



## 2017 FINANCIAL STABILITY REPORT

**CENTRAL BANK OF LESOTHO**  
**BANKA E KHOLO EA LESOTHO**





# CENTRAL BANK OF LESOTHO

## FINANCIAL STABILITY REPORT

December 2017 | Issue No.2

The *Financial Stability Report* is available on the Central Bank of Lesotho website at [www.centralbank.org.ls](http://www.centralbank.org.ls).

For further information, contact:

**Public Relations Office**

Corporate Affairs Department

Central Bank of Lesotho

P.O. Box 1184

Corner Airport & Moshoeshoe Road

Maseru 100, Lesotho

Telephone: +266 2231 4281 / 2223 2000 • Facsimile: +266 2231 0051 / 2223 10557 / 2232 2767

Email: [info@centralbank.org.ls](mailto:info@centralbank.org.ls)

Website: [www.centralbank.org.ls](http://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



The Financial Stability Report is a tool used by the Central Bank of Lesotho (CBL) for the purpose of financial stability surveillance. It identifies risks and vulnerabilities in the financial system and assesses resilience of the financial system to domestic and external shocks.

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.

The CBL publishes the Financial Stability Report once a year, in March. The Report reviews international and domestic macro-financial developments and assesses potential risks to the stability of the domestic financial system. Although the ultimate goal is to identify and assess banking and non-banking vulnerabilities that may affect the financial sector's overall soundness, the Report focuses solely on the banking sector. This is due to data challenges regarding the non-banks financial institutions. 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
NPL	Non-performing Loans
NSDP	National Strategic Development Plan
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 2017 on the back of improved economic activity, buoyant financial markets, and accommodative monetary policy. Despite these favourable conditions, financial vulnerabilities are emerging. The world's biggest economies are experiencing elevated debt levels and borrowing by governments, households and non-bank institutions in some countries remains high.
2. The global economy activity continued to recover in 2017, driven by improved global trade, positive growth in the United States (US) and Euro-area as well as improved industrial activity in emerging market economies (EMEs). However, the accommodative monetary policy environment continuing globally, essential to support economic activity, has the potential to trigger risky investor behaviour by creating assets bubbles. The search for high returns could intensify vulnerabilities and increase market risks. This would lead to further compression of risk compensation in markets and higher leverage in the non-financial sector. These challenges, if not carefully managed could put gains in growth at risk and have spillover effects to the rest of the world.
3. Since the previous Financial Stability Report, risks to the Lesotho's financial system emanating from international developments remained elevated and relatively unchanged. Feeble international economic activity, fluctuations in commodity prices and global financial markets as well as investor-sentiments continue to weigh heavily on demand for Lesotho's exports. The rand, which is pegged 1:1 to the loti, remained sensitive to these international developments and put a lot of pressure on the export sector. In addition, the decision by some rating agencies to downgrade South Africa (SA) to junk status has exacerbated contagion risk.
4. Domestic shocks compounded by a fragile political situation have declined since the last reporting period. A sharp drop of Southern African Customs Union (SACU) revenues and subdued economic growth continue to put severe pressure on the fiscal position. Nonetheless, economic growth recovered in 2017, supported largely by the government's decision to run large fiscal deficits. The buoyant performance in the mining sector and the recovery of the agriculture sector after two years of drought are expected to be major contributors to growth. Exchange rate volatility, among other factors, continue to pose an upside risk to the inflation outlook.
5. The favourable trends seen in Lesotho's financial sector in past years continued into 2017. The banking system continues to be sound and stable but less profitable and exposed to risks from some segments of borrowers. However, stress-test results 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 payment system and infrastructure operated effectively and efficiently during 2017 and continued to anchor financial stability. The systemically important payment system maintained high system availability. The transaction volumes and values processed through Lesotho Wire (LSW) increased on account of improving economic activity in the country. Mobile money business has grown tremendously since 2012, but in a stable environment. However, a large share of mobile money market in Lesotho remained untapped. Nonetheless, the number of active agents and customers, the transactions volumes and values continued to grow over time and offer a big potential to bridge the financial inclusion gap. Vulnerabilities related to mobile money operations have been minimal during the review period and pose fewer systemic threats ▣

# MACRO-FINANCIAL ENVIRONMENT



## 1.1 INTERNATIONAL DEVELOPMENTS

The world's financial system remained resilient during 2017 because of improved economic activity, buoyant financial markets, and accommodative monetary policy. Despite these favourable conditions, financial vulnerabilities are emerging. The world's biggest economies are experiencing elevated debt levels and borrowing by governments, households and non-bank institutions in some countries remain high. In addition, despite low interest rates, debt servicing burdens have risen in several economies and while borrowing has helped the recovery, it has also created new financial risks.

Accommodative monetary policy stance maintained by central banks to support growth is breeding complacency and allowing a further build-up of financial excesses. Non-financial borrowers' leverage is rising because of the cheap credit while investors are buying riskier and less liquid assets. These growing vulnerabilities are threatening to derail the economic recovery when shocks occur and pose a potential threat to the global financial stability.

### **Vulnerabilities and risks associated with international developments**

Weak international economic activity lowers demand for Lesotho exports. Lesotho is a small, open economy with a number of industries that are dependent on good performance of the global economy. If international growth remains weak for protracted periods, it may have major repercussions for the 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 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 changes in capital flows to EMEs and 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.

**Sovereign credit rating downgrades of SA by rating agencies remains a potential spillover risk for the domestic financial system.** The downgrades 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 could lead to higher cost of capital and reduced access to funding. This poses contagion risks since three-quarters of banks operating in Lesotho are subsidiaries of South African banks, which will most likely be downgraded as well. Such downgrades would likely squeeze the funding for banks, increase the cost of borrowing for the consumers and result in increased non-performing loans (NPLs).

## 1.2 DOMESTIC DEVELOPMENTS

Since the last Financial Stability Report, domestic shocks compounded by a fragile political situation have declined. A sharp drop of SACU revenues and slim prospects of a quick recovery continue to put severe pressure on the fiscal accounts. Nonetheless, economic activity rebounded in 2017 and was shielded against the SACU revenue shock by the government's decision to run large fiscal deficits. The buoyant performance in the mining sector and the recovery of the agriculture sector, after two years of drought, are expected to be major contributors to growth.

# MACRO-FINANCIAL ENVIRONMENT

The continuing fiscal deficit, compounded by shortfalls in domestic revenues, has accelerated draw down of government reserves. The unsustainable fiscal position is mirrored in the external accounts. The current account deficit remains high due to the significant import share of aggregate demand. The trade balance is expected to further deteriorate as construction of the second phase of the Lesotho Highlands Development Project is scheduled to begin in 2018. Volatility in SACU revenues continues and is expected to remain in the medium-term given the slow economic growth in SA.

Inflationary pressures have, however, subsided domestically because of improved weather conditions in the region and the introduction of food subsidy locally. However, a weaker exchange rate and the recovery in the oil prices in the second half of the year exerted an upward pressure on domestic non-food inflation and remain potential threats to the overall inflation trajectory. Nonetheless, key policy interest rates were reduced once during 2017 despite the observed inflationary pressures, to boost economic activity. The rates in both SA and Lesotho were subsequently maintained at 6.75 percent throughout 2017.

The cost of intermediation in Lesotho remained the highest in 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 444 basis points (bps). The spread in domestic money market, measured by the difference between the prime lending and overnight (Lombard) rates, has been widening over time as a result of a sustained decline in the overnight rate.

