

OWNING STRUCTURE, RISK MANAGEMENT AND PERFORMANCE: THE CASE OF LATIN AMERICAN BANKS.

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Abstract:

The analysis uses data gathered from a sample of 81 large banks from six Latin American countries over the 2013–2017 period to examine the impact of alternative ownership models, together with the degree of ownership concentration on profitability, cost efficiency and risk management. Three main results emerge. First, after controlling for bank characteristics, country and time effects, mutual banks and state-owned banks exhibit lower profitability than privately owned banks, in spite of their lower costs. Second, public sector banks have poorer loan quality and higher insolvency risk than other types of banks while mutual banks have better loan quality and lower asset risk than both private and public sector banks. Finally, while ownership concentration does not significantly affect a bank's profitability, a higher ownership concentration is associated with better loan quality, lower asset risk and lower insolvency risk. These differences, along with differences in asset composition and funding mix, indicate a different financial intermediation model for the different ownership forms.

Keywords: *Ownership structure, performance, risk management, profitability, Latin American Countries.*

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INTRODUCTION

A firm's ownership structure can be defined along two main dimensions. First, the degree of ownership concentration: firms may differ because their ownership is more or less dispersed. Second, the nature of the owners: given the same degree of concentration, two firms may differ if the government holds a (majority) stake in one of them; similarly, a stock firm with dispersed ownership is different from a mutual firm. Governance is the combination of processes established and executed by the directors (or the board of directors) that are reflected in the organization's structure and how it is managed and led toward achieving goals. Risk management is predicting and managing risks that could hinder the organization from reliably achieving its objectives under uncertainty.

Within the Latin American banking industry different ownership structures coexist: privately owned stock banks (POBs), state-owned banks (SOBs), and mutual banks (MBs). POBs, in turn, have different degrees of ownership concentration. Although their roots are different, large MBs, SOBs, and POBs (with different ownership concentration) have typically evolved to a similar full-service banking model, thereby competing in the same markets within the same regulatory framework. Indeed, these banks are virtually indistinguishable in terms of their range of activities. The relevance of firm ownership structure has been extensively explored in the theoretical literature. As far as ownership concentration is concerned, Bearle and Means (1932) point out that the separation of ownership and control may create a conflict of interests between owners and managers. Moreover, Jensen and Meckling (1976) posit that the agency costs of deviation from value maximization increase as managers' equity stake decreases and ownership becomes more dispersed. The argument may weaken if the dispersed ownership went along with the public trading of the firm's securities. As pointed out by Fama (1980), the signals provided by an efficient capital market about the value of a firm's securities are likely to discipline the firm's management. Regarding the nature of owners, the property rights hypothesis (e.g. Alchian, 1965) suggests that private firms should perform more efficiently and more profitably than both state-owned and mutual firms. In the case of state-owned firms, as Shleifer and Vishny (1997) point out, while they are technically "controlled by the public", they are run by bureaucrats who

can be thought of as having “extremely concentrated control rights, but no significant cash flow rights”. Additionally, political bureaucrats have goals that are often in conflict with social welfare improvements and are dictated by political interests. In mutual firms, ownership cannot be concentrated as in the case of stock companies (Fama and Jensen, 1983a, b). This may cause inefficiency as the benefits of concentrated ownership are forgone.

Moving to the empirical literature and restricting the analysis to the banking industry, briefly review previous works on relative performances concerning (i) SOBs, (ii) MBs, and (iii) ownership concentrated banks. As far as the relative performance of SOBs is concerned, Altunbas et al. (2001), focusing on the German banking industry, find little evidence to suggest that POBs are more efficient than SOBs, although the latter have slight cost and profit advantages over POBs. Sapienza (2004) focuses on banks' lending relationships in Italy, comparing the interest rate charged to two sets of companies with identical credit scores which are borrowing either from SOBs or POBs, or both. She finds that SOBs tend to charge lower interest rates than POBs. By examining the profitability of a large sample of banks from both developing and developed countries, Micco et al. (2004) find that in industrial countries there is no significant difference between the Return on Assets of SOBs and that of similar POBs. Finally, Berger et al. (2005) find that SOBs in Argentina have lower long-term performance than that of POBs.

