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CAPITAL STRUCTURE DETERMINANTS: EVIDENCE FROM LATIN AMERICA

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1 INTRODUCTION

Modern capital structure Theory started with assertions suggesting that, under certain ideal market conditions, the capital structure is irrelevant to firm value (Modigliani & Miller, 1958). Since then, research has found evidence in the opposite direction, albeit there is still no theory capable of totally explaining the decisions about firm capital structure (Barclay & Smith, 2005; Correa, Basso, & Nakamura, 2013; Myers, 2003).

Theories regarding capital structure have been classified in some strands (Barclay & Smith, 2005; Harris & Raviv, 1991): inexistence of factors that influence capital structure and/or investment policy; factors regarding taxation aspects; questions associated with informative asymmetry; perspectives resultant from agency conflicts; and factors exogenous to the company associated with institutional and legal environment. Agency costs and informational asymmetry are particularly relevant in financing decisions of companies located in countries that present institutional fragility (Bastos & Nakamura, 2009).

Latin America has been studied in the literature as a region that went through great political, economic, and social transformations in the last decades, presenting a similar institutional environment amongst its countries (Bastos, Nakamura, & Basso, 2009; Borda, Geleilate, Newburry, & Kundu, 2017; Carneiro & Brenes, 2014). This resemblance can help in the search for generalization of results in Latin America, even when only some countries of the region are studied (Cuervo-Cazurra, 2008).

Firm financing structure in Latin America is still mainly supported by bank credit, since the capital market is still incipient in most countries (Rogers, Mendes-da-Silva, Neder, & Silva, 2013; Saona & San Martín, 2016). In general, the stock exchanges in Latin American countries are characterized by low trading volume, decrease in capitalization, few initial public offerings (IPO) and low market liquidity (Santiago-Castro & Brown, 2007).

Distinct theoretical frameworks predict that firm attributes and characteristics of the institutional and legal environment that are able to play a role in firm funding policy, and there is evidence in this direction (Barclay & Smith, 2005). These theories have been formulated based on developed economies which makes the study of developing countries relevant (Albanez & Valle, 2009; Brito, Corrar, & Batistella, 2007).

Important literature has highlighted the relevance of research in Latin America to produce new and important understandings about the functioning of companies in emerging markets, especially in comparison with companies of other regions (Aguilera, Ciravegna, Cuervo-Cazurra, & Gonzalez-Perez, 2017). Specific Latin American countries characteristics make them interesting to study capital structure determinants in order to verify if the theories developed for developed markets are applicable in developing markets. The present study aims to identify the capital structure determinants of the Latin American firm that operate in an environment characterized by the Civil Law legal system and high ownership concentration.

The sample is an unbalanced panel data composed by 5,715 observations of 887 non-financial firms from six Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, and Peru) in the period 1994-2015. Results indicate that ownership concentration has distinct effects on capital structure in distinct markets, which indicates that there seems to be specific institutional aspects that matter for agency costs regarding access to debt. In accordance with the Pecking order theory, profitability is inversely related to debt indicating the profit retention to finance investment. Additionally, firm size, tangibility and growth opportunities favor debt.

This work contributes to capital structure literature by providing additional evidence on the determinants of debt capacity in Latin American. Besides traditional firm attributes, the study takes into account ownership concentration as able to matter for capital structure, an attribute still scarcely addressed in such markets.

The paper summarizes capital structure theories and propose hypotheses for Latin America firms in section. Section 3 presents sample and methodology. Results are analyzed in section 4 that is followed by concluding remarks on section 5.

2 CAPITAL STRUCTURE DETERMINANTS IN LATIN AMERICA

Since the Modigliani & Miller's (1958) proposal about the irrelevance of capital structure on firm value, a plenty of works have found evidence in the opposite direction, showing that capital structure matters given that firm management tries to use it for value maximization that there are firm attributes that influence capital structure (Barclay & Smith, 2005; Myers, 2003). Agency conflicts were introduced in such research under the rationale that different interests of relevant firm stakeholders may be prevalent for capital structure (Céspedes, González, & Molina, 2010; Harris & Raviv, 1991).