The money market spread remained relatively constant at 120 bps during 2017. The spread was influenced by the decline in both the prime lending and the overnight rates, which declined by 25 bps and 31 bps respectively. In addition, the risk premium was higher in Lesotho than in SA at the end of 2017. The average yearly premia were 5.2 percent and 3 percent in Lesotho and SA, respectively. Year-on-year, risk premium remained relatively unchanged in SA at 10 bps while it marginally increased in Lesotho. Higher risk premium 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, as well as low domestic and SACU revenues. This has consequently accelerated the draw down of government reserves.

Table I Selected economic indicators (%)						
	GDP Growth		Key Interest Rates		Inflation	
	2016	2017	2016	2017	2016	2017
<b>Advanced Economies</b>						
US	1.80	2.50	0.50-0.75	1.25-1.50	2.10	2.10
UK	2.00	1.50	0.25	0.50	1.60	3.00
Euro Zone	1.90	2.70	0.25	0.25	1.10	1.40
Japan	1.50	1.50	-0.10	-0.10	0.30	1.00
<b>Emerging Market Economies</b>						
Brazil	-2.50	2.10	13.75	7.00	6.29	2.95
Russia	0.30	0.90	11.00	7.75	5.40	2.50
India	7.00	7.20	6.25	6.00	3.41	5.21
China	6.80	6.80	4.35	4.35	2.10	1.80
South Africa	1.30	1.50	7.00	6.75	6.80	4.70

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

# MACRO-FINANCIAL ENVIRONMENT



The private sector in Lesotho survives largely by doing business with government. Therefore, when government spending declines businesses experience difficulties with regard to 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 the construction sub-sector loan portfolio. With 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 international competitiveness makes it harder to achieve greater export growth.** Although the threat of losing the Africa Growth Opportunity Act (AGOA) due to falling short on the eligibility criteria for the program has abated, Lesotho's international competitiveness remains weak, especially for textile and apparel industry. The consequences facing Lesotho in the event of AGOA not being renewed include increased unemployment and low export revenues.

The textile manufacturing firms are the second largest employers in Lesotho after the government, employing around 43 000 people. Without AGOA, most firms would hibernate in jurisdictions still favoured under AGOA and leave a lot of factory workers unemployed. This could 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 put them under stress.

**High volatility in both exchange and interest rates can threaten financial stability.** During the review period, exchange rate volatility remained 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 higher probability of defaults □

# BANKING SECTOR

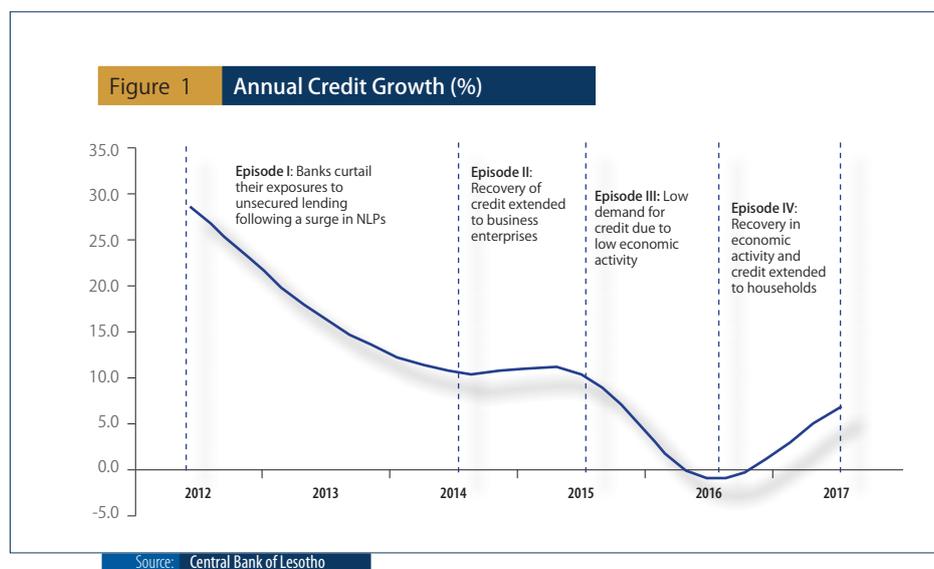
The favourable trends seen in the financial sector in past years continued into 2017. However, subdued economic activity accompanied by rising credit risk remained major risks to the financial sector. The banking sector maintained high liquidity levels but capitalisation, assets quality and profitability deteriorated. Increasing risk-weighted assets on the back of credit extension recovery may in the future amplify the risks associated with the current trend in the banks' credit portfolios. However, stress-test results demonstrate that the current capitalisation, liquidity and profitability levels of the banking sector guarantee a high degree of resilience to the assumed shocks.

## 2.1 Credit Developments

Credit extension in the economy recovered in 2017 in line with improved economic activity. Year-on-year, credit extended to the private sector grew by 6.7 percent to M5.8 billion in December 2017. The recovery ended a five year deceleration of about 21.9 percent as shown in Figure 1. The decline in credit in this period resulted from weak demand for credit due to low economic activity after the 2007/08 economic and financial crisis. On the supply side, the reduction in lending

due to rising NPLs following a surge in credit extension prior to 2012<sup>1</sup>, contributed to the decline. Banks revised their lending parameters on personal loans in an attempt to "re-balance" their loan books by shifting to assets backed loans (mortgages) from unsecured lending (personal loan). However, growth in mortgages could not offset the fall in personal loans and as a result overall credit declined.

Figure 2 shows the evolution of annual credit-to-GDP<sup>2</sup> gap. 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 to financial crises. From a policy perspective, it is regarded as a reliable early warning indicator (EWI) of banking crises or severe distress. A higher positive gap theoretically means 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 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 in 2017 as shown in Figure 2. This shows that credit-to-GDP ratio has been falling and is below its long-term trend - an indication of reduced likelihood of a crisis.



Credit to households, consisting of personal loans and mortgage, constituted more than half of the banks' loan book. This shows the extent to which the banking sector is exposed to the household sector. On a yearly basis, personal loans grew by 10.1 percent to M3 billion while mortgage loans increased by 19.2 percent to M1 billion. Credit to business enterprises remained relatively stable, increasing by 0.8 percent to M 2 billion.

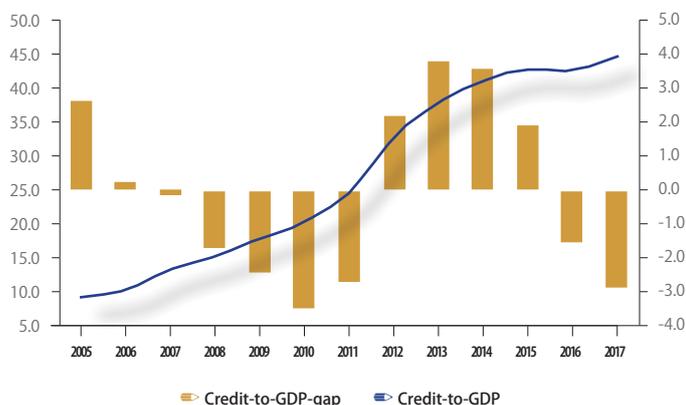
<sup>1</sup> Structural reforms, in particular the 2012 Land Act, allowed land to be used as collateral, which led to a surge in credit.

<sup>2</sup> The credit-to-GDP gap is defined as the difference between the credit-to-GDP ratio and its long-run trend.