The remainder of the paper is organized as follows. Section 2 presents the literature review and hypothesis development. Section 3 describes the procedure followed to gather and select the data and explains the variables associated to test the corporate-ownership-risk-performance relationship under analysis. Section 4 explains the main results, while Section 5 offers some conclusions.

LITERATURE REVIEW

Some published academic works study corporate governance mechanisms in individual countries (Chile: Lefort, F. and Walker, E. (2007),) as well as multi-country or regional studies (East Asia: Claessens et. al., 2002; Western Europe: Faccio and Lang, 2002; Cross-country: Lins, 2003; Corporate Governance in Latin America, Chong, A.

and Lopez-de-Silanes F. (2007)). Some studies focus on developed countries while others focus on emerging or transition economies. This investigation focuses on the Latin American markets from a corporate governance perspective.

Financial systems, a growing body of empirical literature, in developed countries, has documented that banks with good corporate governance mechanism are generally associated with better financial performance, higher firm valuation and higher stock returns (among others, see Caprio et al., 2007, De Andres and Vallelado, 2008, Laeven and Levine, 2009).

A recent stream of the literature investigates the above-mentioned relationship over periods of financial turmoil. Peni and Vahamaa (2012) find a positive and significant relationship, also during the 2008 financial crisis, for large publicly traded US banks. Erkens et al. (2012) find that banks with more independent boards and larger institutional ownership gain lower stock returns over the period from January 2007 to September 2008. Pathan and Faff (2013), using a broad panel of large US bank holding companies over the period 1997–2011, find that both board size and independent directors decrease bank performance. Finally, Adams and Mehram (2012), using a sample of banking firm data that spans 34 years, find that board independence is not related to performance, as measured by a proxy for Tobin's Q. However, board size is positively related to performance.

The second body of literature that is related to the research is about risk governance and its effect on bank performance. To the best of author's knowledge only a few papers address this issue for the Latin America market, among them: Creamer and Freund, 2004, Aebi et al. (2012) and Ellul and Yerramilli (2013). This latter investigates whether strong and independent risk management is significantly related to bank risk-taking and performance during the financial crisis for a sample of 74 large bank holding companies based on a Risk Management Index (RMI). They expect that banks with strong and independent risk management functions to be less exposed to risk. They find that banks with a high RMI (strong) in 2006 show a lower exposure to private-label mortgage-backed securities, are less active in trading off-balance sheet derivatives, have a lower downside risk and a higher sharper ratio during the crisis. The objective of Creamer and Freund, 2004 paper is to demonstrate how the boosting approach can be

used to quantify corporate governance risk in the case of Latin American markets. Aebi et al. (2012) analyse the influence of risk specific corporate governance characteristics on the performance of banks during the financial crisis. They find that banks with better risk management structure (in particular the reporting line—the CEO reports directly to the board of directors) performed significantly better in the financial crisis 2007–2008. Notably, they find either no significant or even negative relationship between a bank's performance during the crisis and standard corporate governance variables. This highlights the importance of the so-called “risk governance” to investigate the effect of the governance structure on banks' performance, but also in the future reshaping of corporate governance recommendations and risk management in light of the financial crisis consequences.

HYPOTHESES

Based on the prior literature, the study focuses on the relationship between bank performance and the following characteristics of the board's structure: the board size, the number of independent directors and the frequency of board meetings per year. Next to these, the study tests the relationship between bank performance and risk management-related characteristics.

The board of directors is an economic institution that, in theory, helps to solve the agency problems inherent in managing an organization (Hermalin & Weisbach, 2003). The study uses the term “strong board” to indicate a board more representing bank shareholder interest. Following Pathan (2009), the proxies of strong boards are small board size, more independent directors and high frequency of board meetings.

As to the board size, larger boards of directors are expected to better supervise managers and bring more human capital to advise them. However, boards with too many members lead to problems of coordination, control, and flexibility in decision-making. Large boards also give excessive control to the CEO, harming efficiency. Therefore, the trade-off between advantages (monitoring and advising) and disadvantages (coordination, control, and decision-making problems) has to be taken into account.

Independent directors are believed to be better monitors of managers as independent directors' value maintaining a reputation in directorship market but the

findings in this instance are mixed (Fama & Jensen, 1983b). However, an excessive proportion of independent directors, which are often outside directors, could damage the advisory role of boards, since it might prevent bank executives from joining the board. Inside directors are able to provide the board with valuable information that outside directors would find difficult to gather.

