Routledge
Taylor & Francis Group

Economic Research-Ekonomska Istraživanja

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rero20

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To cite this article: Juan Gallegos Mardones & Gonzalo Ruiz Cuneo (2020) Capital structure and performance in Latin American companies, Economic Research-Ekonomska Istraživanja, 33:1, 2171-2188, DOI: 10.1080/1331677X.2019.1697720

To link to this article: https://doi.org/10.1080/1331677X.2019.1697720

Published online: 10 Dec 2019.

ECONOMIC RESEARCH-EKONOMSKA ISTRAŽIVANJA
2020, VOL. 33, NO. 1, 2171–2188
https://doi.org/10.1080/1331677X.2019.1697720

Capital structure and performance in Latin American companies

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ABSTRACT

The purpose of this study is to explain the financial performance of companies in Latin America through the lens of capital structure and ownership structure. We perform a quantitative analysis of companies in Brazil, Chile, Mexico, and Peru using a panel data method. To avoid endogeneity problems, instrumental variables, generalised method of moments models, and panels with random effects are employed. The data cover the period 2000 to 2015. We find a positive relationship between financial performance, growth, and size of the company. However, there are mixed results for short- and long-term financial leverage, as well as for company liquidity. With respect to the ownership structure of Chilean companies, a positive effect is observed for the first major shareholder with financial performance. In general, our results are in line with those of previous studies. However, the existence of mixed results between companies and countries makes for an interesting and novel conclusion.

ARTICLE HISTORY
Received 15 February 2019
Accepted 18 November 2019

KEYWORDS
Financial performance; capital structure; ownership structure; Latin America

JEL CLASSIFICATIONS
C23; C26; G32

1. Introduction

Company performance is a key issue for investors, shareholders, and the economy in general. In addition, performance is a mechanism for control, allocation of resources, and assessment of the financial health of a company over a period of time (Rumelt, 1991). According to Iswatia and Anshoria (2007), a company's performance is a function of the organisation's ability to obtain and manage its resources in order to develop a competitive advantage (Omondi & Muturi, 2013). Previous studies have used return on assets (ROA), return on equity (ROE), and Tobin's Q as measures of competitive advantage (Liargovas & Skandalis, 2008).

The factors determine a company's performance, including corporate governance, financial leverage, liquidity, and company size, as well as industry-related factors, such as growth and industry concentration (Cohn, Mills, & Towery, 2014; Liargovas

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& Skandalis, 2008). Other theories complement previous studies that use entrepreneurship management and innovation as drivers of company profitability (Audretsch, Castrogiovanni, Ribeiro, & Roig, 2005; Palacios-Marqués, Roig-Dobón, & Comeig, 2017; Rico & Cabrer-Borrás, 2018). Kyvik (2018) incorporates the business model, creativity, and management and financial control as key variables in his analysis.

Unlike previous studies, the objective of the present work is to reveal the relationships in Latin American economics between financial performance and the following financial variables: leverage, operational risk, size, liquidity, growth, tangibility and ownership structure. The evidence shows inconclusive results for these types of economies (Hawawini, Subramanian, & Verdin, 2004). In this investigation, we use the following three measures of financial performance: ROA, ROE and Q of Tobin.

Our work helps to reveal the variables that affect the performance of companies in Latin American countries. Using a panel data analysis, our research provides relevant information about these variables and their specific effects by country.

The rest of the paper is structured as follows. The next section presents a summary of the literature focused on methods employed and main findings. Thereafter, the database and methodological framework, and details of the variables are discussed. Then, the results are presented and discussed. The final section summarises and presents future research challenges.

2. Literature review and hypothesis development

Modigliani and Miller (1958) argue that in a perfect and complete market in which there are no personal and corporate taxes, the structure of capital (i.e., distribution of a company's debt and equity) is irrelevant to the value of the company. However, in a later study, in the context of imperfect markets, Modigliani and Miller (1963) find that financial leverage can allow a company to increase its value by benefiting from fiscal shield through using debt. In addition, the authors propose the existence of a positive relationship between performance and leverage. Later, Kraus and Litzenberger (1973), through a marginal analysis for use of debt, propose the existence of an optimal leverage and recognise a non-linear relationship between leverage and performance. This is because when the firm finds this optimal leverage, it maximises its value and has no incentives to increase its leverage, as this implies decreasing its value (Vargas, 2014). Then, Myers (1984) and Myers and Majluf (1984) propose the pecking order theory based on asymmetrical information between managers and new investors increasing adverse selection costs (Frank & Goyal, 2009). In this theory, it is assumed there is no optimal leverage and firms choose financing following a preference order: internal finance, debt, and equity. Myers and Majluf (1984) argue that there is information asymmetry between managers and investors, because managers have more information than new investors and act in favour of old shareholders. Jensen (1986) and Hart and Moore (1994) regard this conflict as an agency problem that can be controlled with an adequate capital structure allowing adequate control and minimising agency costs. Jensen (1986) proposes that in companies with high levels of debt, managers are motivated to invest in profitable projects to generate cash flow to pay interest and capital, reducing the conflict between

shareholders and administrators, but the conflict between shareholders and bondholders increases, because it can lead shareholders to invest sub optimally (Harris & Raviv, 1988). A significant association is also observed between cash flow and company performance (Park & Jang, 2013).

Abor (2005) finds a positive relationship between leverage and financial performance and an inverse relationship for companies listed in Ghana. Gill, Biger, and Mathur (2011) find a positive relationship when they use ROE as a measure of profitability and a negative relationship when they use ROA. The same results are found by Olorunfemi and David (2010) when they relate earnings per share and dividend per share with leverage for Nigerian oil companies. Nawaz, Ali, and Naseem (2011) obtain the same result for textile companies in Pakistan. Zeitun and Tian (2007) find a negative relationship between financial performance and leverage and a positive relationship using Tobin's Q for companies from Jordan. Mohamad and Abdullah (2012) show a negative relationship for Malaysian companies between 2002 and 2010 while Seetanah, Seetah, Appadu, and Padachi (2014) show a negative and significant relationship between leverage ratio and firm performance measures, like ROA and ROE, for a group of firms in emerging countries, supporting hierarchical order theory. However, growth opportunities, free cash flow, oil price, and firm age have insignificant influence. Therefore, we propose the following relationships.

Hypothesis 1a. There is a positive relationship between leverage and company performance.

Hypothesis 1b. There is a negative relationship between leverage and company performance.

Hypothesis 2a. There is a non-linear relationship between debt and company performance.