2.1 Ownership concentration

High ownership concentration is usually associated with a few controlling shareholders and strong influence, or presence, of such shareholders in firm management which reduces the free-rider problem but exacerbates the power of controlling blockholders (Shleifer & Vishny, 1997). Private benefits of control easier emerge as a strong agency conflict in environments with highly concentrated ownership raising the possibility of minority shareholders expropriation (Dyck & Zingales, 2004; Filatotchev & Mickiewicz, 2006).

High ownership concentration is the typical picture in Civil Law countries, as is the case of Latin America, where there is a trend of inadequate protection of minority shareholders and creditors, probably due to the institutional and legal framework that needs improvement or for the weak capital market (Beck & Levine, 2004; La Porta, López-de-Silanes, Shleifer, & Vishny, 1998, 2000). In such environments, the main agency conflict is between dominant and minority shareholders (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). In fact, there seems to be divergent objectives of controlling and minority shareholders in Latin American firms due to high concentrated ownership and this situation may lead to distortions in firm's funding policy taking into account that external investors may be afraid of expropriation (Driffield, Mahambare, & Pal, 2007). This fear of external shareholders may inhibit stock issuance in such market. It is also worth mentioning the fact that controlling blockholders may resist to issue stock due to the fear of losing power and firm control (Ganguli, 2013). This dilemma about stock issuance in firms with highly concentrated ownership leads to the more intense use of debt as summarized in Hypothesis 1.

Hypothesis 1: Ownership concentration increases firm debt in Latin American firms.

Higher profitability tends to be related to higher cash flow availability which is an important source of funding for the firm investment projects as predicted under the Pecking order theoretical framework. The rationale is that the use of cash flow to finance investment has low informative and financial cost. Therefore, firm profitability is very prone to be an important determinant for firm capital structure (Titman & Wessels, 1988). In fact, a large number of works has documented a negative effect of profitability on leverage, either in the Brazilian market (Barros, Castro Junior, Silveira, & Bergmann Sr., 2010; Correa et al., 2013; Crisóstomo & Pinheiro, 2015) , or in the international arena (Alves & Francisco, 2015; Céspedes et al., 2010; Haron, 2014). This set of arguments motivate the hypothesis that Latin

American companies tend to follow a pecking order behavior by using cash flow to finance investment.

Hypothesis 2: Firm profitability has an adverse effect on firm debt in Latin American.

Firm size is seen as able to matter for the access to external funding due to the fact that larger firms has more collateral as well history and reputation in the market, besides more available cash flow (Rajan & Zingales, 1995). Larger firms tend to reach a level of maturity that decreases growth opportunities at the same time that they have higher free cash flow. It is believed that controlling shareholders of such firms use debt for executive monitoring by reducing free cash flow (López-Iturriaga & Crisóstomo, 2010). In fact, previous literature has documented evidence about the positive effect of firm size on leverage capacity in distinct markets (Alves & Francisco, 2015; Bastos & Nakamura, 2009). This rationale and previous evidence support the following hypothesis:

Hypothesis 3: Firm size of Latin American firm has a positive effect on firm debt.

Firm tangible assets are considered able to signal higher firm collateral availability and improves access to debt given that the market takes collateral into account (Rajan & Zingales, 1995). The preceding relevant literature that documented this positive effect of tangibility on leverage (Albanez & Valle, 2009; Antonczyk & Salzmann, 2014; Bonaimé, Öztekin, & Warr, 2014; Sun, Ding, Guo, & Li, 2016) motivates the following hypothesis:

Hypothesis 4: Firm assets tangibility has a positive influence on Latin American firm debt.

