POLICY BRIEF

Banking Industry Competition and Stability in Zimbabwe

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Abstract

The study investigates the impact of changes in banking industry competition on the industry's stability in Zimbabwe using a sample of eighteen banks for the period 2009-2017. The period of study coincides with an era when the country experienced growth and stability (under full dollarization) after a decade of an economic crisis (prior to full dollarization). First, the study employs a modified version of the Boone (2008) indicator to establish the evolution of competition. Second, the Z-score is employed to investigate the nexus between banking industry competition and stability in the country.

The study establishes that banking industry competition in Zimbabwe registered a pronounced increase for the period 2009 to 2012. This was, to some extent, attributed to the banks' aggressive business models that sought to increase client bases by offering loans to increase asset bases and profitability. This trend was, however, reversed post 2012, as competition consistently fell between 2013 and 2017, mainly due to falling demand for both personal and business loans and a measured approach by banks in issuing new loans following a rise in non-performing loans (NPLs). The relationship between banking industry competition and stability is strong and competition appears to be good for the country's banking industry. Our findings have potentially important policy implications regarding the design and enforcement of regulations that create the right incentives to safeguard stability, while at the same time conscious of the link between competition and stability. Understanding the dynamics of competition and stability is crucial not only to banks, bank regulators and policy-makers in Zimbabwe but to other developing countries, as they have the leverage to shape bank competition to heights that produce desired levels of stability. To banks, competition has implications on their access to finance and stability of the industry.

Introduction

Zimbabwe's banking industry has, over the past two decades, operated under difficult and unique conditions. For a decade prior to the adoption of full dollarization, the economy experienced high levels of inflation and consequently declining growth[1]. This period also coincided with improved bank supervision and the implementation of new banking legislation that sought to liberalize the industry. These developments, coupled with volatile capital and deposit bases during the hyperinflation period, had a bearing on competition and stability of banks operating in the country during that time. The adoption of full dollarization ushered in a radically new environment, which created both opportunities and challenges for the banking industry. Although the move permitted a return to normal banking, the new environment introduced challenges and risks to the banking industry. Under full dollarization, the central bank is constrained in the use of standard monetary and financial policy instruments and as such the apex bank may not be able to shape bank competition to levels that produce desired levels of stability.

1 Zimbabwe adopted full dollarization in February 2009 in a bid to manage hyperinflation and an economic crisis that dominated the 2000-2008 period. Dollarization allowed for the simultaneous use of five currencies, namely the United States dollar, South African rand, British pound, Botswana pula and the Euro. The Zimbabwe dollar was subsequently officially demonetized in June 2015.

Prior to dollarization, some banks were either placed under curator-ships and/or liquidated while post the adoption of dollarization, several bank closures, mergers, and acquisitions were witnessed. In addition, several banks migrated from lower banking classes such as discount and finance houses to commercial banking which ostensibly offered greater scope for business. Two contrasting postulations can be drawn from these developments. Some may argue that bank liquidations, mergers and acquisitions lowered the number of banks (increased concentration) and in the process increased the market power of individual banks and therefore lowered levels of bank competition. On the other hand, the two macroeconomic eras prior to and post the adoption of dollarization may have both intensified competition in the country's banking industry as banks competed in deposit and loan markets, against the background of a low deposit base and liquidity challenges. In addition, the increase in the number of commercial banks, through migration from other categories may have resulted in increased competition in the deposit and loan markets, as that is their main line of business.

It is against this background that this study empirically assesses how the evolution of competition impacted on stability in the country's banking industry for the period 2009-2017. This period coincides with a period under which Zimbabwe was under full dollarization. The introduction of banking industry regulation reforms, macroeconomic policies as well as macroeconomic developments in Zimbabwe under full dollarization created unique challenges and opportunities for the country's banking sector, when compared to other African countries. In addition, an evaluation of the impact of banking industry competition on the stability of the industry in Zimbabwe is a relatively unexplored issue, particularly under a fully dollarized regime, save for Sanderson Le Roux and Mutandwa (2018). As such this paper seeks to achieve three main objectives, namely (i) to empirically ascertain the evolution of competition in Zimbabwe's banking industry post the adoption of full dollarization (ii) to establish the link between the level of competition and stability in the country's banking industry during the same period and (iii) to infer whether competition, if it exists, is good (if it fosters stability in the country's banking industry) or bad (if it breeds fragility in the industry).