# BANKING SECTOR



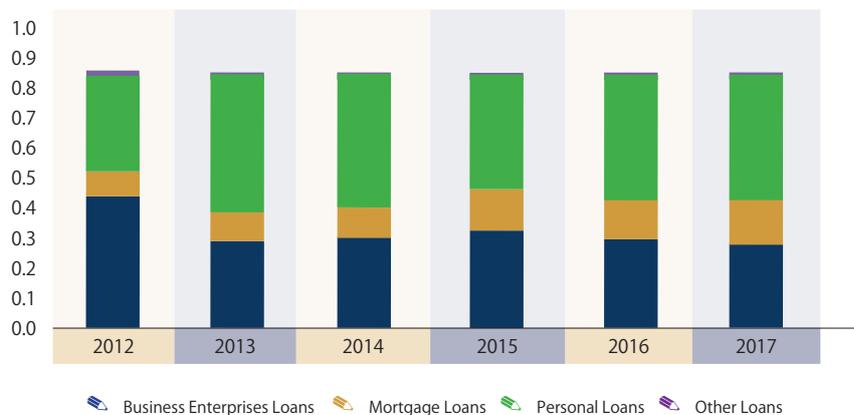
**Figure 2 Annual Credit-to-GDP Gap (%)**



Source: Central Bank of Lesotho, Credit-to-GDP gap (rhs)

Credit-to-GDP gap is used to capture the build up of excessive credit in a financial system and is regarded as an early warning indicator of a crisis.

**Figure 3 Distribution of Loans by Sector to Total Loans (%)**



Source: Central Bank of Lesotho

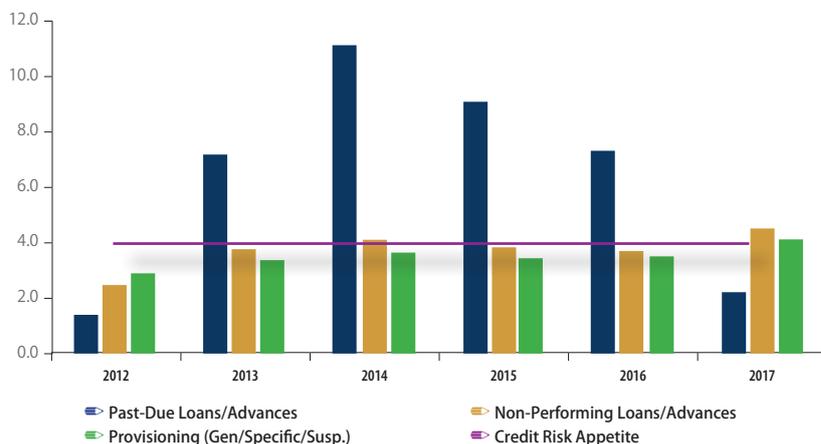
Credit risk remained moderate during the review period. However, concentration in certain loan types remains a concern.

Credit risk remained moderate during the review period. However, despite declining past-due loans (Figure 4), banks operated slightly above the industry's credit risk threshold<sup>3</sup> and concentration in certain loan types and exposures to single or group of borrowers remain a concern. The ratio of NPLs to total loans increased from 3.6 percent in 2016 to 4.5 percent in 2017. Past-due loans fell by 67.9 percent to M133 million while NPLs grew by 31.4 percent to M272 million in 2017, respectively. Consequently, provisioning levels grew by 27 percent to M251 million in 2017.

<sup>3</sup> The banking industry risk appetite is NPLs to total gross loans and advances ratio of 4%.

# BANKING SECTOR

Figure 4 Asset Quality (%)



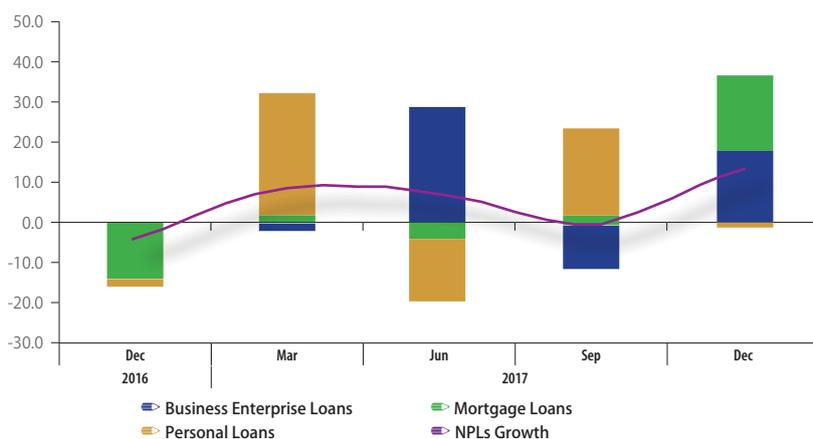
Source: Central Bank of Lesotho

Despite a decline in past-due loans, banks bridged their credit risk appetite threshold in 2017

Sectoral analysis of NPLs revealed that business enterprises and mortgage components of banks loan portfolio realised a growth of 39 percent during the review period, while personal loans NPLs remained relatively constant. The growth in NPLs in the

business enterprise loans is attributed to the arrears in payments from government due to protracted stress on the fiscus, while in mortgage loans the weak balance sheet position resulting from low economic activity is the major contributing factor.

Figure 5 Growth in NPLs (%)



Source: Central Bank of Lesotho

## 2.2 Liquidity developments

Capital is arguably the most important safety buffer for banks, since it provides the resources to recover from substantial losses of any nature and also 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

<sup>3</sup> Banking industry risk appetite is NPLs to total gross loans and advances ratio of 4%.

# BANKING SECTOR

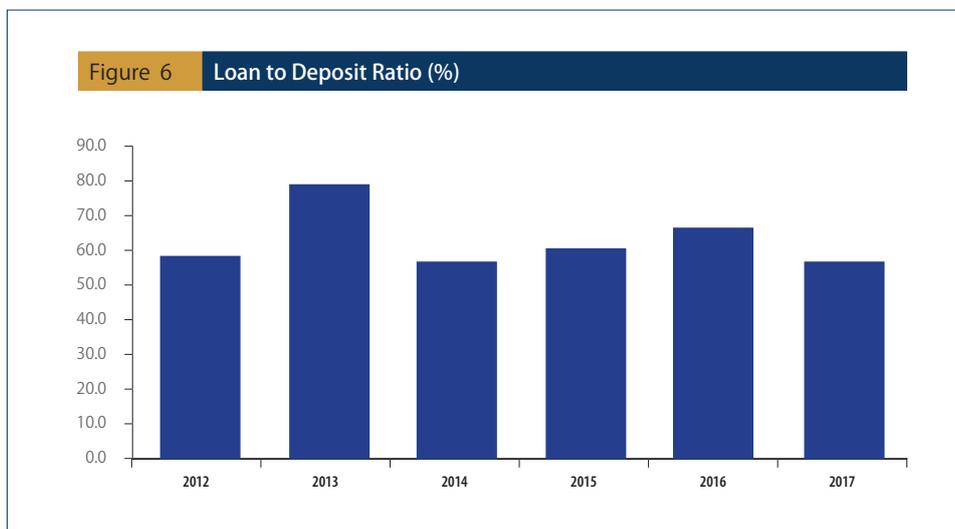


economic value of a bank's assets more than sufficient to cover all of its claims - and yet go bust because its assets are illiquid and its liabilities have short-term maturities.