The frequency of board meetings per year is a proxy of better functioning of the board. Francis et al. (2011), find that firm stock performance is positively related to the number of board meetings, consistent with Adams and Ferreira (2007), who, among others, argue that board meetings are important channels through which directors obtain firm-specific information and fulfill their monitoring role. De Andres and Vallelado (2008) argue that meetings provide board members with the chance to come together, to discuss and exchange ideas on how they wish to monitor managers and bank strategy. Hence, the more frequent the meetings, the closer the control over managers and the more relevant the advisory role of the board. The study expects that a higher number of meetings might be perceived as a proxy of the timelier response of the board in stressed financial markets and thus to be associated with better bank performance.

Given the peculiar time horizon under investigation, characterized by financial uncertainty, the study expects coordination and control to assume considerable relevance compared to monitoring and advising and thus that small boards are associated with better bank performance. In line with the previous literature on “strong boards” (Pathan, 2009), the formal specification of the first hypothesis is the following:

Hypothesis 1

(H1): The relationship between strong boards (i.e., small board size, more independent directors and high frequency of board meetings) and bank performance is positively related to the ownership structure.

Similarly, in the hypothesis for the boards of directors, for risk-management related variables, we would expect that having a risk committee, in general, indicates stronger risk management and therefore better corporate governance. As suggested by Aebi et al. (2012), most banks still seem to consider asset growth and a reduction of operational costs as the main drivers of profitability. However, the last financial crisis has

demonstrated that the business of banks is a risk, therefore the legitimate question arises whether and to what extent the risk committee can contribute to bank performance. In particular, the literature on the topic emphasizes the role of risk management-related variables in explaining bank's performance showing that standard governance measures as used in a large body of literature on corporate governance and its valuation effect in non-financial firms may fall short in describing the relevant governance structure of banks, in particular with respect to their performance.

Thus, the formal specification of the second hypothesis is as follows:

Hypothesis 2

(H2): The relationship between strong risk-management function (a dedicated committee solely charged with monitoring and managing the risk management efforts within the bank) and bank performance is positively related to the ownership structure.

DATA AND SAMPLE

Sample and data sources

The study uses national banks' Examination Reports, a detailed but seldom used resource that provides considerable information about banks' ownership structures, governance structures, tools for managing risk and levels of risk. This information allows us to link differences in ownership structure to differences in corporate governance policies, risk outcomes, and banks' approaches to risk management.

From 2013 to 2017, the author identifies, in DataStream, an initial sample of primary equity securities associated with non-financial firms that are traded in Latin America. The countries under analysis include Argentina, Brazil, Chile, Colombia, Mexico, and Peru. Accounting information is gathered to construct dividend-related variables and firm-specific variables that may affect the level of dividends paid in Latin America. The study collects 405 firm-year observations from DataStream for the period under analysis. Using generic company identifiers from DataStream, ownership data for the same period is obtained from The Banker database. Only a small percentage of the Latin American firms report ownership information to The Banker.

The empirical analysis requires information on the banks' corporate governance structures, financial information and market data, (i.e., number of outstanding shares, nominal values, market capitalizations, etc.). In detail, information on bank board structures is hand collected from the annual reports, while the financial information and the market data are obtained from DataStream.

Also, Due to the need to hand-collect detailed data on board characteristics and ownership structure, the measurement of these variables is based on the 2016–2017 annual reports. For the other variables, average annual data for the 2013–2017 period are used, with a minimum of 2 years' data used to calculate these variables where firms were listed for less than 5 years.

Both financial and market data are published at the end of each year, while information on banks' boards and risk committees refer to the end of the year 2013. Given that the prior literature on this topic (see e.g., Black et al., 2006, Erkens et al., 2012) has suggested that corporate governance structures change slowly, the study uses data for year 2013 in the empirical analysis, by assuming that the strength of governance mechanism incorporated in 2013 is reflected in bank performance during the investigated period (2013–2017).

It's specified that after eliminating the banks with insufficient financial and corporate governance information, the study obtains a sample comprising of 405 firm-year observations for the fiscal years 2013–2017.

Despite the relatively small number of individual banks, the sample covers a substantial proportion of the total amount of banking assets in the six countries. For example, referring to the Latin American banks, it is underlined that the sample is composed of the twenty-one listed large commercial banks and of eighteen listed joint-stock banks, which represent about the 63.52% of the market share (by assets) of the Latin American banking institutions.