A firm with growth opportunities aims to maximize such investment opportunities. Looking at this purpose, the firm needs to seek for the available funding sources. According to the Pecking order theory, internal cash flow is the most attractive choice due to its lower cost. Thus, the firm will use debt or stock issue to finance investment only if there is not enough cash flow available. In the abundance of growth opportunities it is probable that cash flow will not be sufficient to finance all of them. That situation will lead the firm to use external funding, being debt an important one (Gonenc & Hermes, 2008). The use of debt is even more important in markets with insipient capital markets as is the case of Latin America. This rationale motivates the proposition of the following hypothesis.

Hypothesis 5: Firm growth opportunities favors firm leverage in Latin American.

3 METHODOLOGY

3.1 Sample

The sample comprises 5,715 observations of 887 non-financial firms listed in the stock exchanges of Argentina, Brazil, Chile, Colombia, Mexico, and Peru, in the period 1994-2015. These are the six largest economies in Latin America, measured by the annual Gross domestic products of 2015. Financial and ownership data were obtained from the Economática® data system. Table 1 presents sample distribution by country.

Table 1: Distribution by country of the sample

Country	N. companies	%	N. observ.	%	Period
Argentina	27	3.05	122	2.13	2009-2015
Brazil	435	49.04	3,460	60.54	1996-2015
Chile	162	18.26	741	12.97	1996-2015
Colombia	33	3.72	229	4.01	1996-1015
Mexico	93	10.48	213	3.73	2007-2015
Peru	137	15.45	950	16.62	1994-2015
Total	887	100.00	5,715	100.00	1994-2015

Source: Research data.

Table 2 shows sample composition by industry. As can be seen, Electric power, and Food and beverages sectors are the ones with most representative in Latin America. Sample distribution among many sectors is relevance for the study.

Table 2: Sample distribution by sector

Sector	N. companies	%	N. observ.	%
Farming and Fishing	41	4.62	210	3.67
Food and Beverages	87	9.81	479	8.38
Commerce	63	7.10	343	6.01
Construction	56	6.31	350	6.12
Electric Power	87	9.81	733	12.83
Minerals	69	7.78	477	8.35
Oil and Gas	24	2.71	153	2.68
Chemicals, Paper and Cellulose	68	7.67	474	8.29
Steel and Metallurgy	58	6.54	430	7.52
Telecommunications and Software	48	5.41	259	4.53
Textile	45	5.07	384	6.72
Transportation	32	3.61	159	2.78
Vehicles and parts	22	2.48	193	3.38
Others	187	21.08	1,071	18.74
Total	887	100.00	5,715	100.00

Source: Research data.

3.3 Model and variables

The econometric models estimated have firm debt as the dependent variable (Equation 1). For more detailed analysis in assessing specific debt maturity determinants, three proxies were used for the debt: total debt, long-term debt, and short-term debt. Each proxy corresponds the specific debt amount on Total Assets.

$$DEBT_{i,t} = \beta_0 + \beta_1 OC_{i,t} + \beta_2 ROA_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 TANG_{i,t} + \beta_5 GOPP_{i,t} + \delta_t + \alpha_i + \mu_{i,t} \quad (1)$$

In equation model (1), $DEBT_{i,t}$ is debt of firm i in year t, with DEBT being measured by the ratio between the sum of bank debt, debentures and leasing, and total assets. DEBT measure has been calculated for total debt, long term and short term debt. $OC_{i,t}$ is the proxy for ownership concentration for firm i in year t. Models are estimated using five different OC variables: ownership concentration with voting power in the hands of the first shareholder (OC1), of the two main shareholders (OC2), and so on until the five first shareholders (OC5). $ROA_{i,t}$ is the profitability of company i in the year t, measured by the return on assets (EBIT / Total Asset). $SIZE_{i,t}$ is the size of company i in the year t, measured by the natural logarithm of its total asset. $TANG_{i,t}$ is the tangibility of firm i in the year t, measured by the ratio between PPE and total assets. $GOPP_{i,t}$ are the growth opportunities of firm i in the year t, measured by the ratio between the sum of market value and liabilities, and the firm's total assets.

