2019 FINANCIAL STABILITY REPORT

CENTRAL BANK OF LESOTHO

BANKA E KHOLO EA LESOTHO

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FINANCIAL STABILITY REPORT

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The *Financial Stability Report* is available on the Central Bank of Lesotho website at **www.centralbank.org.ls.**

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GOVERNANCE, MISSION & OBJECTIVES

Ownership and Governance

The Central Bank of Lesotho is a statutory organisation
fully owned by the Government of Lesotho.

The Central Bank enjoys a fair amount of independence in formulating and implementing monetary policy. The Governor, who is also the chairman of the Board of Directors, together with the two Deputy Governors, are appointed by His Majesty The King on the advice of the Prime Minister.
The Minister of Finance appoints the other Board Members.

Mission Statement

The Mission of the Central Bank of Lesotho is to achieve and maintain monetary and financial system stability to support balanced macroeconomic development of Lesotho.

Objectives

The principal objective of the Central Bank of Lesotho, as stipulated in the Central Bank of Lesotho Act of 2000, is to achieve and maintain price stability.
Other related objectives which are supportive to this mission are:

- To foster the liquidity, solvency and proper functioning of a stable market-based financial systems;
- To formulate, adopt and execute the monetary policy of Lesotho;
- To issue, manage and redeem the currency of Lesotho;
- To formulate, adopt and execute the foreign exchange policy of Lesotho;
- To license, register and supervise institutions pursuant to the Financial Institutions;
- To own, hold and manage its official international reserves;
- To act as a banker and advisor to, and as fiscal agent of the Government of Lesotho;
- To promote the efficient operations of the payments system;
- To promote the safe and sound development of the financial system; and
- To monitor and regulate the capital market.

PREFACE

Financial stability can be viewed as the resilience of the financial system to adverse shocks while continuing to function smoothly and supporting the ability of households and firms to use their financial assets with confidence. A stable financial system contributes towards broader economic growth and improved standard of living for all people.

The CBL has the mandate to promote the stability and soundness of the financial system of the country. It achieves this objective through delivering on its core functions, notably: fostering the liquidity, solvency and proper functioning of a stable market-based financial system; promoting the safe and sound development of the financial system; conducting effective supervision and regulation of banks; and providing efficient, reliable and safe payment and settlement systems.

This Financial Stability Report is a tool used by the Central Bank of Lesotho (CBL) for financial stability surveillance. The report seeks to play a role in preventing crises by identifying risks and vulnerabilities in the financial system and assesses the resilience of the financial system to domestic and external shocks, as well as highlighting policies that may mitigate systemic risks, thereby contributing to global financial stability and the sustained economic growth. The CBL publishes the Financial Stability Report once a year, in March. Through this Report, the CBL seeks to enhance awareness of the soundness of Lesotho's financial system ❑

LIST OF ABBREVIATIONS

AGOA	Africa Growth Opportunity Act
BIS	Bank for International Settlements
CAR	Capital Adequacy Ratio
CBL	Central Bank of Lesotho
CMA	Common Monetary Area
CPSS	Committee on Payment and Settlement Systems
CSD	Centralised Securities Depository
EU	European Union
EWI	Early Warning Indicator
GDP	Gross Domestic Product
IOSCO	International Organisation of Securities Commission
LACH	Lesotho Automated Clearing House
LSW	Lesotho Wire
MNO	Mobile Network Operators
MFI	Micro-finance Institution
MTI	Money Transfer Institution
NPL	Non-performing Loans
NSDP	National Strategic Development Plan
OFC	Other Financial Corporations
PAL	Payments Association of Lesotho
PFMI	Principles for Financial Market Infrastructures
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement System
RWA	Risk Weighted Assets
SA	South Africa
SACU	Southern African Customs Union
SIPS	Systemically Important Payment Systems
UK	United Kingdom
US	United States
MoF	Ministry of Finance

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EXECUTIVE SUMMARY

1. The world's financial system remained resilient during 2019 despite the headwinds fuelled by rising trade tensions, increased trade policy uncertainty and weakening financial market sentiment. Over the year, the trade tensions dynamics continued to knock down financial markets, business sentiment weakened further, and concerns about downside risks to the global economy increased. However, the shift toward a more dovish monetary policy stance across the globe, which has been accompanied by a pronounced decline of longer-term yields, helped mitigate such concerns. Market pricing also signaled that rates will remain lower for longer than anticipated. As a result, near-term risks to financial stability have increased modestly, while medium-term risks remain elevated because of persistent financial vulnerabilities linked to a low-interest rate, high debt levels and the outbreak of the novel coronavirus (Covid-19), which continue to wreak havoc in the global supply chain, demand, and business confidence.

2. The global financial stability outlook remains clouded by uncertainty. The spread of Covid-19 across the globe, escalation of trade tensions, as well as rising geopolitical risks and policy uncertainty in major economies, have led to a sudden deterioration in risk sentiment, triggering a broad-based uncertainty in global capital markets and easing of global financial conditions. The scale and impact of these challenges are largely unknown, and if not carefully managed could further push growth down and have large spillover effects to the rest of the world.

3. SA's subdued economic activity and deteriorating public finances remain a potential source of vulnerabilities and spillover risk for the domestic financial system. Political tensions and slow progress in South Africa's structural reforms, the looming credit rating downgrades of SA's investment-grade and disruptions to the power supply could further dent investor confidence, induce capital flight and weaken growth, which could, in turn, reduce SACU transfers and remittances.

4. Domestic shocks emanating from the fragile fiscal position and weak economic activity and recurring drought continue to weigh on growth and depress investment and job creation. While work on the large water infrastructure projects, improved production in the diamond sector, and stronger growth in the textile sector are keeping growth positive, prospects for exports and remittances are gloomy given continued subdued growth in South Africa and depressed prices for key exports. Furthermore, low domestic and SACU revenues continue to put severe pressure on the fiscal and external positions. Nonetheless, economic growth is expected to have recovered in 2019, supported largely by the buoyed performance of the mining and quarrying, manufacturing and financial subsectors. The inflation rate remained low during 2019. However, exchange rate volatility, among other factors, continue to pose an upside risk to the inflation outlook.

5. The favourable trends seen in Lesotho's banking sector in past years continued into 2019. The banking system continued to be sound and stable but remains exposed to risks emanating from credit concentration, funding structure, and the challenging economic environment. Stress-test results, however, demonstrate that the current levels of capitalisation, liquidity, and profitability for the banking sector guarantee a high degree of resilience to the nature and magnitude of assumed shocks.

6. The overall financial performance of the OFCs remained robust despite the challenging economic environment. The insurance sector continued to be resilient and financially sound with minimal systemic threats. The overall financial performance of the collective investment schemes industry remained stable and sound. The Credit-only MFIs sector maintained a good quality of credit portfolio and its asset base continued to grow.

7. The payment system and infrastructure operated effectively and efficiently during 2019 and continued to anchor financial stability. The systemically important payment system maintained high system availability and registered a higher transaction density in 2019 relative to 2018. The mobile money business sector has grown tremendously since 2012 and has bridged the financial inclusion gap. However, growth rates have fallen significantly. This indicates that the market may be entering its maturity phase and much lower growth rates can be expected in the future. Vulnerabilities related to mobile money operations have been minimal during the review period and pose minimal systemic threats ❑

FINANCIAL STABILITY RISKS

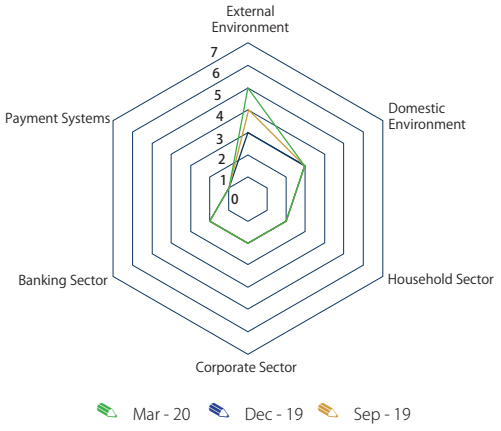
1. FINANCIAL STABILITY RISKS

The financial system as a whole remained resilient to a broad range of economic risks in 2019. However, several developments remain potential sources of threats to financial stability and may trigger a global economic and financial crisis. Since the last FSR, vulnerabilities emanating from the domestic environment, household sector, corporate sector, banking sector, and payment systems remained relatively unchanged. In contrast, as at December 2019, vulnerabilities emanating from the external environment appeared to have eased slightly (Figure 1) mainly due to the Brexit outcome, whereby a no-deal (hard landing) exit was averted, and a positive outcome from negotiations (Phase one) between the US and China regarding the trade wars.

However, the situation has since changed with the outbreak of Covid-19; more vulnerabilities are manifesting and risk levels are more elevated. The economic disruptions caused by the outbreak, even though still unraveling, have the potential to cripple the global economy. The increased uncertainty, reflected in lower valuations and increased volatility in the financial markets, falling oil and other commodity prices, paint a gloomy picture in terms of the economic outlook. Global growth is already slow or none existent, and interest rates very low, which leaves central banks with little tools to mitigate any potential economic downturn. This puts greater pressure on governments to use fiscal policy to counter the economic fallout from the coronavirus. The virus is not only affecting the supply side, but many economies are also experiencing declines in demand because of suppressed business and consumer confidence and the overall effects on the economy. Although the size of these effects is largely unknown, a fall in demand that follows a supply shock constitutes a two-pronged shock that will further contract economic activity.

Vulnerabilities from the domestic financial sector remained relatively unchanged during the review the period. Inflation declined slightly, albeit the outlook being tilted towards the downside due to loti depreciation against major currencies. The banking sector, on the other hand, continues to maintain capital and liquidity buffers over the prudential requirements and remains profitable. Both the household and the corporate sectors remain under pressure as a result of subdued economic activity, but with large holdings of financial sector debt. The payment systems and infrastructure continue to operate efficiently and effectively; anchoring financial system stability ❑

Figure 1 **Financial Stability Risk Map**



Source: Central Bank of Lesotho

The financial system as a whole remained resilient to a broad range of economic risks in 2019.

2. MACRO-FINANCE ENVIRONMENT

2.1 International Developments

External risks to Lesotho's financial system have increased since the last reporting period. Global growth has slowed down further and elevated uncertainty has weighed down business confidence and investment. In addition, the Covid-19 outbreak continues to wreak havoc in the global supply chain, demand, and business confidence. As a result, the likelihood of a further global slowdown or recession has increased, and this came on the back of a gradual build-up of financial vulnerabilities in the form of high debt levels and increased risk-taking across many key financial markets. In this kind of environment, a downturn would be amplified by significant declines in asset prices and repricing of risk, making any subsequent global recovery difficult due to debt overhang, with limited headroom for monetary or fiscal policy responses in many jurisdictions. Also, the global risks are on an upward trajectory, due in part to, protracted trade tensions and uncertainty around economic policy. The heightened uncertainty has centered on trade policy, especially around the US-China trade dispute, but also tensions between the US and several of its other main trade partners; Brexit and various geopolitical risks, for example in the Middle East and Hong Kong.

The global financial landscape is dominated by low-interest rates. While low-interest rates may mitigate financial stability risks in the short term, they could also increase vulnerabilities. Global growth has slowed amid continued uncertainty about the outlook for world trade. This has led to significant reductions in long-term interest rates. While lower interest rates may have helped to cushion the economy and borrowers from the effects of weaker global growth in the short run, prolonged low-interest rates could exacerbate pre-existing debt and asset imbalances in the economy in the long run, threatening future financial stability. Low-interest rates may also reduce profitability for some financial institutions, and are weakening solvency positions. Moreover, global interest rates are expected to stay low for some time, and there has been a lengthening of maturities of some debt, both of which improve borrowers' ability to service a given debt load. But when longer maturities go hand in hand with increased borrowing, this raises concerns that future debt servicing needs may weigh on investment for an extended period, particularly if interest rates rise. The persistent low-interest-rate environment is contributing to a range of developments within financial markets. While innovation is an essential component of an efficient system, there are risks associated with new developments, particularly where products grow rapidly and are untested in a full economic cycle.

Vulnerabilities and risks associated with international developments

Weak global economic activity affects the financial institutions' balance sheets through macro-financial linkages. Lesotho is a small, open economy with many industries that are dependent on the good performance of the global economy. If international growth remains weak for protracted periods, it may have major repercussions for Lesotho's economy through the export channel. Exporting companies are highly dependent on banks for their funding hence any shock to their revenues could compromise their ability to service their debt which will ultimately affect banks' profitability.

The rand remains very sensitive to international policy and political developments, changes in commodity prices, global financial markets developments and investors' sentiments. Lesotho's macroeconomic stability is anchored upon the loti's peg to the rand, which is crucial in containing inflation and strengthening the country's close economic and financial ties with SA. Therefore, a volatile rand becomes a threat to Lesotho's financial system stability. The value of loti is mostly affected by capital flows to and from SA and other EMEs, as well as global risk perception through the rand-loti peg. Depreciation of the currency against major international currencies increases headwinds to the inflation outlook and can lead to further monetary policy tightening in SA. In particular, political tensions and slow progress in South Africa's structural reforms, the looming credit rating downgrades of South African debt and disruptions to the power supply could induce capital flight and weaken growth, which could, in turn, depress SACU revenues

and remittances. Such downgrades, to the sub-investment grade, could also squeeze the funding for banks, increase the cost of borrowing for the consumers and result in increased non-performing loans.