Hypothesis 2b. There is a linear relationship between debt and company performance.

In addition, the authors highlight company growth and size as key variables in company performance (Chiang, Chan, & Hui, 2002). The results are inconclusive regarding the relationship between growth and profitability, since companies with growth capacity can generate greater market share and synergy effects, leading to favourable returns (Abor, 2005; Danis, Rettl, & Whited, 2014; Kester, 1986; Nawaz et al., 2011; Reilly & Brown, 2006). Rapid company growth can lead to greater competition and economic fluctuations (Idol, 1978; Logue & Merville, 1972). In addition, higher growth can negatively affect the owner's wealth (Baños-Caballero, García-Teruel, & Martínez-Solano, 2014; Goddard, Tavakoli, & Wilson, 2005; Simerly & Li, 2000). Therefore, we propose the following relationships.

Hypothesis 3a. There is a positive relationship between growth and company performance.

Hypothesis 3b. There is a negative relationship between growth and company performance.

On the one hand, the literature shows that large companies can achieve better returns by developing economies of scale and scope than by using the capital market

as a source of financing (Berman, Wicks, Kotha, & Jones, 1999; Gupta, 1969). Thus, larger companies have more profitable investment opportunities, greater efficiency, more diversification, and a lower level of risk (Mainelli & Giffords, 2010). On the other hand, other research shows that larger companies may incur inefficiencies, leading to inferior financial performance and thereby poor performance (Fama & French, 1993; Klapper & Love, 2004; O'Neill, Saunders, & McCarthy, 1989; Wu, 2006; Zajac, 1990). The most commonly used size measures are level of assets or sales (Schmalensee, 1989). Therefore, we propose the following relationships.

Hypothesis 4a. There is a positive relationship between size and company performance.

Hypothesis 4b. There is a negative relationship between size and company performance.

Liquidity is another variable used to explain company profitability. Myers and Rajan (1998) state that companies with greater liquidity tend to increase their borrowing capacity, favouring greater financial performance and quickness in converting assets into cash at fair market value. Good liquidity management improves operating results and company performance, and favours access to the capital market (Moyer, McGuigan, & Kretlow, 2001). Goddard et al. (2005) argue that liquidity shows how quickly companies can react and adapt to changes in their environment; it can also reduce the risk of not being able to meet companies' short-term financial obligations. Therefore, we propose the following relationships.

Hypothesis 5a. There is a positive relationship between liquidity and company performance.

Hypothesis 5b. There is a negative relationship between liquidity and company performance.

The relationship between ownership structure and performance has received considerable attention by researchers all over the world (Kumar, 2003) as has the effect of the board's diversity on performance (De Abreu Dos Reis, Sastre-Castillo, & Roig-Dobón, 2007). The presence of large shareholders is considered to improve control and, therefore, to positively impact the value of the business (He & Rui, 2016). Grossman and Hart (1983) argue that shareholders with an important share in the company's capital show more interest in decision making, because they can partially internalise the benefits of their effort. On the contrary, research has identified costs associated with certain levels of ownership concentration that can negatively affect company performance (Demsetz & Lehn, 1985). A high concentration of ownership reduces managers' freedom to make decisions and take risks, and reduces opportunities for new projects (Bushee, 1998; Pound, 1988). Meanwhile, Perrini, Rossi, and Rovetta (2008) find that ownership concentration of a company's five biggest shareholders positively influences firm valuation. Khamis, Hamdan, and Elali (2015) find that, for the first stockholder, there is a negative effect on financial performance using ROA and Tobin's Q but there is no effect for the second, third, fourth, and fifth main shareholders. Maury and Pajuste (2006) find that the presence of a strong third shareholder positively affects company value, while a second large shareholder can negatively affect it. Konijn, Kräussl, and Lucas (2011) investigate the effect of the dispersion of the concentration of ownership on the value of the company, finding a

negative relationship between it and financial performance. The literature review reveals increasing empirical evidence on the effects of ownership structure on firm performance in developed markets, but little attention has been given to emerging markets. Therefore, we propose the following relationships.

Hypothesis 6a. There is a negative relationship between high ownership structure and company performance.

Hypothesis 6b. There is a positive relationship between high ownership structure and company performance.

3. Data and methodology

3.1. Sample, variables, and data collection

The study uses a set of financial data and the ownership structure of public companies in Latin American countries. Brazil, Chile, Mexico, and Peru are selected for this research, because their economies have more developed markets in the region. The data collected correspond to consolidated financial statements for each of these companies. Our main source is Thomson Reuters Eikon and the Commission for the Chilean Financial Market. One limitation of the database used in this research is that information regarding ownership structure is available only for Chilean companies. The period under study covers the years 2005–2015. The estimation is conducted using STATA 14 software.

For the validity of our research hypotheses, we consider the research developed by Espinosa, Maquieira, Vieito, and González (2012), Paniagua, Rivelles, and Sapena (2018), Phuong and Bich (2017), Rajan and Zingales (1995), and Zeitun and Tian (2007). This study uses panel data to estimate a regression model to identify the relationship between financial factors and financial performance. As Wooldridge (2002) indicates, the panel data have transverse and time-series dimensions. The fixed effects model and the random effects model stand out (Yaffee, 2005). In the fixed effects model, the individual effect is a random variable which can be correlated with the explanatory variables while in the random effects model, it is assumed that the individual effect is random and uncorrelated with the explanatory variables (Borenstein, Hedges, Higgins, & Rothstein, 2010).

Endogeneity is defined as the existence of correlation between the independent variable and the error term, that is, there is a causal relationship between the independent and the dependent variable whereby both explain each other. Endogeneity may result from measurement errors, simultaneity, or omitted variables. In this case, regression using ordinary least squares (OLS) is not adequate and other models must be employed to correct it (Labra & Torrecillas, 2014). Based on previous studies, some authors have argued that endogeneity is a typical problem in panel models that should be corrected (Espinosa et al., 2012; Margaritis & Psillaki, 2010; Phuong & Bich, 2017; Rajan & Zingales, 1995). To do so, Phuong and Bich (2017) and Espinosa et al. (2012) do not recommend the use of fixed or random effects models, since they consider the independent variables as exogenous.