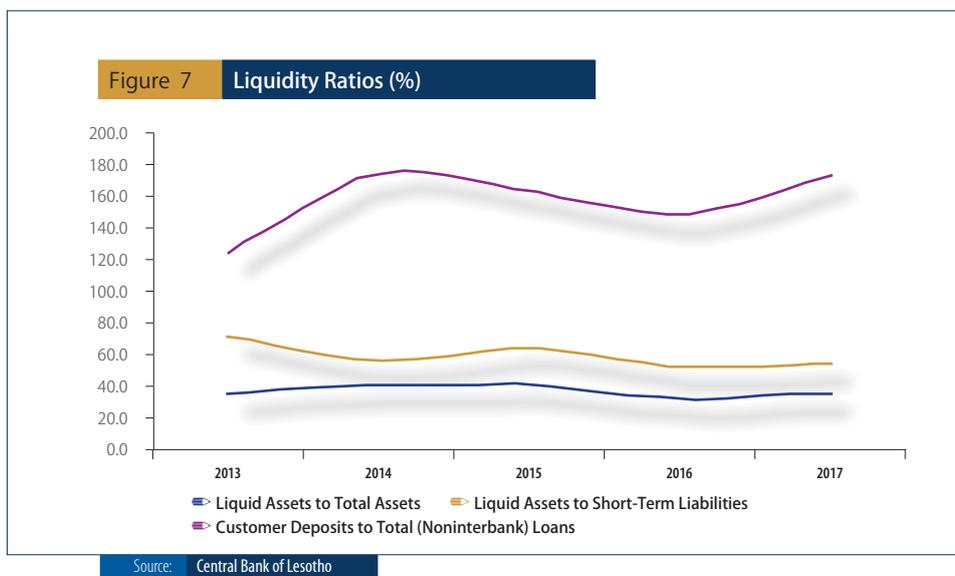
means that the banking industry lent out about 58 cents on every loti held as deposits and holds the rest for immediate liquidity needs.

The Loans to deposits ratio<sup>4</sup>, shown in Figure 6, is an 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 decreased by 9.4 pps to 57.6 percent during 2017. This

In contrast, the ratio of liquid assets to short-term liabilities increased from 52.4 percent in 2016 to 53.7 percent in 2017. Both liquid assets and short-term liabilities increased during the review period. The growth was primarily driven by accumulation in government securities and balances with foreign banks.



Loan-to-deposit ratio determines a financial institution short-term viability. A lending institution that accepts deposits must have enough liquidity to cover its short-term obligations.



Growth in liquid assets was largely driven by accumulation of government securities and balances with foreign banks.

<sup>4</sup> Too high LTD means that the bank may not have enough liquidity to cover any unforeseen fund requirements, and conversely, too low LTD, the bank may not be earning as much as it could be.

# BANKING SECTOR

The ratio of liquid assets to total assets is used to assess on an on-going basis the extent to which liquid assets can support the asset base. In 2017, the ratio increased by 4.3 pps from 31.4 percent that was observed in 2016. This shows that banks invested over a third 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<sup>5</sup>. In 2017, the ratio was 173.8 percent, reflecting an increase of 24.4 pps from 149.4 percent observed in 2016. The increase was due to growth in customer deposits during the review period.

## 2.3 Market Risk

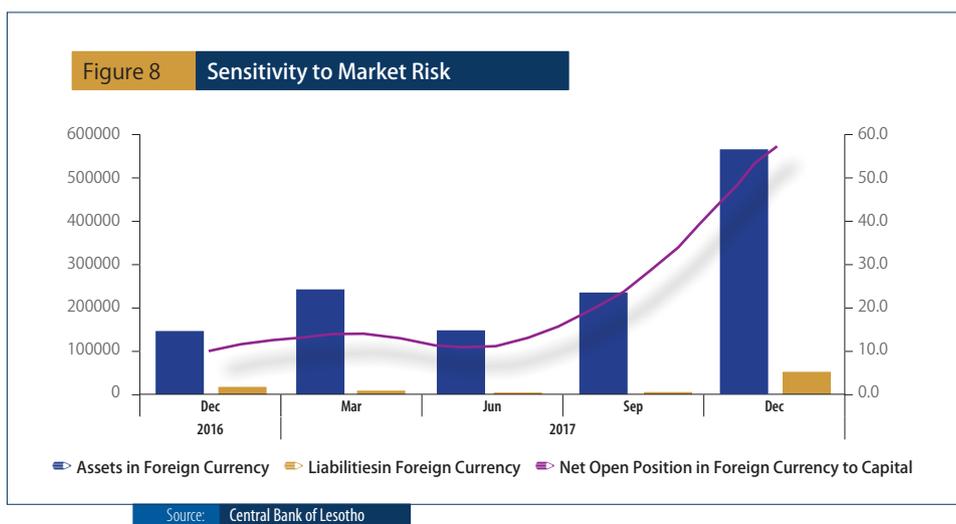
Market risk encompasses the risk of financial loss resulting from movements in market prices<sup>7</sup> such as interest and exchange rates. In this report market risk is assessed on the basis of one FSI, the net open position in foreign exchange to capital, due to limitations in data required to assess interest rate exposure. Banks with a short open position in foreign currency get exposed to exchange rate risk in an instance where foreign currencies appreciate, while those with a long open position get exposed in a case where foreign currencies depreciate.

During the review period, the banks' maintained a long position in foreign currency assets as a result of a surge in transferrable deposits with non-resident banks. Consequently, the ratio of net open position in foreign exchange to capital increased significantly from 10.5 percent in 2016 to 56.7 percent in 2017. This exposes banks to revaluation risk in an instance where the loti appreciate against foreign currencies but would benefit the banks when the loti depreciates.

## 2.4 Capital Adequacy

Capital adequacy ratios (CAR) measure the bank's health and soundness in relation to solvency risk. Minimum CAR serves to protect depositors and promote the stability and efficiency of the financial system<sup>8</sup>. The purpose of having 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 CAR a bank has, the greater the level of unexpected losses it can absorb. Currently, the minimum requirement for CAR is eight percent.

The banking sector in Lesotho maintained CAR above the minimum requirement during 2017. The ratio of total regulatory



Market risk encompasses the risk of financial loss resulting from movements in market prices such as interest and exchange rates.

<sup>5</sup> IMF (2006) Financial Soundness Indicators, Compilation Guide.

<sup>6</sup> [www.federalreserve.gov/bankinforeg/topics/market\\_risk\\_mgmt.html](http://www.federalreserve.gov/bankinforeg/topics/market_risk_mgmt.html).

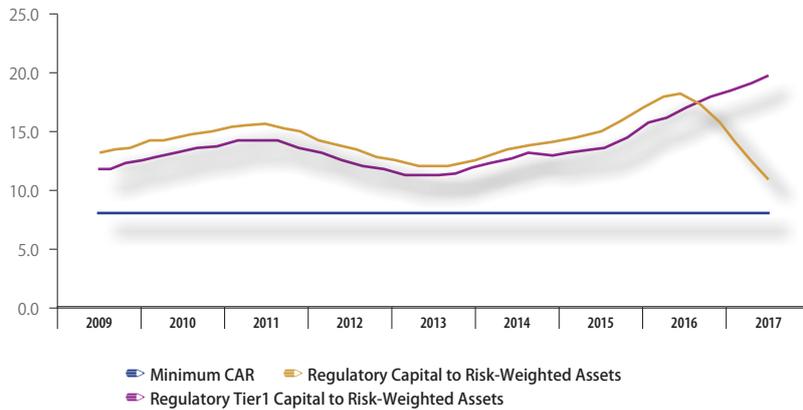
<sup>7</sup> Open position is described as a situation where the value of asset/inflow exposures in one currency is not equal to the value of liability/outflow exposures in that currency. Open positions may be short (liabilities exceed assets) or long (assets exceed liabilities).

<sup>8</sup> <http://www.rbnz.govt.nz/finstab/banking/regulation/0091769.html>.

