Ownership Structure and Risk Taking Behavior: Evidence from the Zimbabwean Banking Sector

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Abstract:
The purpose of this paper was to investigate the impact of ownership structure on the risk-taking behavior of banks in Zimbabwe from 2009 to 2011. The banking sector in Zimbabwe is divided into three sectors which are foreign-owned, state owned and locally owned. Banks in each segment were selected using a multistage sampling technique where banks were stratified and followed by convenient sampling technique. The risk taking behavior was measured as a ratio of Non-Performing Loans (NPL) to equity and the data was from financial statements of the sampled banks. An Analysis of Variance (ANOVA) was adopted as an analysis technique and the results indicated that ownership structure strongly influences risk taking behavior with foreign banks taking greater exposure. The paper suggests that policies should be structured in a way that prevents unnecessary risk taking behavior bank managers as this may lead to instability and the collapse of the banking sector.

Keywords: Ownership structure, Risk taking behaviour, Banking sector, ANOVA, Zimbabwe

1.0 Introduction and background
The objective of this paper is to analyse the effect of the ownership structure of Zimbabwean banks on their behavior in exposing themselves to risk over the study period 2009 to 2012. The Zimbabwean banking sector was crippled by the economic recession in 2008 which was driven by hyperinflation source. However, the dollarization in the first quarter of 2009 brought some stability in the banking sector. Over the years, the banking sector of Zimbabwe has been an oligopoly market structure with the dominance of foreign banks. The Reserve Bank of Zimbabwe (RBZ) in its powers enacted laws to dilute such foreign dominance which were criticized on the basis of making the banking sector inefficient. The 1999 banking act saw many local investors making some strides in the banking sector as entry barriers were loosened up. The troubled financial institution resulted in the closure of one domestic owned bank while six were put under curatorship (Sanderson and Le Roux, 2016).

The crisis leads to the formation of the Zimbabwe Allied Banking Group (ZABG) in 2005. The hyper-inflation which recorded its highest level of 1729% in 2008 resulted in asset-liability mismatch driven by the falling value of collateral security. Resultantly, managers took a position to hedge against various risks. The birth of the multi-currency regime brought some stability in the banking sector hence influencing risk taking behavior by banks of different ownership structures (Sanderson and Le Roux, 2016). However, the 2009 indigenization policy which mandated foreign-owned banks to cede 51% stake reignited the debate of ownership structure and firm performance as measured by risk taking behavior.

The objective of this paper is to investigate the nexus between ownership and risk taking behavior using a sample of ten banks from foreign-owned banks, state owned banks, and domestic owned banks were sampled with two banks, four banks, and four banks being state owned, foreign-owned and locally owned respectively for a three year period from 2009 to 2011.

2.0 Literature review
Marco and Fernandez (2008) propounded that the degree of ownership concentration in commercial banks had a negative impact on the level of risk-taking. Foreign ownership can also influence bank risk profile. For instance,
foreign banks can take higher risk because they have less experience and a lower number of connections in the domestic market. On the other hand, foreign banks may decrease their risk due to access to better techniques of risk diversification and risk management. Laeven (2004) argued that foreign-owned banks on average have a lower risk compared to domestic and state owned banks. Additionally, Bhaumik and Piesse (2008) stated that foreign banks take a lower risk because they are able to attract more creditworthy clients. A contradicting assertion was passed by Maechler et al. (2007) who proposed that foreign banks are associated with a higher risk profile because they have lower capitalization ratio. The lower capitalization may be caused by the access of foreign banks to extra funding from parent institutions.

There are similarities and differences between type and structure of bank ownerships. Both type and structure of bank ownership explain the parties controlling the banks. They basically concern the major party which has more power to influence the policies and strategies of the bank. According to Ciancanelli and Gonzales (2000), the structure of bank ownership is more concerned about the shareholder proportion of control, whilst the type of bank ownership concerns different organizational culture between the parties, namely privately domestic-owned banks, state owned banks, and foreign-owned banks. The three types of bank ownership may have different cultures, attitudes, and behaviors in nature to manage the banks which lead the different level in risk-taking behavior and hence bank performance.

The Principal-agent theory of Jensen and Meckling (1976) is widely used to explain why domestic and foreign-owned firms have better economic performance than do state owned firms which are publicly owned. The theory tends to suggest that state owned banks are inefficient due to the fact that there is a lack of capital market discipline. Because of the lack of market monitoring, managers attempt to pursue their own interests at the expense of enterprises’ interests. Thus, agency theory views that there is a relationship between ownership structure and economic performance: the cost of monitoring makes private or closely-held firms economically more efficient than publicly owned firms hence influencing the risk taking behavior by managers of these enterprises.