Models are estimated with all sample countries together and also separately, in order to verify possible nuances in each country. The study uses the multiple linear regression method of Generalized Least Squares for panel data (XTGLS) following relevant works (Alm, Jackson, & McKee, 2009; Vaaler, 2013).

4 ANALYSIS OF RESULTS

4.1 Descriptive analysis

Table 3 presents the descriptive statistics of model variables. As can be seen, average firm total debt is 19.83% (DEBT_TOT), ownership concentration (OC) is indeed high in the Latin American markets. The largest shareholder (OC1) owns, on average, 53.40% of voting capital, in the same direction of previous work in the region (Gonzalez, Molina, Pablo, & Rosso, 2017). Additionally, 57% of firm-year observations has a dominant blockholder with more 50% of voting capital.

Table 3: Descriptive statistics of Latin America

Variable	N. observ.	Average	Standard Deviation	Coefficient of Variation	Median	Minimum	Maximum
DEBT_ST	5,689	0.8481	0.0977	1.1524	0.0549	0.0000	0.9569
DEBT_LT	4,934	0.1319	0.1231	0.9333	0.0986	0.0000	0.8958
DEBT_TOT	5,715	0.1983	0.1553	0.7832	0.1716	0.0000	0.9569
OC1	5,715	0.5340	0.2676	0.5011	0.5227	0.0014	1.0000
OC2	5,715	0.6680	0.2508	0.3755	0.6971	0.0014	1.0000
OC3	5,715	0.7250	0.2319	0.3198	0.7631	0.0014	1.0000
OC4	5,715	0.7561	0.2176	0.2878	0.8085	0.0014	1.0000
OC5	5,715	0.7739	0.2083	0.2691	0.8287	0.0014	1.0000
ROA	5,696	0.0724	0.1203	1.6618	0.0659	-0.7134	1.2662
SIZE	5,715	13.0536	1.7365	0.1330	13.0626	6.6516	19.4506
TANG	5,708	0.2989	0.2472	0.8270	0.2687	0.0000	0.9770
GOPP	5,715	0.9931	0.8728	0.8789	0.7530	0.0127	5.9325

Source: Research data.

The high ownership concentration signals the great power that few controlling shareholders have on the firm. As a whole, Latin American markets are characterized by low legal protection of minor shareholders that are subject to expropriation by dominant blockholders through the use of private benefits of control (Dyck & Zingales, 2004).

Table 4 presents descriptive statistics of the total debt by country. Chile is the country with highest debt level, consistent with another study. On the other hand, Colombia presents lowest debt (average 9.95%) at the same time that has the lowest ownership concentration.

Table 4: Total debt by country

País	N. observ.	Average	Standard Deviation	Coefficient of Variation	Median	Minimum	Maximum
Argentina	122	0.1469	0.1537	1.0463	0.1003	0.0000	0.7383
Brazil	3,460	0.2025	0.1576	0.7781	0.1751	0.0000	0.9569
Chile	741	0.2439	0.1543	0.6325	0.2497	0.0000	0.7469
Colombia	229	0.0995	0.1016	1.0220	0.0698	0.0000	0.4892
Mexico	213	0.1528	0.1317	0.8620	0.1255	0.0001	0.6075
Peru	950	0.1883	0.1480	0.7861	0.1621	0.0000	0.8351
Total	5,715	0.1983	0.1553	0.7832	0.1716	0.0000	0.9569

Source: Research data.

4.2 Influence of capital structure determinants

Tables 5, 6, 7 and 8 exhibit model estimates for the determinants of capital structure. It is worth noting the negative effect of profitability (ROA) on debt in all models, i.e., Latin

American companies indeed follow a pecking order behavior. This effect is present for different debt maturity, total debt (Table 5), long-term debt (Table 6), and short-term debt (Table 7). This effect is observed in each country separately, except Colombia (Table 8). This result is consistent with other studies in Latin America (Bastos & Nakamura, 2009; Céspedes et al., 2010; Martins & Terra, 2014).

