2016 Zambia Banking Industry Survey: Adapt to Thrive

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Foreword

We are delighted to present the findings of our survey on the state of the banking industry in Zambia.

The *2016 Zambia Banking Industry Survey: Adapt to Thrive* is the culmination of several months' interaction with leaders in the banking sector as well as research into the issues that have come to the fore in recent times.

The banking sector has an important role to play in Zambia's economy. Provision of affordable finance to support other sectors of the economy is essential for economic growth and is a role banks are expected to fulfil.

However, banks themselves have encountered significant challenges over the last two years arising from the global and domestic headwinds that have beset Zambia's economy.

We therefore felt it necessary to undertake an in-depth assessment of the industry in order to better understand the current position of banks and the impact of recent developments on their businesses.

At PwC, our aim is to build trust in society and solve important problems.

We believe this report provides valuable insights into the challenges faced by the banking sector, and hope it will inform industry decision-makers, regulators and society at large as they deliberate on the policy and regulations that affect banks.

We are grateful to all those in the banking sector who gave their valuable time to contribute to this survey. We hope the findings make interesting reading.

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Executive Summary

72%

A response rate of 72% (13 banks) was received from 18 commercial banks based in Zambia who were invited to participate in the survey.

Zambian businesses have faced numerous challenges over the last two years as the economy has struggled to make headway amid a climate of low copper prices, severe energy shortages, a weak Kwacha and rising inflation.

Falling copper prices have coincided with the country's growing fiscal deficit, forcing Government to raise borrowing to meet spending commitments. In addition, the national energy crisis that became apparent in 2015 has resulted in lower productivity and increased fiscal pressure on Government due to the need for emergency power imports.

All of this prompted in 2015 a fast depreciating Kwacha and skyrocketing inflation. As a result, the Bank of Zambia (BoZ) had to significantly tighten monetary policy in order to safeguard price stability. This led to low market liquidity, higher interest rates and contributed to higher non-performing loans.

With such a scenario playing out, most businesses have had little choice but to focus on survival in the short-term. In particular, banks have been forced to implement various measures to mitigate the impact of the risks that have hindered the industry.

Identifying the issues

It is against this backdrop, the effects of which are still playing out, that PwC decided to conduct a survey to identify the key issues Zambia's banks have had to contend with during this difficult time. The banking sector plays an important role in facilitating growth across the economy, and its health is vital in supporting economic and national development.

PwC invited 18 commercial banks based in Zambia to participate in the survey, which was conducted over a period of three months. A response rate of 72% (13 banks) was received. This included five of the countries' six largest banks. There are a total of 19 banks in Zambia, with the top six accounting for over 70% of total industry assets and liabilities, highlighting how market share is concentrated among a few large players.

Broadly, the survey was divided into two parts. Firstly, a review of the current state of the industry was undertaken. This included looking at recent events and the actions taken by banks in response to the economic and business challenges faced. It also considered the actions required to improve the industry.

Next, the survey sought to identify emerging trends that business leaders are considering or will need to consider as they chart the way forward. The survey results and financial analysis were supplemented by interviews with managing directors of selected banks as well as an interview with the BoZ, an important industry stakeholder.

Finally, we complemented our survey findings by analysing selected industry key performance indicators based on the quarterly prudential returns that the commercial banks submit to the BoZ. This analysis can be found in the Appendix on page 16.

Key findings

The impact of recent economic events on banks and their response varied from one bank to the next. However, industrywide, the top five issues in order of significance were:

1. Cost management

Managing the significant cost increases encountered during 2016 was highlighted as the biggest challenge for the industry. Banks' cost-to-income ratio (CIR) edged above 70% during the year as the Kwacha's depreciation drove costs and inflation higher in this import-dependent country and businesses took measures to meet energy shortfalls in order to ensure continued operation.

2. Credit risk

Tight liquidity, higher interest rates, delayed contractor payments by Government and a general slowdown in the economy led to a marked increase in non-performing loans (NPLs) and subsequently impairments in 2016. In response, there was an industry shift away from lending activity towards investment in lower credit risk assets such as Government securities. Credit extension contracted and this has likely impacted growth prospects for businesses that need funding in the short to medium-term.

3. Liquidity risk

Government had limited scope to use its fiscal policy measures to stimulate the economy during this period. This meant that the monetary policy stance adopted by the BoZ was perhaps more extreme than would ordinarily be desirable. Several measures have already been implemented to loosen the monetary policy environment and generally these measures have been positively received. Suffice to say, interest rates have started to fall across the industry, which is a step in the right direction. However, it remains to be seen whether the results derived will be as expected.

4. Cyber security

The advancement of available technology has provided a great opportunity for banks to develop and deploy new and innovative products and services. However, the increase in the use of technology platforms has brought about greater exposure to risks arising from cyber criminals. Managing the risk has previously been the preserve of information technology (IT) departments. Increasingly, however, this is a matter that boards of directors are taking a keen interest in.