These authors instead suggest the use of dynamic data panels by means of either the inclusion of instrumental variables (IV) or the use of the generalised method of moments (GMM), which yields consistent estimators in the parameters in situations in which the OLS estimator is inconsistent. It is preferable to use the GMM in two stages with a robust estimator, since it is more efficient and reduces the loss of information (Arellano & Bover, 1995). This method does not lead to problems of over-identification. To estimate the effect of the non-linear relationship between debt and financial performance, the random effects method with robust estimator is suggested (Phuong & Bich, 2017). We propose three models for our study. The first model defines the relationship between financial variables and financial performance (1). The second model recognises the existence of a possible non-linear relationship between debt and financial performance (2). Finally, the third model recognises the effects of ownership structure on financial performance (3).

$$\begin{aligned} DES_{i,t} = {} & \alpha + \beta_1 SD_{i,t} + \beta_2 LD_{i,t} + \beta_3 GRO_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 \mathrm{TAN}_{i,t} + \beta_6 TAX_{i,t} \\ & + \beta_7 RISK_{i,t} + \beta_8 INV_{i,t} + \beta_9 CASH_{i,t} + \beta_{10} PROF_{i,t} + \beta_{11} LQ_{i,t} + \beta_{12} DIV_{i,t} \\ & + \varepsilon_{i,t} \end{aligned} \tag{1}$$

$$\begin{aligned} DES_{i,t} = {} & \alpha + \beta_1 SD_{i,t} + \beta_2 SD^2{}_{i,t} + \beta_3 LD_{i,t} + \beta_4 LD^2{}_{i,t} + \beta_5 GRO_{i,t} + \beta_6 SIZE_{i,t} \\ & + \beta_7 \mathrm{TAN}_{i,t} + \beta_8 TAX_{i,t} + \beta_9 RISK_{i,t} + \beta_{10} INV_{i,t} + \beta_{11} CASH_{i,t} \\ & + \beta_{12} PROF_{i,t} + \beta_{13} LQ_{i,t} + \beta_{14} DIV_{i,t} + \varepsilon_{i,t} \end{aligned} \tag{2}$$

$$\begin{aligned} DES_{i,t} = {} & \alpha + \beta_1 SD_{i,t} + \beta_2 SD^2{}_{i,t} + \beta_3 LD_{i,t} + \beta_4 LD^2{}_{i,t} + \beta_5 GRO_{i,t} + \beta_6 SIZE_{i,t} \\ & + \beta_7 \mathrm{TAN}_{i,t} + \beta_8 TAX_{i,t} + \beta_9 RISK_{i,t} + \beta_{10} INV_{i,t} + \beta_{11} CASH_{i,t} \\ & + \beta_{12} PROF_{i,t} + \beta_{13} LQ_{i,t} + \beta_{14} DIV_{i,t} + \beta_{15} PRO1_{i,t} + \beta_{16} PRO3_{i,t} \\ & + \beta_{17} PRO5_{i,t} + \varepsilon_{i,t} \end{aligned} \tag{3}$$

Measurement of variables and descriptive statistics

The sample comprises 4,715 companies studied between 2000 and 2015. Specifically, 2,272 Brazilian, 847 Chilean, 1,000 Mexican, and 596 Peruvian companies are analysed. To carry out our estimates, we present the details of each variable in Table 1.

The summarised descriptive statistics of all variables (see Table 2) show that average ROA for all companies is 10.1%, average ROE is 13.2%, and average Tobin's Q is 1.378. For all companies, ROE shows a greater standard deviation than ROA, which can be explained by the volatility of operational income and leverage. Peruvian companies show the greatest profitability with ROA of 14.8% and ROE of 16.9%. However, these companies have the lowest Tobin's Q of 1.189. Mexican companies have the highest Tobin's Q of 1.665. With regard to leverage, the companies use more short-term debt (SD) than long-term debt (LD). Peruvian companies show the

Table 1. Details of model variables.

Variables	Abbreviation	Detail
Return on assets	ROA	Earnings after tax to total assets
Return on equity	ROE	Earnings after tax to equity
Tobin's Q	Q	Accounting value total liability plus stock capitalisation to total assets
Short-term debt	SD	Short-term debt to total assets
Long-term debt	LD	Long-term debt to total assets
Growth	GRO	Percentage of change in sales with respect to previous year
Size	SIZE	Natural logarithm of total assets
Tangibility	TAN	Property, plant, and equipment to total assets
Tax	TAX	Tax paid on earnings before interest and tax
Operational risk	RISK	Standard deviation of the last 3 years of ROA
Capital expenditure	INV	Capital expenditure to total assets of the company
Cash	CASH	Earnings after tax plus annual depreciation to total assets
Profitability	PROF	Earnings before interest and tax to total sales
Liquidity	LQ	Cash and cash equivalent to total assets
Paid dividend	DIV	Dividend per share to share's market price
Ownership	PRO1	Ownership of largest shareholder of company *i* in period *t*.
Ownership	PRO3	Ownership of three largest shareholders of company *i* in period *t*.
Ownership	PRO5	Ownership of five largest shareholders of company *i* in period *t*.

Source: Own elaboration.

highest rate of growth in sales (GRO) of 19.5% and Mexican companies show the lowest of 10.1%. Mexican and Brazilian companies are largest in size and Chilean companies are smallest. Meanwhile, Chilean companies have the highest proportion of tangible assets (TAN) of 45.6% as well as investments in capital expenditure (CAPEX) of 6.9%. In addition, Peruvian companies have the highest level of risk (RISK) 4.5%, as well as highest profitability (PROF) 20.4% and payment of dividends (DIV) 8.1%. Finally, Brazilian companies have greatest liquidity (LIQ) 16.3%.

There is positive correlation between SD and financial performance for all companies, but in the case of LD, there is positive correlation with Tobin's Q. The variables GRO, RISK, INV, CASH, PROF, and LIQ are correlated positively with performance. The variables LD, SIZE, TAN, TAX, and DIV produce mixed results (see Table 3).

4. Regression results and discussion

To solve the endogeneity problems, we propose using instruments and lag variables (Espinosa et al., 2012; Rajan & Zingales, 1995). As instruments for SD and LD, the endogeneity variables we propose asset turnover ratio (Dumont & Svensson, 2014) and total debt to capitalisation ratio (Espinosa et al., 2012; Phuong & Bich, 2017). Based on the results of the Hausman test, the random effects model is recommended.