According to the agency theory, risk taking behavior is influenced by conflicts between managers and shareholders (Jensen and Meckling, 1976). According to Demsetz and Lehn, (1985) and Kamau, (2009) managers can pursue their own interests, by enjoying private benefits of control or preserving specific acquired human capital instead of maximizing shareholders’ wealth. In addition, managers bear the specific risk of the firms they manage, and for such, they are expected to be more risk averse than shareholders with a diversified investment portfolio. Thus, if no mechanisms to align the interests of managers to the ones of shareholders are present, such as executive compensation contracts or effective monitoring of managerial actions, managers would have incentives to take less risk.

Therefore foreign-owned banks and domestic banks which are controlled or actively monitored by shareholders are expected to take more risk than state owned banks because shareholders of these financial institutions could motivate managers to take higher risk by improving incentive compensation scheme. However, from the regulators’ point of view, managers’ compensation schemes should be structured in order to discourage banks from becoming too risky. By these same arguments, a shareholder that participates in the management of the firm would experience opposite risk incentives, suggesting that such shareholder would have an attitude to take less risk than a shareholder not involved in management (Kamau, 2009).

These incentives to risk taking are therefore influenced by ownership structure. Conflicts of interests between managers and shareholders are argued to be more important in state owned banks as coordination problem hinders effectively monitoring of managerial actions by small shareholders, who have to rely on external monitoring through the market for corporate control (Fama and Jensen, 1983; Janek, 2004). By contrast,
conflicts between managers and shareholders are expected to be less important in foreign and domestic banks which are highly concentrated as controlling shareholders have strong incentives to monitor managers, and even replace them in the case of poor performance (Haw et al, 2010). Because shareholders’ interests are likely to prevail in banks with concentrated ownership, it is expected that foreign firms and domestic banks take more risk than state owned banks.

On the other hand, Bonin et al (2005) proposed that managerial initiative to pursue new investment opportunities decreases as the monitoring effort exerted by a large shareholder increases, hence less risk taking by managers of foreign and domestic banks where the concentration of ownership is high. Furthermore, managers of state-owned banks may have many different incentives that are not aligned with those of taxpayers. These managers may maximize their wealth in several ways, including consumption of perquisites, leisure time and fringe benefits.

Shleifer and Vishny (1997) argued that the managers may also seek to advance their careers in the political area by serving particular interest groups. The managers are less risk averse than shareholders who have managed their portfolio well hence therefore, managers will undertake less risk than is optimal from the taxpayers’ point of view. However foreign and domestic banks are both subject to bank supervision by Domestic Regulatory Authority (DRA) but foreign banks are also subject to the regulatory authority in their home country. Since regulatory authorities in developed countries have more successful mechanisms for enforcing prudential regulations, foreign banks are likely to have higher prudential criteria hence taking less risky behavior than the domestic banks.

In addition, investor protection laws and banking regulations can also play a role in the risk of taking the attitude of banks. According to Shleifer and Wolfenzon, (2002) legal system that protected small shareholders can substitute for the existence of a large shareholder that monitors management, therefore, the role of a large shareholder in increasing risk taking by managers is expected to be more important in countries without effective legal protection of shareholders. According to Megginson (2005) government establish well sophisticated regulatory institutions to continuously audit and monitor the level of risk taken by bank hence are subject to numerous prudential regulations that are aimed at limiting the extent of risky behavior that can lead to bank failure in the future. This has made state owned banks not be subjected to the same constraints as foreign and domestic banks hence can make risky decisions since they can always bail themselves. Also if deposits are insured by the state up to a certain amount of money, another agency problem of systemic risk arises, as managers have the incentive to invest in more risky projects, having this risk shared with the state.

Banking regulations aimed at avoiding financial instability can affect banks’ risk taking behavior. Marco and Fernandez (2003) carried out a research of risk taking behavior among Spanish banks (SB) and concluded that Spanish Commercial Banks (SCB) which was largely domestic owned took greater risk than state owned banks mainly because of the firewall to stabilize the banking industry which was implemented by the Spanish government. The results indicated that the effect over the risk of politicization in decision making result in the less risky undertaking, for example, the interest of politicization in conserving the use of state owned banks like an instrument to reach political objectives can limit the risk taking to guarantee continuity of the organization.

