.	Domestic asset requirements increase was announced (to 45 percent by October 2018), but local market absorption capacity is limited. Mandated unlisted investment under Regulation 29 kept in 1.75-3.5 percent range.	Done.

Recommendation	Timing	Status	
investment in unlisted Namibian securities.			
Promote asset securitization by enacting the appropriate legal framework.	Immediate.	Legal framework allowing for securitization has not been passed. This should be reviewed as the industry grows.	Not done.
Move ahead with plans for more active liquidity management.	Immediate.	Liquidity forecasting needs to be strengthened and the multiplicity of instruments reviewed and simplified.	In progress.
Examine and remove any impediment to the development of asset managers who specialize in private equity investment.	Medium to longer-term.	Regulation 29 has allowed domestic PE funds to launch, but could benefit from amendments to support more efficient licensing and operation of the funds.	Partially done.
Promote leasing and factoring by studying the need for specific legislation or regulation.	Medium to longer-term.	Done. BoN finalized a study on leasing and factoring which established that a separate legal framework was not required as existing framework adequately allows for these.	Done.
Improving the Reach and Effectiveness of the Financial System			
Improve transparency of banks' fees and charges.	Immediate.	BoN has undertaken efforts to collect and publish data on bank fees and charges but more needs to be done to make this information useful and accessible to the public (e.g., through a dynamic product comparison website), improve disclosure requirements (e.g., through the use of key information documents for common retail products), and to assess broader market conduct issues that impact product design and pricing (e.g., through a banking inquiry similar to what was undertaken in South Africa in 2008).	Partially done.
Encourage banks to introduce products targeted at low income and rural customers as has been done by their parent banks in South Africa.	Immediate.	All banks now offer a Basic Bank Account and several banks and nonbanks have launched e-money products. BoN has also required banks to waive cash deposit fees for transactions below a certain threshold. A methodologically robust assessment is needed to assess the offer, uptake, and usages of BBAs in particular to determine if banks are proactively offering the product and adhering to the 2014 BoN Determination. More efforts are needed to ensure that innovative e-money products and alternative delivery channels are leveraged to reach un(der)-served consumers.	Partially done.

Recommendation	Timing	Status	
Foster greater competition in the sector by continuing to be open to new reputable entrants, leveraging on PostBank's reach, and supporting the emergence of credit unions.	Immediate.	Several new commercial banks and nonbank e-money issuers have been licensed in recent years, although new entrants have had limited success in achieving scale and reaching unserved consumers. NamPost Savings Bank has not received a commercial banking license. A specialized regulatory frame working for Microfinance Banking Institutions has been proposed but the effort has been largely dormant in recent years. Additional efforts are needed to assess market conduct issues that impact competition, including with respect to access to and governance of the national payments system.	Partially done.
Abolish the usury act or raise the usury ceiling substantially; instead introduce a consumer credit act with truth-in-lending provisions.	Medium to longer-term.	The 2017 Determination on the Maximum Annual Finance Charge Rates in Terms of the Usury Act maintains a usury ceiling of 1.6 times the average prime rate for moneylenders (i.e. those not registered with NAMFISA). The 2017 Determination of the Maximum Finance Charge Rates in Terms of the Usury Act maintains a usury ceiling of 30 percent of the principal debt for microlending transactions (i.e., those registered with NAMFISA) with a term less than 5 months; and a usury ceiling of 2 times the average prime rate per year for microlending transactions with a term more than 5 months. A Consumer Credit Act is in nascent stages and recent progress has been slow.	Not done.
Clarify legal status of long-term leases so they can be collateralized.	Medium to longer-term.		Not done.
Consider securitization to meet local governments financial needs.	Medium to longer-term.	Legal framework allowing for securitization has not been passed.	Not done.
Strengthen the Small Business Credit Guarantee Trust to reduce moral hazard and improve performance.	Medium to longer-term.	The SBCGT was incorporated into SME Bank. The scheme was terminated however as it was not successful. A new scheme is contemplated under the cabinet approved SME Strategy. Lessons from SBCGT have been incorporated into the design of new PCG, which is expected to offer a coverage ratio of 60:40 and will be hosted by the DBN	No longer applicable.

