



Theory and practice of corporate finance: Evidence and distinctive features in Latin America

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ABSTRACT

We survey 290 LATAM firms on capital budgeting, cost of capital and capital structure issues. We analyze the results and compare them to those of other studies. We interpret differences according to special features characterizing both emerging markets and SME. We observe that LATAM firms make use of standard capital budgeting techniques, but give special weight to liquidity and capital rationing considerations. They rely less on cost of capital formal estimations; rather, they use investors' requests as their primordial input. Finally, surveyed firms are less leveraged, and inclined toward stressing the role of internal financing and minimizing payment commitments.

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1. Introduction

It is well known that emerging markets pose not only an attractive but also a challenging business environment for firms expanding overseas. Corporate finance in emerging markets is a complex field for managers and academics. Most of the models used in investments and corporate finance have been developed under the assumption of – at least – moderately efficient markets, but this assumption seems to be questionable when moving to less developed markets. Emerging markets are not efficient markets; they

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are characterized by higher information asymmetries, higher transaction costs, more concentrated ownership, lack of market development, relatively low market liquidity, etc. Additionally, there are relevant differences in terms of suitability for the use of standard corporate finance techniques in the context of small and medium private enterprises. Yet, given that information is often lacking in emerging markets, and particularly, when referred to the subset of small and medium enterprises (SME), a deeper analysis is frequently postponed. In recent years, several scholars have devoted some attention to understand emerging markets special features, but there has not been a comprehensive study of how practitioners really make financial decisions in emerging markets.¹

In this study we contribute to this field by surveying corporate finance practices in emerging markets. Building on the contribution of [Graham and Harvey \(2001\)](#), whose survey provides a comprehensive description of the current practices of corporate finance in the US public firms' universe, we expand the analysis to emerging markets, covering a quite different sample, mostly characterized by small and medium private Latin American firms. We design a survey in which we replicate Graham and Harvey's questions whenever applicable to the emerging market environment, and add a considerable number of queries that apply to the specific conditions prevalent in these markets. Similar to theirs, our survey copes with three basic topics: capital budgeting, estimation of the cost of capital, and capital structure.

Given the significant differences between developed and emerging economies (in terms of currency stability, capital market development, liquidity, size, information availability, transaction costs, and a vast etcetera), and between large public and small and medium private firms (in terms of access to capital markets or outside equity, ownership structure, information asymmetries, etc.), we hope this survey will be useful to interpret particular corporate financial choices prevalent in settings that differ from those for which most models have been designed.

The Fisher separation property, that sustains that the firm investment decision should be independent of its owners' preferences, and independent of the financing decision, is not likely to hold for many small and medium enterprises, and particularly, for those located in emerging markets. Therefore, the use of standard capital budgeting techniques is likely to be altered in these contexts. Capital constraints, concentrated ownership, and the common coincidence of manager–owner are features likely to favor methods stressing liquidity and uncertainty.

Similarly, standard techniques for estimating the firms' cost of capital – particularly, the Capital Asset Pricing Model, CAPM – rely on assumptions that largely depart from the circumstances of small and medium firms and emerging markets. Once again, one would expect that small versus large businesses, private versus public firms, concentrated versus diluted ownership structures, etc., will cause discount rate estimations to depart from the CAPM figures. A one-factor model is likely to fall short in capturing some of these features.

Finally, differences in tax treatment, rule of law and investor protection,² the lack of separation between management and ownership – that characterizes many small businesses, the lack of development of public debt and equity markets in most emerging markets, etc., is likely to influence financing choices.

We avoid surveying previous literature, already summarized in Graham and Harvey's study. Nevertheless, while discussing our results, we do mention some newer contributions as well as studies that make reference to the specific case of emerging markets and/or of small and medium private and public firms.

A typical characteristic of emerging markets is the difficulty in obtaining information. This has influenced our study since we could not rely on a central database to target the survey. To circumvent this problem, the questionnaire was distributed through several leading Latin American Business Schools in different countries, which selected a sample set from their alumni databases. The main advantage of this approach is that we obtained a high absolute number of responses; the major drawback is that, in most cases, we have not been able to estimate a respondent rate.³ Another consideration is the potential bias in our sample; most of the surveyed managers were part of the alumni network of an important

¹ See for example the books by [Beim and Calomiris \(2001\)](#), [Bruner et al. \(2003\)](#), [Hooke \(2001\)](#), [Pereiro \(2002\)](#) and [Sabal \(2002\)](#), and research papers by [Braun and Larraín \(2009\)](#), [Booth et al. \(2001\)](#), [Céspedes et al. \(2010\)](#), [Desai et al. \(2008\)](#), [Espinosa and Maquieira \(2010\)](#), [García-Sánchez et al. \(2010\)](#), [Grandes et al. \(2010\)](#), [Godfrey and Espinosa \(1996\)](#), [Love et al. \(2007\)](#), [Qi \(2010\)](#), among many others.

² See [Chong and López-de-Silanes \(2007\)](#) and [La Porta et al. \(1997, 1998, 2000\)](#).

³ [Moore and Reichert \(1983\)](#), for example, have 298 responses, and it was, until the publication of Graham Harvey's work, the largest sample in a published survey.

local business school; this might bias our results toward a more sophisticated type of participant. We believe, however, that this is unlikely to cause a significant bias in our study, since the database is not composed only of MBAs but also of participants in shorter executive education programs, with lower exposure to corporate finance training. Additionally, the participants were in charge of introducing the survey in their companies, but not necessarily involved in the provision of actual responses. Finally, this study also suffers from all the potential problems found in all surveys; as noted by previous studies, managers respond with their beliefs, not necessarily with their actions; they could have misunderstood the questions; and the survey might not capture a representative sample of the population.

Following Graham and Harvey, we analyze all the answers considering several firms' characteristics; this allows us to explain the cross sectional differences of firms' behavior in emerging markets. We compare our results with those obtained by Graham and Harvey in their survey of a US sample of firms. Despite critical dissimilarities in the sample composition, this allows us to perform a first coarse and direct analysis of differences in corporate finance practices between emerging and established financial markets. There is no other analogous survey targeted to a more comparable sample of firms, therefore, more suitable comparisons such as those between *small and medium LATAM* versus *small and medium US firms* (to analyze the market development dimension), and/or between *small and medium private LATAM* versus *large public LATAM firms* (to analyze the size dimension), are not feasible. Nevertheless, we perform indirect comparison to these samples, by contrasting our results with those obtained in previous related research.⁴

Our main results show that when it comes to capital budgeting, small and medium firms in Latin America present decision patterns that can be considered quite similar to those of US public firms. The few specific differences seem to result from a reasonable adjustment to the region's lower development of the financial markets and to the set of available financing options for small and medium firms. For example, we find that enterprises in our sample appear to put more weight on liquidity and capital rationing considerations than large public firms in efficient markets. The results on cost of capital and capital structure, however, show more profound deviations with respect to the responses obtained by Graham and Harvey for the US sample. Not surprisingly, we find that fewer firms estimate the cost of capital, and that the actual estimations are more likely to be based on whatever investors require than on traditional techniques such as the Capital Asset Pricing Model (CAPM). For those firms actually performing CAPM estimations, we examine both inputs and potential adjustments to the model. Finally, Latin American firms in our sample prove to be less levered, and to assign different weight to standard capital structure decisions criteria. This result differs from those obtained for the US sample, as well as for a different subset of Latin American larger and public firms (see Céspedes et al., 2010); consequently, not only market development but also a size dimension (access to capital and financial markets) is likely to be influencing this choice.⁵

Ultimately, we find Latin American firms taking substantially different capital structure strategies; more specifically, they are prone to follow a pecking order financing, and to avoid extending equity financing not to risk losing control (as found in Céspedes et al., 2010).⁶

The examination of the complete set of responses, along with the cross sectional analysis performed in the paper, allows us to understand the specific choices of small and medium firms in Latin America in a more comprehensive manner.

The rest of the paper is organized as follows: Section 2 describes the data and the methodology used in the survey. Section 3 discusses the design and main results of the questions related to capital budgeting; Sections 4 and 5 describe the design and the analysis on cost of capital and capital structure, respectively. Finally, Section 6 concludes.

2. Data description and methodology

We designed a survey on corporate finance taking the structure and questions developed in Graham and Harvey, but expanding them in several specific topics that are particularly important in emerging

⁴ For more details, see Berger and Udell (1998), Céspedes et al. (2010), Cole (2011), Danielson and Scott (2006), Osteryoung et al. (1992), Van Auken and Holman (1995), among others. We thank Laurence Booth and an anonymous referee for useful comments about the most appropriate framework for this study.

⁵ For a finer comparison across different sample splits, see also Glen and Singh (2004).

⁶ We thank an anonymous referee for helping us opening the comparison to a more relevant universe of firms.

markets. Most of these latter topics are dictated from our academic and professional experience in the region, as well as by the relevant literature on emerging markets. After the questionnaire was completed, we asked fellow finance professors from leading business schools in seven other Latin American countries to administrate it to their local contacts, mainly managers of firms in their alumni database. Colleagues in Uruguay, Peru, Ecuador, Colombia and Venezuela, distributed the questionnaire in their countries, and we did it likewise to our contacts in Argentina and Chile.⁷ They all suggested following a direct-contact approach: they selected what they thought to be a representative set of firms in their respective countries, and sent invitation letters. Different countries approached a different number of firms depending on the school's potential reach. This number varied from 20 to 50 firms, across different countries. In Argentina and Chile, on the contrary, we followed a broader process, from which we are able to estimate a response rate. In Argentina, we sent invitation letters with a link to the online Survey to 1248 Alumni and obtained 124 actual responses: 107 corresponded to firms located in Argentina, and 17 to firms located in other uncovered countries within the Latin American region, which we classified as "Others". This gave us a 10% response rate for Argentina. In the case of Chile, we sent invitation letters to 775 executives from two different sources: we contacted around 250 managers of firms registered at the Chilean Stock Exchange–IGPA-database, and alumni of both the MBA and Master in Finance programs at the University of Chile. With the 66 positive responses, we estimate a response rate of around 9% for Chile.