The study employs a modified version of the Boone (2008) indicator, a new measure of firm competition, to establish the evolution of competition in Zimbabwe's banking industry for the period 2009-2017 using a sample of eighteen banks. The study further employs the Z-score to investigate the nexus between banking competition and stability in the country's banking industry. Results show that banking industry competition in Zimbabwe registered a marked increase between the years 2009 to 2012, mainly attributed to the banks' aggressive business models that sought to increase client bases by offering loans to increase asset bases and profitability. This trend was, however, reversed post 2012, as competition consistently fell between 2013 and 2017. This was mainly a result of falling demand for both personal and business loans and a measured approach by banks in issuing new loans following the significant rise in NPLs. The relationship between banking industry competition and stability is strong and competition appears to be good for the country's banking industry. The study’s findings have potentially important policy implications regarding the design and enforcement of regulations that create the right incentives to safeguard stability, while at the same time conscious of the link between competition and stability. Understanding the dynamics of competition and stability is crucial not only to banks, bank regulators and policy-makers in Zimbabwe but to other developing countries, as they have the leverage to shape bank competition to levels that produce desired levels of stability. To banks, competition has implications on their access to finance and stability of the industry.

This paper contributes to extant competition literature in a distinct way in that it adds to the few studies that apply this method to a developing country's banking industry on the grounds that it is an improvement to the generally accepted and widely used concentration measures, such as the Herfindahl-Hirschman index (HHI). Nevertheless, the study also employs the HHI, for robustness checks. The period of study coincides with an era when the country experienced growth and stability (under full dollarization) after a decade of an economic crisis (prior to full dollarization) thereby presenting an interesting case, different from most African countries' experiences. The rest of the paper is organized as follows: Section 2 details the structure and evolution of Zimbabwe's banking industry. Section 3 presents an overview of different measures of banking competition, as well as the theoretical and empirical literature on the relationship between banking industry competition and stability. Section 4 explains the econometric methodology, Section 5 empirical results and discussion and Section 6 concludes and proffers policy recommendations.

Structure of and development in Zimbabwe's banking sector

Zimbabwe has all elements of a modern, well developed financial sector, including life and general insurance, public and private funds, and active capital markets, including the Zimbabwe Stock Exchange (ZSE) and several stockbrokers. As of 31 December 2017, the country had nineteen registered deposit-taking institutions comprised of fourteen commercial banks, four building societies and one savings bank. Table 1 below shows the trend in the country's banking sector architecture for selected years covering the period 2003 to 2017.

Table 1: Trends in banking sector architecture

Banking Class	Number of Institutions								
	2003	2006	2009	2010-2012	2013	2014	2015	2016	2017
Commercial Banks	16	14	18	17	15	15	13	13	14
Building Societies	5	4	4	4	4	4	4	5	4
Merchant Banks	6	5	4	4	2	1	0	0	0
Savings Banks	1	1	1	1	1	1	1	1	1
Discount Houses	9	6	1	0	0	0	0	0	0
Finance Houses	5	4	0	0	0	0	0	0	0
Total No of Banks	**42**	**34**	**28**	**26**	**21**	**21**	**18**	**19**	**19**

Source: Reserve Bank of Zimbabwe

As outlined in Table 1 above, commercial banks have, over the years, continued to dominate the country's banking industry and the largest five account for over sixty-five per cent of the industry's assets and eighty-two per cent of commercial bank assets. Of the nineteen banks that operated in 2017, six were foreign-owned. As of 31 December 2017, total assets held by the fourteen commercial banks were equivalent to almost 50 percent of gross domestic product (GDP), of which nearly 24 percent were held by the six foreign-owned banks. Foreign-owned banks accounted for 42 percent of the market share, while one domestically owned bank had more than 30 percent. On average, 50 percent of banks' income is interest based, while around 40 percent originates from fees and commissions.

The marked fall in the total number of banks from forty-two in 2003 to twenty-eight in 2009, as shown in Table 1 above was mainly a result of some banks being either placed under curatorship and/or liquidated. Post the adoption of dollarization in 2009, several bank closures, mergers and acquisitions were witnessed and as such the total number of banks fell from twenty-eight in 2009 to nineteen by the end of 2017. In addition, several banks migrated from lower banking classes such as discount and finance houses to commercial banking which ostensibly offered greater scope for business.