State-owned banks may face public policy to serve particular economic sectors such as agricultural and small-medium enterprises that are considered important from a social point of view. However, in the absence of market provided incentives, the managers of state-owned banks may still be able to get an opportunity at the taxpayers’ expense through shirking or empire-building (Arun and Turner 2003). Besang and Thakor (1993) found that further issue of agency problem in the interests of bank owners may oppose those of governmental regulators, who have their own agendas, which may not necessarily coincide with maximizing bank value.
Shareholders may want managers to take more risk than is socially optimal, while regulators want managers to take less risk due to their concerns about the stability of the financial system. Saunders, et al (1990) tested the relationship between managerial stockholding and risk and found a positive relationship between them. Moreover, they also found that banks controlled by shareholders took more risk than banks controlled by managers. Results indicated a significant effect of managerial stockholding on risk. Gorton and Rosen (1995) found that corporate control problems had importantly impact on bank risk, and managers often took more risky loans (commercial real estate construction and development) and fewer relatively safe loans (consumer). But Anderson and Fraser (2000) found that managerial stockholdings were positively related to total or firm-specific risk in the late 1980s. However, following legislation in 1989 and 1991 designed to reduce risk-taking, the relationship became negatively related in the early 1990s. Sullivan and Spong (2007)’s study results revealed that managerial stockholding could increase total risk, which was consistent with Saunders et al. (1990).

A study by Angkinand and Wihlborg (2010) found that a large share of state ownership in the banking system was associated with greater risk-taking as measured by non-performing loans relative to capital, but foreign ownership was not associated with risk-taking as measured by non-performing loans relative to capital but with higher risk-taking as measured by Z-scores and the capital ratio alone. Forssbæck (2011) found that state-owned major shareholder had no significant impact on the bank’s non-performing loan ratio, and large foreign shareholders increased the bank’s non-performing loan ratio.

Regarding ownership concentration, the riskiness of bank performance highly depends on the capability of shareholders to monitor their managers. The wide dispersion of ownership leads to the free-riding problem between shareholders and this may induce managers to take high risk. Banks increase control over managers’ risk-aversion by raising the concentration of ownership, which may reduce the problem. A significant number of empirical works has gone into studying the effect of ownership concentration on bank risk taking. Iannotta et al. (2006) found that banks with higher ownership concentration have lower asset risk and lower insolvency risk. On the other hand, Laeven (2004) showed that concentrated ownership in banks is associated with higher risk taking, while dispersed ownership can decrease the risks. 

Regarding institutional investors, Shleifer and Vishny (1986) reported that institutional shareholders have greater incentive to monitor managers and members of the board to guarantee sufficient benefits. Large shareholders, such as the institutional, have the ability and the resources to discipline managers and to keep them away opportunistic behaviors hence limiting the risk taking behavior in such institutions. This was also confirmed by, Agrawal and Knoeber (1996) who discovered reduced risk taking behavior of institutional owned banks in the Philippine. However, Smith and Amoako (1999)’s results supported a positive relationship between institutional ownership and risk taking behavior.

Mixed results are highlighted in the literature review. Therefore it would be of interest to examine the nexus between ownership structure and risk taking behaviour in Zimbabwean banks. Furthermore, over the study period, Zimbabwe experienced different levels of risk varying from low risk to high risk in the banking sector hence it is interesting to find whether such a level of risk is associated by the ownership structure of the banks.

3.0 Methodology

A sample of ten (10) banks were chosen comprising of four (4) foreign banks, four (4) local banks and two (2) state banks. Below is a table of a number of banks chosen by class for each year from 2009 to 2011. This formed the sample of this paper.

<table>
<thead>
<tr>
<th>Bank class</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Owned</td>
<td>2 (CBZ now ZABG &amp; AgriBank</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Foreign-Owned</td>
<td>4 (Barclays Bank, Standard Chartered Bank, Stanbic &amp; NBCA</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Domestic-Owned</td>
<td>4 (Kingdom Bank, FBC, ZB Bank &amp; NMB</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
Data for the banks was obtained from Bank scope data base. Banks in each segment were selected using a multistage sampling technique where banks were stratified and followed by convenient sampling technique. The risk taking behavior was measured as a ratio of Non-Performing Loans (NPL) to equity and the data was from financial statements of the sampled banks. An Analysis of Variance (ANOVA) was adopted as an analysis technique and E-Views was used to run the model.

4.0 Results and analysis
Risk taking behavior was measured using Non Performing Loans to Shareholders equity ratio. The lower the ratio the lower the risk behavior and the higher the ratio the higher the risk taking behavior hence poor performance. The Figure below represented ratios of risk taking behavior as measured by Non Performing Loans to Shareholders equity ratio.

**Figure 4.1: Risk taking behavior measure (percentages)**

![Graph showing risk taking behavior measure](chart)

Source: Bank scope data base

Foreign bank A (FA) recorded the least risk taking behavior recording 0.5%, 0.52% and 0.49% for the year 2009, 2010 and 2011 respectively for the period under study. FA performed better than other banks because of their lower non-performing loans. For analysis of the mean movement of risk taking behavior of each sector from 2009 to 2011, a trend analysis was carried out.