Key independent variables: standard board variables and risk governance variables

Our key independent variables are the standard governance variables relating to the definition of a strong board and the risk governance variables. Following Erkens et al. (2012) and de Andres and Vallelado (2008), among others, the effectiveness of the board

of directors in monitoring and advising managers determines its strength and the study use the term “strong board” to indicate a board more representing firm shareholder interest. Thus, a strong bank board is expected to better monitor bank managers for shareholders. The proxies of strong boards are small board size, more independent directors and high frequency of board meetings. In detail, board size (BS) is defined as the number of directors on the board. The independent directors’ variable (IND) is measured by the number of independent board directors. The frequency of the board meetings (BM) is measured as the number of meetings held in the year 2013. This variable takes into account the internal functioning of the board (de Andres & Vallelado, 2008) and how boards operate. Since meetings provide board members with the chance to come together, and to discuss and exchange ideas on how they wish to monitor managers and firm strategy, it can be argued that the more frequent the meetings are and the closer the control over managers is.

Following Aebi et al. (2012), the study analyses the relationship between risk governance and bank performance. In particular, for banks with a risk committee, data is collected on the number of times the risk committee of the respective banks met in 2013 (RCM) and the number of directors in the risk committee (RCS). All these variables are assigned a value of zero for banks with no risk committee.

Dependent variables: bank performance measures

The study uses four alternative measures of bank performance. In particular, following de Andres and Vallelado (2008), the main performance measure is the Tobin’s Q (TQ), which is calculated as the book value of assets minus the book value of common equity plus the market value of equity plus the market value of common equity divided by the book value of total assets.

Then, the study uses three other measures of bank profitability (Aebi et al., 2012, Peni and Vähämaa, 2012) to test the robustness of the analysis: the return on assets (ROA), the return on equity (ROE) and the price/earnings ratio (P/E). ROA and ROE are calculated as the net income that is the pre-tax income minus tax, divided by the average of the two most recent years of total assets and the book value of equity, respectively. The P/E is estimated as the ratio of market price to earnings per share. In particular, the

annual stock data values are calculated for each year at the closing date of each year's financial accounts.

Control Variables

Following prior studies, the study included in the model a set of control variables to account for size, business mix, and also to take into consideration differences among countries in terms of regulation.

The first group of control variables measures differences in bank business structure. One of these control variables is bank size (SIZE), which is computed as the natural log of total bank assets (Pathan, 2009, Peni and Vähämaa, 2012) at the book value. The variable LOANSTA measures differences in the banking business model, and it is defined as the ratio of loans to total assets at book value (de Andres & Vallelado, 2008). It allows us to control for the potential differences between commercial and holding banks. The variable TIER 1 (Aebi et al., 2012) is the ratio of tier 1 capital to total risk-weighted assets and, from a regulator's point of view, is a measure of the bank capital and its financial strength.

To investigate whether the market valuation of the firm and, therefore, the market's growth expectations, are associated with the bank performance (Aebi et al., 2012), price-to-book ratio (P/B) is used. This variable is computed as the ratio of the bank's current share price to the book value per share. To control for potential cycle effects, common to all banks, but varying over the analysed period, year fixed effects are included. Additionally, it is acknowledged that there could be some differences among countries in terms of regulation. The research does not account for differences or similarities among the countries in legal and institutional aspects or in investors' protection rights.

Summary statistics and correlation matrix

This section provides summary statistics and correlation coefficients of the variables used in the analysis. Table 1 presents the descriptive statistics for these key variables. This table provides summary statistics of the variables used in the paper. The author calculated TQ as the book value of assets minus the book value of common equity plus the market value of equity plus the market value of common equity divided by the

book value of total assets; ROA and ROE are calculated as the net income, that is the pre-tax income minus tax, divided by the average of the two most recent years of total assets and book value of equity, respectively. The P/E is estimated as the ratio of market price to earnings per share. SIZE is the natural log of total bank assets at the book value; the P/B is computed as the ratio of the bank current share price to the book value per share; the variable LOANSTA is the ratio of loans to total assets at book value; the variable TIER 1 is the ratio of tier 1 capital to total risk-weighted assets. BS is defined as the number of directors on the board. IND is the number of independent directors on the board. BM is the frequency of the board meetings, measured as the number of meetings held by the board in the year 2013. RCS is the number of the risk committee directors. RCM is the number of meetings held by the risk committee in the year 2013.

