GOVERNANCE AND PERFORMANCE OF BANKS IN BRAZIL

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Abstract

The aim of this work is to analyze the relation between governance, ownership structure and performance of banks in Brazil. This work contributes to the literature, because there are only a few studies about governance of financial institutions in emerging markets. Our results indicate that banks with good governance have higher performance and lower administrative expenses. Contrary to the international literature, we find that, in Brazil, foreign banks have worse performance and higher administrative expenses, whereas State-owned banks have better performance and lower expenses.

Keywords: Banks, Governance, Ownership Structure, Performance

1. Introduction

The corporate governance importance has considerably increased in the last decade, after the corporate scandals in the United States in the early 2000´s, and the international financial crisis in 2008. In general, the studies about governance focus in companies, and there are few studies on governance of banks and its relationship with performance in emerging markets.

This topic is important because investment decisions taken by banks influence the growth and economic stability (Allen and Gale (2000) and Levine (2006)). In the context of the international financial crisis in 2008, did it make sense the huge bonuses received by the executives of financial institutions, which proved to be completely vulnerable in the first moment of turbulence?

There are a few studies that analyze the performance of banks and their relation to governance. In general, the results indicate that governance is strongly related with bank performance only in developing economies, but not in developed countries. In emerging markets, researches indicate that foreign banks outperform domestic banks. In addition, State-owned banks have lower performance than private banks (Bhattacharya et al. (1997), Micco, Panizza and Yanes (2004), Berger et al. (2004), Bonin et al. (2005a, b)). Yildirim and Philippatos (2007) do not find significantly superior performance of foreign banks. These studies also show that the entry of foreign banks in developing countries increase the efficiency of domestic banks.

In Brazil, the banking system suffered a major transformation with the adoption of the “Real” currency in 1994. During this period, there was a huge restructuring in the financial system, with measures that favored the entrance of foreign banks in the country, which increases the competition among banks in Brazil (Araujo, Jorge Neto and Ponce (2005)). Many domestic banks were merged or incorporated by other domestic and foreign banks, or went bankrupt. The competitiveness of the banks that survived has increased significantly.

The aim of this research is to analyze the relation between governance, ownership structure and performance of banks in Brazil. We analyze a large sample (158 banks) with over 9 years data (from 2001 to 2009), and run fixed effects panels to examine the relationship between governance, ownership structure and performance. Our results indicate that banks with good governance practices have better performance and lower administrative expenses.

The results of the relationship between bank performance and capital origin contrast with the evidence from the international literature. In Brazil, foreign banks have worse performance and higher administrative costs when compared to domestic banks. Furthermore, State-owned banks have better performance and lower administrative costs when compared to private banks.

The paper proceeds as follows. Section 2 presents a brief review of literature. Section 3 describes the data and methodology. Section 4 contains the results of panel data regressions. Section 5 discusses our findings and concludes.

2. Review of Literature

The corporate governance has been discussed for more than 60 years, but only recently it has gained more importance. The corporate governance means a set of practices aimed at optimizing the company performance, ensuring greater protection to investors, employees and creditors.

In most cases, the governance studies focus in companies. There are few studies that analyze the governance of banks. The banks are critical entities to any economy. These entities are financial resources providers for other companies, projects, businesses, and population. The importance of banks for the economy is so large that it is essential that they have an efficient governance system.

Mülbert (2009) states that the governance practices of banks should be different from those observed in companies. According to the author, the main differences between companies and banks are: (i) banks are more leveraged than companies, (ii) banks need more liquid assets, (iii) business operations of banks are generally with other banks, ie banks are more connected to each other, (iv) in general the portfolio of banks have higher risk (investments and derivatives), (v) banks are subject to bank runs of withdrawals from depositories, which may impair its liquidity.

Mülbert (2009) explains that banks have more aggressive remuneration policies than companies and offer very attractive salaries and bonuses to its executives. Due to the higher vulnerability of banks, tools such as risk management and compliance are important and it is necessary an efficient governance system and regulations stricter than those applied to companies in order to reduce the sustainability risks of banks, especially during crises.

Caprio, Laeven, and Levine (2007) study the 10 largest banks listed on the stock market in 44 countries and find that only 25% of banks have its capital dispersed. In only 8 of the 44 countries surveyed, most banks do not have a controlling shareholder. Therefore, the dominant model of the banking system is the ownership concentration in the hands of major shareholders.