5. Interest rate risk

Interest rates for both assets and liabilities increased markedly across the industry. This was largely on account of the tight monetary policy as well as increased Government borrowing. Interest margins were depressed as the cost of funds escalated, especially as it was not always possible to pass on the full increase in the cost of funding to borrowers. Despite record-breaking highs observed in the interbank placement market, limited liquidity meant that some banks had little choice but to borrow at exorbitant rates, putting further pressure on margins and overall profitability.

Looking ahead

Various steps have been taken recently by stakeholders in the banking sector to stimulate economic activity and improve the business environment. The BoZ has announced it plans to ease the monetary policy environment, while Government has signaled its intent to bring its recent fiscal expansion under control – a welcomed move.

However, whether the measures and commitments outlined go far enough in terms of achieving the intended benefits will depend on various factors. Notably, Government's commitment to meeting its fiscal targets and maintaining a stable regulatory policy environment is essential if the banking sector is to thrive and grow. But other factors will also influence the outcome, not least whether there is further fallout from the economic slowdown still to come.

Finally, questions remain as to whether the current industry structure, which is dominated by a few large banks, is sustainable in the medium to long-term.

Banks must adapt to thrive

While the recent economic climate has presented challenges to the banking sector, out of these challenges also come opportunities. These include:

- **Technology-led product development**

We believe that technology is the biggest game changer for the industry. Leveraging technology to stimulate growth is a key priority for all players in the market. The banks that adapt best to technological changes and make the best use of complementary service providers, such as mobile phone companies, are likely to achieve an improvement in efficiency and customer service while growing their customer base and revenues.

- **Consolidation of the regulatory framework for banks to enhance risk management**

The level of overlap between different elements of the financial services sector continues to increase. As a result, banks have found themselves having to comply with the requirements of multiple regulators.

Whereas the BoZ remains the primary regulator, banks have increasingly had to comply with regulations issued by the Pensions and Insurance Authority (PIA), and the Securities and Exchange Commission (SEC).

A more holistic, coordinated approach to the supervision of banks, which are multifaceted organisations, could lead to improved risk management and, ultimately, a more financially sound and secure financial system.

- **Review of operations and making changes to enhance efficiency**

Challenging times offer a great opportunity for introspection and an objective assessment of the status quo. The overall cost structure of the banking industry is unsustainable.

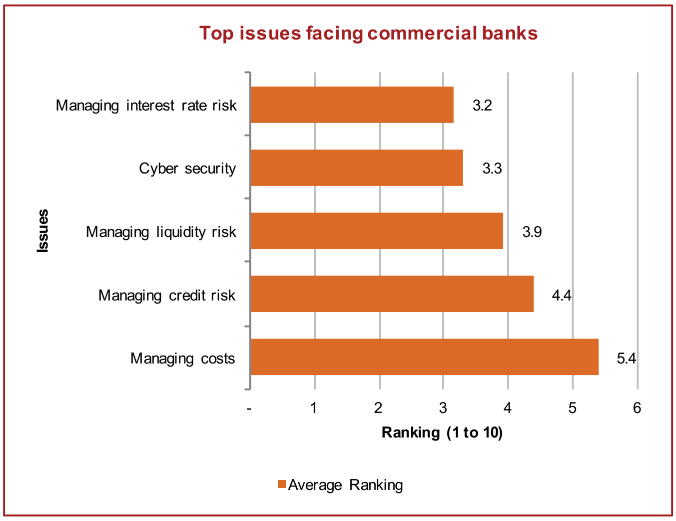
There is therefore a significant opportunity to review operations and bank structures in order to improve productivity and enhance profitability.

Survey Findings:
the State of the Industry

Top issues affecting commercial banks in Zambia

The results of our banking survey show that there were five main issues affecting the Zambian banking industry during the year ended 31 December 2016.

Managing costs was identified as the biggest challenge facing commercial banks in 2016, due largely to rising inflation and unexpected costs arising from the ongoing energy shortages.



Managing credit risk was regarded as the second most significant problem for banks, followed in third and fourth place respectively by managing liquidity risk and managing interest rate risk. Cyber security was the fifth most significant challenge facing commercial banks in 2016.

Survey respondents ranked issues affecting their business in order of significance, with 10 being most significant and one being issues of least significance.

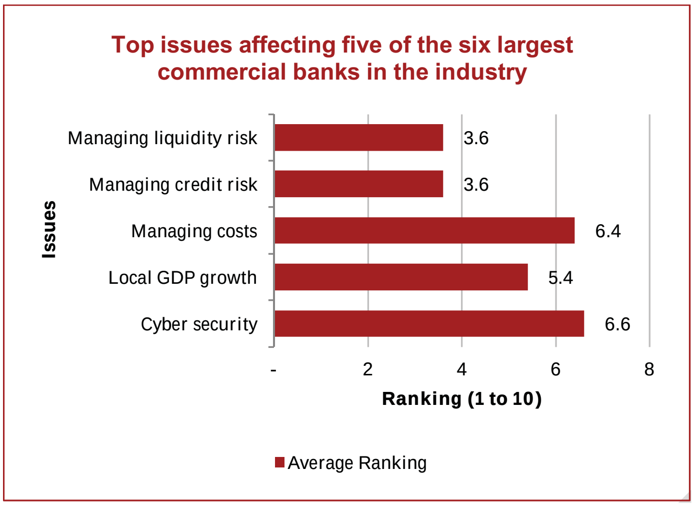
While the survey results generally indicate a common appreciation for the type of issues affecting the industry, there appears to be less congruence around the issues of most significance.