The final sample is composed of 290 answers from 7 main countries – Argentina, Chile, Colombia, Ecuador, Peru, Uruguay and Venezuela – and some isolated observations from Bolivia, Brazil, Costa Rica, El Salvador and Mexico, which have been classified as Others.⁸ A general description of the sample is presented in Table 1.

The sample is composed by small and medium firms (40% of the sample present sales lower than 25 million dollars, and over 50% of the sample has no foreign sales). Additionally, 80% of the firms in our sample are private. Given this sample composition, results are expected to be driven not only by the emerging market characterization, but also by the specific choices of small and medium firms – both inside and outside this market characterization. We uploaded Graham and Harvey survey's data and merged it with the sample we collected. That allowed us to run a direct comparison between the two surveys. At this stage, we expect two sources of variation in sample composition to be driving the results: a size component and a market development component.⁹

Compared to Graham and Harvey's data, companies in our sample appear to be significantly smaller, less levered and with a smaller fraction of exports (all differences significant at a 1% level). Our sample has a smaller fraction of public firms and a larger fraction of regulated firms. Finally, our sample includes firms in the Education, Agribusiness and Real Estate sectors. A detailed comparison can be observed in Table 2.

A thoroughly analysis of these differences – particularly, the results concerning the choice of leverage and financing structure, and their plausible link to sample composition – will be discussed when dealing with the corresponding sections of the survey.

3. Capital budgeting

3.1. Design

We ask two main questions related to this topic. We start by asking about the frequency with which firms use alternative capital budgeting techniques. Next, accounting on inflation and the weakness of the local currencies that commonly characterize emerging markets, we inquired about the particular

⁷ Neither Brazil nor Mexico followed the initiative, since they preferred not to contact their Alumni datasets for these types of projects. So those two countries remain out of our sample, except for only a few responses from Alumni from the Argentinean Business School currently working in either Brazilian or Mexican firms.

⁸ Some of our contacts had moved to different countries, and that is the reason why we have data from countries in which we did not administer the survey.

⁹ Even though US data have been collected a number of years earlier, we believe the examination of the relative use of standard corporate finance practices has not suffered from structural changes. On the contrary, keeping this caveat in mind, it is interesting to identify some differences between both samples.

Table 1
Sample characteristics.

Sales	No. of obs.	%	Argentina	Chile	Colombia	Ecuador	Peru	Uruguay	Venezuela	Others	Total
<i>Panel A: sales (in millions)</i>											
<25	122	42.07	63	29	4	7	10	5	2	2	122
25–99	65	22.41	25	7	4	7	7	1	10	4	65
100–499	53	18.28	10	12	4	2	3	3	11	8	53
500–999	16	5.52	2	4	2	1	1	0	5	1	16
1000–4999	14	4.83	5	3	1	0	0	0	5	0	14
> 4999	20	6.90	2	11	2	0	1	1	1	2	20
Total	290	100	107	66	17	17	22	10	34	17	290
<i>Panel B: foreign sales (% of total)</i>											
<i>Exports</i>											
None	154	53.10	55	40	9	11	13	4	14	8	154
<25%	89	30.69	40	17	4	4	5	1	14	4	89
25%–50%	21	7.24	6	3	2	1	3	0	4	2	21
50%–100%	26	8.97	6	6	2	1	1	5	2	3	26
Total	290	100.00	107	66	17	17	22	10	34	17	290
<i>Panel C: industry</i>											
<i>Industry</i>											
Agribusiness	16	5.52	7	2	1	1	2	1	1	1	16
Financial	23	7.93	10	10	0	0	2	1	0	0	23
Comm./Media	20	6.90	5	0	2	0	1	1	7	4	20
Education	18	6.21	5	7	2	0	1	1	1	1	18
Manufacturing	56	19.31	15	6	3	4	3	4	19	2	56
Mining/constr	20	6.90	8	7	1	1	1	0	2	0	20
Oth. services	54	18.62	20	17	4	5	3	0	0	5	54
Real estate	11	3.79	7	2	0	0	0	1	1	0	11
Retail	30	10.34	11	9	2	4	2	0	1	1	30
Hi-tech	14	4.83	9	1	1	0	2	0	0	1	14
Trans/energy	28	9.66	10	5	1	2	5	1	2	2	28
Total	290	100.00	107	66	17	17	22	10	34	17	290
<i>Panel D: legal and ownership status</i>											
<i>Characteristics</i>											
Regulated	69	24%	11%	33%	35%	24%	36%	30%	24%	35%	
Private owned	275	95%	98%	89%	100%	94%	91%	100%	94%	94%	
Local ownership	183	63%	68%	76%	59%	65%	55%	70%	38%	41%	
Multinational	115	40%	33%	26%	59%	41%	50%	30%	56%	76%	
Family business	123	42%	53%	38%	35%	35%	41%	80%	24%	24%	

Table 2
Summary statistics – LATAM versus US sample.

Variable	Quick definitions ⁽¹⁾	USA	LATAM	LATAM sample presents
Size	No. of observations	378	290	
	Small = 1-Large = 0	0.57	0.88***	Firms of smaller size
Leverage	Low = 1- High = 0	0.49	0.67***	Firms with lower leverage
Industry	Manuf. = 1	54%	29%	Lower share of manufacturing firms
Target	No use = 1	0.19	0.59***	Lower use of targets
Quoted	Yes = 1	0.64	0.16***	Fewer public firms
Foreign	High = 1- Low = 0	0.28	0.16***	Smaller share of exports
Dividends	Yes = 1	0.54	0.60*	More dividend paying firms
Regulated	Yes = 1	0.06	0.24***	Higher share of regulated firms

Note 1: Variable definitions.

Size: small firms have sales of less than \$1billion. Leverage: low has debt-equity ratios smaller than 0.3. Industry: Manuf. Includes manufacturing firms, and firms in transportation and energy. Target: 1 if the firm does not set target debt-to-equity ratios and 0 otherwise. Quoted: 1 if public firm and 0 otherwise. Foreign: high if foreign sales are greater than 25%. Dividends: 1 if dividend paying firm and 0 otherwise. Regulated: 1 if regulated firm and 0 otherwise.

* Denotes a significant difference at the 10% level.

** Denotes a significant difference at the 5% level.

*** Denotes a significant difference at the 1% level.

formulation of cash flows and discount rate LATAM CFOs select when using discounted cash flows techniques.

3.2. Capital budgeting methods

We analyze the relative use of capital budgeting methodologies among these Latin American companies. We follow Graham and Harvey's approach, and ask whether firms use not only net present value (NPV) and internal rate of return (IRR) techniques, but also additional methodologies such as payback period, profitability index, and accounting rate of return. We also ask whether firms enrich their assessment by using real options, sensitivity or simulation analysis. Finally we inquire whether firms rely on multiples to assess potential investment projects.¹⁰

Respondents are asked to score their belief about how frequently they use the different capital budgeting techniques on a scale of 0 to 4 (0 meaning "never", 4 meaning "always").

According to our results, the most widely used methodologies are, as expected, the NPV and IRR (see Table 3 – Panel A). More than 70% of respondents affirm to use these techniques either always or almost always (3 or 4 scores). The next popular method appears to be the payback period – as it was in the US sample; despite the shortcomings that have been associated to this methodology; about 62% of respondent use payback period either always or almost always. Profitability index and sensitivity analysis are also frequently used (at least, by more than 50% of the sample).

It is interesting to compare these results with those applying to US firms (see Graham and Harvey). These results are reported in Table 3 – Panel B.¹¹

We find that small and medium LATAM firms make a more widespread use of both the payback period and the profitability index. This is remarkable since it is exactly what one could expect, when considering the particular features characterizing emerging markets. Emerging markets are known to suffer higher volatility and instability in general, and therefore, the liquidity criteria emphasized in the payback period looks particularly well suited. Also, emerging markets are frequently subject to capital rationing problems; circumstance for which the payback period and the profitability index have been often advised. The payback period, so that constrained firms favor projects generating early cash flows to nurture ongoing operations¹²; profitability index, as a way of stressing the importance of optimizing on a particularly scarce

¹⁰ Responses here represent beliefs. These, as Graham and Harvey notice, are not testable against effective actions.

¹¹ The Graham and Harvey results we present here differ slightly from those reported in the original paper. This might be due to a few mismatches on a few data points between our sample and their final sample. Differences, in any case, are absolutely immaterial.

¹² Even though Graham and Harvey do not find support for this view, when splitting the sample based on credit rating, dividend policy, etc., we do obtain evidence of this in the context of emerging markets.

resource–capital. It is of particular interest to compare our results with those obtained for more comparable samples. Danielson and Scott (2006), for example, suggests that small US firms also suffer from capital constraints and therefore are likely to care about liquidity. Accordingly, he finds that small US firms rely on the payback period as a primary tool to evaluate investment projects. Nevertheless, in contrast to our results, Danielson and Scott (2006) also finds that small US firms make a less extensive use of discounting cash flow techniques. This might be attributable to a sample bias, given that about 40% of our sample respondents are MBA graduates, or it could be explained by a more intense capital rationing prevalent among LATAM small and medium firms. More research would be needed to distinguish among these alternative explanations.

Our sample also suggest that LATAM firms are more likely to use both sensitivity and simulation analysis. This also coincides with the evidence of having more a volatile environment in Latin America.¹³

In Table 3 – Panel A, we also present a finer analysis of LATAM firms' patterns, examining responses conditional on a broad set of firm and CFOs characteristics. We observe that the NPV rule is more widely used by CFOs who have earned master degrees (as opposed to those who have not earned such a degree). Additionally, sensitivity analyses are significantly more likely to be used by CFOs with short tenure and master degrees. We find regulated firms to be more likely to include NPV and IRR analysis, as well as multiples, sensitivity and simulation techniques than non-regulated firms. Finally, we find firms which set specific target debt-to-equity ratios to be more focused on NPV and IRR techniques, at the time they also pay significantly more attention to payback periods and sensitivity and simulation analysis (probably, being more aware of the importance of the equilibrium between liquidity, promised payments and cash flows volatility). Nevertheless, we find no difference in their relative use of when comparing high versus low leverage firms.