SA's subdued economic activity and deteriorating public finances remain a potential source of vulnerabilities and spillover risk for the domestic financial system. Loss of confidence in SA by investors could trigger capital outflows and generate negative feedback loops due to extensive macro-financial linkages between SA and the rest of the world. Such linkages could amplify shocks given SA's high reliance on external finance and banks' increasing role in intermediating capital flows. The resulting capital outflow may lead to a higher cost of capital and reduced access to funding. This increases contagion risks since two-thirds of banks operating in Lesotho are subsidiaries of South African banks.

2.2 Domestic Developments

Economic activity remains sluggish, as policy uncertainty, weak regional growth, and recurring drought continue to weigh on growth and depress investment and job creation. While work on the large water infrastructure project is keeping growth positive, prospects for exports and remittances are gloomy given continued subdued growth in South Africa and depressed prices for key exports. Government finances remain under pressure after several years of relatively low SACU inflows. However, improved production in the diamond sector and stronger growth in the textile sector, as a result of a weaker rand, are expected to result in improved growth in 2019. Lower SACU revenues, however, continue to offset stronger textile and diamond exports, causing a deficit in the current account and continued pressure on reserves. Real GDP[1] was adversely affected by a decline in manufacturing and production due to trade wars that plagued the global economy through out 2019. The real GDP growth is estimated to have grown by 1.7 percent in 2019, relative to 1.2 percent recorded in 2018. Despite a slight increase in real economic activity, downside risks such as suppressed domestic demand and unfavourable external demand for export sectors remain highlighted.

Low domestic and SACU revenues, as well as expenditure rigidities, continue to be major challenges for fiscal policy. Despite a slight rebound in SACU receipts and grants, efforts made during the review period to improve domestic revenue, such as an increase in the VAT rate and issuing more domestic

Table 1 Selected Economic Indicators (%)

	GDP Growth		pps	Interest Rates		pps	Inflation		pps
	2018	2019	y/y	2018	2019	y/y	2018	2019	y/y
Advanced Economies									
US	2.50	2.30	**(0.2)**	2.00-2.50	1.50-1.75	**(0.75)**	1.90	2.30	**0.4**
UK	1.40	1.10	**(0.3)**	0.75	0.75	**0.0**	2.10	1.30	**(0.8)**
Euro Area	1.20	1.00	**(0.2)**	0.25	0.25	**0.0**	1.60	1.30	**(0.3)**
Japan	(0.30)	(0.70)	**(0.4)**	(0.10)	(0.10)	**0.0**	0.30	0.80	**0.5**
Emerging Market Economies									
Brazil	1.20	1.70	**0.5**	6.50	4.50	**(1.0)**	3.75	4.31	**0.7**
Russia	2.70	2.10	**(0.6)**	7.75	6.25	**(1.5)**	4.30	3.00	**(1.3)**
India	5.60	2.10	**(0.6)**	6.50	5.15	**(1.4)**	2.19	7.35	**5.2**
China	6.50	6.00	**(3.5)**	4.35	4.15	**(0.2)**	1.90	4.50	**2.6**
SA	1.10	(0.50)	**(1.6)**	6.75	6.50	**(0.3)**	4.50	4.00	**0.5)**

Source: Federal Reserve Bank, OECD, Bank of Japan, ECB, SARB, STATSSA, Bank of Brazil, Reuters, Bank of India, Trading Economics.

[1] https://www.centralbank.org.ls/images/Publications/Economic_Outlook/Dec_2019_MEO.pdf.

debt, were insufficient to offset lower SACU revenues and higher expenditures, resulting in a fiscal deficit. The resulting financing gap led to further arrears accumulation, as the government sought to preserve government deposits, and hence international reserves, at adequate levels. The Government budgetary operations are estimated to have registered a deficit of 1.6 percent of GDP during the fiscal year 2019/20 compared with a deficit of 1.9 percent of GDP realised in 2018/19.

Despite a few signs of improvement in domestic economic activity following very weak growth in 2018, the low SACU revenues are putting pressure on the external position. The external sector position recovered in 2019 as evidenced by a reduction in the trade deficit, which narrowed to 2.3 percent of GDP in contrast to a 3.1 percent registered in the previous year. The overall balance of payments was boosted by improved performance in the financial account. Although the current account remained in deficit, the financial account was boosted by growth in foreign assets held by commercial banks. As a result, gross official reserves rose to 4.3 months of import cover in 2019 from 4.2 months in 2018. In terms of the outlook, the trade balance is expected to further deteriorate as the construction of the second phase of the Lesotho Highlands Development Project has already commenced coupled with increased foreign investment in the cannabis and mining industry.

Monetary policy remains accommodative and inflationary pressures have subsided domestically due to weak economic activity. Food prices continue to pose downside risks to the inflation outlook because of deteriorating weather conditions in the region. Moreover, the exchange rate volatility also adds to inflationary pressures. The rate of inflation, measured as the percentage change in the Consumer Price Index (CPI), increased by an average of 50 basis points (bps) in 2019 from 4.7 percent recorded in 2018. On the monetary policy front, the key policy interest rates were reduced once during 2019 in an attempt to stimulate the economic activity with inflationary pressures declining. The CBL policy rate closed the year at 6.50 percent. However, the cost of intermediation in Lesotho remained the highest amongst the CMA countries. On average, the lending rate in Lesotho was higher than in SA, while the deposit rate in Lesotho was lower than that in SA by 344 basis points (bps). The money market the spread, measured by the difference between the prime lending and overnight rates, widened relative to the rate observed in 2018 because of a decrease in the overnight rate. The money market spread increased by 37 bps from the rate observed in 2018. The spread was largely influenced by the overnight rate, which declined by 49 bps during the same period while the prime lending rate decreased by 0.1 bps. Also, the risk premium was higher in Lesotho than in South Africa at the end of 2019. The average yearly premia were 4.9 percent and 3.0 percent in Lesotho and South Africa, respectively. Year-on-year, the risk premium decreased by 20 bps in SA while it increased by 37 bps in Lesotho. Higher risk premiums can be an indication of higher charges for credit assessments and therefore a reflection of the perceived level of risk in the credit market.

Vulnerabilities and risks associated with domestic developments

The domestic fiscal position has been under immense pressure because of increasing domestic claims and low domestic and SACU revenues. The private sector in Lesotho survives largely by doing business with the government. Therefore, when the government experiences a shortfall in revenues, spending declines and businesses experience difficulties concerning their profitability hence their ability to service debt. Two important areas for commercial bank lending, which are likely to get affected negatively, are personal loans and construction sub-sector. With the government being a major employer and source of construction contracts, the anticipated cutbacks in government spending during the fiscal adjustment could weigh heavily on banks' loan portfolios.

Lesotho's weak international competitiveness makes it harder to achieve greater export growth. Lesotho's current trade strategy is undiversified and requires a move away from reliance on exports of low-value-added apparel to the US under AGOA. Without policy reform, future, export growth will be challenged by the emergence of new low-wage competitors in Asia and Africa and the expected erosion of preferential market access in main export destinations soon. The consequences that Lesotho could experience include increased unemployment and low export revenues. The textile manufacturing firms are

the second-largest employers in Lesotho after the government. With deteriorating competitiveness, most firms would opt to hibernate to jurisdictions with favourable conditions and leave a lot of factory workers unemployed. This will have knock-on effects on the broader economy. For example, workers who have loans from banks and micro-financial institutions would no longer service their loans, causing an increase in bad loans. Moreover, most firms' profitability will take a knock and affect their ability to service their obligations. This would affect commercial banks' balance sheets adversely and increase the likelihood of insolvency.

High volatility in both exchange and interest rates can threaten financial stability. During the review period, exchange rate depreciation continued to pose an upside risk to the inflation outlook, thereby signaling the possibility of further interest rate hikes. First, in a fixed exchange rate regime, volatility in exchange rate poses a challenge to monetary policy authorities because there is limited scope to deal with exchange rate shocks. Second, higher interest rates increase the cost of borrowing which may result in a higher probability of defaults.

Box 1 - Climate Change and Financial Stability

This box outlines why climate change poses a threat to financial stability and highlights possible steps that regulators may take to integrate climate risk into their regulatory and supervisory frameworks to ensure that the financial system can withstand climate-related shocks. Climate change is already a reality and its overall social, environmental, and economic impacts are on the rise. Disastrous floods, droughts, wildfires, and storms are becoming all-too-regular occurrences and lead to the destruction of infrastructure and the disruption of livelihoods. Lesotho is no exception in this case. The country has experienced frequent droughts, warmer climate, very low and delayed rainfalls that have undermined the economic development of the country and the well-being of the nation. Furthermore, heavy snowfalls, strong winds, and floods that caused devastating social impacts have become too frequent.

Consequently, policymakers and investors globally are increasingly recognising the adverse implications of climate change' on the financial sector. Climate change affects the financial system through two main channels. The first involves physical risks, arising from damage to property, infrastructure, and land. The second, transition risk, results from changes in climate policy, technology, and consumer and market sentiment during the adjustment to a lower-carbon economy. Financial stability concerns arise when asset prices adjust rapidly to reflect unexpected realisations of transition or physical risks. Although markets are partly pricing in climate change risks, asset prices may not fully reflect the extent of potential damage and policy action required to limit global warming to 2°C or less.

Physical Risks

Exposures can vary significantly from country to country and sector to sector. For financial institutions, physical risks can materialize directly, through their exposures to corporations, households, and countries that experience climate shocks, or indirectly, through the effects of climate change on the wider economy and feedback effects within the financial system. Exposures manifest themselves through increased default risk of loan portfolios or lower values of assets. For example, rising sea levels and wildfires can cause losses for homeowners and diminish property values, leading to greater risks in mortgage portfolios. Corporate credit portfolios are also at risk. In other areas, rapid climatic changes cause prolonged droughts, and Lesotho is no exception in this case, which dramatically increased the risk of fires and affect agricultural output. Tighter financial conditions might follow if banks reduce lending, in particular when climate shocks affect many institutions simultaneously. For insurers and reinsurers, physical risks are important on the asset side, but risks also arise from the liability side as insurance policies generate claims with a higher frequency and severity than originally expected. As losses from natural disasters increase, insurance is likely to become more expensive or even unavailable in at-risk areas. Climate change can make banks, insurers, and reinsurers less diversified, because it can increase the likelihood or impact of events previously considered uncorrelated, such as droughts and floods.

Transition Risks

Transition risks materialise on the asset side of financial institutions balance sheets, which could incur losses on exposure to firms with business models not built around the economics of low carbon emissions. Fossil fuel companies could struggle for business in a world moving towards a low-carbon economy. These firms could see their earnings decline, businesses disrupted, and funding costs increase because of policy action, technological change, and consumer and investor demands for alignment with policies to tackle climate change. Coal producers, for example, already grapple with new or expected policies curbing carbon emissions, and several large banks have pledged not to provide financing for new coal facilities. The share prices of coal mining companies already reflect this "carbon discount" as well as higher financing costs and have been underperforming relative to those of companies holding clean energy assets. Transition risks can also materialise through the economy at large, especially if the shift to a low-carbon economy proves abrupt, poorly designed policies, or difficult to coordinate globally initiatives and for developing countries such as Lesotho with huge technology and infrastructure deficit.

Box 1 - Climate Change and Financial Stability (continued)

The role of the financial Sector

Central banks and financial regulators increasingly acknowledge the financial stability implications of climate change. For example, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), an expanding group that comprises 48 members, has embarked on the task of integrating climate-related risks into supervision and financial stability monitoring. Given the large shifts in asset prices and catastrophic weather-related losses that climate change may cause, prudential policies should adapt to recognise systemic climate risk—for example, by requiring financial institutions, including insurance firms, to incorporate climate risk scenarios that cover both physical and transition risks into their stress tests.

Financial institutions and markets already provide financial protection through insurance and other risk-sharing mechanisms, such as catastrophe bonds, to partly absorb the cost of disasters. But the financial system can play an even more fundamental role, by mobilizing the resources needed for investments in climate mitigation and adaptation. Global investment requirements for addressing climate change are huge, in particular investments in infrastructure. Most of these investments are likely to be intermediated through the financial system. From this point of view, climate change represents for the financial sector as much a source of opportunity as a source of risk. The growth of sustainable finance (the integration of environmental, social, and governance criteria into investment decisions) across all asset classes shows the increasing importance that investors attribute to climate change, among other nonfinancial considerations. The same applies to sustainable investing in equities and issuance of green bonds. Banks are also beginning to adjust their lending policies by, for example, giving discounts on loans for sustainable projects. Sustainable finance can contribute to climate change mitigation by providing incentives for firms to adopt less carbon-intensive technologies and specifically financing the development of new technologies. Channels through which investors can achieve this goal include advocating for low-carbon strategies and lending to firms that are leading regarding sustainability. All these actions can send price signals, directly and indirectly, in the allocation of capital.