There are several studies that analyze the performance of banks and their relation to the capital origin. In emerging markets, the results indicate that the performance of foreign banks is better than that of domestic banks. Moreover, the performance of State-owned banks is lower when compared with private banks (Bhattacharya et al. (1997), Micco, Panizza and Yanes (2004), Berger et al. (2004), Bonin et al. (2005a, b)). However, Philippatos and Yildirim (2007) find no significant results about the superior performance of foreign banks.

Grubel (1977) and Aliber (1984) argue that multinational banks have competitive advantages. They expand internationally to serve their local customers abroad. This behavior is explained by the bank interests to maintain the continuity of their business with their local customers that also expand to other countries and then, there is no much bank competition in this new country. In addition to financial services, some banks have an interest in the expansion so they can act on the capital markets of the new countries and also offer other services to customers.

There are studies that demonstrate the performance of banks under certain economy scenarios. Beltratti and Stulz (2009) find no evidence that banks with better governance have higher performance during crises. Beltratti and Stulz (2009) show that banks with high ownership concentration perform worse during crises and better under normal periods when compared with banks with less capital concentration. Erkens, Hung and Matos (2009) show that banks with a great number of independent directors have worse returns during crises.

The New Basel Capital Accord highlights one of its pillars which is the "market discipline", that is the financial institutions need to ensure greater transparency about their financial situation and solvency. This practice of management transparency is important for reducing the risks of an institution and the entire financial system.

The banks are very dependent on the confidence of their depositors and lenders so that they ensure their continuity. The main concern of the financial system regulators is to reduce the risks linked to banking activity, avoiding confidence crises that could lead to a systemic risk while maintaining the entities' credibility among to depositors.

Our hypothesis is that good bank governance practices should be correlated with better performance indicators. This hypothesis can be explained by the reduction of agency costs, increase of profits and improvement of investor confidence.

3. Data and Methodology

Our sample contains 158 Brazilian banks, of which 30 are listed on the Sao Paulo stock exchange (BM&FBovespa). Our analysis is based on quarterly data from the balance sheet and income statements, obtained at the Central Bank of Brazil. The data on listed banks are from Economatica and BM&FBovespa databases. The period of analysis is from the 1st quarter of 2001 until the 4th quarter of 2009.

Table 1 shows the number of banks in Brazil according to its capital origin. We can observe that, after the opening of the Brazilian economy in the 1990's, the number of domestic banks decreased and the number of foreign banks increased significantly.

Number of banks in Brazil classified according to the capital origin (domestic private, foreign and State-owned) from 1996 to 2008. Source: Central Bank of Brazil.

Table 1. Number of Banks by Ownership Origin

	1996	2000	2004	2008
State-Owned Banks	32	17	14	12
Domestic Private Banks	157	105	92	83
Foreign Banks	41	70	58	62
Total	**230**	**192**	**164**	**157**

Our objective is to analyze the relationship between governance, capital origin, and performance of banks in Brazil. We classify the 158 banks into 3 groups: State-owned, domestic private and foreign banks. Corporate governance practices are measured by the presence on *Novo Mercado* (NM), a stock exchange segment that requires stricter governance rules. The banks are divided into 2 groups: listed and unlisted on NM.

After the banks are classified into 3 groups according to capital origin and 2 groups according to NM, we perform a test of differences- in-mean to verify whether there is any difference in performance between the various groups of banks.

The performance of banks is measured by return on assets (ROA), return on equity (ROE) and administrative expenses (EXP). The first two variables (ROA and ROE) measure bank profitability (Micco, Panizza and Yanes (2004)). Regarding the use of EXP, Correa and Adati (2001) state that banks' operational efficiency is based on the ratio of administrative expenses to the result of the banking activities. Lower administrative expenses are associated with greater operating efficiency. Guimaraes (2002) measures operating efficiency by dividing administrative expenses to total assets. Micco, Panizza and Yanes (2004) say that EXP is interpreted as measures of efficiency, but does not greatly vary between different models of corporate governance.

We run panel regressions to examine the relationship between governance, capital origin and performance of banks. The panel regressions allow us to analyze the relation between governance and performance on both cross-section and temporal dimensions (158 banks from 2001 to 2009).