3.3. Discounted cash flows

Knowing that firms commonly use discounted cash flows techniques, it is relevant to ask about the specific cash flow and discount rate definition they use. Particularly, analyzing projects in emerging markets, such as those located in LATAM, requires paying special attention to these definitions. Firms need to consider whether they will use nominal or real cash flows and discount rates; definition that appears to be more relevant and involving given that these countries are more commonly subject to high and volatile inflation episodes. Additionally, firms need to decide whether the estimation will be performed in local or foreign currency. In particular, investors typically measure returns in hard currencies, which is usually not the home currency for emerging markets; therefore, moving from local currency amounts of revenues and costs to hard currency NPV estimation requires making this choice.

We ask how frequently CFOs choose among all theoretically sound potential combinations (i.e. nominal cash flows and discount rates in either local or foreign currency, and real cash flows and discount rate in either local or foreign currency), and also about all potential mismatches (with a mix of nominal and real components, or local and foreign currencies).

We observe that managers are only slightly more likely to use nominal rather than real components, and that there is no clear difference in the choice between local or foreign currency. We further examine that CFOs who have Master degrees are more likely to use nominal components in foreign currencies than their colleagues. Also, as it is usually observable, regulated firms are significantly more likely to use real components in local currency than non-regulated firms (with significance at a 1% level), probably reflecting their regulation framework. Also, as expected, firms with higher share of foreign sales are significantly more likely to use foreign currency denominations, while firms with lower share of exports are significantly more likely to estimate components in local currency (at the 1% and 5% levels, respectively). The presence of mismatches is negligible. The complete set of results can be observed in Table 4.

¹³ Another possible explanation for this is the difference in time between both surveys, as simulation techniques have been growing in popularity among practitioners. On the recent popularity of more dynamic methodologies, see Madhani (2008).

Table 3

Panel A. When deciding which projects or acquisitions to pursue, which of the following techniques do you consider?^{(a)(b)}

	% always or almost always	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf	Others	> 59	Ynger
a) Net present value	72.41	2.93	2.91	3.09	2.79	3.02	3.03	2.79	2.92	2.94	2.77	2.97
b) Internal rate of return	70.00	2.90	2.91	2.82	2.84	2.94	3.03	2.71*	3.13	2.81**	2.83	2.92
c) Hurdle rate	20.69	1.10	1.35	1.07	0.94	1.20	1.18	0.98	1.26	1.03	1.00	1.12
d) Multiples	18.28	0.93	0.93	0.97	0.80	1.02	1.07	0.72**	0.94	0.93	0.92	0.94
e) Payback period	62.07	2.57	2.58	2.50	2.52	2.60	2.67	2.41	2.52	2.59	2.52	2.58
f) Discounted payback period	35.17	1.59	1.63	1.29	1.54	1.62	1.66	1.49	1.68	1.55	1.29	1.65
g) Profitability index	53.79	2.31	2.30	3.52	2.15	2.41	2.37	2.23	1.90	2.48***	2.15	2.34
h) Accounting rate of return	14.83	0.93	0.91	1.09	0.89	0.96	0.97	0.88	0.82	0.98	0.96	0.93
i) Sensitivity analysis	58.97	2.47	2.44	2.64	2.30	2.57	2.52	2.38	2.50	2.45	2.33	2.49
j) Simulation analysis	18.62	0.92	0.85	1.47**	0.83	0.98	1.01	0.79	0.95	0.91	0.94	0.92
k) Incorporate real options	24.48	1.13	1.08	1.53	1.27	1.05	1.31	0.87***	1.13	1.14	1.17	1.13
N ^o observations		290	256	34	112	178	175	115	84	206	48	242

	% always or almost always	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) Net present value	72.41	2.93	2.84	2.97	3.14	2.64***	3.41	2.79***	2.68	3.29***	3.15	2.89
b) Internal rate of return	70.00	2.90	2.84	2.93	2.93	2.85	3.22	2.81**	2.65	3.35***	3.21	2.84*
c) Hurdle rate	20.69	1.10	0.96	1.17	1.08	1.14	1.22	1.07	0.98	1.32*	1.34	1.06
d) Multiples	18.28	0.93	0.91	0.95	0.93	0.94	1.33	0.81***	0.84	1.07	0.81	0.96
e) Payback period	62.07	2.57	2.32	2.69*	2.63	2.49	2.70	2.52	2.44	2.78**	2.31	2.62
f) Discounted payback period	35.17	1.59	1.41	1.68	1.73	1.40*	1.75	1.54	1.39	1.89***	1.66	1.58
g) Profitability index	53.79	2.31	2.08	2.42	2.22	2.43	2.35	2.30	2.35	2.38	2.21	2.33
h) Accounting rate of return	14.83	0.93	0.78	1.01	0.92	0.95	0.99	0.92	0.86	1.07	0.98	0.93
i) Sensitivity analysis	58.97	2.47	2.08	2.65***	2.64	2.21**	2.99	2.30***	2.25	2.81***	2.66	2.43
j) Simulation analysis	18.62	0.92	0.78	0.99	0.94	0.89	1.42	0.76***	0.71	1.20***	1.26	0.86*
k) Incorporate real options	24.48	1.13	0.92	1.24*	1.11	1.17	1.22	1.11	1.08	1.24	1.40	1.08
No. of observations		290	95	195	169	121	69	221	161	114	47	243

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

Table 3 (continued)

Panel B. Project valuation: LATAM versus US samples. ^{(a)(b)}		
	USA	LATAM
	% always or almost always	
a) Net present value	73.73	72.41
b) Internal rate of return	75.00	70.00
c) Hurdle rate	56.00	20.69 ^{***}
d) Multiples	38.26	18.28 ^{***}
e) Payback period	55.34	62.07 [*]
f) Discounted payback period	28.37	35.17 [*]
g) Profitability index	11.33	53.79 ^{***}
h) Accounting rate of return	19.66	14.83
i) Sensitivity analysis	50.14	58.97 ^{**}
j) Simulation analysis	13.16	18.62 [*]
k) Incorporate real options	24.65	24.48
No. of observations ^(c)	~373	~290

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ^{***}, ^{**} and ^{*} denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

(d) N/A: comparison not available (question missing in one of the samples).

Table 4
When analyzing investment decisions based on DCF techniques, which methodology does your firm use?^{(a)(b)}.

	% always or almost always	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	>59	Ynger
a) Nom. CFW in local cu and nom. disc. rate in local cu	37.24	1.66	1.67	1.62	1.41	1.82**	1.82	1.43**	1.43	1.76	1.79	1.64
b) Nom. CFW in foreign cu and nom. disc. rate in foreign cu	37.24	1.62	1.60	1.76	1.53	1.68	1.65	1.82	1.63	1.62	1.23	1.70*
c) Real CFW in local cu and real disc. rate in local cu	31.38	1.41	1.38	1.62	1.43	1.39	1.41	1.41	1.15	1.51*	1.58	1.37
d) Real CFW in foreign cu and real disc. rate in foreign cu	29.66	1.36	1.32	1.62	1.35	1.36	1.49	1.15*	1.62	1.25*	1.27	1.37
e) Nom. CFW in local cu and nom. disc. rate in foreign cu	5.86	0.39	0.37	0.50	0.41	0.37	0.41	0.35	0.35	0.40	0.42	0.38
f) Nom. CFW in foreign cu and nom. disc. rate in local cu	6.55	0.37	0.35	0.56	0.34	0.39	0.43	0.28	0.37	0.37	0.27	0.39
g) Real CFW in local cu and nom. disc. rate in local cu	11.38	0.61	0.61	0.59	0.63	0.59	0.61	0.60	0.60	0.61	0.54	0.62
h) Real CFW in foreign cu and nom. disc. rate in foreign cu	11.03	0.57	0.54	0.74	0.54	0.58	0.61	0.50	0.49	0.60	0.35	0.61
i) Nom. CFW in local cu and real disc. rate in local cu	10.00	0.54	0.54	0.50	0.65	0.47	0.54	0.52	0.51	0.55	0.56	0.53
j) Nom. CFW in foreign cu and real disc. rate in foreign cu	8.28	0.43	0.40	0.68	0.50	0.39	0.49	0.36	0.40	0.45	0.44	0.43
No. of observations		290	256	34	112	178	175	115	84	206	48	242
	% always or almost always	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) Nom. CFW in local cu and nom.disc. rate in local cu	37.24	1.66	1.53	1.73	1.71	1.60	1.96	1.57	1.51	2.00**	1.38	1.72
b) Nom. CFW in foreign cu and nom.disc. rate in foreign cu	37.24	1.62	1.49	1.68	1.81	1.36**	1.77	1.57	1.47	1.87	2.26	1.50***
c) Real CFW in local cu and real disc. rate in local cu	31.38	1.41	1.39	1.42	1.48	1.31	1.94	1.24***	1.37	1.54	0.96	1.49**
d) Real CFW in foreign cu and real disc. rate in foreign cu	29.66	1.36	1.43	1.32	1.44	1.23	1.42	1.33	1.21	1.56*	1.83	1.26**
e) Nom. CFW in local cu and nom. disc. rate in foreign cu	5.86	0.39	0.32	0.42	0.41	0.36	0.57	0.33	0.35	0.45	0.49	0.37
f) Nom. CFW in foreign cu and nom. disc. rate in local cu	6.55	0.37	0.29	0.41	0.36	0.39	0.46	0.34	0.32	0.46	0.70	0.31*
g) Real CFW in local cu and nom. disc. rate in local cu	11.38	0.61	0.47	0.67	0.54	0.69	0.70	0.58	0.61	0.61	0.43	0.64
h) Real CFW in foreign cu and nom. disc. rate in foreign cu	11.03	0.57	0.41	0.64*	0.53	0.60	0.59	0.56	0.51	0.62	0.79	0.52
i) Nom. CFW in local cu and real disc. rate in local cu	10.00	0.54	0.52	0.55	0.55	0.52	0.77	0.47*	0.52	0.52	0.43	0.56
j) Nom. CFW in foreign cu and real disc. rate in foreign cu	8.28	0.43	0.35	0.48	0.40	0.49	0.51	0.41	0.47	0.37	0.47	0.43
No. of observations		290	95	195	169	121	69	221	161	114	47	243

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

4. Cost of capital

4.1. Design

We ask three main questions regarding the estimation of the cost of capital. Our first question here coincides to a large extent with the Graham and Harvey's survey, that is, we focus on the CFOs' preference about the methodology for estimating the firms' cost of capital (i.e., the choice among the capital asset pricing model – CAPM, the extended CAPM, incorporating additional risk factors – such as Fama and French three factor model,¹⁴ or macroeconomic factors,¹⁵ so appealing in the context of emerging markets, etc.). In the second and third questions we deviate from the previous study and concentrate on specifying the particular choices and adjustments that apply to the cost of capital estimation in the context of emerging markets. Basically, we ask about the preferred source of data, input selection and computation preferences LATAM managers select when they perform CAPM estimations.¹⁶

4.2. Cost of capital – alternative methods

According to our results, on average, about 52% of respondents estimate the cost of capital (note that this number is significantly smaller than the 64% reported in Graham and Harvey for US firms). Among them, the most popular choice for setting up a cost of capital estimation is to follow whatever investors require; more specifically, about 49% of CFOs who estimate the cost of capital affirms that either always or almost always that estimation is based on whatever investors require. This choice, that represented less than 14% of the cases in the US sample, is significantly more likely for LATAM small firms compared to larger firms. The complete output is summarized in Table 5 – Panel A.