Challenges

Efforts to incorporate climate-related risks into regulatory frameworks face some challenges though. Capturing climate risk properly requires assessing it over long horizons and using new methodological approaches so that prudential frameworks adequately reflect actual risks. It is crucial to ensure that the efforts to bring in climate risk strengthen, rather than weaken, prudential regulation. Policies such as allowing financial institutions to hold less capital against debt simply because the debt is labelled as green could easily backfire— through increased leverage and financial instability—if the underlying risks in that debt have not been adequately understood and measured.

To fully comprehend the impact of climate change on the financial system, analysis of risks and vulnerabilities and ultimately policymaking should be strengthened. The integration of climate change risks into macro-financial policies is critical given the magnitude and global nature of the risks climate change is posing to the world. An area where more focus should be directed is understanding the macro-financial transmission of climate risks. One aspect of this is further improving stress tests and macroprudential surveillance. Stress testing is a key component of the analyses, with these stress tests often capturing the physical risks related to disasters, such as insurance losses and nonperforming loans associated with natural disasters. Analysis of the financial system exposure to transition risk is also important, especially in commodity and oil-producing countries.

Closing data and modelling gaps are also crucial to better map the physical and transition risks of climate change. Only with accurate and adequately standardized reporting of climate risks in financial statements can investors discern companies' actual exposures to climate-related financial risks. There are promising efforts to support private sector disclosures of such risks. But these disclosures are often voluntary and uneven across countries and asset classes. Comprehensive climate stress testing by central banks and supervisors would require much better data. Furthermore, greater standardization would also improve the comparability of information in financial statements on climate risks. The potential impact of climate change requires a better understanding of the economic costs of climate change. Each destructive natural event and every unnaturally parched landscape will chip away at the global output, just as the road to a low-carbon economy will escalate the cost of energy sources as externalities are no longer ignored and old assets are rendered worthless. On the other hand, carbon taxes and energy-saving measures that reduce the emission of greenhouse gases will drive the creation of new technologies.

Regulators should also seek to integrate climate risk into other aspects of the supervisory and regulatory framework. Enhanced supervisory expectations for climate preparedness, climate-focused risk management standards, and higher risk-weighted bank capital requirements for assets that are sensitive to the price of carbon are all worthy of regulators' consideration.

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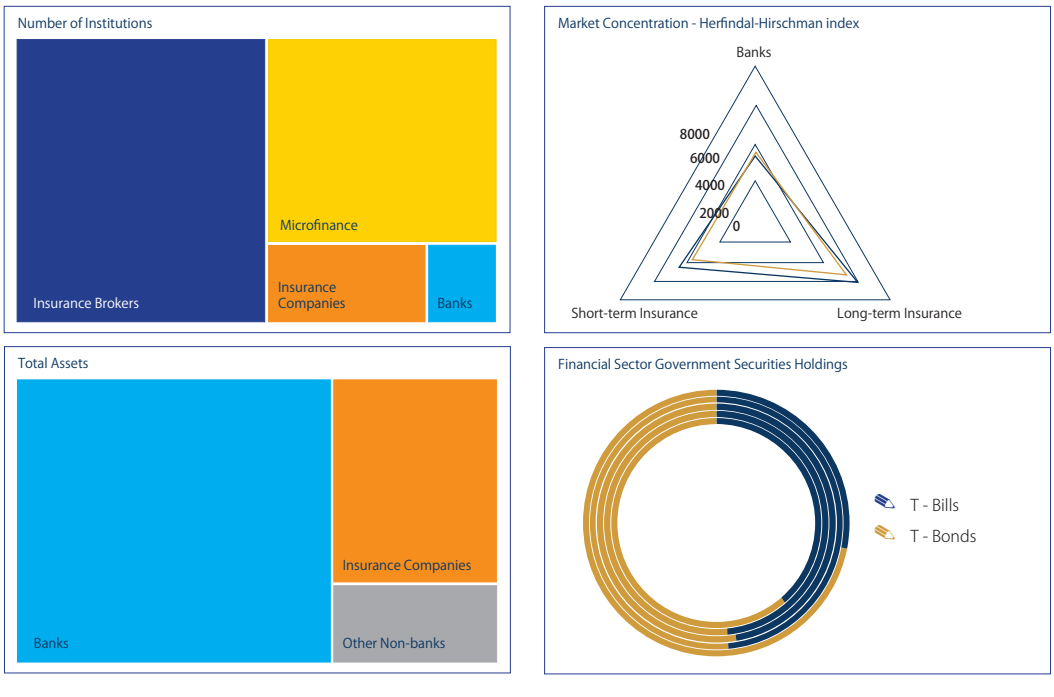
3. FINANCIAL STABILITY DEVELOPMENTS AND TRENDS

3.1 The Structure of the Financial System

Lesotho's financial sector consists of four commercial banks (three subsidiaries of South African banks and one government-owned bank), nine insurance companies, 52 insurance brokers, 35 microfinance institutions (MFIs), two asset management firms, and two money transfer institutions (MTIs) as shown in Figure 2. The financial sector is dominated by the banking industry with total assets constituting 69 percent of the total financial sector's assets and about 209.6 percent of the gross domestic product (GDP) as of December 2019. The Insurance industry is the second largest industry of Lesotho's financial system, with a share of 27 percent of the total financial system assets[2] and 92.6 percent of GDP. The share of other non-bank financial institutions (MFIs) to total financial system assets is 4 percent, while total assets are 11 percent of GDP. The total financial system assets to GDP stood at 304.7 percent of GDP. The Financial Markets in Lesotho comprise mainly of money markets and securities markets with the latter being the larger of the two markets. In both markets, government securities make up the entire portfolio of investments. This shows that Lesotho's financial markets are still shallow, concentrated and have limited product options. The Central Bank of Lesotho (CBL) is the sole regulator of all the financial institutions in the country.

Figure 2 Financial System Structure



Source: Central Bank of Lesotho

[2] Total financial system assets data is as at September, 2019 due to a one quarter lag in reporting for MFIs.

The banking sector is composed of commercial banks only, with fifty branches across the country. The sector is characterised by limited competitiveness and is highly concentrated with a Herfindal-Hirschman index (HHI) of 3 559[3]. As at December 2019, the total banking industry assets were M17.6 billion. On an annual basis, the banking industry's total assets grew by 1.0 percent from M17.4 billion. The foreign-owned banks control about 92.0 percent of the banking industry's assets, revenue, and deposits.

For the period ending in September 2019, the insurance industry accounted for 92.6 percent of total financial assets for Non-Bank Financial Institutions (NBFIs). Out of the nine insurance companies, four companies provide long-term insurance, three provide short-term insurance and one provides both long-term and short-term insurance. The insurance sector is highly concentrated in both the long-term and short-term categories. The HHI for long-term and short-term categories is 6 118 and 4 587, respectively. The share of the insurance industry assets to GDP stood at 92.6 percent for the period ending in December 2019. The Pension industry is now under the CBL's purview following the enactment of the Pension Funds Bill. The Pension Funds Act confers powers on CBL to register, regulation, supervision and dissolve pension funds in the country.

The legal and regulatory environment in Lesotho further provides for both deposit-taking MFIs as well as the credit-only MFIs. During the period under review, there were 35 licensed Credit-Only MFIs and no deposit-taking MFIs operating in Lesotho. The MFIs industry is predominantly foreign-owned and the four largest credit-only MFIs command a larger share of the market. The MFIs industry has grown rapidly over the past five years, but it poses no systemic risks. However, great caution needs to be exercised because MFIs have begun accessing huge sums of money from banks in a form of loans. On the other hand, data generated from the Credit Bureau suggest some emergence of high levels of indebtedness in the entire credit market. This is at the back of some prominence of aggressive lending and lack of proper credit assessment and worthiness. The rising level of indebtedness is an early warning sign and may have systemic implications due to the growing interconnectedness among industries in the financial system.

3.2 Cross linkages in the Financial Sector

The following sections highlight the level of Lesotho's financial sector interconnectedness; among the sub-sectors of the financial system, as well as with the Government of Lesotho. The level of interconnectedness in the financial sector and linkages thereof are very important for macroprudential surveillance and financial stability. A shock in one sector can have spillover effects on other financial institutions or the rest of the financial system through these linkages. Therefore, it is important that the CBL monitor vulnerabilities emanating from the inter-linkages among the financial institutions and ensure that it takes prompt corrective actions to prevent or remedy contagion risk within the financial system.

3.2.1 Linkages between Banks

The linkages between domestic banks are predominantly in a form of placements for purposes of payments and settlements instead of interbank loans. Similarly, cross border linkages are predominantly placements with parent banks. In addition, banks hold deposits of/lend to other non-bank financial corporations. Risks associated with placements with banks from abroad exposes domestic banks to exchange rate risks (except in the case of SA due to the loti's peg to the South African rand). Moreover, integration among global banks increases the likelihood of contagion risk amongst banks and the real economy.

[3] The Herfindal-Hirschman index (HHI) is a measure of market concentration which, unlike other methods, takes into account the relative size and number of institutions in the industry. It can assume values from zero (a situation close to perfect competition) to 10000 (a situation that reflects monopolistic behaviour). There are three HHI thresholds that determine the market structure of an industry: (1) less than 1000 suggests a competitive industry, (2) 1000 to 1800 indicates a moderately concentrated industry, and (3) a value greater than 1800 depicts a highly concentrated industry.

3.2.2 Linkages between Financial Institutions and Government

Financial sector development is an important determinant of economic growth. A sound and efficient financial system, that channels capital to its most productive uses, is beneficial for sustaining development. Besides linkages between various sub-sectors of the financial system, linkages between the financial sector and the government can be a critical source of systemic risk. The Government of Lesotho's debt held by the financial sector primarily consists of Treasury securities namely, bills and bonds. Table 2 shows outstanding T-bills and bonds held by the financial sector ❑

Table 2 Financial Sector Exposure to Lesotho's Sovereign Debt, in Thousands of Maloti

Period	2014	2015	2016	2017	2018	2019	△YoY
Total Financial Sector Exposure	**860.2**	**860.2**	**979.5**	**860.2**	**1 021.3**	**1 251.6**	**1 932.6**
% of Total Government Debt	75.5	80.4	76.1	74.4	78.6	88.4	9.9 pp
T-Bill Holders' Amounts Outstanding	**436.2**	**425.9**	**423.3**	**511.6**	**644.4**	**647.7**	**0.5 pct**
% of Total, of which	50.7	43.5	41.5	40.9	33.3	20.8	-12.6 pp
Commercial Banks	47.3	40.4	38.7	38.2	32.1	20.5	-11.6 pp
Insurance Companies	3.4	3.1	2.8	2.7	1.2	0.3	-1.0 pp
Non-Bank Financial Corporations	0.0	0.0	0.0	0.0	0.0	0.0	0.0 pp
Bond Holders' Amounts Outstanding	**423.9**	**553.6**	**597.9**	**740.0**	**1288.2**	**2471.2**	**91.8 pct**
% of Total, of which	49.3	56.5	58.5	59.1	66.7	79.2	12.6 pp
Commercial Banks	37.3	47.7	45.6	41.9	40.7	77.6	37.0 pp
Insurance Companies	11.9	8.8	12.9	17.2	26.0	35.3	9.3 pp
Non-Bank Financial Corporations	0.0	0.0	0.0	0.0	0.0	14.9	14.9 pp
Non-Bank Financial Corporations	0.0	0.0	0.0	0.0	0.0	0.0	0.0

***Source**: Central Bank of Lesotho*

4. BANKING SECTOR

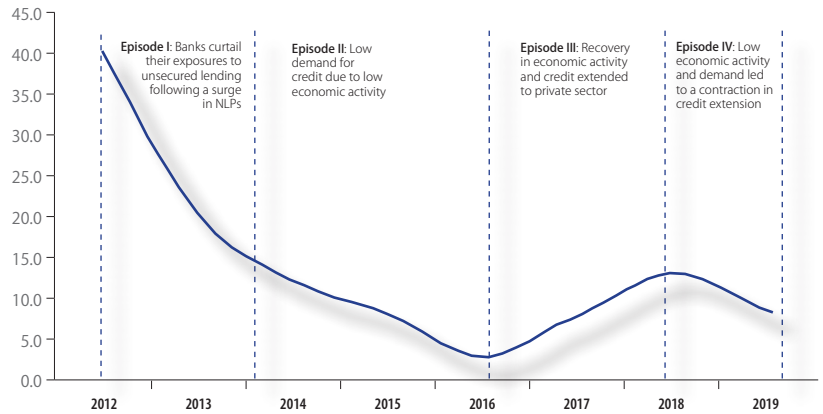
The favourable trends seen in the financial sector in the past years continued into 2019. The banking sector continued to be adequately capitalised and profitable. It maintained high liquidity levels and good quality of assets. The sector is, however, exposed to risks emanating from the challenging economic environment and credit concentration. Nevertheless, the stress-test results demonstrate that the current capitalisation, liquidity and profitability levels guarantee a high degree of resilience to the assumed shocks.