Table 5: Model estimates of total debt in Latin America

Variable	(i)	(ii)	(iii)	(iv)	(v)
OC1	-0.0045				
	(0.0078)				
OC2		-0.0112			
		(0.0085)			
OC3			-0.0079		
			(0.0093)		
OC4				-0.0045	
				(0.0099)	
OC5					-0.0020
					(0.0103)
ROA	-0.1903***	-0.1897***	-0.1901***	-0.1904***	-0.1905***
	(0.0177)	(0.0178)	(0.0177)	(0.0177)	(0.0177)
SIZE	0.0084***	0.0083***	0.0084***	0.0084***	0.0084***
	(0.0014)	(0.0014)	(0.0014)	(0.0014)	(0.0014)
TANG	0.1081***	0.1086***	0.1083***	0.1081***	0.1079***
	(0.0091)	(0.0091)	(0.0091)	(0.0091)	(0.0091)
GOPP	0.0054**	0.0052**	0.0053**	0.0054**	0.0055**
	(0.0026)	(0.0026)	(0.0026)	(0.0026)	(0.0026)
N. obs.	5689	5689	5689	5689	5689
N. comp.	885	885	885	885	885
Wald	787.81	789.40	788.25	787.66	787.47
p-value	0.000	0.000	0.000	0.000	0.000

Notes: Dependent variable is the total debt (DEBT_TOT). Independent variables: ownership concentration in held by the main shareholder (OC1); ownership concentration held by the two main shareholders (OC2); ownership concentration held by the three main shareholders (OC3); ownership concentration held by the four main shareholders (OC4); ownership concentration held by the five main shareholders (OC5); profitability (ROA); size (SIZE); tangibility (TANG); growth opportunities (GOPP). Models estimated by the Generalized Least Squares for panel data (XTGLS). ***, **, and * denote statistical significance of the coefficients in 1%, 5%, and 10%, respectively.

Firm availability of assets (TANG) is indeed relevant for investment in Latin America given its positive effect of total and long-term debt (Tables 5 and 6) as theoretically predicted and with previous evidence documented (Céspedes et al., 2010; Póvoa & Nakamura, 2015).

Table 6 presents model estimates in which long-term debt is the dependent variable. It can be verified the positive effect of firm size (SIZE) on the total and long-term debt (Tables 5 and 6) as theoretically foreseen. Thus, larger firms indeed have easier access to long-term

funding, either because they have larger collateral availability, or good reputation with financial institutions.

As suggested, growth opportunities (GOPP) forces the use of debt in Latin American firm as can be depicted from its positive effect on total and long-term debt (Tables 5 and 6). In fact, firms with more growth opportunities demand more funds to finance investment than the available internal cash flow.

Table 6: Model estimates of Long-Term Debt in Latin America

Variable	(i)	(ii)	(iii)	(iv)	(v)
OC1	-0.0041				
	(0.0067)				
OC2		-0.0075			
		(0.0073)			
OC3			-0.0061		
			(0.0079)		
OC4				-0.0049	
				(0.0084)	
OC5					-0.0051
					(0.0088)
ROA	-0.1187***	-0.1183***	-0.1186***	-0.1187***	-0.1188***
	(0.0158)	(0.0158)	(0.0158)	(0.0158)	(0.0158)
SIZE	0.0142***	0.0142***	0.0142***	0.0142***	0.0142***
	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0012)
TANG	0.0939***	0.0941***	0.0939***	0.0938***	0.0938***
	(0.0078)	(0.0078)	(0.0078)	(0.0078)	(0.0078)
GOPP	0.0076***	0.0075***	0.0075***	0.0076***	0.0076***
	(0.0023)	(0.0023)	(0.0023)	(0.0023)	(0.0023)
N. obs.	4910	4910	4910	4910	4910
N. comp.	828	828	828	828	828
Wald	782.74	783.53	783.00	782.71	782.71
p-value	0.000	0.000	0.000	0.000	0.000