Consequently, the top five issues have a relatively low average ranking when assessed on a 10-point scale. This indicates that while most banks generally contend with the same set of issues, their respective businesses are impacted in widely varying degrees.

By way of illustration, when the survey responses of five of the six largest banks in the industry (by asset size) are analysed, the top issues identified are largely consistent with the industry-wide analysis, albeit in a different order of significance.

In descending order, five of the six largest banks were most concerned about cyber security, managing costs, local GDP growth, managing credit risk and managing liquidity risk.

This is in contrast with the industry-wide analysis where cyber security is ranked fourth. On average, however, managing costs was consistently ranked towards the top-end of the scale.



Total industry operating expenses have continued on an upward trend, increasing by 11% to K4.67 billion in 2016 (2015: K4.2 billion) on account of the general rise in inflation.

11%

Managing costs

The most significant issue for banks in 2016 from our recently concluded survey was **managing costs.** Total industry operating expenses have continued on an upward trend, increasing by 11% to K4.67 billion in 2016 (2015: K4.2 billion) on account of the general rise in inflation.

The banking industry, and indeed the wider business community, also had to contend with cost pressures stemming from the energy shortages experienced during the year. These pressures manifested in the form of higher electricity costs as a consequence of increased use of gensets, which were deployed as a response to a more intensive load-shedding regime.

Consequently, the CIR has exhibited an upward trend, increasing by 2 percentage points from 69% in 2015 to 71% in 2016. With a CIR exceeding 70%, it is of little surprise that managing costs is an issue of top priority for commercial banks. As a result, a number of banks have implemented cost-rationalisation strategies with the ultimate objective of bringing operating expenses within acceptable levels.

The increase in expenses outstrips annual inflation, which was recorded at 7.5%, indicating the presence of other factors, over and above inflation, that continue to exert pressure on costs.

In our view, while the other top issues facing banks are largely a reflection of the macro-economic environment, the consistently high CIR is more indicative of systemic challenges within the industry.

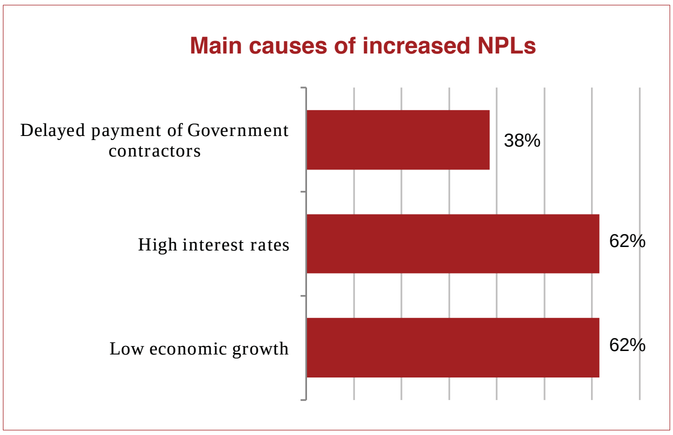
Further analysis reveals that staff costs contribute the largest portion of operating expenses, which we estimate at about 40%. It is therefore arguable that any cost optimisation initiatives should involve a review of staff costs.

However, rationalising employee expenses without careful consideration for the impact on talent management, staff turnover and motivation could potentially have undesirable outcomes in the short to medium term. Our view is that a focus should be placed on staff productivity with a view to containing costs, while at the same time driving revenue growth with the objective of reducing the cost-to-income ratio to within sustainable levels.

Automation of processes, rationalisation of branch networks, re-engineering of existing business processes and centralised execution of essential manual processes are other measures that banks could adopt to manage costs. This, however, would require the investment of time and resources, including upgrading/replacing existing technologies, and retraining, upskilling and redeploying existing staff.

Credit risk

The second largest issue affecting banks in 2016 was **credit risk.** When requested to identify three major causes of non-performing loans (NPLs) in the industry, 62% of respondents pointed to high interest rates and low economic growth. A further 38% said the delay in payment of Government contractors was a major contributor to NPLs.