# BANKING SECTOR



**Figure 9 Capital Adequacy Ratios (%)**



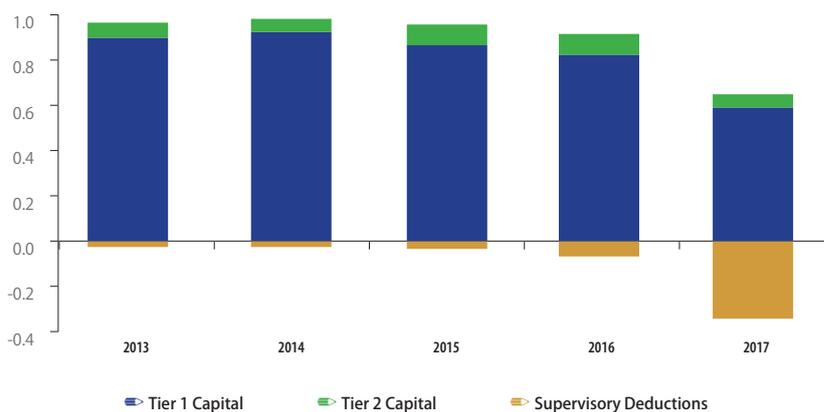
Source: Central Bank of Lesotho

The banking sector in Lesotho maintained CAR above the minimum requirement during 2017.

capital to risk-weighted assets stood at 11 percent, down from 18 percent observed in the previous year. The decrease in the ratio reflects declining profitability in the industry, increasing supervisory reductions<sup>9</sup> and risk-weighted assets<sup>10</sup>. However, the ratio of tier-1 capital to risk-weighted assets increased from

17.1 percent in 2016 to 19.8 percent in 2017, showing that the banking industry continued to maintain core capital buffers higher than the prudential minimum requirement, which is a positive sign of the resilience of the sector.

**Figure 10 Composition of Total Regulatory Capital (%)**



Source: Central Bank of Lesotho

Banks' capital is largely made up of core capital (tier-1). This is a positive sign of resilience of the banking industry.

<sup>9</sup> Supervisory deductions include intangible assets.

<sup>10</sup> In line with the recovery in credit.

# BANKING SECTOR

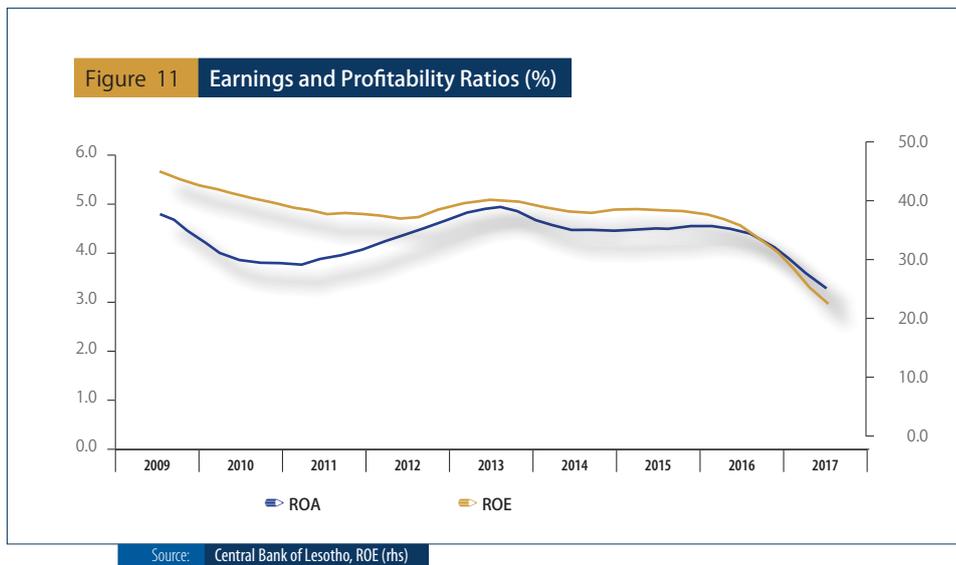
## 2.5 Earnings and Profitability

Profitability ratios assess the ability of a company to generate earnings, profits and cash flows relative to the amount of money invested<sup>11</sup>. The banking industry profitability declined during 2017, and this reflects the impact of slow economic activity on the industry. During the review period, ROE decreased by 12.9 pps from 38 percent that was observed in 2016. Similarly, ROA declined by 1.2 pps from 4.5 percent observed in 2016 as illustrated in Figure 11.

The ratio of interest margin to gross income stayed relatively

constant at 58.1 percent in 2017 in comparison to the previous year. This shows that over half of banks income came from their core business, which is intermediation.

The ratio of non-interest expenses to gross income increased from 54.7 percent in 2016 to 64.6 percent in 2017. This shows that administration expenses relative to income had increased by 9.9 pps as compared to 2016. The increase in the ratio was due to a rise in personal and other expenses<sup>12</sup>. A higher ratio could be an indication that a large portion of income goes into administrative expenses as opposed to expenses related to income earning assets.



Profitability ratios assess the ability of a company to generate earnings, profits and cash flows relative to the amount of money invested.

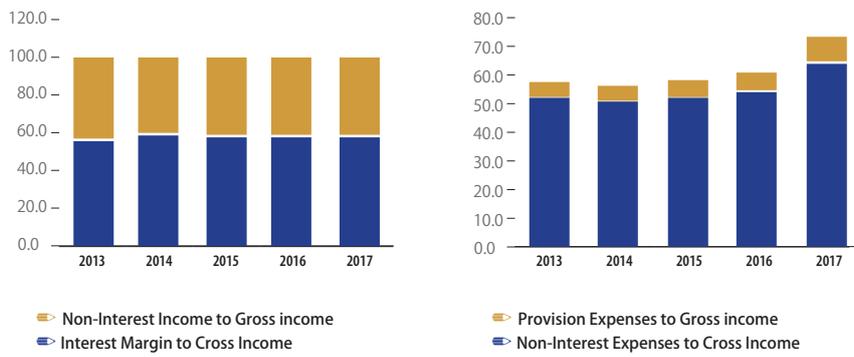
<sup>11</sup> <http://www.readyratios.com/reference/profitability/>

<sup>12</sup> Increases in staff-salaries & benefits, management/directors fees, auditors & consultants fees, banks hired more temporary staff.

# BANKING SECTOR



**Figure 12 Profitability Ratios (%)**



Source: Central Bank of Lesotho

The ratio of non-interest expenses to gross income increased in 2017, showing that a larger portion of income went into administrative expenses as opposed to expenses related to income earning assets

# STRESS-TEST

## 3.1 KEY ASSUMPTIONS AND SHOCKS

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<sup>13</sup>, 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 2017 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<sup>14</sup>. The tests covered all the four commercial banks. The results covered in this report highlights June and December 2017 stress-tests results and their implications for the banking industry and Lesotho's economy as a whole. The stress-tests demonstrate that the banking sector is highly resilient to the chosen adverse scenarios.

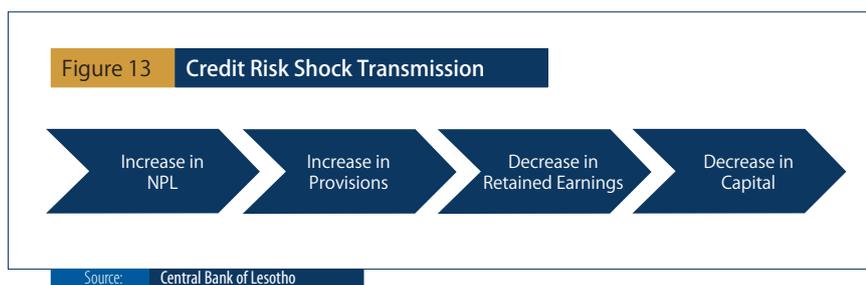
### 3.1.1 Credit Risk Shocks

Credit risk is defined as the potential that a bank's borrower, or counterparty, will fail to meet its payment obligations as stipulated in the contractual terms agreed with the bank. The

level of 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<sup>15</sup>. 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 13.

### 3.1.2 Liquidity Risk Shocks

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 14.



Credit risk is the risk that a bank's borrower or counter party will fail to honor its payment obligation as stipulated in the contractual terms agreed with the bank.

<sup>13</sup> 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.