We observe that for 39% of these managers the estimation is based on the bank rate either always or almost always, and for about 38% of them the computation is performed using the CAPM approach. That is, the preeminence of the CAPM usage in developed markets is not such in the context of Latin American emerging economies. In reference to this last result, it is not very surprising that the departure from the *perfect capital market* standard CAPM assumption coincides with a limited use of the CAPM.

Refining the comparison of these results with those obtained by Graham and Harvey for US firms, we find that the CAPM is significantly less used among small and medium Latin American firms (in contrast with the figure we mentioned before, more than 70% of US large firms responded that they used the CAPM either always or almost always). One would expect small and medium firms – even located in the US – to make a less extensive use of the standard CAPM approach. The standard CAPM is a one-factor model that considers neither size, nor growth factors, which are very relevant for small and medium firms, in general. Moreover, the model does not take into account concentrated ownership, also widespread among these types of firms. This mismatch is expected to be even more crucial among emerging market small and medium enterprises. Furthermore, given that it is harder for these companies to find the right comparable set of firms in order to estimate the necessary inputs – which is always vital for emerging market firms, LATAM small and medium firms appear to be also significantly less likely to use the CAPM with additional factors. Finally, the limited dependability of LATAM firms on their corresponding capital markets probably matches with their significantly less frequent use of common stocks historical returns as the basis for cost of capital estimations.

We would like to conclude by stressing the finding that small and medium LATAM firms are significantly more likely to base the discount rate estimation on whatever investors require than US large corporations. Given the more frequent identification between firms and owners as well as between managers and owners, this is not surprisingly the case. All these differences are significant at the 1% level. A complete summary of these results is presented in Table 5 – Panel B.

¹⁴ Fama and French (1992).

¹⁵ Chen et al. (1986) and Ferson and Harvey (1991).

¹⁶ To analyze how emerging market firms trade-off between the need of taking into account local market information due to market segmentation issues – as implied by Bekaert and Harvey (1995), Harvey (1995), and Bruner et al. (2008) – and the actual difficulty for doing so, based on the lack of availability of suitable information at the emerging market level.

Table 5

Panel A. How do you determine the cost of capital? ^{(a)(b)}												
	% always or almost always	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
a) Using the capital asset pricing model (β approach)	37.75	1.58	1.50	2.10	1.22	1.77*	1.50	1.78	1.54	1.60	1.50	1.60
b) Using the CAPM but including addnl. "risk factors"	24.67	1.13	1.05	1.68	1.20	1.10	1.20	0.98	1.22	1.10	0.96	1.17
c) Based on historical return on common stock	15.33	0.66	0.70	0.42	0.55	0.73	0.76	0.44	0.59	0.70	0.88	0.63
d) Based on the bank rate	39.07	1.59	1.63	1.32	1.88	1.43	1.50	1.78	1.59	1.59	1.71	1.56
e) Based on whatever our investors tell us they require	48.67	1.95	2.06	1.16**	1.86	1.99	2.03	1.76	2.26	1.81	1.71	1.99
f) Based on an avg. of what is said in questions (d) and (e)	31.33	1.26	1.31	0.89	1.29	1.24	1.16	1.49	1.54	1.13	1.29	1.25
g) Based on regulatory decisions	8.67	0.46	0.44	0.58	0.61	0.38	0.53	0.29	0.39	0.49	0.33	0.48
No. of observations		150	131	19	51	99	105	45	46	104	24	126
	% always or almost always	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) Using the capital asset pricing model (β approach)	37.75	1.58	1.89	1.45	1.63	1.47	1.68	1.54	1.51	1.66	1.85	1.52
b) Using the CAPM but including addnl. "risk factors"	24.67	1.13	1.22	1.10	1.23	0.94	1.48	0.99	1.07	1.19	1.00	1.16
c) Based on historical return on common stock	15.33	0.66	0.44	0.76	0.62	0.76	0.70	0.65	0.61	0.72	0.58	0.69
d) Based on the bank rate	39.07	1.59	1.27	1.72	1.60	1.55	1.73	1.53	1.58	1.53	1.81	1.54
e) Based on whatever our investors tell us they require	48.67	1.95	1.64	2.08	1.90	2.04	2.00	1.92	1.90	2.01	2.27	1.88
f) Based on an avg. of what is said in questions (d) and (e)	31.33	1.26	0.91	1.41*	1.33	1.12	1.36	1.22	1.22	1.31	1.62	1.19
g) Based on regulatory decisions	8.67	0.46	0.47	0.46	0.46	0.47	0.70	0.36*	0.43	0.41	0.31	0.49
No. of observations		150	45	105	101	49	44	106	69	74	26	124

(a) Respondents are asked to rate on a scale of 0–4, going from "low frequency" to "high frequency". We report the overall mean as well as the % of respondents that answered "high frequency" (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% level, respectively. All table columns are defined in Table 2.

Table 5 (continued)

Panel B. Cost of capital: LATAM versus US samples ^{(a)(b)} .		
	USA	LATAM
	Yes	
Does your firm estimate the cost of capital?	64.62%	53.10%***
	USA	LATAM
	% always or almost always	
a) Using the capital asset pricing model (β approach)	71.43	36.26***
b) Using the CAPM but including additional "risk factors"	34.53	24.03**
c) Based on the historical return on common stock	37.83	14.94***
d) Based on the bank rate	N/A	
e) Based on whatever our investors tell us they require	13.96	47.40***
f) Based on an average of what is said in questions (d) and (e)	N/A	
g) Based on regulatory decisions	6.85	8.44
No. of observations ^(c)	~231	~154

(a) Respondents are asked to rate on a scale of 0–4, going from "low frequency" to "high frequency". We report the overall mean as well as the % of respondents that answered "high frequency" (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

(d) N/A: comparison not available (question missing in one of the samples).

4.3. The CAPM

Among those firms that say that they use the CAPM to estimate their cost of capital, we ask for more detailed information. Basically, given that it is hard (much harder) to sustain the CAPM assumptions in the context of emerging markets and that many of the inputs required are not easily available in that environment, we ask for alternative paths that firms might take when deciding issues such as the source of data (i.e. between local or foreign parameters) and/or the necessary adjustments to the traditional formula. For example, we ask whether firms choose to estimate their own beta relating the firms' returns either with those of the local market, or with those of the US market, or whether they base their estimate on the beta of comparable local or US firms. We also ask about alternative choices for the risk-free rate and the equity risk premium. The complete set of Q&A are presented in [Table 6](#) – Panels A and B.

Regarding the choice for the risk-free rate, the most popular option is to use the US risk-free rate as a proxy. About 72% of the LATAM sample uses this option either always or almost always (as opposed as the 'local risk-free' rate that is selected with this frequency only 33% of the times). The US risk-free option is significantly most likely to be taken by CFOs with long tenure and no master degree; with significance at the 5% level. At the same time, it is very popular to adjust the risk-free rate by adding a premium to account for country risk. About 77% of the managers select this adjustment either always or almost always (the average score – which goes from 0 to 4, was about 3.28 in this item). This option appears to be invariant across all our sample splits (size, leverage, etc.).

There is a less obvious common choice regarding the estimation of the beta parameter. CFOs appear to be more prone to use US-comparable firms or industry betas to proxy for the local parameter. They declare to select this choice either always or almost always in about 32 or 37% of the times, respectively. Most of our sample splits are not clearly conditioning this choice. We only find that the use of the US-industry beta seems to be significantly more likely in the case of long tenure CFOs and those who hold a master degree. On the other hand, a second batch could be assembled with those who select to estimate beta using either own, or comparable local firms returns against those of the local market; each of these options is selected either always or almost always around 25% of the times.

Finally, regarding the equity risk premium (ERP), it is interesting to notice that, consistent with the information on betas and risk-free rate (for which the most frequent option is to estimate parameters based on US data), CFOs are more likely to estimate this parameter using the historic US ERP (52% of respondents claim to use this option either always or almost always). In a finer analysis, we observe that both long tenure CFOs and those who have not earned master degrees are significantly more likely to select this choice; we do not observe any other significant difference based on different characteristics such as size, leverage, industry, etc. We find that the most popular choice regarding how to compute average returns seems to lean toward arithmetic averages (i.e. arithmetic averages are frequently selected about 51% of the times, while geometric averages are regularly chosen only about 23% of the times). Finally, we find no clear preference between long and short series of returns.

All answers about the selection of CAPM inputs are summarized in [Table 6](#).

5. Capital structure

5.1. Design

The rest of the survey copes with capital structure topics. Once again, some issues match Graham and Harvey; nevertheless, many inquires specific to emerging markets case have been added. We start by asking about leverage ratios, whether firms determine target debt-to-equity ratios, and whether some criteria are more relevant than others in influencing leverage policy. We further ask about the relevance of different factors in the choice between short- and long-term debt and about the decision of issuing debt in foreign countries. To capture any residual concern, we ask about the main reason behind the decision of either issuing or not issuing debt.