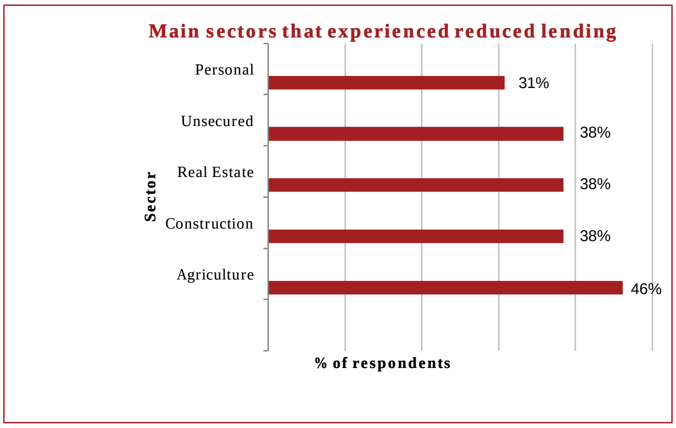
In 2015, Zambia faced economic headwinds resulting from the steep and sustained depreciation of the Kwacha coupled with high levels of inflation.

To counter these negative market forces, the BoZ adopted a tight monetary policy stance by increasing the policy rate, the statutory reserve ratio (SRR) and Government borrowing with the objective of stabilising the Kwacha and driving inflation to the target level of 7%. Consequently, the BoZ policy rate and the SRR increased from 12.5% to 18%, and 14% to 18% respectively during this time.

During the same period, commercial bank average lending rates increased by 50% from about 20% to 30%. Due to the positive correlation between interest rates and credit risk, the significant increase in average lending rates has resulted in a rise in credit risk.

The issue has been further compounded by the slowdown in economic growth in recent years, which has impacted negatively on borrowers’ ability to settle their obligations as and when they fall due. As a result, the industry has witnessed an increase in NPLs with loan impairment charges and the NPL ratio increasing to K433 billion in 2016 (2015: K295 billion) and 9.7% (2015:7.3%) respectively.

To manage their exposure to credit risk, banks increased their investment in Government securities and exercised caution in extending credit to certain sectors, with our survey results indicating agriculture most affected. Other adversely affected sectors included construction, real estate and unsecured lending.



Although it might be considered understandable for banks to exercise more caution in extending credit to the agricultural sector on account of the perceived high level of inherent credit risk, reduced lending to this sector is at odds with the Government's objective of diversifying the economy, and the modernisation and expansion of the agricultural sector.

That being said, this has to be considered within banks' primary objective of protecting shareholder value. This therefore calls for specific Government interventions designed to make credit to the agricultural sector more affordable and accessible.

Liquidity risk

The third biggest issue facing commercial banks in 2016 was **liquidity risk.** Since the adoption of a tight monetary policy stance, liquidity in the market has been volatile, with an overall downward trend.

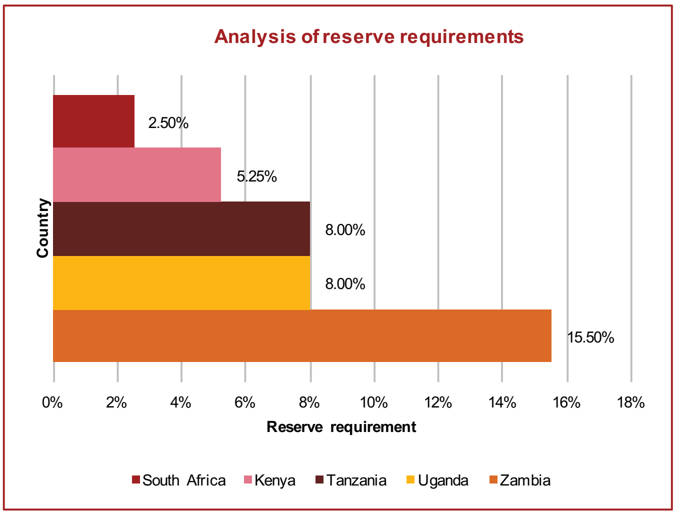
According to the BoZ fortnightly statistics, the average monthly market liquidity at the start of the year was recorded at K 711 billion, increasing to relatively high levels of K 2,207 billion in March 2016 and declining to lows of K 668 billion in July 2016. However, in December 2016 the average market liquidity was reported at K 2,714 billion – an indication of a shift in the BoZ's liquidity tolerance.

To address the issue of the affordability of liquidity in the market, over 70% of the respondents to our survey – which was conducted before the BoZ monetary policy statement of February 2017 – proposed an easing of monetary policy through a combination of a reduction in the BoZ policy rate, the SRR and Government borrowing.

In their February 2017 monetary policy statement, the BoZ signalled a cautious easing of monetary policy by reducing

the policy rate to 14% and the SRR to 15.5%. While we expect this was well-received by the industry, the issue of whether it delivers the desired outcomes can only be established in due course.

Comparing policy rates across different economies would be misleading, but we are of the view that performing a similar analysis with respect to reserve requirements would provide some useful perspective.



In our view, any proposals made with respect to the monetary policy stance adopted by the BoZ, while reasonable in isolation, should be considered in the broader context of the BoZ's objectives of maintaining price stability and safeguarding the stability of the financial system.