**Figure 4.2: Trend analysis for means of risk taking behavior**

![Graph showing trend analysis](chart)

Source: bank scope data base
From Figure 4.2 above foreign banks risk taking behavior increased from 2009 to a peak of 8.53% by 2010 and then fell to an average of 1% in 2011. With regards to state banks, they gained marginally by 1.86% from 7.38% in 2010. From 2010 the risk taking behavior worsened deeply to a record high of 38.83% representing high non-performing loans caused by a sharp rise of non-performing loans of state bank X (Sx) which constituted 66% of the shareholder's equity. As far as domestic firms are concerned the ratio increased to 23.46% as shown by the trend line from 2009 to 2011.

ANOVA was carried out to test the null hypothesis that ownership structure does not influence risk taking behavior against the alternative hypothesis that ownership structure affects risk taking behavior. To test that, the F calculated found by dividing MS between groups with MS within groups is compared with F critical at 5% level of significance. If the F calculated is less than F critical then the null hypothesis is not rejected. If the null hypothesis is not accepted LSD will be carried in order to examine the sector with controlled risk taking behavior. The table below shows ANOVA results.

<table>
<thead>
<tr>
<th>Table 4.1</th>
<th>ANOVA Table for ownership structure and risk taking behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANOVA: Single Factor</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SUMMARY</strong></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>Count</td>
</tr>
<tr>
<td>State</td>
<td>6</td>
</tr>
<tr>
<td>Foreign</td>
<td>12</td>
</tr>
<tr>
<td>Domestic</td>
<td>12</td>
</tr>
<tr>
<td><strong>ANOVA</strong></td>
<td></td>
</tr>
<tr>
<td>Source of Variation</td>
<td>SS</td>
</tr>
<tr>
<td>Between Groups</td>
<td>0.100806</td>
</tr>
<tr>
<td>Within Groups</td>
<td>0.381245</td>
</tr>
<tr>
<td>Total</td>
<td>0.482055</td>
</tr>
</tbody>
</table>

Since F calculated is greater than F critical the null hypothesis was not accepted and it was concluded that ownership structure has an effect on risk taking behavior. An LSD analysis was carried out in order to investigate the type of ownership structure with lower risk taking behavior and the results were shown on the table below.

<table>
<thead>
<tr>
<th>Table 4.2</th>
<th>LSD table for risk taking behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Diff</td>
</tr>
<tr>
<td>Foreign</td>
<td>0.23392667</td>
</tr>
<tr>
<td>Domestic</td>
<td>0.13734167</td>
</tr>
<tr>
<td>State</td>
<td>0.17300000</td>
</tr>
</tbody>
</table>

From the results shown in the table 4.1 above the F calculated is greater than F critical hence it can be concluded that ownership structure influence the level of risk taken by banks. From an LSD analysis, the mean of foreign-owned banks was more than the LSD of both domestic and state owned banks signifying that foreign-owned banks were taking less risk than state owned and domestic owned banks. This supports the notion that foreign banks are able to monitor the managerial actions hence managers will take less risk and proves the idea that the agency problems in domestic and state owned banks influence managers of such banks to take high risk. Also, the issue of bureaucracy in state owned banks is supported by this conclusion. Thus, from the results observed above, the null hypothesis has not been accepted concluding that ownership structure has a significant effect on risk behavior and thus bank performance as well as stability of the banking sector.
5.0 Conclusion and recommendations.
The research concludes that ownership structure has an effect on risk taking behavior with foreign banks taking the lower risk. This view was supported by Laeven (2004) who argued that foreign-owned banks on average have lower risk comparing to domestic and state owned banks. Additionally, Bhaumik and Piesse (2008) stated that foreign banks take a lower risk because they are able to attract more creditworthy clients. Agrawal and Knoeber (1996) further supported the view by discovering reduced risk taking behavior of foreign banks in the Philippine hence ownership structure has an effect on risk taking behavior. The paper, therefore, recommends that banking institutions should structure their policies in such a way as to prevent unnecessary risk taking behavior by their managers. Too much risk may cripple such institutions and may result in high non-performing loans to equity ratio to increase which is a proxy measure of risk taking behavior showing high risk behaviour. Bank managers with at least 11% percent ownership should not seat on the management as this might influence the risk taking behavior of such firms (Bhaumik and Piesse, 2008). The excessive risk might be taken if owners become managers of the organization. Also, banking institutions should structure the perquisites in such a manner that it can control the nature of risk taken by bank managers.

References

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