Table 4 summarises (1) and shows the IV results. The regressions performed are significant at the 99% and 95% confidence levels. For ROA, −0.157 of the variation is explained by the independent and control variables; for ROE, it is −0.007 and for Tobin's Q, it is −11.040. SD shows mixed results, with a negative and significant relationship with ROA of 0.0018, with ROE of 0.266, and with Tobin's Q of −1.604. For LD, there is a negative relationship for Brazilian, Mexican, and Peruvian companies when the performance measures are ROA and Tobin's Q. However, the results are positive for Chilean companies when ROE is the performance measure. For SD, the results are mixed for each of the performance measures. These results are

Table 2. Descriptive statistical variables of Brazilian, Chilean, Mexican, and Peruvian companies.

Country		ROA	ROE	Q	SD	LD	GRO	SIZE	TAN	TAX	RISK	INV	CASH	PROF	LIQ	DIV
	Mean	0,101	0,132	1,378	0,237	0,148	0,142	13,422	0,402	0,148	0,030	0,059	0,089	0,143	0,104	0,046
	St. dev.	0,098	0,197	0,933	0,123	0,135	0,352	1,856	0,206	1.019	0,037	0,055	0,076	0,136	0,108	0,107
All	Min	−0,239	−4,080	0,139	0,005	0,000	−0,968	7,794	0,000	−27,974	0,000	0,000	0,000	−0,623	0	−0,024
	Max	1,131	2,524	12,591	0,845	0,866	4,920	19,605	0,928	13,054	0,318	0,419	1,026	0,906	0,857	2,059
	Mean	0,090	0,138	1,355	0,264	0,176	0,160	14,052	0,300	0,139	0,033	0,055	0,094	0,127	0,163	0,051
Brazil	St. dev.	0,073	0,191	0,972	0,121	0,140	0,393	1,941	0,180	1,483	0,035	0,046	0,064	0,125	0,131	0,101
	Min	−0,238	−2,207	0,380	0,037	0,000	−0,932	8,906	0,000	−27,974	0,000	0,000	0,000	−0,618	0,001	−0,024
	Max	0,439	1,026	9,462	0,681	0,603	3,987	19,605	0,904	13,054	0,291	0,304	0,459	0,906	0,857	1,824
	Mean	0,082	0,122	1,277	0,218	0,148	0,116	13,116	0,456	0,108	0,025	0,069	0,068	0,118	0,075	0,046
Chile	St. dev.	0,086	0,156	0,582	0,108	0,109	0,304	1,607	0,195	0,630	0,037	0,058	0,072	0,124	0,074	0,055
	Min	−0,239	−0,332	0,278	0,005	0,000	−0,968	9,559	0,006	−10,424	0,000	0,000	0,000	−0,623	0,000	0,000
	Max	1,131	2,524	4,730	0,564	0,554	3,387	16,948	0,905	2,508	0,318	0,410	1,026	0,895	0,491	0,448
	Mean	0,092	0,103	1,665	0,219	0,169	0,101	14,104	0,430	0,102	0,020	0,055	0,091	0,136	0,078	0,018
Mexico	St. dev.	0,065	0,246	1,107	0,123	0,163	0,271	1,492	0,199	1,047	0,024	0,051	0,055	0,115	0,066	0,037
	Min	−0,080	−4,080	0,383	0,006	0,000	−0,790	10,212	0,004	−14,361	0,001	0,000	0,000	−0,116	0,000	0,000
	Max	0,575	1,601	12,591	0,845	0,866	2,053	18,278	0,809	3,070	0,234	0,419	0,292	0,699	0,489	0,564
	Mean	0,148	0,169	1,189	0,242	0,085	0,195	12,094	0,451	0,242	0,045	0,063	0,107	0,204	0,089	0,081
Peru	St. dev.	0,146	0,175	0,905	0,133	0,094	0,414	1,579	0,209	0,312	0,047	0,064	0,108	0,166	0,115	0,200
	Min	−0,061	−0,033	0,139	0,016	0,000	−0,788	7,794	0,007	−3,586	0,002	0,000	0,000	−0,173	0,000	0,000
	Max	0,910	1,773	8,558	0,780	0,517	4,920	15,569	0,928	3,541	0,250	0,413	0,623	0,877	0,709	2,059

Source: Own computation using Stata 14 software.

Table 3. Matrix of correlations between variables of Brazilian, Chilean, Mexican, and Peruvian companies.

	ROA	ROE	Q	SD	LD	GRO	SIZE	TAN	TAX	RISK	INV	CASH	PROF	LQ	DIV
ROA	1,000														
ROE	0,759	1,000													
Q	0,307	0,299	1,000												
SD	0,082	0,193	0,075	1,000											
LD	−0,184	−0,040	0,074	−0,080	1,000										
GRO	0,192	0,189	0,104	0,096	−0,027	1,000									
SIZE	−0,071	−0,002	0,151	−0,060	0,461	−0,038	1,000								
TAN	0,008	−0,073	−0,065	−0,336	−0,002	−0,059	−0,022	1,000							
TAX	0,078	−0,023	0,034	0,024	−0,047	0,024	−0,018	−0,058	1,000						
RISK	0,472	0,350	0,072	−0,032	−0,198	0,164	−0,205	−0,021	−0,034	1,000					
INV	0,204	0,189	0,179	−0,042	0,122	0,049	0,083	0,316	−0,040	0,110	1,000				
CASH	0,886	0,766	0,331	0,031	−0,224	0,184	−0,026	0,004	0,051	0,434	0,257	1,000			
PROF	0,690	0,486	0,186	−0,238	−0,024	0,126	0,038	0,067	0,064	0,336	0,167	0,584	1,000		
LQ	0,162	0,166	0,045	−0,052	−0,056	0,006	−0,048	−0,353	0,072	0,232	−0,051	0,205	0,110	1,000	
DIV	0,356	0,249	−0,129	−0,049	−0,093	−0,024	−0,019	0,019	0,032	0,267	0,038	0,330	0,230	0,166	1,000

Source: Own computation using Stata 14 software.

Table 4. Regression results with estimations in instrumental variables with robust estimator.