Interestingly, despite commanding 75% of deposit market share (2015: 75%), five of the top six banks still ranked liquidity risk joint-fourth in the list of issues that impacted their businesses in 2016. This emphasises the pervasive impact of the tight monetary policy stance adopted by the BoZ.

Cyber security

The fourth highest-ranked issue in our survey was **cyber security.** The risk posed to a bank's systems, networks and data in cyberspace by its day-to-day operations continues to grow in prominence with the advent of technological advancements in service delivery as a source of operational and cost efficiency.

Technology-led innovation both globally and locally has enabled the financial services sector to evolve, leading to dynamic connectivity and collaboration extending to all facets of business. Cyber risks are expected to continue to increase due to the following factors:

- Rapidly evolving, sophisticated, and complex technologies
- Increased use of mobile technologies by customers
- Heightened information security threats from outside the country

Cyber security has now become a strategic issue. Cyber security is no longer something delegated to IT. It has become an enterprise risk to be managed and most organisations in the banking sector are alive to this.

When CEOs and boards evaluated their market threats or competitors in the past, few considered cyber threats. Today, the sheer volume and concentration of data coupled with easy global access throughout the business ecosystem magnifies exposure to cyber-attacks. Therefore, it is anticipated that cyber security initiatives will be led by boards and executive management.

Interest rate risk

Lastly, the fifth most significant issue affecting the Zambian banking industry in 2016 was managing interest rate risk.

One of the manifestations of the tight liquidity environment has been depressed interest rate margins. The high interest rate regime experienced in the industry over the last 18 months has provided banks with an opportunity to achieve revenue growth targets through improved interest income on investments such as Government securities and money markets.

However, this optimism has been tapered by the increased credit risk typically inherent in a high interest rate environment. As mentioned earlier, several banks exercised caution in executing lending decisions and, in some cases, froze lending to certain sectors altogether.

The challenging liquidity environment, which was largely created by a combination of the tight monetary policy stance adopted by the BoZ and high levels of inflation, constrained access to affordable deposits and meant that banks resorted to accessing funds through interbank lending and relatively pricey fixed-term deposits.

The increased demand for interbank lending pushed rates from about 15% in October 2015 to highs of 27% in March 2016, with a sharp decline experienced in June 2016.

Interbank lending rates have continued to exhibit a downward trend, closing the year at about 14%, in line with the BoZ policy rate.

Due to the general rise in interest rates during 2016, the industry experienced an increase in interest expense from K1.91 billion to K2.62 billion, which led to a significant decline in the net interest margin from 65% to 60%.

While the easing of the monetary policy stance will come as a welcome relief to the industry, a more sustainable solution to managing pressure on net interest margins is the mobilisation of affordable deposits and effective execution of financial inclusion initiatives.

The Road Ahead: Time to Transform

As part of our survey, PwC conducted a number of interviews with banking executives, including the Deputy Governor of the BoZ, to gain a better insight into the challenges facing the industry as well as the opportunities these challenges present for the sector. The following is a summary of the findings of these interviews.

Challenges

Fiscal discipline

The Government's ability to maintain fiscal discipline over the medium-term will continue to have a significant impact on the monetary policy adopted by the BoZ. In this regard, the Government must meet its set budgetary expenditure and revenue collection targets, reduce borrowing, and dismantle the arrears owed to local suppliers.

Pronouncements by the Minister of Finance on the need to control Government expenditure should be coupled with real action to ensure fiscal targets are achieved and the pressure on domestic money markets reduced. This is vital in establishing stable monetary policy. The BoZ faces a difficult task in maintaining the delicate balance between ensuring financial market resilience and softening the statutory reserve ratio to fuel growth.

Effects of the slowdown in the economy

The full effects of the slowdown in the economy are yet to be seen and it is likely we will witness continued crystalisation of NPLs in the sector as well as the tapering back of growth strategies on account of credit contraction.

The challenging economic environment has led to a number of credit facilities being restructured in an effort to enable borrowers to make good on their loans. The question that remains is whether the underlying conditions have improved and we are not merely seeing a delay in the recognition of impairments.

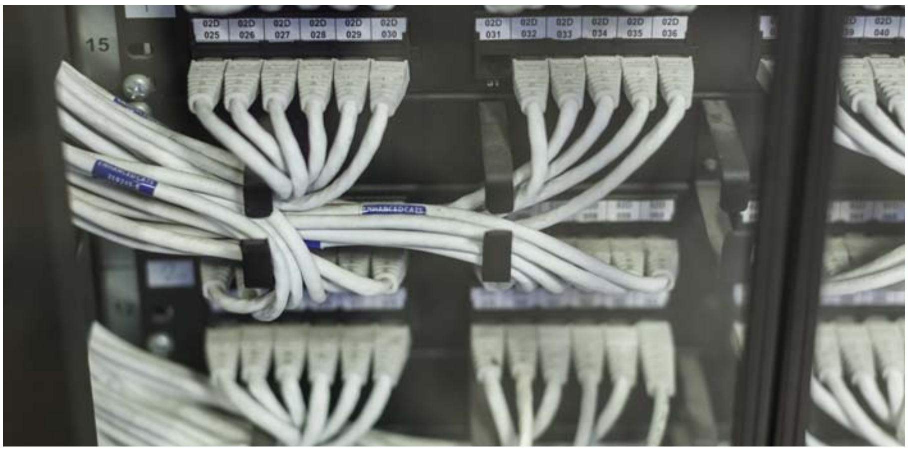
The Government's efforts to settle the arrears owed to local suppliers is a positive move. Unfortunately, the long delay in the settlement of these debts means that a lot of small Zambian contractors have since been put out of business.