We test the efficiency of several panel regressions methods (common, fixed and random effects) and the results of Hausmann test (not reported) show that fixed-effects models are more appropriate for our analysis. The models are estimated according to the following equations. It is noteworthy that all models are adjusted for autocorrelation and heteroscedasticity.

$$ROA_{i,t} = \gamma_0 + \gamma_1 NM_{i,t} + \gamma_2 FOR_{i,t} + \gamma_3 GOV_{i,t} + \gamma_4 SIZE_{i,t} + \gamma_5 LEV_{i,t} + \gamma_6 NOPEINC_{i,t} + u_{i,t}$$

$$ROE_{i,t} = \gamma_0 + \gamma_1 NM_{i,t} + \gamma_2 FOR_{i,t} + \gamma_3 GOV_{i,t} + \gamma_4 SIZE_{i,t} + \gamma_5 LEV_{i,t} + \gamma_6 NOPEINC_{i,t} + u_{i,t}$$

$$EXP_{i,t} = \gamma_0 + \gamma_1 NM_{i,t} + \gamma_2 FOR_{i,t} + \gamma_3 GOV_{i,t} + \gamma_4 SIZE_{i,t} + \gamma_5 LEV_{i,t} + \gamma_6 NOPEINC_{i,t} + u_{i,t}$$

where ROA is the return on assets (ratio of operating profit to total assets), ROE is return on equity (ratio of net profit to shareholder's equity), EXP is the ratio of administrative expenses to total assets, NM is a dummy variable that takes the value 1 when the bank is listed on the *Novo Mercado*, FOR is a dummy variable indicating whether the bank is controlled by foreign investors, GOV is a dummy variable indicating whether the bank is controlled by the government, SIZE is the bank size (log of total assets), LEV is the bank leverage (ratio of non-equity liabilities to total assets), NOPEINC is the ratio of non-operating income to total assets.

The independent variables are those usually used in the banking literature: governance level, ownership structure (public, private or foreign), size, leverage and non-operating income. Regarding the capital origin, we construct the dummy variables FOR and GOV to indicate foreign and State-owned banks. Bank size and leverage affect the performance of banks, influence the risk and are associated with the strategies and decisions taken by the board. Non-operating income is not directly related to banking activity, such as sale of equipment, fixed assets etc.

4. Results

Table 2 shows the descriptive statistics of the variables used in this study. On average (median), ROA and ROE are 1% and 4% respectively. There is great variability in bank performance, ranging from -27% to 36% (ROA) and from -150% to 106% (ROE). Regarding administrative expenses, banks spend on average 1% of their assets, ranging from almost 0% to 26%.

Descriptive statistics of the variables used in the study. The sample consists of 158 banks in Brazil from 2001 to 2009. The description of variables can be found in Section 3.

Table 2. Descriptive Statistics

	Average	Median	Stand. Deviation	Minim.	1st Quarter	3rd Quarter	Maxim.
ROA	0.01	0.01	0.03	-0.27	0.00	0.01	0.36
ROE	0.04	0.03	0.10	-1.50	0.01	0.06	1.06
EXP	0.01	0.01	0.02	0.00	0.00	0.02	0.26
SIZE	13.99	13.98	2.08	9.28	12.49	15.27	20.31
LEV	0.70	0.81	0.28	0.15	0.63	0.89	1.05
NOPEINC	0.00	0.00	0.01	-0.19	0.00	0.00	0.38
FOR	0.19	0.00	0.39	0.00	0.00	0.00	1.00
GOV	0.09	0.00	0.29	0.00	0.00	0.00	1.00
NM	0.05	0.00	0.22	0.00	0.00	0.00	1.00

Most banks are domestic and private (72%), followed by foreigners (19%) and State-owned (9%). Only 5% of banks are listed on *Novo Mercado*, suggesting low quality of governance practices by banks in Brazil.

The banks have an average leverage of 70% and ranges from 15% to 105%. Non-operating income is not substantial (average of 0% of total assets), but has a great variability (-19% to 38%).

Table 3 shows the results of the tests of differences-in-mean to evaluate if there are differences in performance among banks, classified according to the capital origin and listing on *Novo Mercado*. The results indicate a positive relation between performance and governance practices. Banks listed on *Novo Mercado* present high ROA and ROE (3% and 10% respectively) when compared to non-NM banks (1% and 3% respectively). The results are statistically significant at 1%. We also note that banks with good governance tend to be larger and more leveraged.

Regarding capital origin, domestic private banks have higher ROA, and State-owned banks have higher ROE. On average, administrative expenses are not significantly different among the groups of banks. These results are distinct from the international literature, which shows the superior performance of foreign banks in all performance variables. We also can note that State-owned banks are larger and more leveraged than other banks.

Tests of differences-in-mean are run to evaluate if there are differences in performance among banks, classified according to the capital origin and listing on Novo Mercado. The sample consists of 158 banks in Brazil from 2001 to 2009. The description of variables can be found in Section 3. The p-values of the tests are reported. *** ** and * indicates statistically significant difference of 1%, 5% and 10%.