Notes: Dependent variable is long-term debt (DEBT_LT). Independent variables: ownership concentration in held by the main shareholder (OC1); ownership concentration held by the two main shareholders (OC2); ownership concentration held by the three main shareholders (OC3); ownership concentration held by the four main shareholders (OC4); ownership concentration held by the five main shareholders (OC5); profitability (ROA); size (SIZE); tangibility (TANG); growth opportunities (GOPP). Models estimated by the Generalized Least Squares for panel data (XTGLS). ***, **, and * denote statistical significance of the coefficients in 1%, 5%, and 10%, respectively.
Source: Research data.

Table 7 presents model estimates in which short-term debt is the dependent variable. As noticed, firm size adversely affects short-term debt signaling that indeed larger firms do not need short-term debt probably due to more cash flow available to fund short-term needs of the firm.

Table 7: Model estimates of Short-Term Debt in Latin America

Variable	(i)	(ii)	(iii)	(iv)	(v)
OC1	0.0051				
	(0.0050)				
OC2		0.0005			
		(0.0054)			
OC3			0.0020		
			(0.0059)		
OC4				0.0044	
				(0.0063)	
OC5					0.0069
					(0.0066)
ROA	-0.1035***	-0.1031***	-0.1032***	-0.1033***	-0.1034***
	(0.0113)	(0.0113)	(0.0113)	(0.0113)	(0.0113)
SIZE	-0.0073***	-0.0073***	-0.0073***	-0.0073***	-0.0072***
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
TANG	0.0018	0.0022	0.0021	0.0020	0.0018
	(0.0059)	(0.0059)	(0.0059)	(0.0059)	(0.0059)
GOPP	0.0014	0.0012	0.0013	0.0014	0.0014
	(0.0017)	(0.0017)	(0.0017)	(0.0017)	(0.0017)
N. obs.	5665	5665	5665	5665	5665
N. comp.	881	881	881	881	881
Wald	613.18	612.04	612.17	612.57	613.25
p-value	0.000	0.000	0.000	0.000	0.000

Notes: Dependent variable is short-term debt (DEBT_ST). Independent variables: ownership concentration in held by the main shareholder (OC1); ownership concentration held by the two main shareholders (OC2); ownership concentration held by the three main shareholders (OC3); ownership concentration held by the four main shareholders (OC4); ownership concentration held by the five main shareholders (OC5); profitability (ROA); size (SIZE); tangibility (TANG); growth opportunities (GOPP). Models estimated by the Generalized Least Squares for panel data (XTGLS). ***, **, and * denote statistical significance of the coefficients in 1%, 5%, and 10%, respectively.

Table 8 presents individual model estimates for each country, in order to capture specific country nuances. In fact, ownership concentration seems to have a distinct effect on debt depending on the institutional environment in contrast to the harmonic behavior predicted under Hypothesis 1. As suggested, the positive effect of ownership concentration is observed in Brazil and Colombia but not in the other countries. In reality, this result turns to negative in Argentina and Chile. Results in Table 8 refer only to ownership concentration in hands of the three main voting shareholders (OC3) in virtue of space priority, but the findings are qualitatively the same for the other levels of ownership concentration.

The positive effect of ownership concentration (OC) on debt capacity in Brazil and Colombia may be due to some reasons: difficulties in stock issue in immature markets together with the fear of controlling shareholders for loss of firm control; the use of debt as management monitoring tool; the use of debt to gain tax advantages as proposed by the Trade-off theory. On the other hand, the negative effect of ownership concentration on debt capacity

observed in Argentina and Chile is worth noting. This finding may be due the fact high ownership concentration is not well seen by banks in such countries. Blockholders may also be averse to high debt levels and default costs. At last, in such institutional environments firms may have easier access to capital through stock issuance.