The loss of collateral over the last year further hampers their ability to access the credit needed to recover. We are therefore likely to see a slow recovery in locally-driven economic activity.

Cyber security

As technology continues to shape the direction of the banking sector and how it offers services to its customers, cyber security grows in prominence.

With mobile technology being used increasingly to complement existing platforms and facilitate innovation, the threat to information security needs to be considered carefully. Discussions on cyber security initiatives should be led by boards and executive management, and form a core part of any growth strategy discussions.



Financial inclusion

Financial inclusion remains high on the agenda of the Government and regulator. Significant strides have been made towards increasing financial inclusion among the informal sector within urban areas.

The challenge facing the industry is how to provide services to the 'excluded' part of the population that are typically located in rural areas with poor social infrastructure. In this regard, the call upon the Government to invest in social infrastructure, such as improved internet access, reliable electricity and education, remains strong.

Market concentration

The local banking sector is highly concentrated, with the top six banks accounting for over 72% of total assets and 75% of deposits.
The ability of the larger banks to access cheaper deposits and resources significantly affects the operating models of smaller banks in the market. A key question is whether the two-tier system remains ideal for the market, taking into consideration the non-compliance with minimum regulatory capital requirements.

Opportunities

Technology, the disruptor

Growth and innovation continues to be technology-led and offers an important alternative to the relatively costly traditional channels of offering banking services.

The needs of the new banking customer are shifting away from these traditional channels, and investment in technology infrastructure and resources will provide a critical edge for any bank. The use of technology offers banks a very real opportunity to rationalise their operating cost base without compromising service delivery.

The disruptive effect of technology will drive changes in bank operating models as well as the face and nature of the competition. As an example, mobile technology supports the offering of short-term cash advances and money transfers, which traditionally would be the preserve of banking and micro-finance entities. The ability of a bank to identify and capitalise on key technological trends will be a vital factor in their future success.

Regulatory consolidation

The financial services sector has continued to expand and a number of entities now operate in multiple sectors such as banking, insurance and the capital market.

The regulatory environment is, however, still fragmented, with entities finding themselves reporting to multiple regulators. We understand that the Pensions Insurance Authority, the BoZ, and the Securities and Exchange Commission meet periodically to discuss common matters affecting their sectors.

This is a positive initiative which could be further enhanced by the regular review of the consolidated exposure that individual entities have across the financial services sector.

Cost optimisation

Cost optimisation and rationalisation offer banks a real opportunity to claw back some of the losses incurred as a result of the increased cost of funds. These challenging times offer management teams a perfect opportunity to reassess their operating structure and resource base in order to determine whether they remain fit and agile in the challenging world of banking.

Conclusion

The recent economic problems have presented banks with significant challenges. However, with these challenges have come opportunities for learning, adapting and innovation.

A key observation arising from the survey findings is the sub-optimal cost structure of the sector. Many risks arose during the period, but a consistent message observed is that the cost structure of banks is not sustainable.

There is no doubt that the other issues highlighted in the survey, including credit risk, liquidity risk, cyber security and interest rate risk, are significant. However, they are largely driven by circumstances outside the immediate control of the banks. In contrast, cost management is an issue that is within the banks' ability to influence.

It is generally believed that the economy is on the path to recovery. With this in mind, this is the right time for the industry to take a critical look the efficiency of its operations.

Technology and innovation present banks with not just a great opportunity to enhance their product and service offerings, thereby driving revenue growth, but also a chance to improve efficiency.

Integrating technology into banks' business-as-usual operations while improving productivity of staff is a challenge that those who overcome will reap significant benefits from.

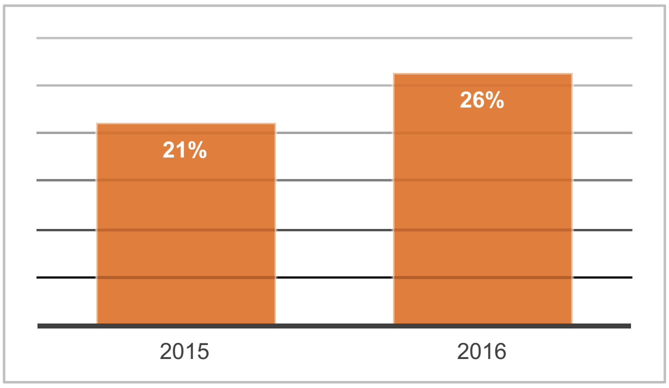
Appendix
Financial Performance and Analysis

The capacity to generate sustainable profitability is essential for a bank to maintain ongoing activity. The main drivers of a bank remain its earnings, its efficiency and the capacity to mobilise assets to generate earnings. Using industry ratios obtained from the BoZ's performance indicators, we have assessed the industry's financial performance below.