<sup>14</sup> 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.

<sup>15</sup> Financial Institutions (Loan portfolio classification) Regulations 2016.



**Figure 14** Liquidity Risk Shock Transmission



Source: Central Bank of Lesotho

Liquidity risk is the risk that a bank will not be able to meet its current and future cash obligations without materially affecting its financial position.

### 3.1.3 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 that was run 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 15 shows the transmission of interest rate shocks.

**Figure 15** Interest rate risk shock transmission channel



Source: Central Bank of Lesotho

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

## 3.2 STRESS-TEST RESULTS

### 3.2.1 Credit Risk

Credit risk stress-test result revealed that all banks would be sufficiently capitalised to absorb losses as a result of the assumed sector-wide increase in NPLs in both June and December 2017. As illustrated in Table 2, for Group I shocks, all the four banks' CAR would remain well above the eight percent minimum requirement and stay solvent. Therefore, based on the assumptions made and the types of shocks anticipated, the credit risk related to an increase in NPLs can be regarded as moderate because banks would have adequate capital to absorb losses induced by high NPLs.

# STRESS-TEST

Table 2 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	
<b>June 2017</b>						
<b>Group I: System level credit risk</b>						
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	
<b>Group II: Concentration Risk</b>						
Shock I: Largest 1 Borrower Defaults	0	0	0	0	0	
Shock II: Top 3 Borrowers Default	2	80.0	0	131 962	0	
Shock III: Top 5 Borrowers Default	2	80.0	1	371 736	116 140	
<b>December 2017</b>						
<b>Group I: System level credit risk</b>						
Shock I: Largest 1 Borrower Defaults	0	0	0	0	0	
Shock II: Top 3 Borrowers Default	2	80.0	0	131 962	0	
Shock III: NPLs increase by 180%	0	0	0	0	0	
<b>Group II: Concentration Risk</b>						
Shock I: Largest 1 Borrower Defaults	0	0	0	0	0	
Shock II: Top 3 Borrowers Default	1	25.7	0	44 394	0	
Shock III: Top 5 Borrowers Default	3	91.9	1	259 157	48 848	
<i>Source: Central Bank of Lesotho</i>						

Concentration risk in banks' loan books was stress-tested by assessing resilience of banks to their large exposures. In 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 in June and December 2017, respectively. This shows that their capital would not be sufficient to absorb the losses incurred as result of the assumed shocks and would fall below the eight percent CAR threshold. Moreover, they would need 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 adequate capital to cover the losses should 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 looks at the banking industry exposure to two economic sectors, namely the household and business enterprises sectors. First, mortgage and personal loans are stressed by assuming a uniform 20 percent increase in NPLs. This shock has a minimal impact on mortgages loans and all banks would remain with post-shock CAR above the minimum requirement and therefore need no recapitalisation. However, for personal loans, a 20 percent increase in NPLs leaves one bank's CAR below the eight percent minimum requirements and with a capitalisation deficit of M13.9 million and M34.3 million in June and December 2017, respectively. Second, business lines which constitute over half of loans to the business sector were stress-tested. These are manufacturing, construction and, mining and quarrying. The test results show that the shock impact would be minimal; hence all the banks pass the test and would remain with CARs well above eight percent for both June and December 2017.

# STRESS-TEST



Table 3 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	Capital Deficiency Relative to Minimum Capital
<b>June 2017</b>					
Group III: Sectoral level credit risk (20 percent increase in NPLs)					
Household Sector					
Mortgages	0	0	0	0	0
Personal loans	1	7.6	0	13 941	0
Business Sector					
Manufacturing	0	0	0	0	0
Construction	0	0	0	0	0
Mining & quarrying	0	0	0	0	0
<b>December 2017</b>					
Group III: Sectoral level credit risk (20 percent increase in NPLs)					
Household Sector					
Mortgages	0	0	0	0	0
Personal loans	1	8.1	0	34 348	0
Business Sector					
Manufacturing	0	0	0	0	0
Construction	0	0	0	0	0
Mining & quarrying	0	0	0	0	0

*Source: Central Bank of Lesotho*

## 3.2.2 Liquidity Risk

The bank-run stress test results (Table 4) show that, in both June and December 2017, none of the banks would get illiquid after five days of continuous withdrawals of deposits. This shows that the amount and quality of liquidity the banks hold is enough to absorb a shock of the nature assumed in this test. However, in

Scenario II, all banks would only sustain the bank-run for three days. On the fourth and fifth day, some banks would become illiquid. Therefore, liquidity risk could also be regarded as moderate since banks would sustain a bank-run type of event for a period of five days, 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.

Table 4 Daily Withdrawals								
	June 2017				December 2017			
	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)
1 <sup>st</sup> day	5	0	5	0	5	0	5	0
2 <sup>nd</sup> day	5	0	10	0	5	0	10	0
3 <sup>rd</sup> day	5	0	15	0	5	0	15	0
4 <sup>th</sup> day	10	0	20	1	10	0	20	1
5 <sup>th</sup> day	10	0	25	3	10	0	25	3

*Source: Central Bank of Lesotho*

# NATIONAL PAYMENT SYSTEMS VULNERABILITIES

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 practice in the payment system sphere<sup>16</sup>.

## 4.1 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) and other retail payment systems. 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 crisis and help to reduce the cost and uncertainty of settlements, which could otherwise act as an impediment to economic activity<sup>17</sup>.

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 systemic impact; with

negative repercussions for financial stability within the country. Moreover, this system must meet high safety<sup>18</sup> and efficiency standards to manage and/or mitigate all risks arising from its operations.

There are a number of 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 systemic crisis. In 2017, the transaction volumes and values processed through LSW increased as compared to 2016. This increase was on account of improving general economic activity in the country.

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 a potential to undermine the smooth functioning of the financial sector in the economy. In 2017, the system remained available to participants for about 99.6 percent of the time. The system downtime incidents were on account of intermittent disruptions in internet and/or server connection. However, such disruptions were resolved within a reasonable time period. Therefore, overall a substantial number of large value and time-critical payments were able to be processed and settled despite the experienced disruptions.

## 4.2 MOBILE MONEY

Improvements in technology coupled with financial innovation have increased financial inclusion. For example, mobile money is one initiative which has been implemented to overcome some of the barriers to financial inclusion through the introduction of new technologies. Mobile money in Lesotho started in 2012, and has continued to gain momentum since then. It has allowed the rapid expansion of services to reach populations which were previously excluded from the financial system. In addition, it

<sup>16</sup> These include the CPSS-IOSCO Principles for Financial Market Infrastructures (PFMI's) and the CPSS-BIS Central Bank Oversight of Payment and Settlement Systems.

<sup>17</sup> CBL Payment System Oversight Policy Framework.

<sup>18</sup> 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.

# NATIONAL PAYMENT SYSTEMS VULNERABILITIES

simultaneously reduced the costs of service delivery<sup>19</sup>. However, there are risks to financial stability that may emanate from increasing usage of mobile money. For instance, the risk that customers may not get their money when they want to redeem it. It is, therefore, important that mobile money services are regulated to a proper degree considering the risks associated with it. Safety of customers' money should therefore be a priority for both mobile money operators (MNOs) and regulators.

Certain risks posed by licensed non-bank mobile money providers can be successfully mitigated through prudential requirements that safeguard funds entering the system and meet customers' demand to cash out electronic value. The regulator can put various measures into place. Three most commonly used measures include prudential requirements, minimum capital requirements and interest-bearing mobile money accounts. These measures are intended to mitigate credit and liquidity risks and might include minimum capital ratios, capital adequacy measurement systems, reserve requirements, and other measures intended to preserve the liquidity of the provider. One common approach is to require assets to be ring-fenced and held in a bank account. The funds can be deposited in one or several commercial banks that are fully prudentially regulated. In this way, any amount that passes through the mobile money system is backed 100 percent by the pooled account or accounts.