	R OA					ROE					Tobin's Q				
Variables	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru
SD	0,018	0,083	0,043	−0,059*	−0,036*	0,266***	0,500***	−0,273***	−0,295***	0,304***	−1,604*	−0,400	3,608**	−2,598**	0,791
	(0,015)	(0,038)	(0,028)	(0,021)	(0,024)	(0,041)	(0,119)	(0,081)	(0,058)	(0,056)	(0,886)	(2,386)	(1,487)	(1,362)	(2,032)
LD	−0,157***	−0,310***	−0,178	−0,094***	−0,257**	−0,007	−0,647	0,184	0,227**	0,439	−11,040***	−15,490***	−15,567***	−7,375***	−27,215***
	(0,027)	(0,063)	(0,079)	(0,026)	(0,090)	(0,116)	(0,265)	(0,256)	(0,094)	(0,327)	(0,999)	(3,257)	(4,225)	(1,012)	(8,819)
SIZE	0,001**	0,007**	0,006**	0,001**	0,004**	0,003	0,028**	0,006	−0,001	−0,013	0,437***	0,530***	0,598***	0,412***	0,608***
	(0,001)	(0,002)	(0,003)	(0,001)	(0,002)	(0,004)	(0,010)	(0,008)	(0,004)	(0,008)	(0,041)	(0,116)	(0,154)	(0,056)	(0,209)
GRO	0,004**	0,001	−0,004	0,009**	0,010**	0,015*	0,019**	0,008*	0,017**	−0,003*	0,223*	0,156	0,389*	0,195*	0,588*
	(0,003)	(0,005)	(0,010)	(0,006)	(0,003)	(0,008)	(0,017)	(0,020)	(0,017)	(0,011)	(0,131)	(0,218)	(0,337)	(0,432)	(0,329)
TAN	−0,007	0,017	0,021	−0,016	0,005**	−0,012	0,030	0,056**	−0,044**	0,037**	−1,169***	−0,905	1,615***	1,022***	−0,602
	(0,005)	(0,016)	(0,009)	(0,008)	(0,011)	(0,013)	(0,046)	(0,023)	(0,021)	(0,018)	(0,289)	(0,871)	(0,633)	(0,386)	(1,078)
TAX	−0,003	0,002*	0,006	−0,016***	−0,004	−0,016	0,005	0,012**	−0,081***	0,009	−0,026	0,117*	−0,069	−0,174**	0,056
	(0,003)	(0,002)	(0,003)	(0,004)	(0,006)	(0,016)	(0,004)	(0,005)	(0,023)	(0,008)	(0,066)	(0,105)	(0,072)	(0,071)	(0,381)
RISK	0,001	0,054	−0,109	−0,170***	−0,010	0,050	0,374	0,157	−0,231	0,312**	−2,308	2,929	−8,814***	−4,940*	−8,675**
	(0,029)	(0,061)	(0,069)	(0,052)	(0,039)	(0,107)	(0,206)	(0,183)	(0,146)	(0,161)	(1,871)	(4, 142)	(3,550)	(2,849)	(3,742)
INV	−0,003	0,052	−0,016	−0,071	0,034	0,003	0,401	−0,182	−0,171	−0,055	6,693***	13,251***	5,977***	8,226***	8,090***
	(0,022)	(0,063)	(0,046)	(0,038)	(0,031)	(0,077)	(0,253)	(0,160)	(0,131)	(0,062)	(0,978)	(3,367)	(2,034)	(1,621)	(3,065)
CASH	0,713***	0,545***	0,922***	0,607***	0,792***	1,404***	0,851***	1,910***	1,553***	1,639***	−0,471	−7,991**	2,974**	−0,738	−0,782
	(0,039)	(0,070)	(0,059)	(0,046)	(0,038)	(0,148)	(0,222)	(0,250)	(0,143)	(0,205)	1, 055	(3,455)	(1,374)	(2,189)	(2,533)
PROF	0,094***	0,118***	−0,013	0,108***	0,059***	0,164***	0,327***	0,015	0,124	0,000	0,960	1,948	−0,736	2,843**	−0,696
	(0,016)	(0,035)	(0,016)	(0,025)	(0,018)	(0,038)	(0,100)	(0,043)	(0,078)	(0,044)	(0,824)	(1,802)	(1,058)	(1,315)	(1,356)
LQ	0,011	0,065***	−0,014	0,047	−0,001	0,032	0,178*	0,008	0,248***	−0,126**	−0,196	0,618	−1,392*	0,083	−0,842
	(0,010)	(0,019)	(0,014)	(0,026)	(0,017)	(0,049)	(0,067)	(0,031)	(0,077)	(0,059)	(0,446)	(1,041)	(0,837)	(1,204)	(1,660)
DIV	0,026	−0,047***	0,065	0,081	0,030***	0,005	−0,105*	0,121	0,173**	−0,018	−2,439***	−3,015***	−0,040	−7,000***	−1,398*
	(0,012)	(0,014)	(0,039)	(0,047)	(0,008)	(0,029)	(0,040)	(0,105)	(0,085)	(0,028)	(0,499)	(0,881)	(1,442)	(2,298)	(0,869)
Constant	0,002	−0,087*	−0,070	−0,012	−0,039	−0,111*	−0,457***	−0,205***	−0,115**	0,029	−2,296***	−3,325**	−6,016***	−2,436***	−3,575
	(0,011)	(0,032)	(0,030)	(0,016)	(0,026)	(0,041)	(0,125)	(0,079)	(0,046)	(0,076)	(0,522)	(1,676)	(1,796)	(0,684)	(2,488)
Observations	2.671	786	667	651	567	2.671	786	667	651	567	2.671	786	667	651	567
Wald Chi2	214,21	71,35	34,18	168,78	75,96	128,33	31,07	35,73	90,75	61,78	206,22	50,12	48,08	129,64	55,29
Prob > Chi2	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0001	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

Note: Standard deviation in parentheses.
*p < 0.1;
**p < 0.05;
***p < 0.01.
Source: Own computation using Stata 14 software.

inconclusive, and do not allow us to accept or reject hypothesis 1 for any performance measure.

Regarding the growth variable (GRO), we observe a positive and significant relationship for most countries, for each performance measure, which is consistent with that proposed in the literature and indicates that companies with higher growth rates generate more profits and improve their profitability. On average, a positive and significant relationship is observed for each performance measure of ROA at 0.004, ROE at 0.015, and Tobin's Q at 0.223. However, this relationship is not observed for Chile and Brazil when the dependent variable is ROA or for Brazil when the measure is Tobin's Q. Still, we can accept hypothesis 3 for any performance measure.

In terms of size (SIZE), a positive and significant relationship is observed at the 99% and 95% confidence levels for each performance measure of ROA at 0.001, ROE at 0.003, and Tobin's Q at 0.437. Larger companies are expected to face lower bankruptcy costs and, therefore, have higher profitability; in our analysis, the effect of size is highlighted by Tobin's Q for Peruvian companies of 0.608. These results allow us to support hypothesis 4 for all performance measures.