Table 8: Model estimates of debt by country

Variable	ARG	BRA	CHILE	COL	MEX	PERU
OC3	-0.4234***	0.0367***	-0.1151***	0.0667*	-0.0218	-0.0150
	(0.1030)	(0.0133)	(0.0241)	(0.0403)	(0.0403)	(0.0183)
ROA	-0.5606***	-0.2184***	-0.1373***	-0.1022	-0.2058**	-0.1317***
	(0.1859)	(0.0231)	(0.0480)	(0.0696)	(0.0857)	(0.0377)
SIZE	-0.0182	0.0063***	0.0234***	0.0008	-0.0152**	0.0128***
	(0.0122)	(0.0018)	(0.0032)	(0.0062)	(0.0065)	(0.0045)
TANG	-0.0057	0.1328***	0.1335***	0.0658	0.0674	0.0136
	(0.0899)	(0.0123)	(0.0227)	(0.0641)	(0.0480)	(0.0239)
GOPP	0.1767***	0.0152***	-0.0228***	0.0128	0.0432***	-0.0010
	(0.0438)	(0.0033)	(0.0082)	(0.0122)	(0.0134)	(0.0059)
N. obs.	122	3459	741	220	213	934
N. comp.	27	435	162	33	93	135
Wald	61.27	400.88	396.95	57.43	58.18	306.46
p-value	0.000	0.000	0.000	0.007	0.000	0.000

Notes: Dependent variable is total debt (DEBT_TOT). Independent variables: ownership concentration in the hands of the three main shareholders (OC3); profitability (ROA); firm size (SIZE); tangibility (TANG); growth opportunities (GOPP). The models were estimated by the Generalized Least Squares Method for panel data (XTGLS). ***, **, and * denote statistical significance of the coefficients in 1%, 5%, and 10%, respectively.

It is worth mentioning that growth opportunities (GOPP) indeed increases debt levels in most Latin American markets as expected. The adverse effect of profitability (ROA) on debt is also a reality in most countries, signaling the expected pecking order behavior.

5 CONCLUSIONS

Theories about capital structure aim to explain the choices about firm funding choices, either via debt, security issuance, or others. Different theories have been proposed, and empirical research have provided evidence that there are factors able to matter for capital structure.

The study identified capital structure determinants of Latin American firm. The specific characteristics of Latin American countries make the study about capital structure determinants relevant, aiming to investigate whether the theories elaborated for companies in developed markets are suitable for firms in developing economies.

Contrary to the expectation ownership concentration is not a uniformly relevant determinant for capital structure of the Latin American firm. Results show that, this important firm attribute matters for capital structure depending on the specific institutional environment

signaling that Latin American markets have specific nuances that moderates the effect of ownership on firm funding choice which highlights the importance of the institutional environment in the funding market.

Latin American firms present a highlighted pecking order behavior given the adverse of profitability on debt which means that such firm exhausts the use of internal funds before using debt. Besides, it is important to observe that indeed larger firms in Latin America have easier access to debt market, probably for corporate reputation, collateral availability, and lower risk. In fact, as expected, the availability of collateral favors access to debt in Latin America. Finally, firm growth opportunities of in Latin American are financed by debt which means that, following the pecking order behavior, the Latin American with good investment opportunities will contract debt after using cash flow available that is not enough to fund all such opportunities.

The work contributes to the debate about the capital structure subject by providing additional evidence from Latin American, a region with similar institutional environment among its countries, and that has been going through political, economic, and social changes in the last decades, but with specific nuances on agency relations and access to debt that may signal institutional differences. The diverse effect of ownership concentration in different markets indicates the existence of country-specific agency conflicts related to high ownership concentration.

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