Recommendation	Timing	Status	
Examine effectiveness and revisit role and rationale of specialized financial institutions.	Medium to longer-term.	No comprehensive study has been conducted, probably partly due to segmented government ownership and oversight.	Not done.
Encourage credit bureaus to collect positive information	Medium to longer-term.	The Credit Bureau Regulation of 2014 mandates the collection of positive information.	Done.

Appendix II. Risk Assessment Matrix[1]

Source of main risks	Relative Likelihood and Time Horizon	Expected impact on the economy	Recommended Policy Response
Weaker global growth, with: (i) slowdown in China and growth decline in other large emerging economies, particularly South Africa; (ii) structurally weak growth in key advanced economies.	**Medium /High** **ST, MT**	**Medium.** Current account and fiscal balance deterioration through lower commodity prices, depressed exports, and lower SACU revenues as South Africa growth deteriorates; rising public debt ratio and declining international reserve coverage.	Accelerate structural reforms to promote growth and private sector development. If government's financing becomes problematic or debt dynamics unsustainable, further fiscal consolidation required.
Tighter global financial conditions, with FED normalization and ECB tapering balance sheet expansion prompting higher rates, stronger US dollar, and market corrections.	**High** **ST**	**Medium.** Higher interest rates, reduced financial inflows, and costly and tighter sovereign financing; additional strain on fiscal and external accounts. Possible rand depreciation and inflationary pressures.	Increase policy rate in line with the South African Reserve Bank. Seek additional external financing in rand to support reserves. Provide liquidity as needed. Tighten fiscal policy if financing becomes problematic, while protecting social spending.
Incomplete or weak policy implementation, that undermines confidence in the government's fiscal adjustment plans, e.g., triggered by political and capacity constraints, and materialization of contingent liabilities.	**Medium** **MT**	**High.** Fast rising public debt, and tighter budget financing; declining international reserves; possible disorderly fiscal adjustment and deterioration in financial sector's assets quality.	Tighten fiscal policy over the next three years through long-lasting measures. Accelerate reforms to improve extra-budgetary entities' performance. Monitor and manage key fiscal risks. financial sector buffers and vulnerabilities.
Accelerated adjustment in real estate prices and credit growth, as house valuations align with fundamentals.	**Medium** **ST, MT**	**Medium.** Increase in nonperforming loans, erosion of banks' capital buffers and deleveraging. Lower growth as private sector credit and construction activity slow.	Monitor building up of systemic risk. Accelerate plans to create an effective resolution framework. Provide emergency liquidity if needed. In case of a banking crisis, limit the fiscal costs and support the declining demand.
Weaker than anticipated domestic growth, e.g., from lower production from the new uranium mine, weaker consumption from highly indebted households.	**Medium** **ST, MT**	**Medium.** Larger fiscal and current account deficits. Increasing public financing requirements and public debt.	Step up structural reforms to promote growth and private sector development.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff under current policies). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability of 30 percent or more; ST and MT are meant to indicate that the risks could materialize within 1 year and 3 years, respectively). The RAM reflects staff's views on the sources of risk and overall level of concern as of the time of discussions with the authorities. Non-Mutually exclusive risks may interact and materialize jointly.

Appendix III. Stress Test Matrix (STeM) for the Banking Sector: Solvency and Liquidity Risks

Domain		Assumptions	
		Bottom-Up by Financial Institutions	Top-Down by FSAP Team
BANKING SECTOR: SOLVENCY RISK			
1. Institutional Perimeter	Institutions included	• 4 largest banks.	
	Market share	• About 98.7 percent of banking sector assets.	
	Data and baseline date	• Banks' own data. • Baseline date: 2017: Q2.	• Supervisory data. • Baseline date: 2017: Q2.
2. Channels of Risk Propagation	Methodology	• Banks' internal methodology.	• Satellite models developed by the FSAP team. • IMF balance sheet stress test framework (customized for Namibia FSAP). • Reverse stress tests.
	Satellite Models for Macro-Financial linkages	• Banks' internal models.	• Cross-country dynamic panel model for NPL projections (Arellano-Bover/Blundell-Bond model). • IMF balance sheet template for projections of other variables.
	Stress test horizon	• 2017: Q2–2020: Q2.	• 2017: Q2–2020: Q2.
3. Tail shocks	Scenario analysis	As in the top-down stress tests, there are three scenarios (baseline, adverse, and severely adverse), with the same paths of the same five variables in case the bank uses all the five. In case banks' internal models have variables other than the five specified in the TD STs, the paths of those variables are required to be projected based on the specified GDP paths using an approach described by the FSAP team, which is common to all banks.	Variables in the scenarios include: South Africa real GDP growth; Namibia real interest rate; Namibia real GDP growth; Namibia real house price growth. • **Baseline:** All variables follow the IMF WEO baseline projections (as of August 2017,), except for Namibia real house price growth which is projected using a bivariate VAR model. • **Adverse:** The Namibia real GDP growth is 2 S.D., 1 S.D., and 0 S.D. lower than the corresponding WEO baseline projection in the next three years; then use a VAR model to pin down paths of the other three risk factors that are consistent with the anchoring GDP path. • **Severely adverse:** The Namibia real GDP growth is 3 S.D., 2 S.D., and 1 S.D. lower than the corresponding WEO baseline