Meanwhile, liquidity (LIQ) does not show a significant or positive relationship for each of the performance measures. Specifically, Brazil's relationship is 0.065 and 0.178 at the 99% and 90% confidence level when the performance measure is ROA and ROE, respectively. For Mexico liquidity show a similar relationship of 0.248 when the performance measure is ROE. These results do not support hypothesis 5.

Table 5 shows the estimates for (1) through the GMM method. The results obtained for LD are similar to those obtained with the IVs for ROA and ROE at a confidence level of 99% and 95%, respectively. However, it is not significant when considering Tobin's Q of 0.240. On the contrary, SD is significant and negative when considering ROA as a performance measure. These results are inconclusive, and do not allow us to accept or reject hypothesis 1 for any performance measure.

With respect to growth, a result similar to the use of instruments is observed for each of the variables at the 95% confidence level with ROA of 0.003, ROE of 0.013, and Tobin's Q of 0.287. In terms of size, there is a positive and significant relationship for most countries with ROA of 0.006, ROE of 0.010, and Tobin's Q of 0.026. Thus, we support hypotheses 3 and 4. Meanwhile, liquidity (LIQ) shows a significant and negative relationship only for Peru (0.065) at the 99% confidence level when the performance measure is ROE. This result does not support hypothesis 5.

This study estimates (2), and thus, tests hypothesis 2 on the non-linear effects for SD and LD. For SD, there is a negative and significant relationship when ROA is the performance measure of -0.069 at the 90% confidence level. At the country level, there is a similar effect for Chile and Peru when we use Tobin's Q of −7.890 and −3.053, respectively. However, there is a positive and significant effect for Chile when we use ROA and ROE as performance measures. When we analyse the effects of long-term debt, there is a negative and significant effect for Mexico of −2.489. However, there is a positive relationship for Brazil of 0.129, for Mexico of 0.085, and for Peru of 0.144 when we use ROA as well as for Mexico of 0.337 and for Peru of 3.497 when the performance measure is ROE and Tobin's Q. These results do not support hypothesis 2 for any performance measure (see Table 6).

Table 5. Regression results with estimations in GMM systems.

	ROA					ROE					Tobin's Q				
Variables	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru
SD	−0.003**	−0.015	0.162	−0.013**	0.001	0.206***	0.156	0.354***	−0.078	0.333***	0.269	0.416	−0.351	0.019	0.343
	(0.011)	(0.019)	(0.068)	(0.031)	(0.032)	(0.042)	(0.218)	(0.072)	(0.060)	(0.081)	(0.479)	(0.910)	(0.583)	(0.190)	(0.098)
LD	−0.151**	−0.016	0.601	−0.075**	0.024**	−0.159**	0.152	−0.425***	−0.050	0.155	0.240	0.274	−0.134**	0.267	−0.230
	(0.011)	(0.019)	(0.062)	(0.044)	(0.024)	(0.053)	(0.221)	(0.105)	(0.089)	(0.104)	(0.391)	(0.602)	(0.799)	(0.868)	(0.098)
SIZE	0.006**	0.002	0.003	0.007	−0.003	0.010**	−0.001	−0.005	0.015	−0.007	0.266**	0.028	0.240**	0.350*	0.267*
	(0.003)	(0.002)	(0.008)	(0.005)	(0.004)	(0.009)	(0.017)	(0.009)	(0.017)	(0.011)	(0.136)	(0.205)	(0.109)	(0.227)	(0.185)
GRO	0.003*	0.002	0.012	0.012**	0.008**	0.013***	0.026**	0.031*	0.012	0.021	0.087	0.141**	0.288**	0.112	−0.137
	(0.002)	(0.003)	(0.011)	(0.006)	(0.004)	(0.004)	(0.012)	(0.018)	(0.016)	(0.022)	(0.106)	(0.078)	(0.133)	(0.175)	(0.131)
TAN	−0.016	−0.014	0.002	−0.040*	−0.020	0.040	0.116	−0.021	−0.090*	0.033	−0.367	−0.553	0.174	0.071	−1.712
	(0.011)	(0.016)	(0.025)	(0.024)	(0.029)	(0.042)	(0.125)	(0.064)	(0.053)	(0.114)	(0.379)	(0.558)	(0.552)	(0.858)	(1.919)
TAX	0.002***	0.000	0.005***	−0.001	−0.001	0.001	−0.000	0.002	−0.004	0.012	−0.020	0.000	−0.104**	0.169*	0.011
	(0.001)	(0.001)	(0.001)	(0.002)	(0.008)	(0.002)	(0.006)	(0.004)	(0.008)	(0.009	(0.042)	(0.030)	(0.059)	(0.109)	(0.287)
RISK	0.018	−0.020	−0.074	−0.172	0.014	0.123	0.189	−0.178	−0.237	0.337**	1.218	0.478	−1.162	−0.408	0.129
	(0.020)	(0.023)	(0.043)	(0.122)	(0.039)	(0.099)	(0.300)	(0.182)	(0.189)	(0.163)	(1.111)	(1.414)	(2.364)	(1.9033)	(1.174)
INV	−0.025	−0.129**	−0.093***	−0.003	−0.043	−0.020	−0.202	−0.141	0.045	0.199	0.529	1.071	1.083	2.357**	0.028
	(0.022)	(0.046)	(0.037)	(0.035)	(0.022)	(0.066)	(0.172)	(0.092)	(0.099)	(0.101)	(0.574)	(1.122)	(1.339)	(1.116)	(1.896)
CASH	0.898***	0.802***	0.919***	0.762***	0.912***	1.626***	1.677***	1.968***	1.535***	1.520***	5.196***	3.450**	2.408**	5.552**	6.041***
	(0.035)	(0.055)	(0.051)	(0.091)	(0.039)	(0.122)	(0.202)	(0.255)	(0.167)	(0.301)	(1.171)	(1.415)	(1.361)	(3.093)	(1.610)
PROF	0.038***	0.066***	0.023	0.072	0.026	0.038	0.131	0.074	0.133	0.001	−0.881*	−1.989***	0.403	−1.593	−0.233
	(0.014)	(0.018)	(0.029)	(0.049)	(0.013)	(0.048)	(0.102)	(0.104)	(0.117)	(0.043)	(0.668)	(0.580)	(0.936)	(1.249)	(1.146)
LQ	0.006	0.008	0.011	0.039	−0.002	0.018	0.101	−0.083	0.067	−0.234***	0.745	0.886*	0.502	0.708	−1.173
	(0.012)	(0.010)	(0.036)	(0.040)	(0.055)	(0.035)	(0.092)	(0.081)	(0.071)	(0.087)	(0.751)	(0.631)	(0.984)	(1.142)	(1.152)
DIV	−0.016	−0.020	0.046	0.036	−0.016	−0.001	0.071	0.068	0.109	−0.019	−1.949**	−2.195*	−1.925**	−1.511	−1.793
	(0.016)	(0.015)	(0.045)	0.061	(0.022)	(0.035)	(0.092)	(0.074)	(0.105)	(0.152)	(0.836)	(1.163)	(0.897)	(1.394)	(1.504)
Constant	−0.099***	−0.017	−0.051	−0.103	0.032	−0.267**	−0.144	−0.096	−0.254	−0.040	−3.045	0.434	−2.435	−4.437	−1.940
	(0.037)	(0.015)	(0.081)	(0.074)	(0.075)	(0.132)	(0.220)	(0.129)	(0.235)	(0.135)	(1.981)	(3.137)	(1.390)	(3.418)	(2.041)
Observations	1.519	549	307	417	246	1.519	549	307	417	246	1.519	549	307	417	246
Wald Chi2 (11)	5.904.05	1.584.80	1.664.73	747.86	18.600.48	707.64	247.90	5.559.76	374.01	1.374.83	113.10	38.55	189.31	92.85	368.94
Prob > Chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
Sargan test	0.1027	0.2537	0.6470	0.5644	0.2751	0.7910	0.7591	0.2535	0.4680	0.3940	0.3966	0.3518	0.2497	0.6808	0.7155
AR(1)	0.0009	0.0069	0.0008	0.0010	0.0777	0.0055	0.0089	0.1794	0.0046	0.0346	0.0001	0.0358	0.0061	0.0001	0.0591
AR(2)	0.7184	0.1431	0.8129	0.6527	0.3443	0.4993	0.4818	0.3154	0.2021	0.2503	0.4530	0.2486	0.6316	0.2719	0.1925