4.1 Credit Developments

Credit extension declined in 2019 relative to 2018 as shown in Figure 3. Year-on-year, credit growth decreased by 4.7 pps to M7.4 billion. Low global economic activity and demand, trade tensions and increasing protectionism policies continue to weigh on credit extended the key sectors of the economy, most of which export their output.

Figure 4 shows the evolution of the annual credit-to-GDP gap[5]. The credit-to-GDP gap is used to capture the build-up of excessive credit in a financial system, which is a prominent lead indicator of financial crises. From a policy perspective, it is regarded as a reliable early warning indicator (EWI) of banking crises or severe distress. A high positive gap is an indication that the private sector borrows at a level that is perhaps not justified by the current output-producing capacity of the economy while a negative gap theoretically implies that there is scope for additional safe borrowing for consumption or investment purposes. The credit-to-GDP gap in Lesotho has been positive but narrowing since 2013, turned negative in 2015 and continued on this downward trajectory until 2018. In 2019, it turned positive as shown in Figure 4. This shows that, over time, the credit-to-GDP ratio remained below its long-term trend - an indication of the reduced likelihood of a crisis. However, a positive credit-to-GDP gap registered in 2019, may signal increasing vulnerabilities in the credit market.

Figure 3 Annual Credit Growth (%)



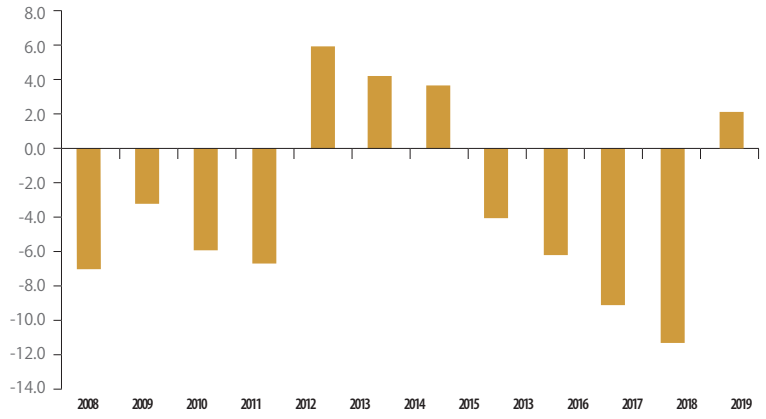
Source: Central Bank of Lesotho

Credit extended to key economic sectors declined in 2019 due to low global economic activity and demand.

[5] The credit-to-GDP gap is defined as the deviation of the credit-to-GDP ratio from its long-run trend.

BANKING SECTOR

Figure 4 Annual Credit-to-GDP Gap (%)

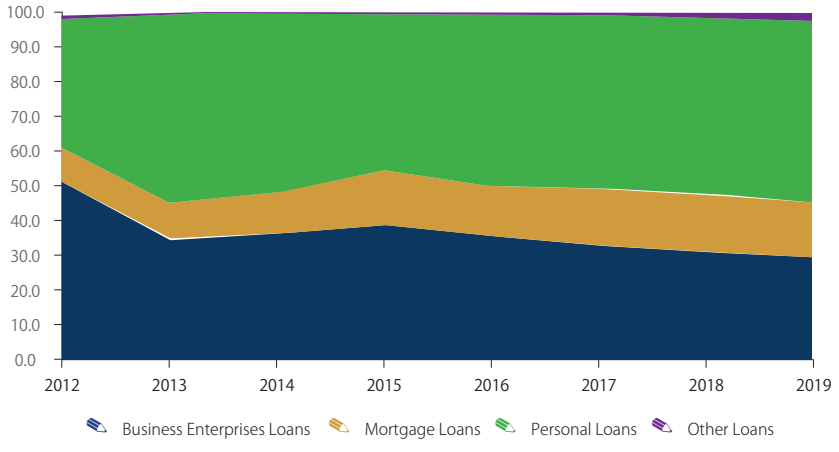


Source: Central Bank of Lesotho

Credit-to-GDP gap turned positive in 2019, showing a potential increase in vulnerabilities in the credit market.

Figure 5 shows the distribution of credit by economic sectors. Credit to households, consisting of personal and mortgage loans, constituted 68.5 percent of the banks' loan book during 2019. Out of the total loans extended to households, personal loans constituted 52.3 percent. This shows the extent to which the banking sector is exposed to the household sector. On an annual basis, personal loans grew by 13.1 percent to M3.9 billion while mortgage loans increased by 3.6 percent to M1.2 billion. Similarly, credit to business enterprises increased by 3.0 percent to M 2.2 billion.

Figure 5 Distribution of Loans by Sector to Total Loans (%)



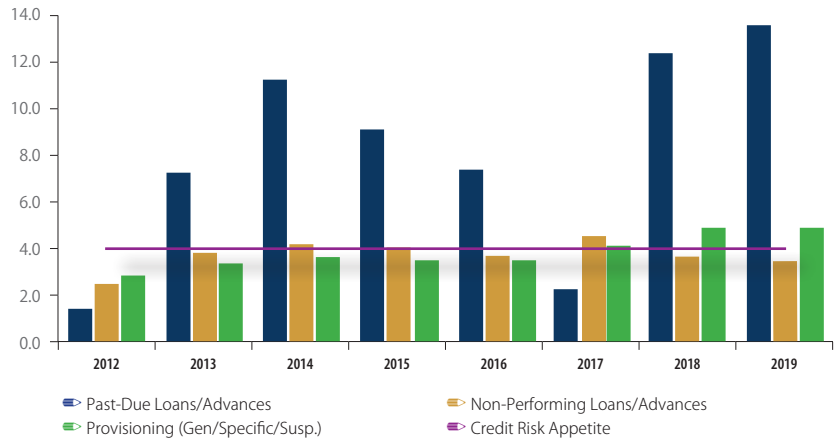
Source: Central Bank of Lesotho

Credit to households, consisting of personal and mortgage loans, constituted the largest share of the bank's loan book during 2019.

Credit risk moderated during the review period but the concentration in certain loan types and exposures to single or group of borrowers remains a concern. The ratio of NPLs to total loans decreased from 3.7 percent in December 2018 to 3.3 percent in December 2019. However, the increase in past-due

loans (Figure 6) remains a huge upside risk to the NPLs' outlook. Past-due loans increased by 12.7 percent to M955.8 million while total NPLs decreased by 2.4 percent to M244.5 million in 2019. Consequently, provisioning levels grew by 3.6 percent to M346.7 million in December 2019.

Figure 6 Non-Performing Loans & Provisions as a percent of Total Loans (%)

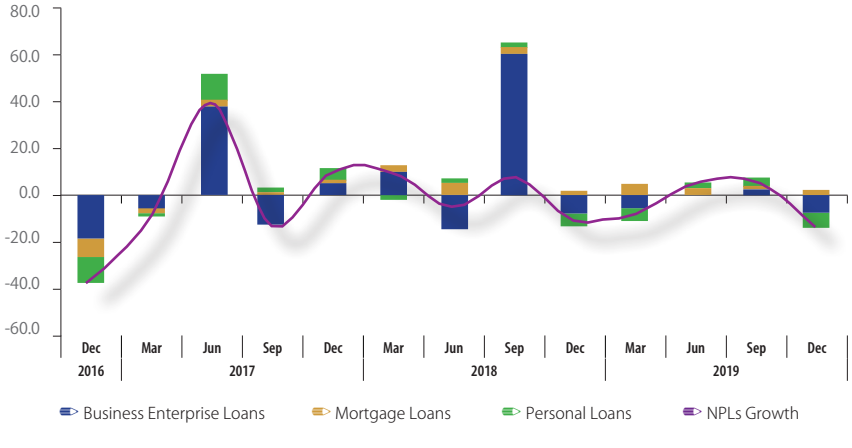


Source: Central Bank of Lesotho

Credit risk moderated during the review period but the concentration in certain loan types and exposures to single or group of borrowers remains a concern.

Sectoral analysis of NPLs revealed that the mortgage component of the banks' loan portfolio realised the highest growth in NPLs during the review period while personal loans' NPLs declined significantly as shown in Figure 7. The growth in NPLs in the mortgage loans is attributed to the arrears in payments from clients that were no longer working[6] and could not service their loans and low economic activity was the major contributing factor.

Figure 7 Growth in NPLs (%)



Source: Central Bank of Lesotho

Sectoral analysis of NPLs revealed that the mortgage component of the banks' loan portfolio realised the highest growth in NPLs during the review period.

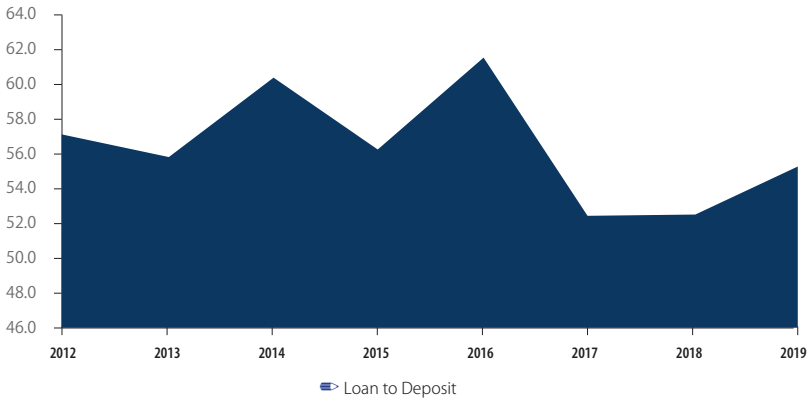
[6] No longer working as a result of resignations, retrenchments and employment contract expirations

4.2 Liquidity Developments and Funding Structure

Capital is arguably the most important safety buffer for banks since it provides the resources to recover from substantial losses of any nature and gives depositors dealing with a bank confidence in its safety. However, the proximate cause of bank failures is usually a liquidity problem that makes it impossible to survive a classic "bank run" or a modern equivalent, such as an inability to access the debt markets for new funding. It is entirely possible for a bank to be solvent - have the economic value of a bank's assets more than sufficient to cover all of its claims - and yet go bust because its assets are illiquid and its liabilities have short-term maturities.

The Loans to deposits ratio, shown in Figure 8, is an important indicator used to determine the financial institutions' short-term viability. A lending institution that accepts deposits must have a certain level of liquidity to maintain its normal daily operations. The ratio increased by 2.8 percentage points (pps) to 55.3 percent in 2019. This means that the banking industry lends out about 55 cents on every loti held as deposits and holds the rest for immediate liquidity needs.

Figure 8 Loan to Deposit Ratio (%)

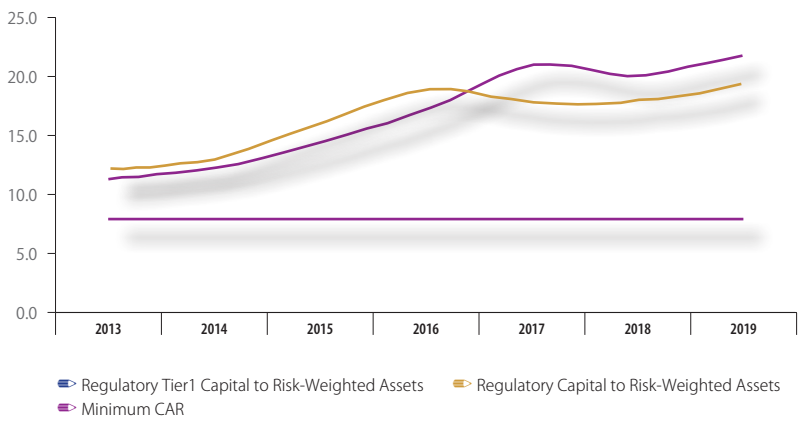


Source: Central Bank of Lesotho

During the review period, the banking industry lent out over half of every loti held as deposits and held the rest for immediate liquidity needs.

The ratio of liquid assets to short-term liabilities decreased from 52.9 percent in 2018 to 34.0 percent in 2019 (see Figure 9). Liquid assets (cash and cash items and transferable deposits) declined significantly in the review period. The decline was primarily driven by withdrawals of deposits by large corporations.

Figure 9 Capital Adequacy Ratios (%)



Source: Central Bank of Lesotho

Liquid assets (cash and cash items and transferable deposits) declined significantly in the review period.

The ratio of liquid assets to total assets assesses, on an on-going basis, the extent to which liquid assets can support the asset base. In the year ending in December 2019, the ratio decreased by 13.5 pps from 36.1 percent that was observed in 2018. This shows that banks invested over one-fifth of their funds in liquid assets. The ratio of customer deposit to total (non-interbank) loans is another measure of banks' liquidity quality. It compares the stable deposit base with gross loans excluding interbank activity[7]. For the year ending in December 2019, the ratio was 170.7 percent reflecting a decrease of 9.1 pps from the rate observed in 2018. The ratio declined due to stable growth in customer deposits relative to a significant increase in total gross loans during the review period.