Domain		Assumptions	
		Bottom-Up by Financial Institutions	Top-Down by FSAP Team
			projection in the next three years; then use a VAR model to pin down paths of the other three risk factors that are consistent with the anchoring GDP path. This scenario is consistent with the emerging market stress scenario in the nonbank stress tests, in which house price also declines by 22 percent. In particular, the path of real house price growth is adjusted based on a bivariate VAR model (the other variable again being Namibia real GDP growth). The adjustment relative to the VAR-estimated coefficients is such that the lowest real house price growth (during the projection horizon in the severely adverse scenario) is about 22 percent, which is the magnitude of residential real estate over-valuation estimated by the 2016 Namibia Article IV team using a vector error correction model (which considered population growth, income growth, etc.). The lending rates are lower in the stress scenarios than the baseline for two reasons: First, BoN will cut the rates in response to the economic slowdown, as BON did on August 16, 2017. Second, as Figure 2 shows, the historical lending rates (which account for the spreads) tend to be lower during downturns. Note that *such low-growth-low-rate scenarios could also be used to examine the impact on household indebtedness* because, as the 2016 Namibia Article IV report shows, income growth is more important than interest rate in terms of the households' debt-servicing.

<table>
<tr><th colspan="2" rowspan="2">Domain</th><th colspan="2">Assumptions</th></tr>
<tr><th>Bottom-Up by Financial Institutions</th><th>Top-Down by FSAP Team</th></tr>
<tr><td rowspan="2"></td><td rowspan="2">Sensitivity analysis/one time add-on shock</td><td>All shocks occur over one year (2017: Q2–2018: Q2). Shocks include:
• Case 1:
  • Interest rate hikes by 500 bps;
  • NAD depreciates against USD, Euro, and GBP by 12.5, 15, and 15 percent, respectively;
  • Counterparty concentration risk: all top 3 borrowers of each bank default, with 50 percent recovery;
  • Industry concentration risk: 10 percent of each bank’s mortgages default, with 50 percent recovery.
• Case 2:
  • Interest rate hikes by 1000 bps;
  • NAD depreciates against USD, Euro, and GBP by 25, 30, and 30 percent, respectively;
  • Counterparty concentration risk: all top 5 borrowers of each bank default, with zero recovery;
  • Industry concentration risk: 20 percent of each bank’s mortgages default, with zero recovery.</td><td>All shocks occur over one year (2017: Q2–2018: Q2). Shocks include:
• Case 1:
  • Interest rate hikes by 500 bps;
  • NAD depreciates against USD, Euro, and GBP by 12.5, 15, and 15 percent, respectively;
  • Counterparty concentration risk: all top 3 borrowers of each bank default, with 50 percent recovery;
  • Industry concentration risk: 10 percent of each bank’s mortgages default, with 50 percent recovery.
• Case 2:
  • Interest rate hikes by 1000 bps (consistent with the sensitivity analysis in the nonbank stress tests; also accounts for the impact of government funding/sovereign distress);
  • NAD depreciates against USD, Euro, and GBP by 25, 30, and 30 percent, respectively;
  • Counterparty concentration risk: all top 5borrowers of each bank default, with zero recovery;
  • Industry concentration risk: 20 percent of each bank’s mortgages default, with zero recovery.</td></tr>
<tr><td colspan="2">Justifications:
• The historically highest repo rate was 12.75 percent (observed from 2002: Q3 to 2003: Q1); since the current rate is 7 percent, this implies an increase of 575 bps, hence 500 bps in Case 1.
• Since 1992, the worst historical depreciations are 24.4 percent (observed in 2001), 29.8 percent (observed in 2002), and 28.5 percent (observed in 2002) against USD, Euro, and GBP, respectively. The team believes that 25-30 percent depreciation is severe enough, so the magnitude in Case 1 is halved.
• The zero-recovery assumption in Case 2 accounts for the fact that the foreclosed assets take a long time to liquidate during a stress time, and the bank may become insolvent by the time the liquidation is completed.</td></tr>
<tr><td>4. Risks and Buffers</td><td>Risks/factors assessed (How each element is derived, assumptions).</td><td>• Credit losses.
• Losses from securities in the banking and trading books.
• FX risk.</td><td>• Credit losses.
• Losses from securities in the banking and trading books.
• FX risk.</td></tr>
</table>