In the last set of questions we identify whether firms are listed in a stock market, and inquire about whether managers have seriously considered listing their shares. For those considering going public, we analyze how the decision is linked to several criteria (trying to match most of the criteria considered in efficient markets, but adding some emerging markets' potential additional factors). Given that public

Table 6

Panel A. In case your firm uses the CAPM to estimate the equity cost of capital and adapts the model to take into account emerging markets special features, which of the following adjustments do you include?^{(a)(b)}

	% always or almost always	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
a) Est. own β : firm's returns wrt. those of the local market	26.32	1.12	1.12	1.14	1.10	1.13	1.13	1.11	0.91	1.26	1.00	1.14
b) Est. own β : firm's returns wrt. those of the US-market	14.04	0.75	0.76	0.71	0.90	0.68	0.88	0.47	0.61	0.85	0.86	0.74
c) Est. own or ind β : comparable local firms wrt the local market	24.56	1.05	1.00	1.42	0.70	1.24	0.88	1.47	0.83	1.21	1.14	1.04
d) Est. US ind β : US-comparable firms wrt the US-market	36.84	1.56	1.50	2.00	1.80	1.43	1.55	1.59	1.30	1.74	0.86	1.66
e) Est. the β of a comparable US wrt the US-market	31.58	1.32	1.30	1.42	1.35	1.30	1.33	1.29	1.13	1.44	1.29	1.32
f) Using a mkt β : returns of local mkt wrt the US-mkt	3.51	0.30	0.28	0.43	0.25	0.32	0.35	0.18	0.26	0.32	0.29	0.30
g) R_f : local risk-free rate	33.33	1.35	1.26	2.00	1.00	1.54	1.08	2.00*	1.26	1.41	0.71	1.44
h) R_f : US risk-free rate	71.93	2.79	2.72	3.29	3.05	2.65	2.98	2.35	2.57	2.94	3.00	2.76
i) Adjustments: we add a country risk premium to R_f	77.19	3.28	3.26	3.43	3.00	3.43	3.38	3.06	3.39	3.21	3.29	3.28
No. of observations		57	50	7	20	37	40	17	23	34	7	50

	% always or almost always	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) Est. own β : firm's returns wrt. those of the local market	26.32	1.12	0.60	1.31*	1.28	0.64	1.17	1.10	1.35	0.97	2.00	0.98
b) Est. own β : firm's returns wrt. those of the US-market	14.04	0.75	1.07	0.64	0.63	1.14	1.22	0.54	0.61	0.84	1.13	0.69
c) Est. own or ind β : comparable local firms wrt the local market	24.56	1.05	0.93	1.10	1.19	0.64	0.94	1.10	1.26	0.88	1.75	0.94
d) Est. US ind β : US-comparable firms wrt the US-market	36.84	1.56	2.73	1.14***	2.64	1.21***	1.83	1.44	1.26	1.69	1.25	1.61
e) Est. the β of a comparable US wrt the US-market	31.58	1.32	1.80	1.14	1.28	1.43	1.72	1.13	1.22	1.22	1.00	1.37
f) Using a mkt β : returns of local mkt wrt the US-mkt	3.51	0.30	0.40	0.26	0.26	0.43	0.50	0.21	0.17	0.34	1.00	0.18
g) R_f : local risk-free rate	33.33	1.35	1.33	1.36	1.60	0.57**	1.66	1.21	1.26	1.41	2.25	1.20
h) R_f : US risk-free rate	71.93	2.79	3.40	2.57**	2.56	3.50**	3.17	2.62	2.74	2.78	2.50	2.84
i) Adjustments: we add a country risk premium to R_f	77.19	3.28	3.67	3.14	3.33	3.14	3.61	3.13	3.26	3.31	3.63	3.22
No. of observations		57	15	42	43	14	39	18	23	32	8	49

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

Panel B. When estimating the ERP, in the context of the CAPM, which criteria does your firm follow?^{(a)(b)}

	% always or almost Always	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
Source of data												
a) We use the historic US ERP	52.63	2.19	2.14	2.57	2.10	2.24	2.33	1.88	2.22	2.18	2.14	2.20
b) We estimate a historic avg, using a broad local index	19.30	0.88	0.88	0.86	0.65	1.00	0.80	1.06	0.70	1.00	0.29	0.96 ^{**}
c) We estimate a historic average, using a selective local index	15.79	0.63	0.68	0.29	0.55	0.68	0.63	0.65	0.43	0.76	0.86	0.60
When estimating the average												
a) We compute an arithmetic avg.	50.88	2.05	2.12	1.57	2.20	1.97	2.00	2.18	2.22	1.94	1.86	2.08
b) We compute a geometric avg.	22.81	1.10	1.22	2.86 ^{**}	1.00	1.16	1.03	1.29	0.78	1.32	1.71	1.02
When selecting the data												
c) We use the complete series (US data from 1926 to 2000 or so)	21.05	1.07	1.00	1.57	0.65	1.30	1.18	0.82	1.04	1.09	1.71	0.98
d) We use a shorter series (as opposed to the complete series).	19.30	0.74	0.68	1.14	0.35	0.95	0.53	1.24	0.61	0.82	0.43	0.78
No. of observations		57	50	7	20	37	40	17	23	34	7	50
	% always or almost Always	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
Source of data												
a) We use the historic US ERP.	52.63	2.19	3.07	1.88 ^{**}	1.81	3.36 ^{***}	2.28	2.15	1.87	2.44	3.13	2.04 [*]
b) We estimate a historic avg, using a broad local index.	19.30	0.88	0.47	1.02	1.14	0.07 ^{***}	1.28	0.69	0.52	1.19 [*]	1.63	0.76
c) We estimate a historic average, using a selective local index.	15.79	0.63	0.40	0.71	0.70	0.43	0.89	0.51	0.83	0.53	0.75	0.61
When estimating the average												
a) We compute an arithmetic avg.	50.88	2.05	2.40	1.93	2.07	2.00	2.22	1.97	1.70	2.28	2.50	1.98
b) We compute a geometric avg.	22.81	1.10	0.67	1.26	1.05	1.29	1.44	0.95	1.13	1.06	1.25	1.08
When selecting the data:												
c) We use the complete series (US data from 1926 to 2000 or so)	21.05	1.07	1.67	0.86	0.95	1.43	0.89	1.15	0.91	1.13	1.75	0.96
d) We use a shorter series (as opposed to the complete series)	19.30	0.74	1.13	0.60	0.86	0.36	0.44	0.87	0.52	0.94	1.00	0.69
No. of observations		57	15	42	43	14	39	18	23	32	8	49

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ^{***}, ^{**} and ^{*} denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

firms are a clear minority (in LATAM in general, and in our sample, in particular) we ask about the relevance of several factors in determining the choice of remaining as a private firm. We ended with an open question, asking for the main reason behind the decision of either issuing or not issuing equity.

5.2. Debt–equity ratios

As we mentioned before, this Latin American Small and Medium sized firms sample exhibits significantly lower leverage ratios than the US large firms counterpart (difference significant at the 1% level), with ratios that are not clearly different across alternative sample splits (i.e. comparing large versus small firms, and the like). This result contrast with what [Espinosa et al. \(2010\)](#) and [Céspedes et al. \(2010\)](#) have recently found for different samples of public Latin American firms. Both studies report average ratios similar to those prevalent in the US. Therefore, the smaller debt–equity ratios in our sample are likely to be associated with the small and medium private firms; the most prevalent in our sample.¹⁷ Additionally, we find that almost 60% of the managers in our sample do not define target leverage ratios. See [Table 1](#) – Panels E and F.

When comparing target debt ratios average scores between the Latin American small and medium firms and the US Graham and Harvey's sample, we find mean responses of 1.68 and 2.35 respectively; with a difference that is significant at the 1% level (the score is scaled from 0 to 4, with 0 meaning not important and 4 meaning very important); thus, US firms are significantly more likely to follow target debt ratios than Latin American firms. Target debt ratios emerge from the static trade-off theory of capital structure, according to which firms actually trade off some benefits of holding debt (primarily, the debt–tax shield), with some associated costs (mainly, the costs of financial distress or bankruptcy costs).¹⁸ A lesser use of target debt ratios in our sample might be therefore associated to a lower weight of taxes and bankruptcy costs, or to a lower incentive on trading off these components. This decision could also be linked to financial constraints. We could expect financially constrained firms to be less likely to establish a target capital structure, and this might be the case of many firms in most Latin American countries.¹⁹ The relative importance of these as well as other elements is analyzed in the following section.

Nevertheless, as it happens in the US, larger Latin American companies have a more prevalent use of target debt ratios than smaller firms. Also, according to our sample, targets are more prevalent among manufacturing firms; with a larger share of sales to foreign markets, and with CFOs who have earned master degrees.

5.3. Factors related to leverage policies

The Latin American executives we surveyed considered three factors as the most important determinants of their firms' leverage policies, even though we find only moderate importance of all of them. The highest score is given to the availability of internal funds (i.e. firms are inclined to issuing debt if internal funds are not sufficient), with a mean response of 2.24 (0 meaning not important, 4 meaning very important). According to the executives' responses, the availability of internal funds has a higher importance for highly levered and small firms (firms probably more relatively affected by asymmetries of information and financing constraints). Managers consider the tax deductibility of interest expenses as the second most important factor, with a mean score of 1.94. This tax advantage is most important for dividend-paying firms and for firms with a higher share of exports (as it was in Graham and Harvey's sample); additionally, tax deductibility appears to be relatively more relevant for highly leveraged firms. We do not find, however, a significant difference on the relevance of tax deductibility of interest expenses

¹⁷ About financing choices of smaller firms, see also [Titman and Wessels \(1988\)](#). About financing choices of privately held firms, see also [Cole \(2011\)](#).

¹⁸ See [Modigliani and Miller \(1963\)](#) and [Miller \(1977\)](#) among others.

¹⁹ For example, a recent study of [Espinosa and Maquieira \(2010\)](#) – based on a sample of 42 public firms in Chile for the time period 2001 to 2009 – report that financially constrained firms (i.e. low dividend payments) show a positive and statistically significant relation between internal cash flows and capital expenditures. This in fact confirms that financial constraints are in place in Chile. This result is noticeable since [De la Torre and Schmukler \(2006\)](#) shows that Chile has far the most developed capital market in Latin America.

across size categories. Finally, the third largest score is related to the volatility of earnings and cash flows (mean score of 1.84), which shows no significant differences across the main categories.