The Reserve Bank of Zimbabwe (RBZ) is responsible for bank regulation and supervision in Zimbabwe. The RBZ Act [Chapter 22:15] empowers the RBZ to supervise banking institutions and to foster stability and proper functioning of the entire financial system. The supervisory and regulatory role is entrusted to the RBZ's Banking Supervision Department (BSD), which supervises the country's banks. The Banking Act and Banking Regulations (Statutory Instrument 205 of 2000) provide for the registration, regulation, continuous monitoring, and supervision of persons conducting banking business in Zimbabwe. The RBZ, through the BSD is also empowered to register and supervise asset management companies, micro-finance institutions, building societies and savings banks following the invocation of Section 3 (3) of the Banking Act, in March 2005.

For a decade prior to full dollarization, the economy experienced high levels of money supply growth, distorted prices, and acute foreign currency shortages. These developments gave rise to high inflation and consequently declining Gross Domestic Product (GDP), as shown in Table 2.

Table 2: Macroeconomic and Banking Sector Developments: 2001-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GDP Growth (%)	-3.1	1.4	-8.9	-17.0	-5.8	-5.7	-3.5	-3.7	-17.7
Inflation Rate (%)	55.9	6.7	140.1	431.7	282.4	302.1	1,096.7	24,411.0	231,000,000.0

Source: Ministry of Finance and Reserve Bank of Zimbabwe

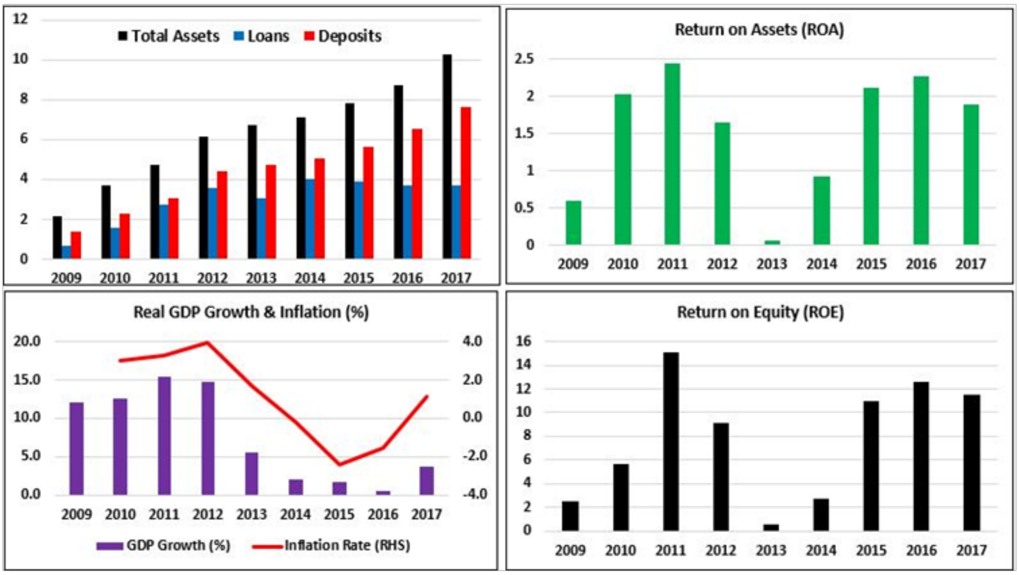
In March 2007, price increases reached hyperinflation levels, defined as the month-on-month inflation that exceeds 50 percent. By 2008, the country had lost more than 40 percent of its national output because of a sustained period of negative growth. In July 2008, year-on-year inflation peaked at 231 million percent (See Table 2).

The decade long deterioration in Zimbabwe's economy adversely affected the health of the country's banking industry through the erosion of liquidity, asset base, profitability and increases in NPLs. This period also coincided with improved bank supervision and the implementation of new banking legislation that sought to liberalize the industry. These developments, particularly volatile capital and deposit bases had a bearing on competition and stability of banking institutions operating in the country.

The adoption of full dollarization in February 2009 presented a defining moment for the country's banking industry. It ushered in a radically new environment, which created both opportunities and challenges for the banking industry. Although the policy move permitted a return to normal banking, the new environment also introduced some challenges and risks for the banking sector. Under full dollarization, the central bank is constrained in the use of standard monetary and financial policy tools as policy instruments, especially as money supply and interest rate decisions were effectively taken out of the hands of the Authorities. As such there are virtually no tools at the disposal of the central bank to conduct traditional monetary policy and hence the apex bank may not be able to shape bank competition to a threshold that produce desired levels of stability.