Table 1. Summary statistics.

Variable	Obs	Mean	25th percentile	75th percentile	Std. Dev.	Min	Max
Panel A. Dependent variables							
TQ	158	1.0866	1.0331	1.0955	0.0932	1.0064	1.5249
ROA	162	1.1467	0.9210	1.3220	0.4003	0.2480	2.7840
ROE	162	17.3421	14.4370	20.1310	4.3539	3.8410	30.0130
P/E	158	8.4141	4.6770	10.9540	6.0528	1.2380	29.3830
Panel B. Control variables							
SIZE	162	18.0061	16.9022	19.1574	1.5977	13.9245	21.6219
LOANSTA	160	54.1057	48.6315	61.1242	9.8142	1.9265	68.2144
TIER1	130	10.3651	8.4700	11.1800	3.1583	4.3000	26.8500
P/B	158	1.2401	0.6680	1.4850	0.8423	0.1940	4.2380
Panel C. Governance variables							
IND	140	5.7500	4	7	2.0537	3	12

BS	140	13.2143	10	17	3.3646	7	18
BM	140	11.4643	8	14.5	3.9737	6	20
RCS	140	3.9643	2	5	2.3457	0	9
RCM	135	1.8519	1	2	1.7213	0	6

Source: Research Output

Panel A shows the descriptive statistics for the bank performance measures. The dependent variables TQ and ROA have mean values of 1.087% and 1.147%, respectively. Not surprisingly, ROE and P/E show high mean values (17.342% and 8.414%, respectively) during the investigated period, which comprises the financial turmoil. The average ROE is comparable to the one reported by Aebi et al. (2012), considering the study analyses the emerging market banks during the 2013–2017 period, while Aebi et al. focus only on the years 2007 and 2008.

Panel C reports the descriptive statistics for all governance variables. The data show that the board has a higher mean number of directors (with a minimum of 7 and a maximum of 18.00) compared to the risk committee (13.21 versus 3.96). As for the frequency of the meetings held by the board and by the risk committee, the variable BM has the mean value higher than that of RCM (11.46 versus 1.85). This information is consistent with what is expected. In fact, although the presence of the risk committee is recommended by Basel regulatory framework, this is a corporate body recently created, that it is still not present in all banks (as it is shown by the minimum values of the variables RCS and RCM that, for some banks, are equal to zero). Moreover, in some banks, the audit committees perform many of the functions managed by the risk committees.

As for the control variables, Panel B shows that the sample includes large credit institutions (with a mean for SIZE of 18), characterized by a high LOANSTA, the proxy to control for banks business models, and TIER1, the proxy to control for bank capital.

Table 2 presents the correlation coefficients of the independent variables used in the study. Pearson correlation coefficients are portrayed below the diagonal.

Multicollinearity among regressors should not be a concern as the maximum value of the correlation coefficient, between BS and SIZE, is 0.437.

The table shows the Pearson pairwise correlation matrix for the independent variables applied in the study. BS is defined as the number of directors on the board. IND is the number of independent directors on the board. BM is the frequency of the board meetings, measured as the number of meetings held by the board in the year 2013. RCS is the risk committee size, defined as the number of the risk committee directors. RCM is the frequency of the risk committee meetings, measured as the number of meetings held by the risk committee in the year 2013. SIZE is the natural log of total bank assets at the book value. P/B is computed as the ratio of the bank current share price to the book value per share. The variable LOANSTA is the ratio of loans to total assets at book value. The variable TIER 1 is the ratio of tier 1 capital to total risk-weighted assets. Pearson (Spearman) correlations are below the diagonal. The superscript * denotes statistical significance at 5%.

Table 2. Correlation matrix.