<table>
<tr><th colspan="2" rowspan="2">Domain</th><th colspan="2">Assumptions</th></tr>
<tr><th>Bottom-Up by Financial Institutions</th><th>Top-Down by FSAP Team</th></tr>
<tr><td></td><td></td><td>• Counterparty concentration risk.
• Industry concentration risk.
• Other risks perceived as relevant to the bank.</td><td>• Counterparty concentration risk.
• Industry concentration risk.</td></tr>
<tr><td></td><td>Behavioral adjustments</td><td>• In the macro-scenario based solvency STs, RWAs are assumed to be constant.
• To account for the bank-specific features, banks are required to report (with sufficient details) their expected responses under the baseline, adverse, and severely adverse scenarios, respectively. Examples for such responses include deleveraging (indicating the expected extent of deleveraging), divestment strategies, write-offs, expected recovery rates, etc.
• In counterparty and asset-class concentration analyses, RWAs are allowed to change. This is mainly to account for the fact RWAs are likely to immediately decrease under the shocks specified in the single-factor sensitivity analyses. For example, if all top 5 borrowers default with zero recovery, then the bank will likely recognize this loss and write off these exposures immediately, reducing the RWAs.
• The dividend payout ratios, other net income items, dividends, and taxes were based on banks' internal models.</td><td>• In the macro-scenario based solvency STs, RWAs are assumed to be constant. There are two countervailing effects: On the one hand, deleveraging, divestment strategies, and write-offs cause balance sheets to shrink and RWAs to reduce. On the other hand, in times of distress, default risks may increase and (expected) recovery rates may decrease, inducing RWAs to rise. The assumption of constant RWAs is equivalent to assuming that these two effects cancel out.
• In counterparty and asset-class concentration analyses, RWAs are allowed to change, assuming the defaulted exposures are immediately written off.
• When net profit was positive in the current period, banks were assumed to first use some of it to maintain stable CARs before paying dividends.
• Other net income items, dividends, and taxes were based on macroeconomic scenarios and pre-determined rules.</td></tr>
<tr><td rowspan="2">5. Regulatory and Market-Based Standards and Parameters</td><td>Calibration of risk parameters</td><td>• Banks' internal calibrations.</td><td>• Changes in loan quality and provisions were based on satellite models.
• Estimation of expected gains/losses on government and corporate bond holdings derived in IMF balance sheet template.</td></tr>
<tr><td>Regulatory, accounting, and market-based standards</td><td colspan="2">• Minimum capital requirements were based on country-specific regulatory minimum for total and tier 1 CARs.
• BoN's preliminary proposals of capital conservation buffer, capital countercyclical buffer, and phase outs of some tier 2 capital instruments were also taken into account.
• Basel II/standardized approach.</td></tr>
<tr><td>6. Reporting Format for Results</td><td>Output presentation</td><td colspan="2">• System-wide CAR, and the amount of capital shortfall (if any).
Pass or fail (number of banks); recapitalization need as percentage of GDP (if applicable).
• Impact of different result drivers, including profit components, losses due to realization of different risk factors.</td></tr>
</table>