We observe that managers who affirm to establish target debt ratios are, as expected, significantly more likely to consider factors such as the tax advantage of interest deductibility, and the potential costs of bankruptcy (core components of the trade-off theory). They also pay special attention to issues such as the transaction costs and fees for issuing equity, signaling to investors, changes in the stock price, level of interest rates, and debt policies of other firms in their industry. Lastly, firms with sales coming mainly from exports appear to be more likely to consider factors such as the tax advantage of debt, signaling to investors, and industry patterns, than those firms targeting mainly to local markets.

On the other extreme, and in spite of these cross-sectional differences, overall average scores indicate that factors such as debt levels of other firms in the industry, volatility of the own stock price, transaction cost, and fees for issuing equity and potential costs of bankruptcy are not considered important factors. Their average scores are all smaller than one.

The complete set of answers is presented in Table 7 – Panel A

But there is more information to consider before advancing any conjectures. Latin American managers do not seem to pay special attention to any of the additional criteria we asked them to consider (see Table 7 – Panel B). Nevertheless, among these, there were two criteria more frequently considered: restricting borrowing so that cash flows are not committed to interest payments, and avoiding information asymmetry problems (they prefer selecting instruments that are expected to be less affected by information asymmetries: first retained earnings, second, debt, and last, equity).²⁰

It is interesting to compare both sides of the distribution in terms of relevance of these determinants in the selection of the appropriate amount of debt (on the one hand, what the CFOs in our sample consider most important and, on the other hand, what they consider of little relevance), with the responses of US CFOs. Significant differences come as it follows. The most substantial and somewhat surprising difference is on the relative weight assigned to financial flexibility. US CFOs consider flexibility as the most relevant factor influencing the optimal amount of debt (almost 60% of US respondents consider this factor to be important or very important versus less than 6% of cases among the managers in our sample). This result seems to indicate that Latin American small and medium firms do not ponder financial flexibility, in an attempt to maintain the financial channel available for the financing of new projects; a potential reason behind this result could be the lack of dependability of their capital and financial markets (more subject to crisis episodes and credit crunches; situations in which open financial channels appear to be of little use). Other very significant difference between the US and our Latin American sample is that the executives of the latter give significantly more importance to avoid committing profits to interest payments (the executives in our sample consider this always or almost always in about 39% of the cases, compared to about a third of that figure, in the case of US managers). It is very intuitive that firms in more volatile environments try to avoid getting trapped in high *promised* outflows. In fact, volatility of cash flows is the third most important factor in determining leverage policy; however, it appears as a greater concern among US executives (48% US versus 40% of our respondents considered this either always or almost always). Again, this seems to stress a financing constraint or financial distress concern among Latin American executives.

As we mentioned, what Latin American managers show to value the most is the availability of internally generated funds. Its mean score is the highest among all other reasons, and it is significantly higher in Latin America than in the US (2.24 versus 2.13 in the US, with a difference that is significant at the 5% level – where 0 means no important and 4 means very important).

Finally, US executives are relatively more likely than their Latin American pairs to consider criteria such as potential credit rating (55.56 versus 33.10%), convenience of issuing debt when interest rates are low (44.96 versus 30.69%), debt levels of other firms in the industry (23.46 versus 7.59%), costs of bankruptcy (21.35 versus 11.03%), and variations in the own stock price (15.92 versus 5.86); all% of always or almost always responses, with a difference significant at the 1% level. Then, and at the lower scale of relative

²⁰ According to the pecking-order theory firms avoid issuing equity or risky debt, given that the information asymmetry between managers and potential investors lowers the value of these sources of funds, making them expensive to the firm. In these cases, the firm would rather prioritize the use of internally generated funds, for which those information asymmetries are not present. See Myers and Majluf (1984) for a complete description of the theory.

Table 7

Panel A. To which extent do you believe the following factors affect the way your firm selects the appropriate amount of debt? ^{(a)(b)}												
	% v. much or relatively very much	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
a) The tax advantage of interest deductibility	43.45	1.94	1.96	1.82	1.55	2.18***	2.12	1.67**	1.95	1.94	1.79	1.97
b) The potential cost of bankruptcy: e.g. legal costs, low liquidity value	11.03	0.78	0.78	0.74	0.61	0.88**	0.84	0.68	0.70	0.81	0.73	0.79
c) The volatility of our earnings and cash flows	40.34	1.84	1.89	1.44	1.52	2.04	1.95	1.66	1.75	1.87	1.52	1.90
d) Our credit rating	33.10	1.59	1.55	1.82	1.13	1.88***	1.63	1.51	1.38	1.67	1.98	1.51
e) The transaction costs and fees for issuing debt	32.41	1.54	1.53	1.62	1.26	1.71**	1.65	1.37	1.68	1.48	1.85	1.48
f) The transaction costs and fees for issuing equity	10.34	0.61	0.55	1.09**	0.45	0.71**	0.72	0.44	0.63	0.61	0.79	0.57
g) Internal funds: we issue D when i.f. are not sufficient	54.14	2.24	2.30	1.79*	1.91	2.45***	2.36	2.06	2.30	2.22	2.50	2.19
h) D gives investors a better impression of our prospects	13.79	0.75	0.73	0.85	0.63	0.82	0.78	0.70	0.71	0.76	0.63	0.77
i) Debt levels of other firms in our industry	7.59	0.59	0.54	0.97	0.49	0.65	0.63	0.52	0.60	0.59	0.65	0.58
j) Due to variation in the price of our stock	5.86	0.36	0.33	0.56	0.38	0.34	0.47	0.17***	0.39	0.34	0.33	0.36
k) We issue debt when interest rates are particularly low	30.69	1.46	1.48	1.32	1.20	1.62**	1.69	1.10***	1.76	1.33**	1.15	1.52
No. of observations		290	256	34	112	178	175	115	84	206	48	242

(continued on next page)

Table 7 (continued)

Panel A. To which extent do you believe the following factors affect the way your firm selects the appropriate amount of debt?^{(a)(b)}

	% v. much or relatively very much	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
	% v. much or relatively very much	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) The tax advantage of interest deductibility	43.45	1.94	1.74	2.04	2.04	1.81	2.13	1.88	1.81	2.31 ^{***}	2.36	1.86 ^{**}
b) The potential cost of bankruptcy: e.g. legal costs, low liquidity value	11.03	0.78	0.64	0.84	0.80	0.74	0.81	0.76	0.72	0.96 [*]	1.00	0.73
c) The volatility of our earnings and cash flows	40.34	1.84	1.55	1.98 ^{**}	1.85	1.82	1.71	1.88	1.83	2.09	1.94	1.82
d) Our credit rating	33.10	1.59	1.47	1.64	1.66	1.49	1.78	1.52	1.54	1.83	1.55	1.59
e) The transaction costs and fees for issuing debt	32.41	1.54	1.45	1.58	1.63	1.41	1.72	1.48	1.51	1.78	1.85	1.48
f) The transaction costs and fees for issuing equity	10.34	0.61	0.51	0.66	0.59	0.64	0.96	0.50 ^{**}	0.48	0.84 ^{**}	0.79	0.58
g) Internal funds: we issue D when i.f. are not sufficient	54.14	2.24	2.13	2.30	2.25	2.23	2.09	2.29	2.38	2.25	2.43	2.21
h) D gives investors a better impression of our prospects	13.79	0.75	0.59	0.83 [*]	0.82	0.64	1.09	0.64 ^{**}	0.60	1.05 ^{***}	1.28	0.65 ^{***}
i) Debt levels of other firms in our industry	7.59	0.59	0.51	0.63	0.58	0.60	0.88	0.50 ^{**}	0.40	0.94 ^{***}	0.98	0.51 ^{**}
j) Due to variation in the price of our stock	5.86	0.36	0.17	0.45 ^{***}	0.36	0.36	0.59	0.28 ^{**}	0.29	0.50 [*]	0.43	0.34
k) We issue debt when interest rates are very low	30.69	1.46	1.41	1.48	1.51	1.38	1.59	1.41	1.26	1.89 ^{***}	1.68	1.41
No. of observations		290	95	195	169	121	69	221	161	114	47	243

(a) Respondents are asked to rate on a scale of 0–4, going from “little” to “very much”. We report the overall mean as well as the % of respondents that answered “very much or relatively very much” (3 or 4).

(b) ^{***}, ^{**} and ^{*} denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

Table 7 (continued)

Panel B. To which extent do you believe these statements are criteria to be taken into account when deciding leverage policies at your firm? ^{(a)(b)}												
	% v. much or relatively very much	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Mf.	Ots	>59	Ynger
a) Debt commits cash flows to interest payments and avoids leaving money at the managers' disposal.	9.66	0.64	0.63	0.71	0.58	0.67	0.70	0.55	0.64	0.64	0.69	0.63
b) We look for instruments less subject to information asymmetries: 1st secured debt, 2nd unsecured debt, and last, equity.	17.93	0.96	0.98	0.82	0.67	1.14***	1.02	0.86	1.06	0.92	0.96	0.96
c) We look for instruments less subject to information asymmetries: 1st retained earnings, 2nd debt, and last, equity.	34.14	1.48	1.45	1.68	1.20	1.66**	1.67	1.18**	1.65	1.41	1.52	1.47
d) We avoid issuing equity to maintain corporate control.	12.07	0.73	0.74	0.77	0.48	0.89***	0.75	0.70	0.69	0.75	0.75	0.73
e) To maintain control and due to the limited retained earnings, we are lead to high levels of debt	13.45	0.76	0.77	0.68	0.64	0.83	0.86	0.61*	0.70	0.78	0.67	0.78
f) Market volatility and scarce liquidity are the main constraints to financing through equity issuance	11.72	0.86	0.87	0.82	0.62	1.02***	0.79	0.97	0.79	0.89	0.71	0.89
g) We limit debt so our customers/suppliers are not worried about our firm going out of business	20.34	1.13	1.16	0.91	1.00	1.21	1.14	1.12	1.06	1.16	1.19	1.12
h) We restrict our borrowing so that profits are not committed to interest payments.	38.97	1.80	1.80	1.79	1.63	1.91	1.88	1.68	1.82	1.79	1.71	1.81
i) We restrict debt to have financial flexibility: allowing access to alternatives in the financing of new projects.	5.86	0.48	0.44	0.79	0.50	0.47	0.50	0.46	0.39	0.52	0.25	0.53**
j) Signaling: if we issue debt our competitors know that we are very unlikely to reduce our output.	8.97	0.36	0.34	0.53	0.31	0.39	0.46	0.20	0.44	0.33	0.25	0.38
N° observations		290	256	34	112	178	175	115	84	206	48	242