	P/B	SIZE	LOANSTA	TIER1	IND	BS	BM	RCS	RC M
P/B	1								
SIZE	-0.074	1							
LOANSTA	0.002	-0.068	1						
TIER1	0.176	-0.406*	-0.202	1					
IND	0.033	0.011	0.116	0.013	1				
BS	-0.211	0.437*	-0.207	-0.412*	0.362*	1			
BM	-0.151	-0.110	0.376*	-0.121	-0.043	-0.147	1		
RCS	-0.085	0.421*	0.056	0.048	-0.218	0.106	0.245	1	
RCM	-0.034	0.401*	-0.250	-0.232	-0.030	0.340*	0.048	0.414	1

Source: Research Output

EMPIRICAL ANALYSIS

Endogeneity issues

Referring to the endogeneity problem, it is underlined that it is a common issue in governance studies that makes interpretation of the results difficult. As pointed out by Hermalin and Weisbach (2003), the relation between board characteristics and firm performance may be spurious, because the firm's governance structure and performance are endogenously determined. This issue is less likely to be problematic in the setting for two main reasons.

First, corporate governance variables as of 2013 are related to bank performance measures in the years from 2013 to 2017. As suggested by Pathan and Faff (2013), the crisis period offers a quasi-experimental setting that provides a relatively clear test of the relation between bank boards and performance, which is strong to any endogeneity concern related to board structure variables.

Second, Wintoki et al. (2012) consider 'dynamic endogeneity' to be an important source of endogeneity that needs to be controlled for in governance and performance relation studies to obtain unbiased estimates. The term 'dynamic endogeneity' refers to the manner in which a firm's current performance affects both its future performance and its governance. However, for banks, dynamic endogeneity is less problematic because a bank's past performance, a proxy for management capability, does not affect either its board size or its composition (see also Adams & Mehran, 2012).

RESULTS

Table 3 presents the results of Pooled OLS estimates of Eq. (2), when considering TQ, ROE, ROA, and P/E as the dependent variables, respectively. In all models, the study controls for year fixed effects and uses a country dummy variable to control for the potential unobservable difference between China and India. Coefficients and their significance are reported.

The dependent variables are TQ, ROE, ROA and P/E. TQ is calculated as the book value of assets minus the book value of common equity plus the market value of equity plus the market value of common equity divided by the book value of total assets;

ROA and ROE are calculated as the net income, that is the pre-tax income minus tax, divided by the average of the two most recent years of total assets and book value of equity, respectively. The P/E is estimated as the ratio of market price to earnings per share. The governance variables are BS, BM, IND, RCS and RCM. BS is defined as the number of directors on the board. IND is the number of independent directors on the board. BM is the number of meetings held by the board in the year 2013. RCS is defined as the number of risk committee directors. RCM is the number of the meetings held by the risk committee in the year 2013. The control variables include SIZE, P/B, LOANSTA, and TIER1. SIZE is the natural log of total bank assets at the book value. P/B is computed as the ratio of the bank's current share price to the book value per share. The variable LOANSTA is the ratio of loans to total assets at book value; the variable TIER 1 is the ratio of tier 1 capital to total risk-weighted assets. COUNTRY_D is a dummy variable that takes the value one if the analysed bank is from China and zero if it is from India. All variables are winsorized at 5%. In addition, there is control for year fixed effects.

In general, the model is well-fitted, with an adjusted R-square of 0.36 for TQ, 0.21 for ROE, 0.18 for ROA and 0.26 for P/E. For all the dependent variables and in all estimations, there are statistically significant F-statistics.

Table 3. Pooled OLS estimates for all the dependent variables: TQ, ROE, ROA and P/E.

Independent variables	TQ	ROE	ROA	P/E
	(1)	(2)	(3)	(4)
Control variables				
SIZE	0.2186	- 0.2463	- 0.2839	0.1227
P/B	0.298**	0.2218***	0.2949***	0.245*
LOANSTA	- 0.5487***	0.2668*	0.2519*	- 0.4418**
TIER1	0.5141***	- 0.5093***	0.3057*	0.3155**
Country dummy				

COUNTRY_D	1.2598***	1.0479**	0.9697**	– 1.6816***
Governance variables				
IND	– 1.9404	– 0.2302**	– 0.1305	0.1035
BS	38.5196	0.017	– 0.0916	– 0.1587
BM	– 0.3781**	0.2228**	– 0.0811	– 0.2682**
RCM	0.1752**	– 0.1604	– 0.1979	0.4593*
RCS	– 0.5642**	0.2841***	0.3477**	– 0.2571**
Intercept	0.9799**	– 0.3134	– 0.3849**	0.9685***
Year dummies	Yes	Yes	Yes	Yes
Adjusted R2	0.3575	0.2148	0.1820	0.2635
F	7.29***	15.54***	15.03***	44.47***