The country's banking industry emerged from a period of hyperinflation and economic contraction with very limited capacity to intermediate and the industry continued to struggle to mobilize foreign currency funding in the early years after 2009. Liquidity constraints limited the rate of growth of credit to the private sector during that period. The profitability, asset base, credit to the private sector of Zimbabwean banks somewhat improved post 2009, following a more favourable economic environment, as shown in Figure 1 below.

Figure 1: Macroeconomic and Banking Sector Developments: 2009-2017



Source: Ministry of Finance and Reserve Bank of Zimbabwe

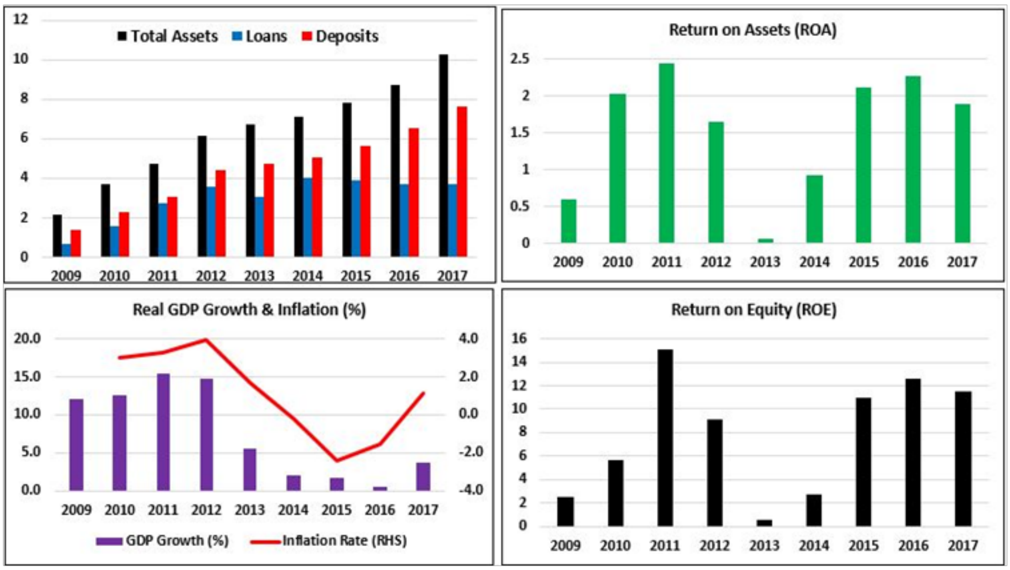
However, small banks became more risk taking, reaching lower-ended customers, sometimes unbanked, and potentially heightening the volatility to bank income and profitability. In addition, even apparently liquid institutions were reluctant to lend due to challenges of operating without an inter-bank market and the central bank lender of last resort window. Few borrowers were viewed as credit worthy, and banks remained cautious in their lending.

Whereas the banking sector entered the dollarization era being little more than a quarter of its 2004 size as hyperinflation had almost completely eroded the real value of financial assets and liabilities in domestic currency, the year 2010 saw the expansion of the banks' balance sheets. After the end of hyperinflation, bank credit increased, supported by strong deposit growth, economic recovery, and the formalization of the economy (see loans in Figure 1). However, vulnerabilities in the banking sector increased together with the expansion of credit and deposits. Some smaller banks struggled to comply with minimum capital requirements, rising credit risk and NPLs. The new environment also introduced challenges for the banking sector which included security risk, increased foreign exchange credit risk and income generation risk.

While banks are expected to contribute to the economic recovery process through inter alia, provision of credit to the real sector, most banking institutions' capital bases were eroded in the hyper inflationary environment resulting in insignificant capital values following the changeover to dollarization. Dollarization also heightened operational risk, in particular security and fraud risks in banking institutions. Credit risk in banks was transformed from local currency to foreign currency, as the de-monetization of the local currency rendered the central bank's domestic currency lender-of-last-resort facility redundant.

There was an increase in the number of commercial banks over the years, from five in 2003 to a high of eighteen in 2009, before a fall to fourteen in 2017, as shown in Figure 2 below.