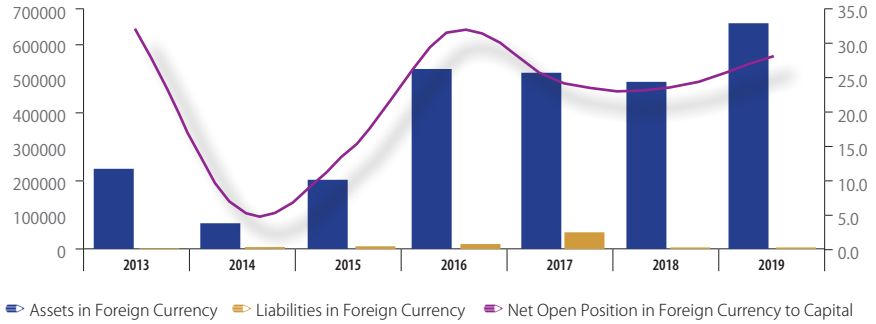
4.3 Market Risk

Market risk encompasses the risk of financial loss resulting from movements in market prices such as interest and exchange rates. In this report market risk is assessed based on one FSI, the net open position in foreign exchange to capital, due to the unavailability of required data to assess interest rates exposure. Banks with a short open position in a foreign currency get exposed to exchange rate risk in an instance where the foreign currency appreciates, while those with a long open position get exposed in a case where foreign currency depreciates.

During the review period, the banks' maintained a long position in foreign currency assets as a result of an increase in foreign currency denominated assets. Consequently, the ratio of a net open position in foreign exchange to capital increased from 23.6 percent in 2018 to 28.3 percent in 2019 as shown in Figure 10. This exposed banks a bit to revaluation risk in an instance where the loti appreciates against foreign currencies but would benefit the banks when the loti depreciates.

[7] IMF (2006) Financial Soundness Indicators, Compilation Guide

Figure 10 Sensitivity to Market Risk (%)



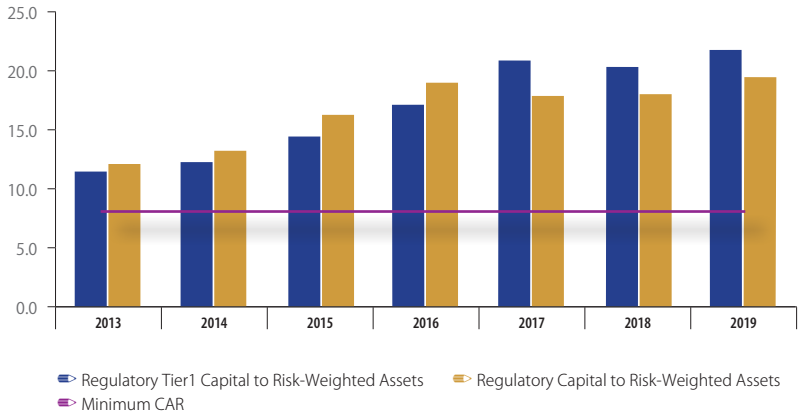
Source: Central Bank of Lesotho

During the review period, the banks' maintained a long position in foreign currency assets as a result of an increase in foreign currency denominated assets.

4.4 Capital Adequacy

Capital adequacy ratios (CAR) measure the bank's health and soundness in relation to the risk of insolvency. Minimum CAR serves to protect depositors and promote the stability and efficiency of the financial system[8]. The purpose of having a minimum CAR is to ensure that banks can absorb a reasonable amount of losses before becoming insolvent and before depositors' funds are lost. The higher the capital adequacy ratio a bank has, the greater the level of unexpected losses it can absorb.

Figure 11 Capital Adequacy Ratios (%)



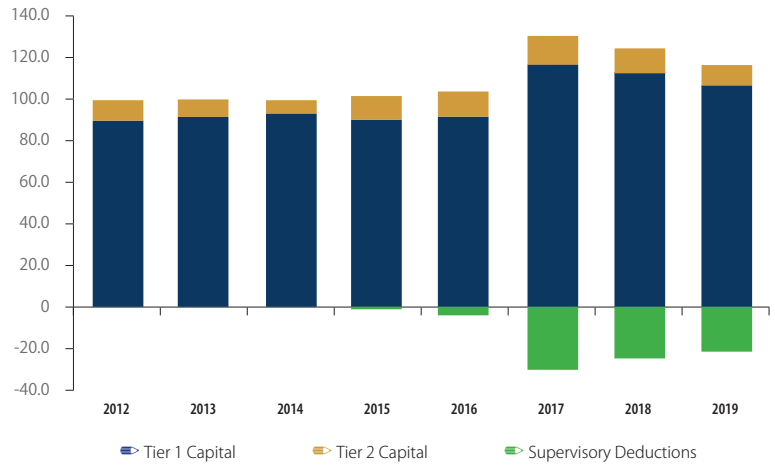
Source: Central Bank of Lesotho

The banking industry continued to maintain core capital buffers higher than the prudential minimum requirement, which is a positive sign in regard to the resilience of the sector.

[8] http://www.rbnz.govt.nz/finstab/banking/regulation/0091769.html

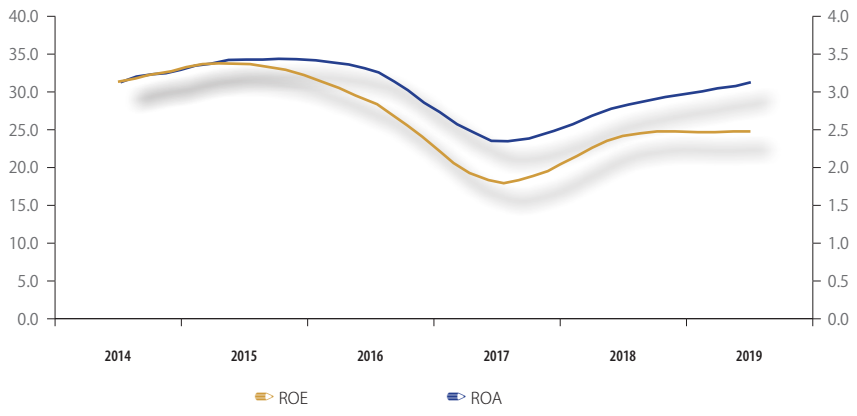
The banking sector in Lesotho maintained CAR above the minimum requirement during 2019 as shown in Figure 11. The ratio of total regulatory capital to risk-weighted assets stood at 19.4 percent, higher than 17.9 percent observed in the same period in the previous year. Similarly, the ratio of tier-1 capital to risk-weighted assets increased slightly from 20.2 percent in 2018 to 21.7 percent in 2019. The banking industry continued to maintain core capital buffers higher than the prudential minimum requirement, which is a positive sign in regard to the resilience of the sector. Figure 12 shows the breakdown of total regulatory capital as at December 2019.

Figure 12 Composition of Total Ragulatory Capital (%)



Source: Central Bank of Lesotho

Figure 13 Profitability Ratios (%)



Source: Central Bank of Lesotho, ROE (rhs)

4.5 Earnings and Profitability

Profitability ratios assess the ability of a company to generate earnings, profits and cash flows relative to the amount of money invested[9]. The industry remained profitable during the year 2019, and this indicates that banks efficiently utilised their resources (assets and capital) to generate income.

The ratio of net interest margin to gross income decreased marginally in 2019, recording 58.5 percent relative to 60.4 percent recorded in 2018. At this level, the ratio shows that over half of the banks' income came from their core business, which is intermediation. Similarly, the ratio of non-interest expense to gross income decreased from 60.7 percent in 2018 to 58.0 percent in 2019 as a result of a 2.7 pps decline in administration expenses relative to income during the review period. The ratio indicates that over half of the income generated during the year went into administrative expenses as opposed to expenses on income-earning assets ❑

[9] http://www.readyratios.com/reference/profitability/

5. OTHER FINANCIAL CORPORATION'S FINANCIAL PERFORMANCE

The overall financial performance of the OFCs remained robust despite the challenging economic environment. The insurance sector continued to be resilient and financially sound with minimal systemic threats. The insurance sector remained profitable and liquid although its contribution to the overall economy remains low relative to regional peers. In addition, the insurance industry is highly concentrated in both the long-term and short-term categories. The HHI for the long-term category for the period ending in December 2019 was 6118 and the short-term category was 4587 percent.

The total volume of business in terms of the gross premium written for the short-term insurance sector amounted to M87.4 million, a growth of 3.9 percent from December 2018. The asset base for the short-term insurance sector grew by 8.3 percent during the review period. The combined ratio for the period ending in December 2019 was 155.1 percent which was above the benchmark of 105 percent. This shows that the sector's operational efficiency deteriorated as a result of high expenses relative to earned premiums.

The long-term insurance sector gross written premiums increased by 17.4 percent to M413.9 million during the period under review. The sector registered a 12.6 percent annual increase in total underwriting revenue. The sector's balance sheet grew by 14.1 percent and reached M6.7 billion for the period ending in December 2019. The operational performance for the sector remained efficient as reflected by the combined ratio of 77.7 percent.

The overall performance of the collective investment schemes industry has shown a stable and sound financial position. As of December 2019, the combined asset portfolio under fund managers stood at M1.3 billion. The fund's consolidated operating profits and combined income totalled M94.5 million in December 2019.

The asset base of the MFI sub-sector as at September 2019 stood at M920.8 million. This was an 8.6 percent increase from September 2018. Moreover, non-current assets of the MFIs for the period ending in December 2019 stood at M796.5 million, an increase of 19.0 percent from September 2018, while non-current liabilities were M144.2 million as at September 2019. The sector realised profits of M53.7 million for the period ending in September 2019. The industry had a return on assets of 6.3 percent for the period ending in September 2019 while return on equity was 19.3 percent for the same period ❑

6. FINANCIAL MARKETS INFRASTRUCTURE

Financial market infrastructures (FMIs) – such as payment systems, settlement systems, central counterparties, central securities depositories, and trade repositories – deliver services that are vital to the smooth functioning of the financial system. The services provided by FMIs enable payments for goods and services to be made, allow securities to be held and sold, and facilitate risk management.

The CBL is also mandated to provide efficient, reliable and safe payment and settlement systems. In line with this mandate, the Payment Systems Act 2014, Section 2(a) empowers the CBL to oversee, inspect and monitor the national payment systems in Lesotho. This mandate is not only achieved by ensuring that the payment system in Lesotho complies with the domestic legal and regulatory framework but also with other international standards and best practices in the payment system sphere[10].

6.1 Systemically Important Payment Systems

The systemically important systems (SIPS) in Lesotho include Lesotho Wire (LSW) and Centralised securities depository (CSD) operated by the CBL, Lesotho Automated Clearing House (LACH) operated by Payments Association of Lesotho (PAL). The failure of these systems could pose significant negative repercussions for financial stability, monetary policy implementation, and financial inclusion, among others. Safe and efficient systems are fundamental to money being an effective means of payment system and to the smooth functioning of financial markets. A well designed and managed system helps to maintain financial stability by preventing or containing financial crises and help to reduce the cost and uncertainty of settlements, which could otherwise act as an impediment to economic activity[11].

Lesotho Wire (Real Time Gross Settlements (RGTS)) is the most critical payment system because it processes and settles large values and time-critical payments between system participants and also has linkages with other payment systems such as LACH and CSD. Therefore, its failure could have a systemic impact; with negative repercussions for financial stability within the country. Moreover, this system must meet high safety[12] and efficiency standards to manage and/or mitigate all risks arising from its operations.

There are many ways through which risks may manifest in large-value payment systems such as Lesotho Wire (LSW). These include (a) system unavailability (downtimes), (b) the degree of utilization and (c) inability of system participants to settle their obligations. Therefore, close monitoring of these key aspects in LSW is crucial as they represent the main operational and financial risks that could adversely affect LSW and potentially culminate in a systemic crisis. The fourth quarter of 2019 system utilisation data indicate that the LSW transaction volumes had increased by 26.4 percent while the value of transactions processed increased by 54.4 percent in comparison to the fourth quarter of 2018. This means that the transaction density was higher in 2019 compared to 2018, by averages of M2.2 million and M1.8million per transaction, respectively.

As a large-value payment system, LSW must be available to all the participants at all times during the business day to process and settle interbank transactions. Any system availability rate below 98 percent is not acceptable as it has the potential to undermine the smooth functioning of the financial sector in the economy. In 2019, the system remained available to participants for about 99.3 percent of the time, one percent higher than the tolerable system availability and relatively the same as the previous year. The system downtime incidents were on account of intermittent disruptions on the internet and/or server connection. However, such disruptions were resolved within a reasonable time. Therefore, overall a substantial number of large

[10] These include the CPSS-IOSCO Principles for Financial Market Infrastructures (PFMI's) and the CPSS-BIS Central Bank Oversight of Payment and Settlement Systems.