Note: Standard deviation in parentheses.
*p < 0.1;
**p < 0.05;
***p < 0.01.
Source: Own computation using Stata 14 software.

Table 6. Regression results of non-linear relationship of performance and debt with estimations on random effects and robust estimators.

	ROA					ROE					Tobin's Q				
Variables	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru	All	Brazil	Chile	Mexico	Peru
SD	0,023	0,044	−0,087	0,018	0,002	0,157	0,109	−0,426*	0,231*	0,001	0,248	−0,855	5,015***	−0,091	2,804**
	(0,026)	(0,050)	(0,059)	(0,045)	(0,025)	(0,115)	(0,248)	(0,262)	(0,122)	(0,198)	(0,763)	(1,314)	(1,511)	(1,286)	(1,195)
SD^2	−0,069*	−0,138	0,196*	−0,072	−0,029	0,082	0,029	1,388***	−0,221	0,518	−0,292	1,662	−7,890***	0,511	−3,053*
	(0,041)	(0,088)	(0,111)	(0,056)	(0,037)	(0,230)	(0,493)	(0,526)	(0,148)	(0,411)	(1,061)	(2,030)	(2,689)	(1,463)	(1,595)
LD	−0,052**	−0,105***	−0,001	−0,108***	−0,042	0,170**	0,384*	0,232**	−0,042	0,299***	0,964	1,339	0,312	1,321	−0,699
	(0,023)	(0,033)	(0,057)	(0,034)	(0,030)	(0,080)	(0,219)	(0,094)	(0,091)	(0,101)	(0,694)	(1,693)	(0,767)	(1, 131)	(1,346)
LD^2	0,068	0,129**	0,070	0,085*	0,144*	0,038	−0,633	0,155	0,337**	−0,253	−1,356	−1,022	−0,264	−2,489*	3,497
	(0,043)	(0,060)	(0,116)	(0,045)	(0,085)	(0,223)	(0,692)	(0,202)	(0,168)	(0,251)	(1,161)	2,827	(1,485)	(1,448)	(3,479)
GRO	0,003**	0,002	0,003	0,013***	0,003*	0,017***	0,021**	0,025*	0,040***	0,006	0,078	0,029	0,167	0,259	−0,065
	(0,002)	(0,002)	(0,008)	(0,004)	(0,002)	(0,006)	(0,009)	(0,013)	(0,015)	(0,006)	(0,063)	(0,070)	(0,224)	(0,255)	(0,082)
SIZE	−0,003***	−0,001	0,000	0,000	−0,001	−0,003	−0,002	0,007*	−0,001	−0,007**	0,065	0,043	0,019	0,254**	0,040
	(0,001)	(0,001)	(0,001)	(0,001)	(0,001)	(0,003)	(0,004)	(0,004)	(0,005)	(0,004)	(0,033)	(0,049)	(0,032)	(0,107)	(0,084)
TAN	−0,021***	−0,021*	0,006	−0,042***	−0,003	−0,022	−0,055	0,050*	−0,098***	0,035	−0,461*	−0,924***	0,203	−0,861*	−0,533
	(0,007)	(0,011)	(0,005)	(0,011)	(0,009)	(0,021)	(0,045)	(0,030)	(0,035)	(0,024)	(0,205)	(0,269)	(0,242)	(0,458)	(0,518)
TAX	−0,002	0,000	0,003**	−0,013***	−0,002	−0,013	−0,001	0,002	−0,071***	0,011*	0,027**	0,029	−0,024**	0,050	0,046
	(0,002)	(0,000)	(0,001)	(0,003)	(0,002)	(0,012)	(0,002)	(0,001)	(0,019)	(0,006)	(0,020)	(0,026)	(0,012)	(0,041)	(0,080)
RISK	0,021	0,022	−0,027	−0,095**	0,029	0,184	0,142	0,193	−0,198*	0,246**	0,260	1,503	−1,936	1,273	−0,326
	(0,022)	(0,023)	(0,039)	(0,040)	(0,023)	(0,122)	(0,129)	(0,134)	(0,121)	(0,098)	(1,210)	(2,038)	(1,802)	(1,594)	(1,170)
INV	−0,045**	−0,107***	−0,030	0,008	−0,034*	−0,023	−0,136	−0,081	0,089	0,016	0,535	0,321	0,697	1,224*	0,145
	(0,018)	(0,033)	(0,026)	(0,027)	(0,020)	(0,052)	(0,159)	(0,078)	(0,109)	(0,030)	(0,565)	(0,820)	(0,832)	(0,708)	(1,052)
CASH	0,843***	0,757***	0,954***	0,655***	0,934***	1,617***	1,514***	2,010***	1,418***	1,604***	4,057***	5,228***	2,825***	4,494***	4,267**
	(0,034)	(0,052)	(0,043)	(0,051)	(0,023)	(0,149)	(0,093)	(0,244)	(0,159)	(0,174)	(0,836)	(1,494)	(0,953)	(1,492)	(1,705)
PROF	0,043***	0,062***	−0,027	0,076***	0,022*	0,061	0,147**	−0,039	0,099	−0,024	−0,694	−1,714	1,141**	−0,304	−0,322
	(0,015)	(0,023)	(0,019)	(0,023)	(0,012)	(0,040)	(0,063)	(0,066)	(0,085)	(0,038)	(0,615)	(1, 101)	(0,588)	(0,866)	(0,439)
LQ	0,006	0,012	0,007	0,014	−0,011	−0,008	0,044	−0,057	0,151**	−0,144*	0,053	−0,403	−0,035	1,250**	0,130
	(0,010)	(0,012)	(0,021)	(0,023)	(0,010)	(0,058)	(0,061)	(0,050)	(0,081)	(0,088)	(0,264)	(0,483)	(0,437)	(0,512)	(0,742)
DIV	0,008	−0,018*	0,039	0,060	0,010**	0,001	−0,032	0,071	0.023	0,001	−0,936***	−0,688**	−1,144**	−1,532***	−1,185***
	(0,009)	(0,011)	(0,037)	(0,052)	(0,004)	(0,031)	(0,024)	(0,090)	(0,064)	(0,032)	(0,257)	(0,335)	(0,467)	(0,580)	(0,441)
Constant	0,034***	0,023*	0,000	0,024	0,010	−0,041	−0,045	−0,154***	−0,022	0,018	0,360	0,702	0,030	−2,173	0,429
	(0,011)	(0,014)	(0,018)	(0,025)	(0,016)	(0,039)	(0,075)	(0,061)	(0,077)	(0,052)	(0,463)	(0,791)	(0,375)	(1,399)	(1,165)