Figure 2: Trends in Banking Sector Architecture



Source: Reserve Bank of Zimbabwe

This is explained, in part, by the migration of several banking institutions from merchant banking, discount and finance houses to commercial banking. At the same time, the number of banks fell from forty-two in 2003 to nineteen in 2017 due to closures, mergers, and acquisitions. Two contrasting postulations can be drawn from these developments. Some may argue that mergers and acquisitions, whose effect would be to lower the number of banks (increase concentration) in the system and consequently increase the market power of individual banks, a development that would presumably lead to lower levels of bank competition. On the other hand, the increase in the number of commercial banks may have resulted in increased competition in the deposit and loan markets, as that is their main line of business. Competition and Banking Industry Stability.

There are several competing notions that attempt to explain the relationship between competition and stability. Marcus (1984), Chan et al. (1986) and Keeley (1990) discuss the traditional view, also known as the “competition-fragility" notion. It asserts that banking industry competition compromises stability as competition leads to lower profits and erodes a bank's franchise value, outcomes that may tempt banks to engage in risky business lines. In addition, competition may breed moral hazard and adverse selection in the loans market, consequently increasing the dangers of bank fragility (Allen and Gale, 2000). In a banking system which is highly concentrated and hence less competition, the “competition-fragility" view postulates that bigger banks can diversify their portfolios, thereby insulating themselves from the possibility of crises. On the other hand, the competition-stability view posits that banking industry competition is good as it enhances stability. Supporters of this notion disagree with the “competition-fragility" assertion that highly concentrated and less competitive banking systems are more stable. They argue instead that high market power synonymous with more concentrated and less competitive banking systems can entice banks to charge higher interest rates. This is bound to increase moral hazard and adverse selection, resulting in higher NPLs and ultimately, banking industry instability.

Earlier empirical findings on the relationship between banking industry competition and stability is mixed. At country level, increased competition has been shown to heighten risk-taking at bank level (Dell'Ariccia, Igan and Laeven, 2008). In particular, the findings of the only study on bank competition and stability in Zimbabwe by Sanderson et al. (2018) for the period 2010-2016 supports the “competition-fragility” view. However, as discussed in World Bank Group (2013), Boyd and Runkle (1993), Boyd and Graham (1998) and De Nicolo (2001)'s findings dispute the competition-fragility view that “larger banks are less likely to fail”, hence rendering support to the “competition-stability” view. In addition, the “competition-stability” view finds support in findings that use cross country, time-series data sets offer evidence supporting the competition-stability view (Schaeck and Cihák, 2008).

In conclusion, while the traditional view has been that banking competition is bad for stability, other studies have shown that competition promotes efficiency and financial inclusion and that it is a conduit for banking industry stability (World Bank Group, 2013).

Conclusion and policy implications

The study models the evolution of competition in Zimbabwe's banking industry using the modified version of the Boone (2008) indicator and Boone (2008) model, a measure of firm competition, for the period 2009 to 2017. Results show that banking Industry competition took two distinctive phases between 2009 and 2017. There was a pronounced increase in competition in the loans market for the period spanning 2009 to 2012. This was, to some extent, attributed to the banks' aggressive approaches to increasing client bases by offering loans to increase their asset bases and profitability. This trend was, however, reversed post 2013, as witnessed by declining competition between 2014 and 2017. This was mainly a result of falling demand for both personal and business loans and a measured approach by banks in issuing new loans following the significant rise in NPLs. The link between the level of competition in the country's banking industry and stability is strong and competition appears to be good for the country's banking industry. Specifically for Zimbabwe, banking industry competition is good in that it fosters stability only if that competition is taking place in a stable macroeconomic environment with a sustained growth in economic activity, low and stable inflation, a healthy bank deposits and assets base as well as low NPLs. In addition, competition that reallocates profits from the least efficient to the most efficient banks in the Zimbabwean market, as witnessed during the 2009-2017 period is bound to foster stability.

The study's findings have potentially important policy implications regarding the design and enforcement of regulations that create the right incentives to safeguard stability, while at the same time conscious of the link between competition and stability. A better understanding of the dynamics of competition and stability is crucial not only to banks, bank regulators and policy-makers in Zimbabwe but to other developing countries. To banks, competition has implications on their access to finance and stability. Bank regulators and policy-makers have the leverage to shape bank competition to levels that produce desired levels of stability.

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