[11] CBL Payment System Oversight Policy Framework.

[12] Among other safety threats, which continue to escalate globally, is cyber-crime. Therefore, there is a need to continue to improve security measures and to launch cyber-crime awareness campaign to help people protect themselves this type of crime. In addition, cyber security law is of paramount importance to protect the financial system.

value and time-critical payments were able to be processed and settled despite the experienced disruptions.

6.2 Mobile Money

The rapid proliferation of mobile money services can be considered a triumph of financial inclusion, with money in circulation in 2019 now at M230.2 million. This aggregated trust account balance shows the amount of money held in trust account balances for each loti of mobile money in circulation as a prudential measure. It also acts as a proxy for the size of the market observed over time, which currently grows by 30.1 percent annually in 2019, up by 6.6 pps from 2018. An important feature of the mobile money market that is important to note is that growth rates have fallen significantly since mobile money services were introduced in the markets in the early years of the last decade, where annual growth rates above 1000 percent were not uncommon. This indicates that the market may be entering its maturity phase and much lower growth rates can be expected in the future.

Box 2 - International Financial Reporting Standard (IFRS 9) and Financial Stability

Background

The Central Bank of Lesotho (CBL) through the Banking Supervision and Financial Stability Department has overseen the successful implementation of international Financial Reporting Standards 9 (IFRS 9) which came into effect from January 2018. This new standard has been implemented in line with Section 38 of the Financial Institutions Act 2012 (FIA 2012) which requires financial institutions to prepare their financial statements in accordance with internationally accepted accounting practices..

IFRS 9 has been developed primarily to overcome shortcomings inherent in IAS 39. IAS 39 has been found to be too complex, inconsistent with the way entities manage their business and risks, and defers the recognition of the credit losses on loans and receivables until it is too late on the credit cycle. The postponement of recognition of potential losses in financial statements could hide real future problems for banks. The new standard is based on the concept that financial assets should be classified and measured at fair value, with changes in their value recognized in profit and loss as they arise (FVPL) unless restrictive criteria are met for classifying and measuring the assets as either amortized cost or fair value through other comprehensive income (FVOCI).

IFRS 9 is considered to be simpler than IAS 39 but this comes at a cost of an added threat of volatility in profit and loss. IFRS 9 uses FVPL instead of FVOCI as the default measurement for non-trading assets. This, however can have major consequences for entities holding instruments other than loans or receivables, whose business models for realizing financial assets include selling them, or which have portfolio investments in equity instruments. Another contributing factor to volatility is the treatment of derivatives embedded in financial assets. Under IAS 39, embedded derivatives not closely related to a non-trading host contract must be measured at FVPL, but the host contract often still can be measured at amortized cost. Under IFRS 9, the entire contract will have to be measured at FVPL.

Other changes brought about by IFRS 9

Classification and measurement

IFRS 9 makes the following changes to the IAS 39 requirements for classifying and measuring financial assets and liabilities. These include:

- Allowing trade receivables that do not have a significant financial component to be measured at undiscounted invoice price rather than fair value
- Eliminating the exemption allowing for measurement of investments in certain non-traded investments in equity instruments and derivatives settled by the delivery of those instruments at cost rather than fair value
- Restricting optional FVPL and FVOCI designation
- Permitting other comprehensive income treatment of changes in the fair value attributable to the issuer's credit risk for liabilities designated as FVPL
- Setting new criteria for reclassifying of financial assets and liabilities

Box 2 - International Financial Reporting Standard (IFRS 9) and Financial Stability (continued)

Impairment for financial assets

Accounting for impairments is the second major area of fundamental change. These changes include:

- The standard eliminates impairment assessment requirements for investments in equity instruments because as indicated above, they now can be measured at FVPL or FVOCI without recycling of fair value changes to profit and loss
- IFRS 9 establishes a new approach for loans and receivables, including trade receivables - an "expected loss" model that focuses on the risk that a loan will default rather than whether a loss has been incurred.

Expected credit loss

Under the "expected credit loss" model, a bank calculates the allowance for credit losses by considering on a discounted basis the cash shortfalls it would incur in various default scenarios for prescribed future periods and multiplying the shortfalls by the probability-weighted outcomes. The allowance is the sum of these probability-weighted outcomes. Because every loan and receivable carries with it some risk of default, every such asset has an expected loss attached to it—from the moment of its origination or acquisition.
The standard establishes not one, but three separate approaches for measuring and recognising expected credit loss. These include:

- A general approach that applies to all loans and receivables not eligible for the other approaches
- A simplified approach that is required for certain trade receivables and so-called "IFRS 15 contract assets" and otherwise optional for these assets and lease receivables.
- A "credit adjusted approach" that applies to loans that are credit impaired at initial recognition (e.g., loans acquired at a deep discount due to their credit risk).

The Impact of IFRS 9 on financial stability

The implementation of the new reporting standard IFRS 9 is a key priority for the banking industry stability. The standard incorporates a more forward-looking method to account for losses, in addressing the "too little, too late" criticism that described bank provisioning ahead of the 2008 financial crisis. The standard's primary objective is to improve the quality of information about credit risk updated on a timely basis, information that should also support financial stability. These changes will also have an impact on regulatory capital requirements.

The expected loss model of IFRS 9 incorporates a significant large set of information relevant for identifying future expected credit losses. As a result, it better reflects the credit quality of financial assets and therefore, strengthens the accounting recognition of loan losses by incorporating a broader range of credit information. Also, IFRS 9 addresses some supervisory concerns, because it will require larger loan loss allowances, which will reduce the build-up of loss overhangs and over-statement of regulatory capital in the boom period. Furthermore, earlier and larger loan loss allowances limit the possibility of distributing overstated profits in the form of dividends and bonuses. Through these channels, IFRS 9 can mitigate the amplifying effect of the incurred loss approach on procyclical and reduce capital inadequacy concerns during a crisis. Also, the earlier reporting of expected credit loss (ECL) and extended disclosures requirement will improve transparency and contribute to more effective market discipline. Reduced capital inadequacy concerns combined with improved market discipline are likely to enhance financial stability.

However, the IFRS 9 model also has some drawbacks. The standard depends on modelling, which is one aspect that makes it difficult to be understood and therefore, creating problems for individual banks and wider financial stability. The initial recognition of twelve months expected credit losses is somewhat arbitrary and lacks conceptual justification. The stepwise recognition of loan losses often leads to over or understatement of loan loss allowances. The magnitude of these depends on how banks apply the IFRS 9 requirements, how timely they incorporate relevant information and update loan loss allowances. If banks are not able or not willing to identify 'significant increases' in credit risk on a timely basis, this may result in an abrupt and significant increases in loan loss allowances, creating the same problems as IAS 39. Furthermore, increased credit provisioning requirements may negatively affect bank's profitability through Return on Assets as more capital will be required to support the lending book.

7. FINANCIAL SYSTEM RESILIENCE

The Central Bank Act of 2000 gives the CBL the mandate and powers to promote and safeguard the stability and soundness of the financial system in Lesotho. The Bank uses stress-testing[13], among other tools, to achieve its objective of promoting the resilience of the domestic financial system and mitigating vulnerabilities arising from financial and economic shocks. In 2019, the CBL ran stress-tests to determine the resilience of the banking system in Lesotho to adverse and plausible credit, interest-rate and liquidity shocks[14]. The tests covered all four commercial banks. The results covered in this report highlight June and December 2019 stress-test results and their implications to the banking industry and Lesotho's economy as a whole. The stress-tests results demonstrate that the banking sector is highly resilient and could withstand shocks of the nature assumed in the stress test.

7.1 Stress-test Key Assumptions and Shocks

7.1.1 Credit Risk Shocks

Credit risk is defined as the potential that a bank borrower, or counterparty, will fail to meet its payment obligations as stipulated in the contractual terms agreed with the bank. The level of non-performing loans (NPLs) is normally used as an indicator of credit risk inherent in a bank's loan portfolio. A non-performing loan is the sum of borrowed money for which the debtor has not made his or her scheduled payments for at least 90 days[15]. Banks normally set aside funds to cover for potential losses on loans in the form of loan-loss provisions. Consequently, since loan-loss provisions are an expense to a bank, they erode the capital levels of the institution by reducing retained earnings as well as reduce the value of the risk-weighted assets (RWA). The credit risk shock transmission channel is summarised in Figure 14.

The level of non-performing loans (NPLs) is normally used as an indicator of credit risk inherent in a bank's loan portfolio.

Figure 14 Credit Risk Shock Transmission

Source: Central Bank of Lesotho

7.1.2 Liquidity Risk

Liquidity risk is the risk that a bank will not be able to meet its current and future cash-flow and collateral needs, both expected and unexpected, without materially affecting its daily operations or overall financial condition. Liquidity stress-tests are used to assess banks' resilience against maturity mismatches between short-term assets and liabilities or in a case where banks experience unexpected adverse events such as a bank run. CBL runs stress-tests that entail the latter. The bank-run type of shock can be transmitted within the banking sector as indicated in Figure 15.

[13] The Bank uses a simple sensitivity test model which is static and does not perform any form of forecasting. A static model assesses the impact of a particular shock or a group of shocks at a certain point in time. The stress-testing approach applied is a top-down one. This implies that CBL collected necessary data and conducted stress-testing based on the information received.

[14] Shocks are defined as exceptional but plausible idiosyncratic and/or system-wide adverse economic events. They are classified in different levels of severity ranging from low to severe, and are used to stress various risk-factors to determine their resilience. The calibration of shocks is made on the basis of both historical and hypothetical approaches. The historical approach uses past-crises information to formulate shocks and scenarios while the hypothetical approach is used in the absence of such information.

[15] Financial Institutions (Loan portfolio classification) Regulations 2016.

Figure 15 **Liquidity Risk Shock Transmission**

Source: Central Bank of Lesotho

Liquidity risk is the risk that a bank will not be able to meet its obligations without materially affecting its daily operations or overall financial condition.

7.1.3 Interest Rate Risk Shocks

Interest rate risk is a risk to income or capital of a bank brought about by upward or downward movements in market interest rates. Changes in market interest rates can increase funding costs (interest expenses) for the banks or reduce interest income from investments. This risk is measured by the difference or mismatch in maturity (fixed rate) and repricing periods (floating rate) for assets versus liabilities and off-balance sheet items. A bank with a positive repricing gap experiences an increase in net interest income (NII) when assets reprice faster than liabilities while a bank with a negative repricing gap experiences a decline in NII when interest rates increase. The test ran by CBL assumed shocks in the form of an equal change in all rates (parallel yield curve shift). The shocks are calibrated using historical changes in policy rates. Figure 16 shows the transmission of interest rate shocks.

7.1.4 Foreign Exchange Rate Risk

Foreign exchange risk is the risk that a bank's balance sheet may fluctuate because of changes in the value of a local currency relative to the currency with which the bank's assets are denominated in as shown in Figure 17. For instance, if a bank has foreign-currency (FX) denominated assets and liabilities, its balance sheet will be prone to fluctuations in currency markets. The larger an exposure the bank has to FX-denominated assets and liabilities, the more sensitive its balance sheet will be to swings in currency markets. Foreign exchange stress-test scenarios assumed shocks of 20, 25 and 30 percent depreciation of local currency for low, moderate and severe scenarios, respectively.

Figure 16 **Interest Rate Risk Shock Transmission Channel**

Source: Central Bank of Lesotho

Interest rate risk is a risk to income or capital of a bank brought about by upward or downward movements in market interest rates.

Figure 17 **Foreign Exchange Risk Shock Transmission Channel**

Source: Central Bank of Lesotho

Foreign exchange risk is the risk that a bank's balance sheet may fluctuate because of changes in the value of a local currency relative to the currency with which the bank's assets are denominated

7.2 Stress-test Results

7.2.1 Credit Risk

Credit risk stress-test results revealed that all banks would have been sufficiently capitalised to absorb losses as a result of the assumed sector-wide increase in NPLs in both the June and December 2019 tests. As illustrated in Table 3, for Group I shocks, all the four banks' CAR would have remained well above the eight percent minimum requirement and stay solvent. Therefore, based on the assumptions made and the types of shocks used, the credit risk related to an increase in NPLs can be regarded as moderate because all banks would have had adequate capital to absorb losses induced by high NPLs.

Concentration risk in banks' loan books was stress-tested to assess the resilience of banks to their large exposures. In the scenario involving Group II shocks, in both the moderate (shock II) and the extreme (shock III) scenarios, where the top-three and top-five borrowers default, respectively, up to three banks failed the tests conducted in June and December 2019. This shows that their capital would not have been sufficient to absorb the losses incurred as a result of the assumed shocks and would have fallen below the eight percent CAR threshold. Moreover, they would have needed to be recapitalised to meet the regulatory unimpaired capital requirements.

Concentration risk associated with large exposure can be regarded as high since some banks would not have had adequate capital to cover the losses in a situation where their top-three and top-five borrowers default. However, this could be mitigated by ensuring that collateral pledged is adequate and of good quality to cover the losses.