In 2017, the registered mobile money customers (end-users) were recorded at 1 345 114 throughout the country compared to 1 137 903 that were registered in 2016. This amounts to about

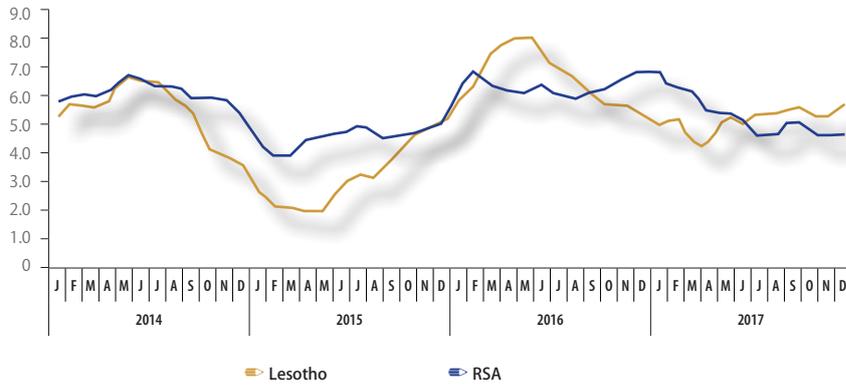
18.2 percent growth from 2016. This was attributed to new agent registrations that were done by the MNOs following the public outreach activities undertaken. However, there are some challenges since about 36 percent of the registered agents are located in Maseru while 64 percent in other districts. This was due to unavailability of agents (or inactive agents) in some parts of the country and these acts as an obstacle to people who have registered for mobile money services for different uses but cannot access the services.

In light of this, MNOs in collaboration with the Ministry of Finance (MoF), CBL as well as other relevant stakeholders in the mobile money ecosystem should devise strategies that can be used to build a strong and active agent network in the country; especially in the districts where there are few agents. A strong and broad active agent network is a backbone of mobile money and it strengthens the payment system efficiency. Besides an inactive agent network, another challenge facing mobile money, as a tool for increasing financial inclusion, is that the number of active mobile money customers (users) remains very low relative to the total number of registered users. In this regard, a large mobile money market share in Lesotho still remained untapped during 2017. Furthermore, in accordance with the observed increase in the number of active agents and customers, the transactions volumes and values continue to grow over time and continue to bridge the financial inclusion gap. Vulnerabilities related to mobile money operations have been minimal during the review period and pose fewer systemic threats. □

<sup>19</sup> <http://www.lesothoreview.com/financial-services-investment-2015.php>

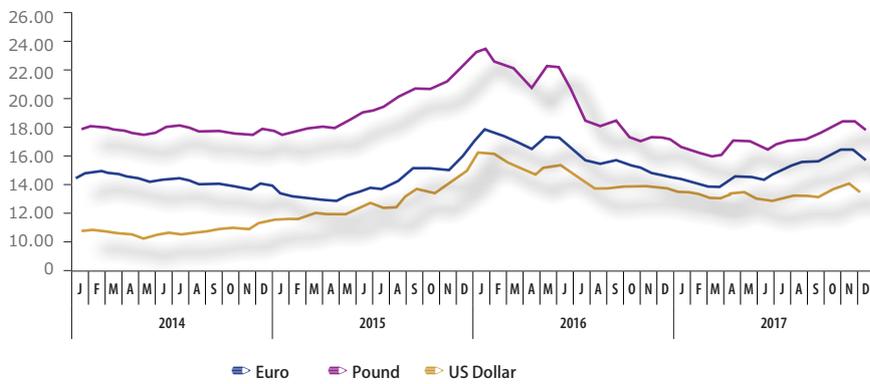
# APPENDICES

**Graph A Lesotho and RSA Inflation (%)**



Source: Central Bank of Lesotho

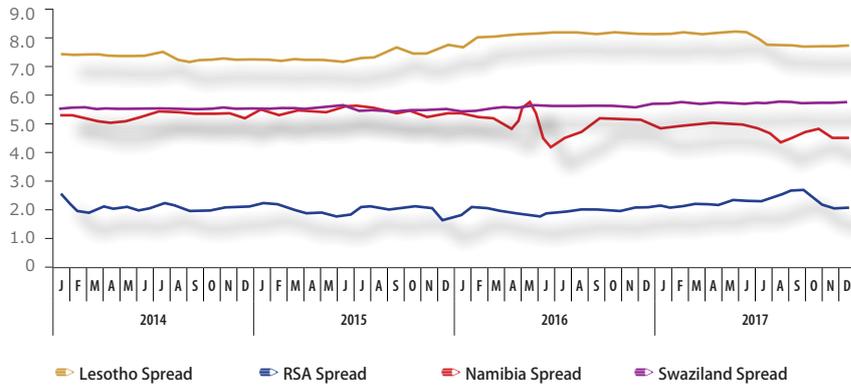
**Graph B Loti Exchange Rate to the Euro, Pound & US Dollar**



Source: Central Bank of Lesotho

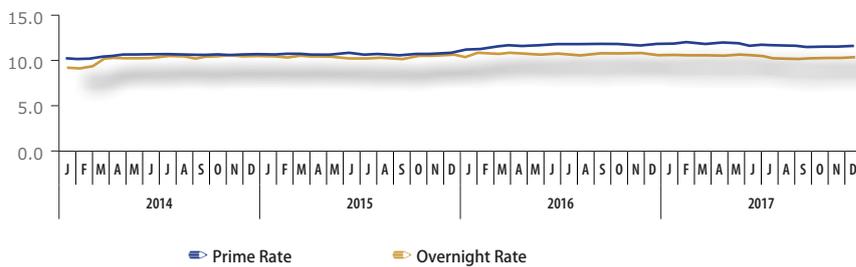


**Graph C Intermediation Spread (%)**



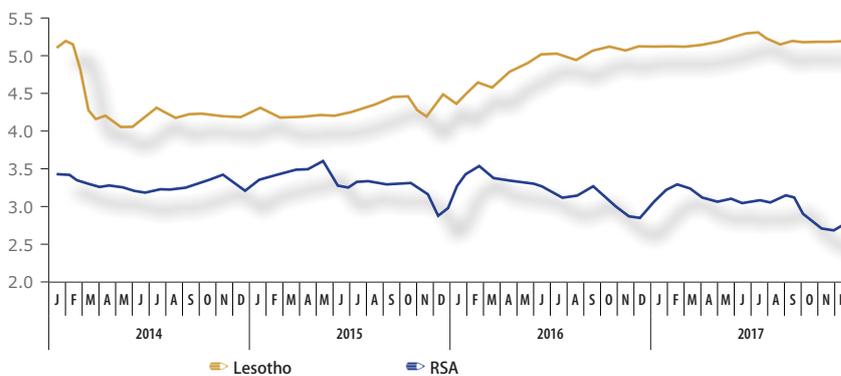
Source: Central Bank of Lesotho

**Graph D Money Market Spread (%)**



Source: Central Bank of Lesotho

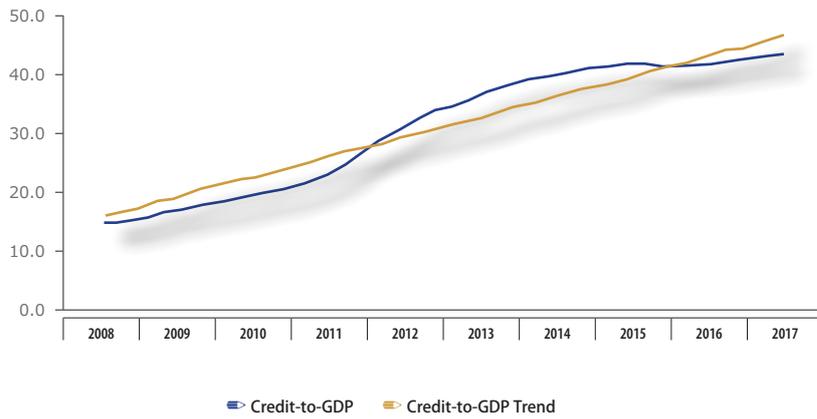
**Graph E Lesotho and RSA Risk Premium (%)**