Domain		Assumptions: Bottom-Up by Financial Institutions	Assumptions: Top-Down by FSAP Team
		• The threshold average NPL ratio that would cause all banks' CARs to fall below the regulatory requirements.	
BANKING SECTOR: LIQUIDITY RISK			
1. Institutional Perimeter	Institutions included	• 4 largest banks.	
	Market share	• About 98.7 percent of banking sector assets.	
	Data and baseline date	• Banks' own data. • Baseline date: 2017 Q2.	• Supervisory data. • Baseline date: 2017: Q2.
2. Channels of Risk Propagation	Methodology	• Banks' internal methodology.	• Cash-flow based liquidity stress tests by maturity buckets (from one day to six months). • Reverse stress tests.
3. Tail shocks	Size of the shock	• Banks' internal models.	• Shocks were reflected in the adjustment factors (run-off rates and haircuts) that would be applied to cash outflows and counterbalancing capacity.
4. Risk and Buffers	Risks	• Funding liquidity risk. • Market liquidity risk.	
	Buffers	• Four different cases were considered: with/without access to central bank regular facilities, and fast/slow pace of asset sales. • In all cases, banks were allowed to use their counterbalancing capacity. • In two cases, banks were allowed to use central bank *regular* facilities (as opposed to emergency liquidity assistance).	
5. Regulatory and Market-Based Standards and Parameters	Calibration of risk parameters	• Calibrated based on established international patterns documented in IMF guidance notes. • Adjusted to account for Namibia-specific characteristics in collaboration with BoN and Namibian banks.	
	Regulatory standards	• In all cases, net cash flow was assessed against a threshold of zero.	
6. Reporting Format for Results	Output presentation	• Banks should indicate whether their internal methodologies could produce liquidity shortfalls by maturity buckets (1 day; 1 week; 1 month; 2 months; 3 months; 6 months). • If yes, banks should report the results in that format, and use the same run-off rates, roll-off rates and haircuts as the TD tests; • If no, banks should report the results in their own formats and conduct the liquidity stress tests using internal models, but should still calibrate their run-off rates, roll-off rates, and haircuts to be consistent with those in the TD tests.	• Pass rate, and liquidity shortfall (if applicable) in each case. • For each bank, the threshold run-off rate (for each cash outflow item) that would trigger a liquidity shortfall of the bank.

Appendix IV. Stress Test Matrix (STeM) for the Insurance and Pension Fund Sector: Solvency Risk

Domain		Assumptions
		Top-down by IMF
1. Institutional perimeter	Institutions included	• 4 life (long-term) insurers. • 5 non-life (short-term) insurers. • 2 defined-benefit pension funds.
	Market share	• Life: 70 percent of gross written premiums. • Non-life: 70 percent of gross written premiums. • Pension funds: 72 percent of assets.
	Data	• Statutory reporting.
	Reference date	• March 31, 2017.
2. Channels of risk propagation	Methodology	• Investment assets: market value changes of assets and liabilities after price shocks, affecting the solvency position (capital adequacy ratio for life insurers, free asset ratio for non-life insurers, funding ratio for pension funds). • Sensitivity analysis: effect on available capital and solvency position.
	Time horizon	• Instantaneous shock. • 3-year projection (only in the baseline and the emerging market stress scenario).
3. Tail shocks	Scenario analysis	• Global market stress scenario: interest rates +50 basis points (domestic, CMA), sovereign bond spread +50 bps (domestic, CMA), stock prices -25 percent (domestic, emerging/developing economies) and -30 percent (advanced economies), property prices -5 percent (domestic, CMA) and -10 percent (advanced economies), corporate bond spreads between +60 bps (AAA) and +200 bps (BB and lower), 5 percent depreciation of NAD against major currencies. • Emerging market stress scenario: interest rates -120 basis points (domestic, CMA), sovereign bond spread +250 bps (domestic, CMA), stock prices -40 percent (domestic, emerging/developing economies) and -10 percent (advanced economies), property prices -22 percent (domestic, CMA) and -5 percent (advanced economies), corporate bond spreads between +20 bps (AAA) and +250 bps (BB and lower), 25 percent depreciation of NAD against major currencies.

Domain		Assumptions
		Top-down by IMF
	Sensitivity analysis	• Market shocks: (1) increase in domestic interest rates by 10 percentage point; (2) 50 percent depreciation of NAD against USD. • Default of largest bank counterparty.
4. Risks and buffers	Risks/factors assessed	• Market risks: interest rates, share prices, property prices, FX rates, credit spreads. • Credit risks: default of largest bank counterparty. • Summation of risks, no diversification effects.
	Buffers	• None.
	Behavioral adjustments	• None.
5. Regulatory standards and parameters	Regulatory/accounting standards	• National GAAP.
6. Reporting format for results	Output presentation	• Impact on free assets. • Dispersion across companies. • Contribution of individual shocks.