1. Capital adequacy ratio

The capital adequacy ratio (CAR) increased from 2015 to 2016. This was a result of the total regulatory capital increasing significantly compared to the risk-weighted assets as banks increased their share capital and Tier II capital. The increase in regulatory capital was mainly a result of significant profits being made by a number of the top six banks. Chart I below shows the increase in the industry CAR between 2015 and 2016.

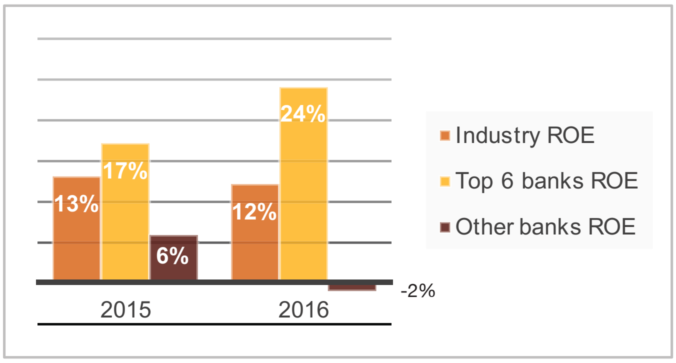
CHART I:
Industry capital adequacy ratio (Source: Bank of Zambia)



2. Return on equity

The decrease between 2015 and 2016 in the industry return on equity (ROE) was a result of a significant increase in the shareholders' funds compared to the profit after tax that showed a reduction. The top six banks in relation to profitability in 2016 showed an increase in ROE of 24% compared to 17% in 2015. However, this was countered by a reduction in the ROE of the remaining banks compared to 2015. Chart II below shows changes to the ROE within the industry between 2015 and 2016.

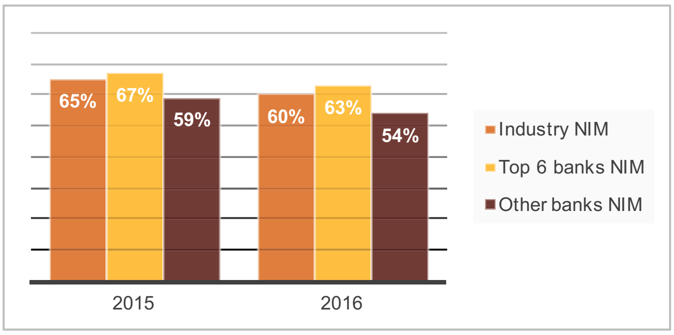
CHART II:
Industry return on equity (Source: Bank of Zambia)



3. Net interest margin

The interest income between 2015 and 2016 increased due to increased interest rates in the economy. However, the increase in the cost of funding in the market resulted in a significant increase in the interest expense. This then resulted in a reduced net interest margin (NIM) for the industry. This was consistent for the majority of the banks. Chart III below shows changes to the industry NIM.

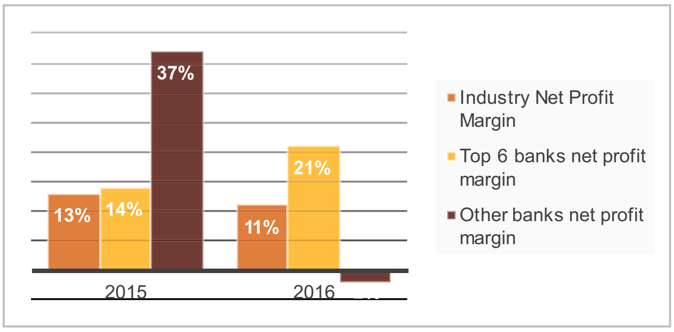
CHART III:
Industry net interest margin (Source: Bank of Zambia)



4. Net profit margin

The industry net profit margin (NPM) reduced between 2015 and 2016 mainly due to increased non-operating expenses, impairment charges and interest expenses resulting from the increased cost of funding and the high inflation rate. The top six banks by profitability showed an increase in the NPM between the two years. However, this was negated by the significant reduction in the margin among the remaining banks. Chart IV below shows changes to the industry NPM between 2015 and 2016.