Source: Central Bank of Lesotho

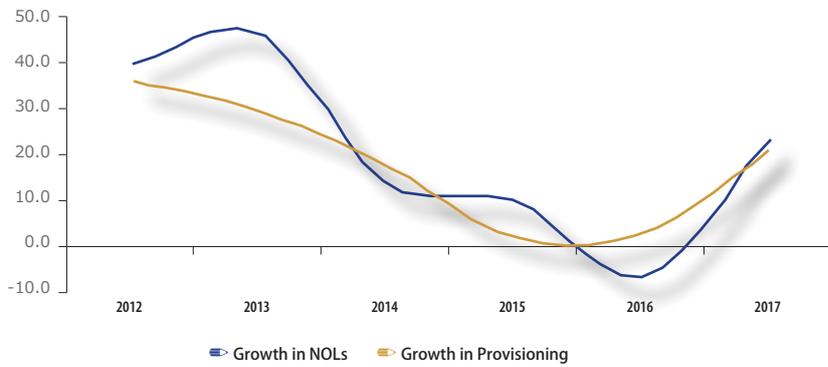
# APPENDICES

**Graph F Credit-to-GDP Ratio and its Trend (%)**



Source: Central Bank of Lesotho

**Graph G Growth in NPLs and Provisions (%)**



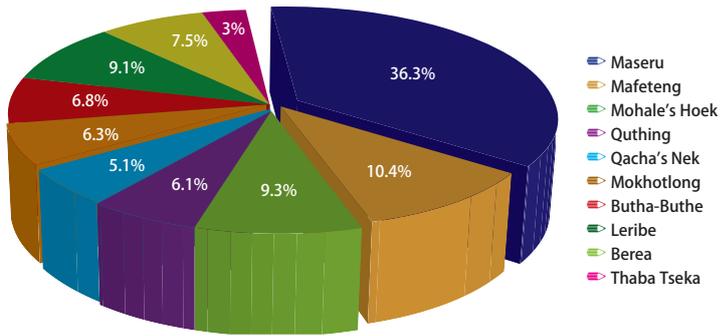
Source: Central Bank of Lesotho

<sup>19</sup> <http://www.lesothoreview.com/financial-services-investment-2015.php>

# APPENDICES

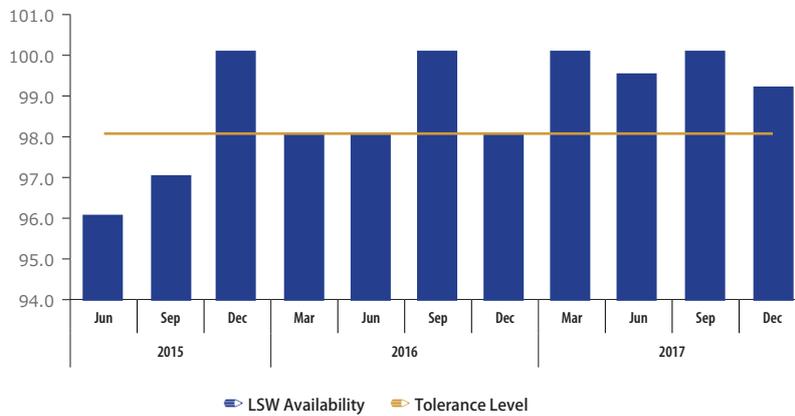


**Graph H Mobile Money Agents (% per district)**



Source: Central Bank of Lesotho

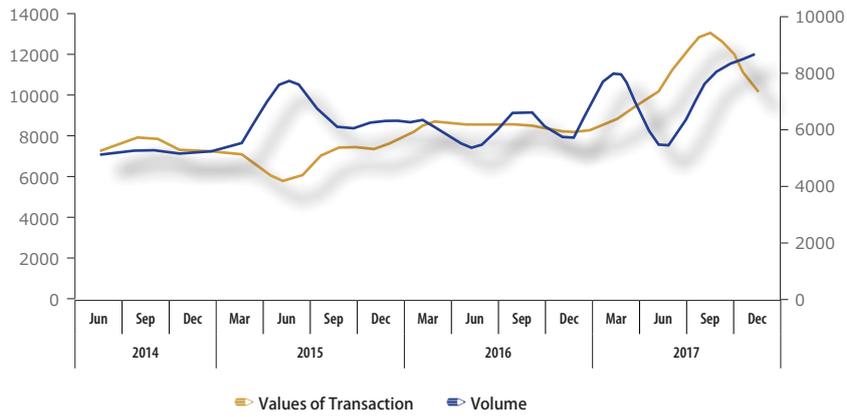
**Graph I LSW Availability (%)**



Source: Central Bank of Lesotho

# APPENDICES

**Graph J LSW Transactions and Values**



The Primary Axis is in Millions while the Secondary Axis is in Thousands.

Source: Central Bank of Lesotho



Appendix II		Tables	
Risk	Description	Shock	Description
<b>1. General Credit Risk - NPL Increase</b>	Shock 1.1	60%	Indicates increase in NPLs of 60 percent across the credit spectrum
	Shock 1.2	120%	Indicates increase in NPLs of 120 percent across the credit spectrum
	Shock 1.3	180%	Indicates increase in NPLs of 1800 percent across the credit spectrum
<b>3. Concentration Risk</b>	Shock 3.1	1	Indicates a default of the largest borrower
	Shock 3.2	3	Indicates a default of the largest three borrowers
	Shock 3.3	5	Indicates a default of the largest five borrowers
<b>4. Reverse Stress-Testing</b>	Assumed provisioning rate	20%	To calculate provisioning expense for large borrower default
	Reverse Testing - Deterioration of performing loans	7.9%	Deterioration of performing loans which causes capital to go below 8 percent
<b>9. Liquidity Shocks</b>	Shock 9.1	5%	An outflow of deposits is assumed. Liquidity is generated through fire sale of assets.
	Withdrawal of deposits: 1st day by	5%	Haircuts are assumed for all assets. Liquid assets generate the most liquidity, while illiquid
	Withdrawal of deposits: 2nd day by	5%	assets are assumed to generate not more than 1 percent liquidity after fire sale.
	Withdrawal of deposits: 3rd day by	10%	It is also assumed that after 5 days, there is a cooling off period to allow banks and the central
	Withdrawal of deposits: 4th day by	10%	bank to restore confidence.
	Withdrawal of deposits: 5th day by	80%	The assumption is that 80 percent liquidity can be generated through a fire sale.
	Fire sale volume assumption: liquid assets	75%	
	Fire sale pricing haircut: liquid assets	1%	The assumption is that 1 percent liquidity can be generated through a fire sale
	Fire sale volume assumption: illiquid assets	100%	
	Fire sale pricing haircut: illiquid assets		

Source: Central Bank of Lesotho











**Central Bank of Lesotho**

Corner Airport and Moshoeshoe Roads  
Maseru Central • P. O. BOX 1184 • Maseru 100

For queries, enquiries and comments, please contact:

Phone: (+266) 2223 2094 / 2223 2095

Fax: (+266) 2231 0051

E-mail: [info@centralbank.org.ls](mailto:info@centralbank.org.ls)