Table 3. Difference in Performance and Governance of Banks

Variables	Total Sample	*Novo Mercado* Listing		Capital Origin		
		No	Yes	Foreign	State-Owned	Private
ROA	0.01	0.01	0.03***	0.01	0.01	0.02***
ROE	0.04	0.03	0.10***	0.02	0.08***	0.03
EXP	0.01	0.01	0.01	0.01	0.02	0.01
SIZE	13.79	13.82	17.09***	13.62	15.67***	13.90
LEV	0.70	0.70	0.75***	0.72	0.88***	0.68
NOPEINC	0.00	0.00	0.00	0.00	0.00	0.00

Table 4 shows the correlation matrix between the variables. It can be noted that there is a positive correlation between performance (ROA and ROE) and listing on *Novo Mercado*. Regarding capital origin, the correlation of ROA with FOR and GOV are negative, suggesting that foreign and State-owned banks have lower ROA. The correlation of ROE with FOR and GOV is negative and positive, suggesting that foreign banks have lower ROE and State-owned banks have higher ROE. Finally, the correlation of EXP with FOR and GOV is positive and negative, suggesting that foreign banks have higher administrative expenses and State-owned banks have lower expenses.

Correlation matrix of the variables used in the study. The sample consists of 158 banks in Brazil from 2001 to 2009. The description of variables can be found in Section 3.

Table 4. Correlation Matrix

Variables	ROA	ROE	EXP	SIZE	LEV	NOPEINC	FOR	GOV	NM
ROA	1.00								
ROE	0.26	1.00							
EXP	0.07	0.01	1.00						
SIZE	0.03	0.07	0.25	1.00					
LEV	-0.32	0.02	0.00	0.45	1.00				
NOPEINC	0.19	0.05	-0.02	-0.01	-0.03	1.00			
FOR	-0.07	-0.04	0.10	-0.09	0.03	-0.01	1.00		
GOV	-0.03	0.06	-0.06	0.14	0.09	-0.01	-0.01	1.00	
NM	0.13	0.06	0.01	0.34	0.04	0.01	-0.11	0.12	1.00

Table 5 shows the fixed-effects panels to analyze the relation between performance, governance and capital origin of banks. The results indicate a positive relationship of good governance practices (NM) with ROA and ROE, and a negative relation with EXP. All results are statistically significant at 1%. Therefore, we conclude that there is strong evidence that banks with good governance have better performance and lower administrative expenses.

Fixed-effects regressions are run to evaluate if there is a significant relation between performance, governance and capital origin of banks. The performance of banks is measured by three dependent variables: ROA, ROE and administrative expenses (EXP). The sample consists of 158 banks in Brazil from 2001 to 2009. The description of variables can be found in Section 3. The p-values of the tests are reported. *** ** and * indicates statistically significant difference of 1%, 5% and 10%.

Table 5. Panel Regressions of Performance and Governance of Banks

	ROA	ROE	EXP
NM	0.01*** (0.00)	0.03*** (0.00)	-0.01*** (0.00)
FOR	-0.01*** (0.00)	-0.02*** (0.00)	0.01*** (0.00)
GOV	0.01*** (0.00)	0.03*** (0.00)	-0.01*** (0.00)
SIZE	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
LEV	-0.02*** (0.00)	0.01*** (0.00)	-0.01*** (0.00)
NOPEINC	0.43*** (0.00)	0.90*** (0.00)	-0.01 (0.45)
R^2 adj	0.17	0.20	0.20

The results of the relation between performance and capital origin of banks in Brazil contrast with the international literature. Foreign banks have worse performance (lower ROA and ROE and higher administrative expenses) in Brazil. On the other hand, State-owned banks have better performance (higher ROA and ROE and lower administrative expenses) in Brazil.

5. Conclusion

Corporate governance is not a new topic, however it has gained more importance recently after the corporate scandals in developed countries. Generally, the academic literature on governance focuses on non-financial companies, and there only a few studies on governance of banks in emerging markets.

This research analyzes the relationship between performance, governance and capital origin of banks in Brazil. We analyze 158 banks from 2001 to 2009 and classify them according to governance practices (presence or not on *Novo Mercado*) and capital origin (domestic private, foreign and State-owned banks). The performance of banks is measured by return on assets, return on equity and administrative expenses.

Our results indicate that banks with good governance practices have better performance (ROA and ROE) and lower administrative costs. With respect to capital origin, contrary to the evidence of the international literature, foreign banks have worse performance and higher administrative expenses, and State-owned banks have better performance and lower expenses in Brazil.

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