Table 3 Credit Risk Stress Test Results

Risks	Number of banks below 8.0% CAR	Assets share of banks< 8.0% CAR	Number of Insolvent Banks	Capital Deficiency Relative to CAR	Capital Deficiency Relative to Minimum Capital
June 2019					
Group I: System level credit risk					
Shock I: NPLs increase by 60%	0	0	0	0	0
Shock II: NPLs increase by 120%	0	0	0	0	0
Shock III: NPLs increase by 180%	0	0	0	0	0
Group II: Concentration Risk					
Shock I: Largest 1 Borrower Defaults	2	15.9	0	11 161	0
Shock II: Top 3 Borrowers Default	3	68.0	0	172 456	17 451
Shock III: Top 5 Borrowers Default	3	92.1	1	351 103	58 330
December 2019					
Group I: System level credit risk					
Shock I: NPLs increase by 60%	0	0	0	0	0
Shock II: NPLs increase by 120%	0	0	0	0	0
Shock III: NPLs increase by 180%	0	0	0	0	0
Group II: Concentration Risk					
Shock I: Largest 1 Borrower Defaults	0	0	0	0	0
Shock II: Top 3 Borrowers Default	2	66.4	0	133 521	0
Shock III: Top 5 Borrowers Default	3	91.7	0	329 304	5 076

***Source**: Central Bank of Lesotho*

Table 4 shows the test results regarding the banking industry exposure to two economic sectors, namely the household and business enterprises sectors. First, mortgage and personal loan portfolios are stressed by assuming a 30 percent and 45 percent increase in NPLs, respectively. A shock of this magnitude would have had a minimal impact on the mortgage loan portfolio and all banks would have remained with post-shock CAR above the minimum requirement and therefore would have needed no recapitalisation in both June and December 2019. For the personal loans portfolio, three banks failed the test in June 2019, while two banks failed the test in December. Moreover, recapitalisation of M277.2 million and M417.3 million relative to CAR would have been needed for both periods, respectively. Second, business lines which constitute over half of the loans to the business sector were stress-tested. These are manufacturing, construction, and mining & quarrying. Two banks failed the test regarding exposure to the construction sector in June 2019 test while three banks failed the test in December 2019. One bank failed the test involving an increase in the manufacturing sector NPLs in June 2019 but all banks passed the test in December 2019. For mining & quarrying, the shock would have had a minimal impact and all the banks would have remained with CARs well above eight percent threshold.

Table 4 Sectoral Credit Risk Stress-Test Results

Risks	Number of banks below 8.0% CAR	Assets share of banks< 8.0% CAR	Number of Insolvent Banks	Capital Deficiency Relative to CAR[4]	Capital Deficiency Relative to Minimum Capital
June 2019					
Group III: Sectoral level credit risk (20 percent increase in NPLs)					
Household Sector					
Mortgages	0	0	0	0	0
Personal loans	3	75.8	0	277 160	0
Business Sector					
Manufacturing	1	0	0	52 379	11 581
Construction	2	0	0	302 047	50 327
Mining & quarrying	0	0	0	0	0
December 2019					
Group III: Sectoral level credit risk (20 percent increase in NPLs)					
Household Sector					
Mortgages	0	0	0	0	0
Personal loans	2	59.4	0	417 289	0
Business Sector					
Manufacturing	0	0	0	0	0
Construction	3	91.7	3	890 872	164 226
Mining & quarrying	0	0	0	23 133	0

***Source**: Central Bank of Lesotho*

7.2.2 Liquidity Risk

The results for the bank-run Scenario I show that in both June and December 2019 stress tests, all banks would have remained liquid after five days of continuous withdrawals of deposits. This shows that the amount and quality of liquidity the banks held would have been enough to absorb a shock of the nature assumed in this test. However, in Scenario II, all banks would have sustained the bank-run for three days. On the fourth and fifth days, some banks would have become illiquid. Therefore, liquidity risk could also be regarded as moderate since banks would have sustained a bank-run type of event for a period of five days under the scenario I, allowing the banks and CBL a window of three days to one week to work on a solution that would restore confidence in the industry.

Moreover, the large depositors' bank run stress-test results revealed that if the largest depositor of each bank had withdrawn their deposits, two banks would have failed to meet the minimum liquid asset requirement of 25 percent[16] in June 2019 while all banks would have remained liquid in December 2019. Furthermore, the results show that if the top-three depositors were to withdraw their funds, three banks would have failed to meet the same requirement in June 2019. As the results show, liquidity position appears to have improved in December 2019, as only one bank would have failed to meet the minimum liquid assets requirement. In the extreme case scenario, where the top-five depositors-run was assumed, all banks failed the test in June 2019 while only one bank failed in December 2019. On the positive side, the results showed a high level of resilience since none of the banks would have ended up with exhausted liquidity even in the severe scenario involving the top-five depositors' run ❑

Table 5 Daily Withdrawals

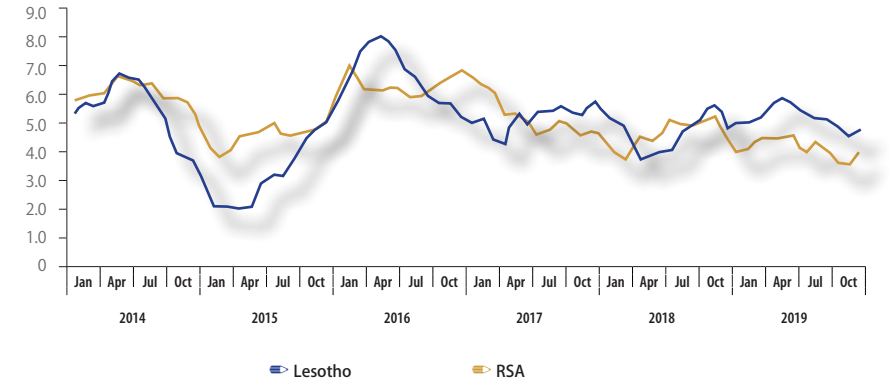
	June 2019				December 2019			
	Scenario I		Scenario II		Scenario I		Scenario II	
	Daily Withdrawals (%)	# of illiquid Banks (out of 4)	Daily Withdrawals (%)	# of illiquid Banks (out of 4)	Daily Withdrawals (%)	# of illiquid Banks (out of 4)	Daily Withdrawals (%)	# of illiquid Banks (out of 4)
1st day	5	0	5	0	5	0	5	0
2nd day	5	0	10	0	5	0	10	0
3rd day	5	0	15	0	5	0	15	0
4th day	10	0	20	2	10	0	20	2
5th day	10	0	25	3	10	0	25	3

Source: Central Bank of Lesotho

[16] Minimum liquid assets requirements (prudential hurdle rate) as per Financial Institutions (Liquidity Requirements) Regulations 2000.

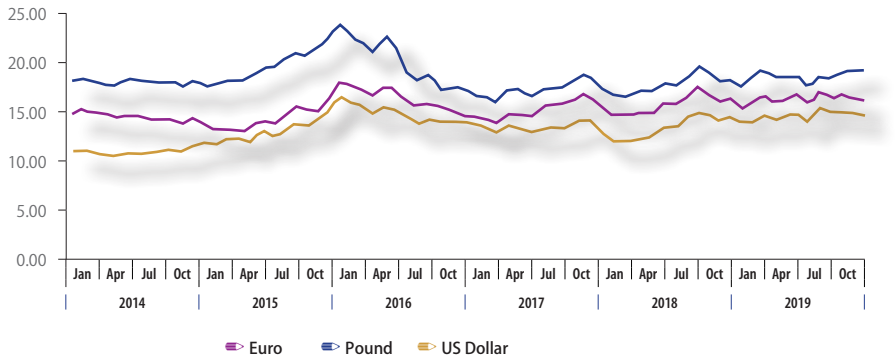
APPENDICES

Appendix 1A Lesotho and RSA Inflation (%)



Source: Central Bank of Lesotho

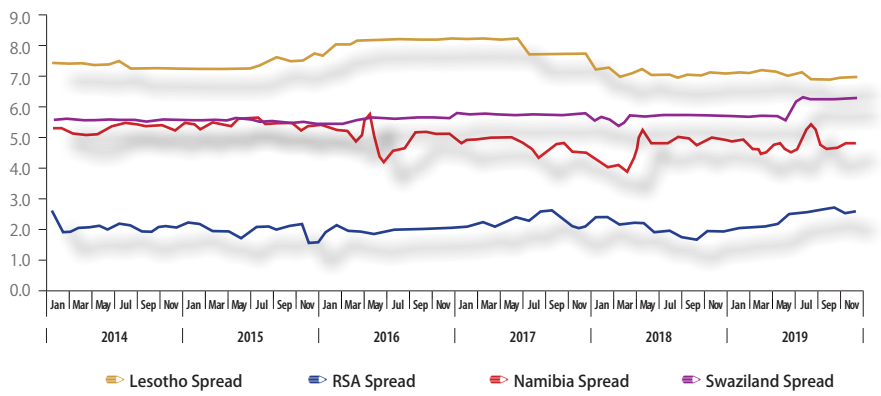
Appendix 1B Loti Exchange Rate to the Euro, Pound & US Dollar



Source: Central Bank of Lesotho

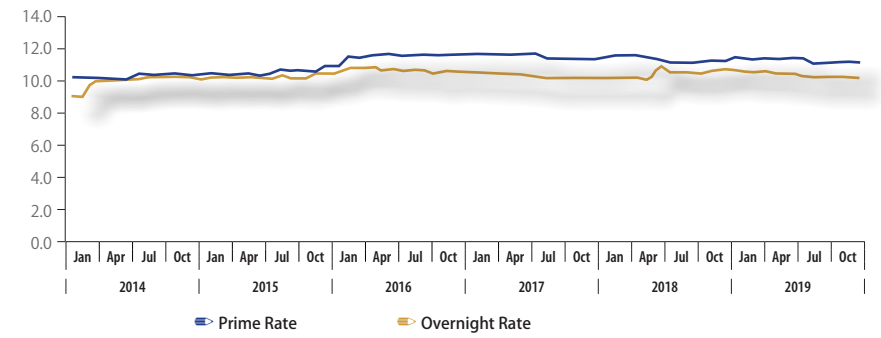
APPENDICES

Appendix 1C Intermediation Spread (%)



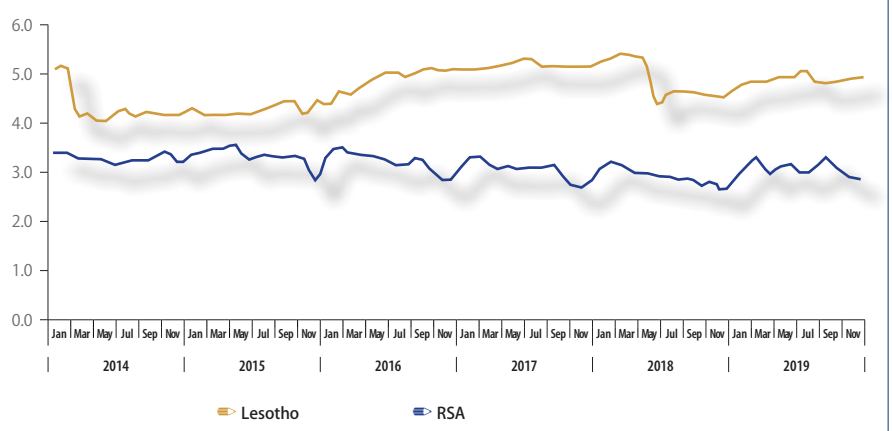
Source: Central Bank of Lesotho

Appendix 1D Money Market Spread (%)



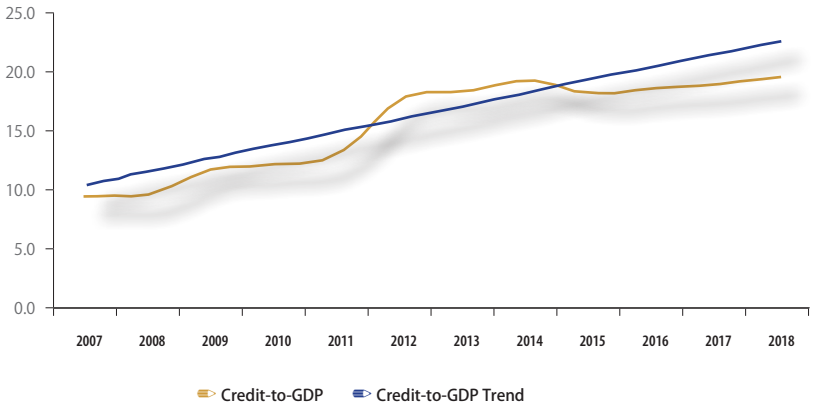
Source: Central Bank of Lesotho

Appendix 1E Lesotho and RSA Risk Premium (%)