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

The table reports Pooled OLS regression results of the effect of governance variables (i.e., standard board variables and risk governance variables) on bank performance for a sample of 81 Latin American credit institutions between 2013 and 2017. In particular, the following equation is used:

$$y_{it} = a + \beta_1 \text{IND}_{i, 2013} + \beta_2 \text{BS}_{i, 2013} + \beta_3 \text{BM}_{i, 2013} + \beta_4 \text{RCS}_{i, 2013} + \beta_5 \text{RCM}_{i, 2013} + \gamma \text{CRTLit} + \delta \text{YEAR_D} + \lambda \text{COUNTRY_D} + \text{uit}$$

As for the standard board variables, it is found that the variable BS is statistically insignificant for all measures of bank performance; the coefficient of IND is negative but significant only for ROE and the coefficient of BM is negative and significant for both TQ and P/E.

Turning to analyse the risk governance variables, it is found that RCM is positive and statistically significant only for TQ. RCS is significant at 1% and negative for both P/E and TQ, those are the market or quasi-market based measures of bank performance; on the opposite, RCS is positive and significant for both ROA and ROE, the accounting measures of performance.

This illustrated that, after controlling for bank and country characteristics, the performance of the banks in the sample is not strongly affected by the composition of the boards of directors and its “strength”, but more by the characteristics of the risk committee. The boards of directors’ variables seem to only have a limited impact on the market-based measure of performance in terms of the number of board meetings. However, the positive relationship expected by the previous evidences in the literature is not confirmed for the analysis and suggests that higher bank performance is associated with a lower board functioning. This result could be driven by specific governance rules that impose a minimum number of meetings per year, either as a recommendation or in a mandatory standard. Similarly, the insignificance of the board size’s coefficients that is in contrast both with the literature on Latin American banks and previous finding on Latin American companies (Jackling & Johl, 2009) reflect the peculiar nature of the financial institutions for these two emerging countries.

On the other hand, the general irrelevance of the standard board’s variables when specific variables related to the risk committee are included in the analysis is in line with Aebi et al. (2012). The positive relationship between the size of the risk committee and ROE and ROA suggests that over the period 2013–2017 banks with larger risk committee perform better in terms of profitability, however, the market valuation and the expected market growth (TQ and P/E) of these banks is larger than for banks with smaller size of risk committee. In particular, it is found that the market valuation of these banks is associated with a smaller size of the risk committee and with a higher number of risk committee meetings. This suggests that the market associates a “strong risk committee”, characterized by a low number of components and a high number of meetings, with a lower performance.

All the coefficients of the bank-specific variables have the expected sign and offer some significant insights. For instance, the country dummy shows that Latin American banks have on average a higher TQ, ROE and ROA (positive and significant coefficient), but a lower P/E (negative and significant coefficient). This result is in line with the evidence of higher uncertainty and volatility on the LA1 stock market during the period under investigation. As for the market-based measures of bank performance, the study observes a positive and significant relationship with TIER 1 and a negative and

significant relationship with the variable LOANSTA. Better-capitalized and less credit-oriented banks are associated with better performance. Finally, consistently with the previous literature, there is a strong positive and significant relationship of ROA and ROE with market's growth expectations (P/B).

CONCLUSIONS

The study analyses a sample of 81 Latin American and listed banks over the period 2013–2017. The research aimed to investigate the relationship between both standard corporate governance variables (related to the board of directors) and risk management-related variables, and bank performance. It measures bank performance by Tobin's Q, ROA, ROE, and price-earnings ratio. In line with the previous literature on Latin American banks, it finds the general irrelevance of the standard board's variables when specific variables related to the risk committee are included in the analysis. The positive relationship between the size of the risk committee and ROE and ROA suggests that over the period 2013–2017 banks with larger risk committee perform better in terms of profitability. However, the market valuation and the expected market growth (Tobin's Q and P/E) are larger for banks with smaller risk committee. Moreover, the market valuation is positively associated with the frequency of the risk committee's meetings.

To summarize, the overall evidence shows that the standard governance measures, used in a large body of literature on corporate governance and its valuation effect in non-financial firms, may fall short in describing the relevant governance structure of banks. The results highlight the importance of the so-called "risk governance" also for banks in emerging markets.

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