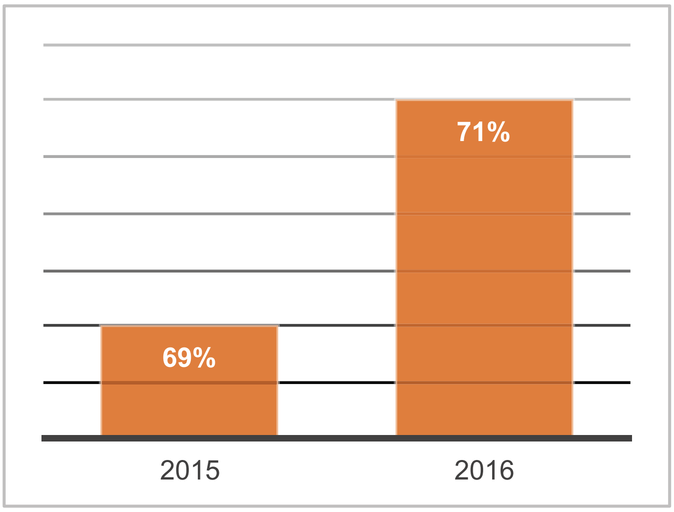
CHART IV:
Industry net profit margin (Source: Bank of Zambia)



5. Cost-to-income ratio

The increase in the cost-to-income ratio (CIR) over the period is mainly due to a higher increase in the non-interest expenses compared to the interest and non-interest income. Non-interest expenses mainly include staff costs. Chart V below shows the increase in the industry CIR between 2015 and 2016.

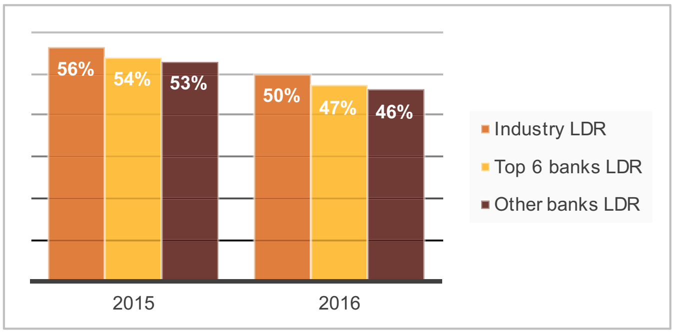
CHART V:
Industry cost-to-income ratio (Source: Bank of Zambia)



6. Loans-to-deposits ratio

The reduction in the loans to deposits ratio (LDR) between 2015 and 2016 is a result of a significantly higher increase in deposits compared to the loans. The increase in deposits was mainly attributable to the revaluation of foreign currency deposits after the depreciation of the Kwacha. Chart VI shows the change in the industry LDR between 2015 and 2016.

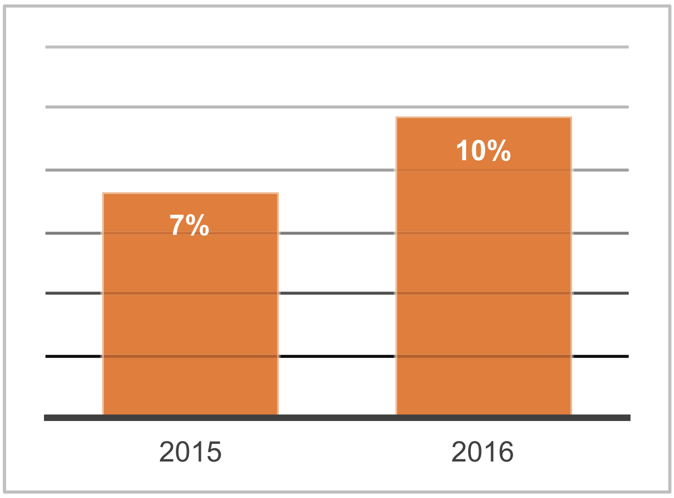
CHART VI:
Industry loans to deposits ratio (Source: Bank of Zambia)



7. Non-performing loans

The increase in non-performing loans (NPLs) between 2015 and 2016 is mainly a result of an increase in the cost of doing business associated with power rationing, the depreciation of the Kwacha and high inflation. Chart VII below shows the increase in industry NPLs between 2015 and 2016.

CHART VII:
Industry non-performing loans (Source: Bank of Zambia)



Glossary

1. *Capital adequacy ratio (CAR)*

   CAR = $\frac{\text{(Tier 1 capital-goodwill) + Tier 2 capital}}{\text{Risk weighted assets}}$

2. *Return on equity (RoE)*

   RoE = $\frac{\text{Profit for the year}}{\text{Shareholders' Equity}}$

3. *Net interest margin (NIM)*

   NIM = $\frac{\text{Net interest income}}{\text{Interest income}}$

4. *Net profit margin (NPM)*

   NPM = $\frac{\text{Profit after tax}}{\text{Net interest and non-interest income}}$

5. *Cost to income ratio (CIR)*

   CIR = $\frac{\text{Operating expenses (excluding provision loss)}}{\text{Net interest income + non-interest income}}$

6. *Loans to deposits ratio (LDR)*

   LDR = $\frac{\text{Total loans}}{\text{Total deposits}}$

7. *Non-performing loans ratio (NPLR)*

   NPLR= $\frac{\text{NPLs}}{\text{Gross loans}}$

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