Source: Central Bank of Lesotho

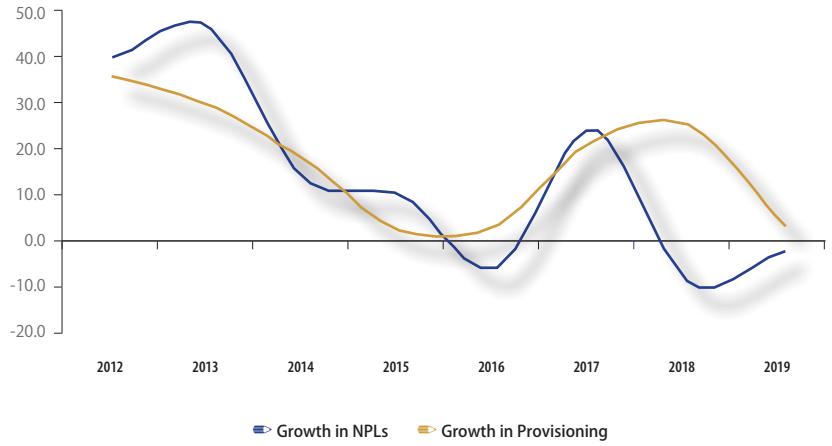
Appendix 1F Credit-to-GDP Ratio and its Trend (%)



Source: Central Bank of Lesotho

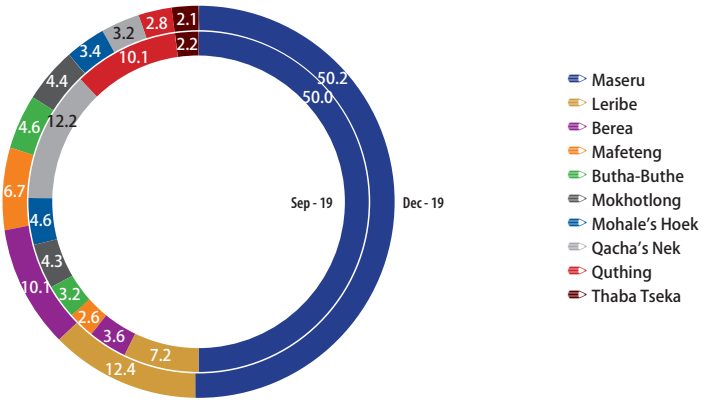
APPENDICES

Appendix 1G Growth in NPLs and Provisions (%)



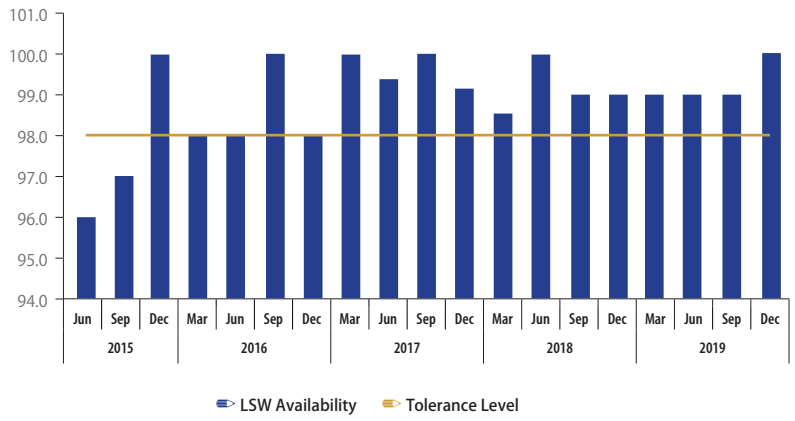
Source: Central Bank of Lesotho

Appendix 1H Mobile Money Agents (% per district)



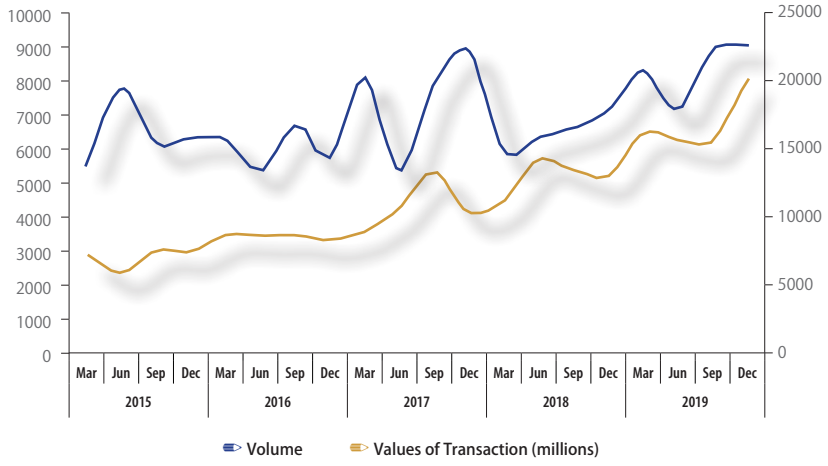
Source: Central Bank of Lesotho

Appendix 1I LSW Availability (%)



Source: Central Bank of Lesotho

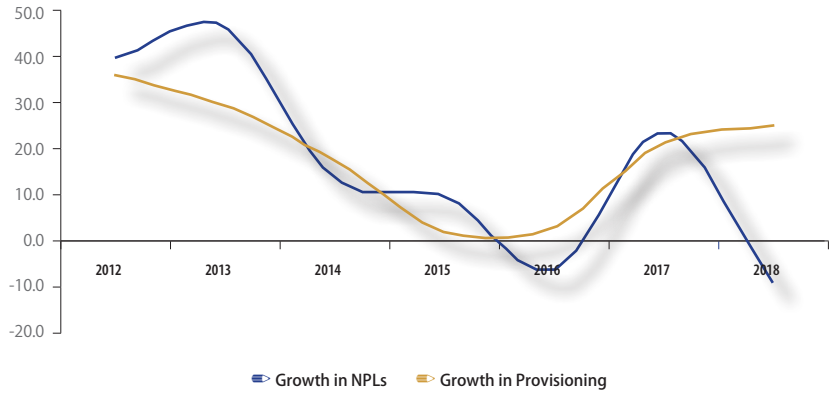
Appendix 1J LSW Transactions and Values



Source: Central Bank of Lesotho

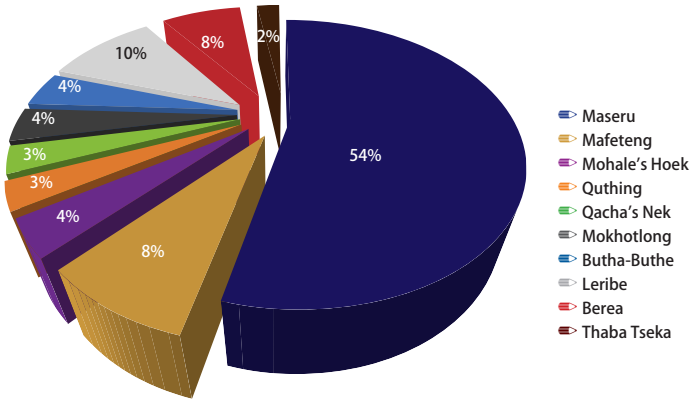
APPENDICES

Graph G Growth in NPLs and Provisions (%)



Source: Central Bank of Lesotho

Graph H Mobile Money Agents (% per district)



Source: Central Bank of Lesotho

Appendix II	Assumptions and Shocks		
Index	Description	Shock	Description
1. General Credit Risk			
Shock 1.1	Uniform NPL increase	60%	Indicates increase in NPLs of 60 percent across the credit spectrum
Shock 1.2	Uniform NPL increase	120%	Indicates increase in NPLs of 120 percent across the credit spectrum
Shock 1.3	Uniform NPL increase	180%	Indicates increase in NPLs of 180 percent across the credit spectrum
2. Sectoral Credit Risk			
Shock 2.1	Mortgages	20%	Indicates percentage increase in NPLs across the Mortgages sector
Shock 2.2	Resident household (personal loans)	20%	Indicates percentage increase in NPLs across the Resident household (personal loans) sector
Shock 2.3	Non-bank (Non-depository) financial institutions	20%	Indicates percentage increase in NPLs across the Non-bank (Non-depository) financial institutions sector
3. Credit risk Exposure by Lines of Business			
Shock 2.4	Manufacturing	20%	Indicates percentage increase in NPLs across the Manufacturing sector
Shock 2.5	Construction	20%	Indicates percentage increase in NPLs across the construction sector
Shock 2.6	Mining and Quarrying	20%	Indicates percentage increase in NPLs across the Mining and Quarrying sector
Shock 2.7	Community, Social and Personal services	20%	Indicates percentage increase in NPLs across the Community, Social and Personal services sector
Shock 2.8	Real Estate and Business Services	20%	Indicates percentage increase in NPLs across the Real Estate and Business Services sector
4. Concentration Risk			
Shock 3.1	Largest Borrower Defaults	1	Indicates a default of the largest borrower
Shock 3.2	Top Three Borrowers Default	3	Indicates a default of the largest three borrowers
Shock 3.3	Top Five Borrowers Default	5	Indicates a default of the largest five borrowers
Detail 1	Assumed provisioning rate	20%	To calculate provisioning expense for large borrower default
5. Reverse Stress Testing			
Shock 4.1	Reverse Testing - Deterioration of performing loans	7.9%	Deterioration of performing loans which causes capital to go below 8 percent
6. Interest Rate Risk			
Shock 5.1	Interest shock	150 bps	Indicates increase in market-wide interest rates of 150 basis points
Shock 5.2	Interest shock	200 bps	Indicates increase in market-wide interest rates of 200 basis points
Shock 5.3	Interest shock	250 bps	Indicates increase in market-wide interest rates of 250 basis points
Shock 5.4	Interest shock	-150 bps	Indicates decrease in market-wide interest rates of -150 basis points
Shock 5.5	Interest shock	-200 bps	Indicates decrease in market-wide interest rates of -200 basis points
Shock 5.6	Interest shock	-250 bps	Indicates decrease in market-wide interest rates of -250 basis points
7. Foreign-Exchange Risk			
Shock 6.1	Depreciation of LSL	20%	Indicates a depreciation of the LSL of 20 percent
Shock 6.2	Depreciation of LSL	25%	Indicates a depreciation of the LSL of 25 percent
Shock 6.3	Depreciation of LSL	30%	Indicates a depreciation of the LSL of 30 percent
Shock 7.1	Standard FX Loans Default	20%	Indicates percentage increase in NPS of 20 percent due to FX changes
Detail 1	Assumed provision rate	50%	Indicates percentage increase in NPS of 50 percent due to FX changes

***Source**: Central Bank of Lesotho*

APPENDICES

Appendix II	Assumptions and Shocks (continued)		
Index	Description	Shock	Description
8. Multi-Factor Risk Scenarios			
Shock 8.1	Aggregate NPLs Increase	60%	Indicates simultaneous increase in NPLs of 60 percent, a depreciation of the LSL by 20 percent, and an increase in market-wide interest rates of 150 basis points
	Depreciation of LSL	20%	
	Interest rate shock	150 bps	
Shock 8.2	Aggregate NPLs Increase	120%	Indicates simultaneous increase in NPLs of 120 percent, a depreciation of the LSL by 25 percent, and an increase in market-wide interest rates of 200 basis points
	Depreciation of LSL	25%	
	Interest rate shock	200 bps	
Shock 8.3	Aggregate NPLs Increase	180%	Indicates simultaneous increase in NPLs of 180 percent, a depreciation of the LSL by 30 percent, and an increase in market-wide interest rates of 250 basis points
	Depreciation of LSL	30%	
	Interest rate shock	250 bps	
9. General Liquidity Risk			
Shock 9.1	Withdrawal of deposits: 1st day by	5%	An outflow of deposits is assumed. Liquidity is generated through fire sale of assets. Haircuts are assumed for all assets. Liquid assets generate the most liquidity, while non-liquid assets are assumed to generate not more than 1 percent liquidity after fire sale. It is also assumed that after 5 days, there is a cooling off period to allow banks and the central bank to restore confidence.
	Withdrawal of deposits: 2nd day by	10%	
	Withdrawal of deposits: 3rd day by	15%	
	Withdrawal of deposits: 4th day by	20%	
	Withdrawal of deposits: 5th day by	25%	
Detail 1	Fire sale volume assumption: liquid assets	80%	The assumption is that 80 percent liquidity can be generated through a fire sale
Detail 2	Fire sale pricing haircut: liquid assets	75%	The assumption is that 75 percent liquidity can be generated through a fire sale
Detail 3	Fire sale volume assumption: non-liquid assets	1%	The assumption is that 1 percent liquidity can be generated through a fire sale
Detail 4	Fire sale pricing haircut: non-liquid assets	100%	
10. Liquidity Concentration Risk – large-depositor bank run			
Shock 9.2	Withdrawal of deposits by large depositor	1	This affects liquidity ratios. Withdrawals are deducted from liquid assets, short term assets and total assets before the new ratio is calculated
	Withdrawal of deposits by large depositors	3	
	Withdrawal of deposits by large depositors	5	
Detail 5	Assumed liquidity ratio hurdle rate	25%	The minimum liquidity ratio rate

***Source**: Central Bank of Lesotho*

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