Table 7 (continued)

Panel B. To which extent do you believe these statements are criteria to be taken into account when deciding leverage policies at your firm? ^{(a)(b)}													
	% v. much or relatively very much	Mean	Size		Leverage		Pay dividends		Industry		CFO age		
			Small	Large	Low	High	Yes	No	Mf.	Ots	>59	Ynger	
	% v. much or relatively very much	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign Sales		
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low	
a) Debt commits cash flows to interest payments and avoids leaving money at the managers' disposal.	9.66	0.64	0.52	0.70	0.67	0.59	0.84	0.57*	0.60	0.78	0.87	0.59	
b) We look for instruments less subject to information asymmetries: 1st secured debt, 2nd unsecured debt, and last, equity.	17.93	0.96	0.93	0.97	1.05	0.83	1.13	0.90	0.81	1.29***	1.38	0.88	
c) We look for instruments less subject to information asymmetries: 1st retained earnings, 2nd debt, and last, equity.	34.14	1.48	1.60	1.42	1.53	1.40	1.52	1.47	1.39	1.76*	1.68	1.44	
d) We avoid issuing equity to maintain corporate control.	12.07	0.73	0.51	0.85**	0.81	0.63	0.72	0.74	0.71	0.82	0.77	0.73	
	% v. much or relatively very much	Mean	CFO tenure		CFO Master		Regulated		Target debt rt.		Foreign Sales		
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low	
e) To maintain control and due to the limited retained earnings, we are lead to high levels of debt.	13.45	0.76	0.54	0.87**	0.83	0.66	0.70	0.79	0.57	1.13***	0.96	0.72	
f) Market volatility and scarce liquidity are the main constraints to financing through equity issuance.	11.72	0.86	0.82	0.88	0.87	0.85	0.84	0.87	0.84	1.00	1.13	0.81	
g) We limit debt so our customers/suppliers are not worried about our firm going out of business.	20.34	1.13	1.26	1.07	1.13	1.13	1.19	1.11	1.22	1.15	1.43	1.07	
h) We restrict our borrowing so that profits are not committed to interest payments.	38.97	1.80	1.68	1.86	1.97	1.56**	1.93	1.76	1.74	2.09**	2.02	1.76	

Table 7 (continued)

i) We restrict debt to have financial flexibility: allowing access to alternatives in the financing of new projects.	5.86	0.48	0.45	0.50	0.53	0.41	0.65	0.43	0.39	0.68**	0.98	0.39***
j) Signaling: if we issue debt our competitors know that we are very unlikely to reduce our output.	8.97	0.36	0.33	0.37	0.46	0.21**	0.35	0.36	0.32	0.46	0.57	0.32
No. of observations		290	95	195	169	121	69	221	161	114	47	243
Panel C. Capital structure: LATAM versus US samples ^{(a)(b)} .												
		USA	LATAM								USA	LATAM
		% very much or relatively very much									% very much or relatively very much	
a) The tax advantage of interest deductibility.		44.11	43.45	a) Debt commits cash flows to interest payments and avoids leaving money at the managers' disposal							1.71	9.66***
b) Potential cost of bankruptcy: e.g. legal costs, low liq. value.		21.35	11.03***									
c) The volatility of our earnings and cash flows.		48.21	40.34**	g) We limit debt so our customers/suppliers are not worried about our firm going out of business							19.03	20.34
d) Our credit rating.		55.56	33.10***									
e) The transaction costs and fees for issuing debt.		32.79	32.41	h) We restrict our borrowing so that profits are not committed to interest payments							12.71	38.97***
g) Internal funds (i.f.): we issue debt when i.f. are not sufficient.		45.26	54.14**									
h) Debt gives investors a better impression of our prospects.		9.78	13.79	i) We restrict debt to have financial flexibility: allowing access to alternatives in the financing of new projects							57.77	5.86***
i) Debt levels of other firms in our industry.		23.46	7.59***									
j) Due to variation in the price of our stock.		15.92	5.86***	j) Signaling: if we issue debt our competitors know that we are very unlikely to reduce our output							2.28	8.97***
k) We issue debt when interest rate (i.r.) are particularly low		44.96	30.69***									
No. of observations ^(c)		~365	~290	# observations							~351	~290

(a) Respondents are asked to rate on a scale of 0–4, going from “little” to “very much”. We report the overall mean as well as the % of respondents that answered “very much or relatively very much” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

importance, the CFOs in our sample appear to be more likely to consider issues related to the principal agent problem (leaving free cash flows at the manager disposal) and signals to other players in their industry (debt as a signal of low probability of reducing future output).²¹

All comparable answers are reported in Table 7 – Panel C.

In sum, capital structure is the topic at which firms in our sample seem to differ the most with respect to the US large firms. Considering the general picture – rather than individual results, it could be inferred that while US CFOs tend to focus on optimizing leverage policy based on an ample set of criteria (combining components linked to the trade-off and pecking order theories, current market conditions, industry patterns and a special emphasis on the convenience of preserving financial flexibility), CFOs in our sample appear to be more subject to market and financial constraints, which seems reasonable, given the potential importance of financial market constraints in the region. Latin American CFOs are more likely to follow a pecking order, relying on internally generated funds, and to focus on avoiding committing volatile cash flows to interest payments. This picture matches with emerging market special features such as higher volatility and generally smaller, less representative, and more unstable markets.²²

5.4. Debt maturity

Regarding the choice between short- and long-term debt, the most popular concern among LATAM CFOs seem to be matching the maturity of debt commitment with the average life of the firm's assets; about 37% of the CFOs say they take this into account always or almost always (and there is no other criteria with a higher score). This score, however, is significantly smaller than the one in the US sample (37 versus about 60%, with a difference significant at the 1% level).

Next, managers consider the adjustment to market conditions as a relevant factor influencing debt maturity; more specifically, managers face market constraints when targeting long-term financing – they mention they take short-term financing given the difficulty for accessing long-term financing. This specific option has not been asked in the US survey.

Finally, managers in our sample try to minimize the risk of having to refinance in bad times. Nevertheless, US managers are significantly more likely to take this factor into account than Latin American managers.

We find all these concerns to be more frequently considered by managers of more sophisticated firms; namely highly levered companies, dividend paying firms, and/or businesses selling a large share to foreign markets.

Results are summarized in Table 8.

5.5. Issuing foreign debt

On average, 70% of the firms in our sample have *not* considered taking foreign debt. This frequency fluctuates by country; however, not clear conclusions can be reached given the differential representation of each country (and its chart of businesses) within the sample. Among those considering issuing foreign debt, firms have more frequently considered taking bank loans (rather than issuing bonds).

The most popular criteria leading firms to take foreign debt appears to be especially linked to market conditions. In particular, we find that 80% of the managers in our sample say that they (either always or almost always) consider taking foreign debt based on the possibility of accessing to better conditions than those prevailing in the local markets. In this respect, a large majority of the CFOs declare to take this decision based on lower interest rates (about 79%) and/or longer terms available (about 74%). The possibility of obtaining a natural hedge (with respect to the exchange rate) or ensuring rollover capacity appears to be of second importance (with mean responses of 2, in both cases).

Comparing samples, we obtain that while US managers are significantly more likely to consider the importance of obtaining a natural hedge (85% versus 49% of always or almost always responses, for the US

²¹ See Jensen (1986) and Myers and Majluf (1984).

²² As mentioned by Graham and Harvey, a higher concern on volatility might lead to a lower debt usage when the probability of bankruptcy is high – all components present in emerging markets that might explain the overall lower leverage ratios prevailing in the region. Also see Castanias (1983).

Table 8
Financing horizon: LATAM versus US samples^{(a)(b)}.

	USA	LATAM
	% always or almost always	
a) We choose ST-debt when ST interest rates are low in relative terms.	34.64	31.72
b) We issue ST when we are waiting for LT market interest rates to decline.	27.50	21.03*
c) Matching the maturity of our debt with the average life of our assets.	60.16	36.55***
d) We borrow ST so that shareholders can capture the return of new projects.	9.35	10.34
e) We borrow ST given the difficulty for accessing to LT debt in the local market.	N/A	
f) We borrow ST if we expect our credit rating to improve.	8.78	12.76
g) We issue LT debt to minimize the risk of having to refinance in bad times.	45.50	30.34***
No. of observations	~358	~290

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

(d) N/A: comparison not available (question missing in one of the samples).

and Latin American samples, respectively) and of keeping the source of funds close to the use of funds (about 63% versus 39% scores, respectively), Latin American managers are significantly more likely to direct to foreign debt markets in search of lower interest rates (79% versus 45% frequent responses, respectively). Once again, these findings uncover certain constraints on the Latin American credit markets.

Surprisingly, when asked about the impact of confronting scarce availability of local credit and/or insufficiently deep credit markets, the CFOs in our sample only assign to them relative importance (compared to the previous items). This could signal that emerging markets credit constraints might be biased toward price and maturity rather than quantity.

Table 9 summarizes the results.

5.6. Issuing equity

More than 80% of the firms in our sample are private firms. This is a significantly larger fraction than the one obtained for the US sample (less than 40% of the firms included in the US survey are private

Table 9
Foreign debt: LATAM versus US samples^{(a)(b)}.