Note: Standard deviation in parentheses.
*$p < 0.1$;
**$p < 0.05$;
***$p < 0.01$.
Source: Own computation using Stata 14 software.

Table 7. Regression results of ownership and financial performance with estimations on random effects and robust estimators.

Variables	ROA	Standard deviation	ROE	Standard deviation	Q	Standard deviation
SD	0,089	0,073	0,206	0,160	7,391***	2,075
SD^2	−0,118	0,138	0,084	0,318	−12,469***	3,758
LD	−0,095**	0,049	0,090	0,082	0,238	0,878
LD^2	0,212**	0,088	0,169	0,154	−0,161	1,380
GRO	−0,009**	0,004	0,010	0,007	0,226	0,146
SIZE	0,000	0,001	0,003	0,003	0,020	0,037
TAN	−0,001	0,006	0,003	0,029	−0,024	0,285
TAX	0,006***	0,002	0,006***	0,002	−0,119***	0,017
RISK	−0,016	0,071	−0,099	0,159	1,013	2,887
INV	−0,047	0,043	−0,048	0,059	1,615**	0,781
CASH	0,882***	0,053	1,531***	0,093	4,913***	1,225
PROF	0,005	0,018	0,075	0,048	1,305**	0,639
LQ	−0,025	0,017	−0,014	0,039	−0,444	0,564
DIV	0,088	0,056	0,193**	0,088	−0,5890*	0,328
PROP1	−0,008	0,014	−0,046	0,037	0,622**	0,320
PROP3	−0,018	0,031	0,056	0,082	−0,984	0,891
PROP5	0,034	0,025	0,006	0,056	0,651	0,694
Constant	−0,006	0,021	−0,125**	0,058	−0,556	0,517
Observations	185		185		185	
Wald Chi2	1341,99		3181,55		227,68	
Prob > Chi2	0,0000		0,0000		0,0000	

Note: Standard deviation in parentheses.
*p < 0.1;
**p < 0.05;
***p < 0.01.
Source: Own computation using Stata 14 software.

Table 7 summarises (3) and shows the results for each of the measures of concentration of ownership of Chilean companies. There are mixed results. The effects of ownership concentration of the first main shareholder shows a negative relationship of −0.008 and −0.046 when we use ROA and ROE, respectively. However, a there is a positive and significant effect of 0.622 when Tobin's Q is used. With respect to the second largest shareholder, there is a negative but not significant effect of −0.018 and −0.984 when using ROA and Tobin's Q, respectively. However, the ratio is positive at 0.056 when the performance measure is ROE. Finally, the fifth largest shareholder has a positive but not significant effect of 0.034, 0.006, and 0.651 when using ROA, ROE, and Tobin's Q, respectively.

The results in this study in relation to the concentration of ownership and financial performance are inconclusive when we use Tobin's Q, which is in accordance with Evans and Dion (2012), Goodstein, Gautam, and Boeker (1994), and Maquieira, Espinosa, and Vieito (2011), who showed a positive relationship between greater concentration and financial performance. The other results are in accordance with Paniagua et al. (2018), who cannot establish causality between the ownership structure and the company's financial performance. Finally, these results do not support hypothesis 2 for any performance measure.

5. Conclusions

The objective of this study was to estimate the effects of the variables that affect the profitability of Brazilian, Chilean, Mexican, and Peruvian companies. Our results

provide relevant and updated information on the variables that affect performance. The results did not allow us to observe the effect of leverage on financial performance, as there were mixed results between SD and LD.

This study could not establish the existence of a non-linear relationship between leverage and firm performance for all performance measures, although a non-linear relationship for SD and LD was observed when considering ROA and Tobin's Q.

This study found a positive relationship between company performance whit size and growth as proposed performance measures. Finally, this study observed no relationship between firm performance and ownership structure, except for first largest shareholder with Tobin's Q.

Some of the major limitations to this work identified are perhaps related to its lack of consideration strategic variables that enable establishing the effects of business diversification, entrepreneurship management, and innovation as key variables of competitive advantage. As future research, we propose identification of strategic variables that contribute to company performance. In addition, this study could be extended to other countries in South America.

The practical contribution of this study is as follows. We conclude that financial performance is partially explained by and must be studied alongside such variables as the business model, industry cycle, and competitive and corporate strategy in order to strengthen analysis and quality of company performance.

Disclosure statement

The authors reports no conflicts of interest.

Funding

This work was partially funded by the Office of Research of the Universidad Católica de la Santísima Concepción through Project DIN 01-2006.

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