	USA	LATAM
	% always or almost always	
a) Favorable tax treatment.	51.28	42.86
b) Keeping the source of funds close to the use of funds.	62.93	38.96***
c) Providing a natural hedge with respect to exchange rate risk.	85.25	49.35***
d) Lower interest rates.	45.45	79.22***
e) Longer terms available abroad.	N/A	
f) Better conditions than in the local market.	N/A	
g) Scarce availability of local credit.	N/A	
h) Local market is not deep enough.	N/A	
i) Flexibility (rollover capacity).	N/A	
j) Financing from the foreign supplier.	N/A	
k) Financing from international agencies or development banks (infrastructure).	N/A	
No. of observations ^(c)	~368	~290

(a) Respondents are asked to rate on a scale of 0–4, going from “low frequency” to “high frequency”. We report the overall mean as well as the % of respondents that answered “high frequency” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

(d) N/A: comparison not available (question missing in one of the samples).

firms). Furthermore, less than 10% of the respondents have considered issuing stock (compared to a rate of 36% among US managers).

The positive responses leave us with a cluster of only 27 firms that have considered issuing equity. For those, the arguments that more frequently lead them toward that decision are the consideration of stocks as the least risky source of funds (with a mean score of 2.25) and as the best signal to give investors a good impression about the firms' prospects (with a mean score of 2.00); both scores are significantly larger than the comparable estimates for the US sample. It is interesting to notice that even though equity itself is the source of funds subject to the highest level of risk – which should therefore be the most expensive, managers in our sample who look for that source of financing do so in pursue of minimizing risk and avoiding committing to promised payments; likely incentive in more volatile environments. But, curiously, their third motivation for issuing stocks is that they see it as the cheapest source of funds (however, the mean value is of only 1.70). This is something we frequently observe among the small and medium enterprises in our region; the shareholder is satisfied with a modest return, at the time banks request more significant interest charges.

US managers, on the contrary, give more weight to market oriented criteria, such as recent positive stock prices variations or the extent by which they consider the stock to be under or overvalued. US managers consider these criteria either always or almost always in more than 60% of the cases (differences with our sample are significant at the 1% level). In addition, US managers, as we already mentioned,

Table 10

Issuing equity: how do these criteria affect your choice? LATAM versus US samples^{(a)(b)}.

Has your firm considered issuing stocks?	USA	LATAM
	Yes	
	36%***	9%
	USA	LATAM
	% always or almost always	
a) If our stock price has recently risen, we can sell shares at a high price.	62.40	22.22***
b) Issuing stocks is our least risky source of funds.	29.92	55.56**
c) Issuing stocks is our cheapest source of funds.	17.05	33.33
d) Issuing stocks is the only source that matches our horizon of investment needs.	N/A	25.93
e) We issue stocks if our profits have been insufficient to fund our activities.	31.45	22.22
f) Approaching the share of equity that have other firms in the industry.	23.26	0.00***
g) We try to maintain a given target debt-to-equity ratio.	52.24	25.93***
h) We believe issuing stocks gives investors a better impression of our firm's prospects than issuing debt.	22.22	40.74*
i) Opportunity for Earning Per Share dilution.	N/A	14.81
j) Providing liquidity to shareholders that would like to sell their shares.	N/A	25.93
k) Taking into account the amount by which our stock is under or overvalued.	63.64	14.81***
l) Due to the inability to obtain funds using debt or other sources of funds.	17.97	22.22
No. of observations	~133	~27

(a) Respondents are asked to rate on a scale of 0–4, going from “little” to “very much”. We report the overall mean as well as the % of respondents that answered “very much or relatively very much” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

(c) The number of observations varies slightly from question to question.

(d) N/A: comparison not available (question missing in one of the samples).

take more frequent decisions based on their own target debt-to-equity ratios and/or on the capital structure of other firms in their industry (again, differences with our sample are significant at the 1% level).

Finally, it is interesting to notice that there are some particular differences depending on CFOs' age and firms' share of exports. Younger CFOs are more likely to consider issuing stocks because they perceive their firms to be subject to credit constraints (their mean response is however low in absolute terms: 1.08 versus a 0.00 mean obtained for mature CFOs; significant at the 1% level). On the contrary, mature CFOs are significantly more likely to be motivated to issue stock for considering it the least risky source of funds (with a mean response of 3.33). These patterns also appear among firms with higher share of exports, which are significantly more likely to follow the market (and issue stocks if the stock price has recently risen; with mean value of 2.50), and to consider issuing stock as the least risky source of funds.

The complete set of results is reported in [Table 10](#).

5.7. Reasons why firms stay private

Given that, as it is well known, there is only a limited portion of public firms in Latin America, we decided to close our survey by asking the reasons for staying private. There were three most important motives: first, firms deciding to stay private as and strategic decision. In itself, this answer is not very informative, because one does not get to see anything behind the particular strategy. About 52% of CFOs responded they consider this criterion either always or almost always (without significant differences across control variables). The second and third most popular criteria were: control reasons and small size (50% and 48% of either always or almost always consideration, respectively). The size argument (i.e. we do not issue stocks because we are a small firm) is particularly important in the case of non-manufacturing firms (with a mean response of 2.32, versus a 1.47 mean value within the manufacturing pool; difference significant at the 1% level), and by younger and short tenure CFOs. It was also significant in the case of non-regulated firms, and in the cases in which managers do not set target debt-to-equity ratios. The *control* argument supports the findings of [Céspedes et al. \(2010\)](#). They find that at high level of ownership concentration (particularly prevalent among our sample) companies do not seek equity financing to avoid losing control. Interestingly, this goal, (i.e. we do not issue stocks because of control reasons) was significantly more frequent among firms that do set target debt-to-equity ratios.

Even though the inefficiencies of the local markets do not appear as a regular claim (the mean response is less than 1), there is a relatively higher concern on this topic among dividend paying and non-manufacturing firms, and among CFOs of short tenure.

As expected, the family business argument is significantly more likely to appear among small firms. Results are summarized in [Table 11](#).

6. Conclusions

This paper presents the results of a survey to 290 Latin American firms. We analyze three main topics related to the practice of corporate finance; capital budgeting, cost of capital and capital structure. Despite differences in sample composition, the results are analyzed not only for the Latin American sample as a whole, across differential firm characteristics, but also in comparison with the US sample results obtained in [Graham and Harvey \(2001\)](#). The analysis is interesting and intuitive, and is extended to more comparable groups (both US small and medium firms, and broader emerging market companies), by making references to previous findings. Even though we observe several decision-making patterns that resemble those prevalent among US large firms, we also identify choices that differ substantially from what theory suggests and from what US large firms do. Most of these choices are reasonably explained by both/either small and medium firm characteristics and/or special features characterizing emerging markets as a whole.

Regarding capital budgeting, we find that Latin American firms – similar to US firms – use NPV and IRR as the main tools for analyzing investments; yet, our survey suggests that firms in emerging markets tend to make a more extensive use of Payback and the Profitability Index than their US counterparties. The extensive use of these tools seems to be aligned with the particular instability and market development of Latin American countries and to the specific choices among small and medium firms – even those located in the US market.

Table 11If your firm is not quoted, which are the main reasons behind that choice?^{(a)(b)}.

	% v. much or relatively very much	Mean	Size		Leverage		Pay dividends		Industry		CFO age	
			Small	Large	Low	High	Yes	No	Manuf.	Others	> 59	Ynger
a) It is a strategic decision.	51.71	2.12	2.10	2.41	1.93	2.26	2.25	1.97	2.38	2.03	2.24	2.11
b) Going public is costly.	11.11	0.65	0.67	0.41	0.51	0.74	0.73	0.54	0.62	0.65	0.43	0.69
c) Because of control reasons.	50.00	1.99	1.99	2.00	1.69	2.19	2.05	1.91	2.01	1.98	2.30	1.93
d) Because we are a small firm.	48.29	2.08	2.22	0.73***	2.09	2.07	2.00	2.16	1.47	2.32***	1.51	2.18**
e) Due to the inefficiency of the local market.	16.24	0.84	0.84	0.86	0.83	0.85	1.00	0.64**	0.59	0.94**	0.76	0.86
f) Because we want to stay away from capital markets' volatility.	10.26	0.55	0.54	0.64	0.48	0.60	0.56	0.54	0.41	0.61	0.54	0.55
g) Because we are a family business.	20.94	1.71	1.79	0.91**	1.74	1.69	1.61	1.83	1.79	1.68	1.49	1.75
h) To avoid information disclosure.	5.98	1.00	1.01	0.86	0.97	1.02	1.03	0.95	0.89	1.04	0.95	1.01
No. of observations		234	212	22	94	140	130	104	66	168	37	197
	% v. much or relatively very much	Mean	CFO tenure		CFO master		Regulated		Target debt rt.		Foreign sales	
			Long	Short	Yes	No	Yes	No	No	Yes	High	Low
a) It is a strategic decision.	51.71	2.12	2.21	2.09	2.08	2.20	2.02	2.16	1.99	2.47	2.39	2.09
b) Going public is costly.	11.11	0.65	0.51	0.71	0.62	0.68	0.68	0.64	0.54	0.85*	0.67	0.64
c) Because of control reasons.	50.00	1.99	1.84	2.06	1.92	2.10	2.15	1.94	1.81	2.38**	1.95	2.00
d) Because we are a small firm.	48.29	2.08	1.77	2.22*	1.98	2.22	1.38	2.28***	2.30	1.82**	1.85	2.11
e) Due to the inefficiency of the local market.	16.24	0.84	0.48	1.01***	0.88	0.79	0.77	0.86	0.71	1.09**	0.85	0.84
f) Because we want to stay away from capital markets' volatility.	10.26	0.55	0.39	0.63	0.49	0.64	0.64	0.52	0.45	0.73*	0.67	0.53
g) Because we are a family business.	20.94	1.71	1.57	1.77	1.67	1.77	1.00	1.92***	1.70	1.72	1.82	1.69
h) To avoid information disclosure.	5.98	1.00	1.09	0.96	0.96	1.05	1.04	0.99	0.93	1.09	0.82	1.03
No. of observations		234	75	159	140	94	53	181	138	89	33	201

(a) Respondents are asked to rate on a scale of 0–4, going from “little” to “very much”. We report the overall mean as well as the % of respondents that answered “very much or relatively very much” (3 or 4).

(b) ***, ** and * denote a significant difference at the 1%, 5% and 10% levels, respectively. All table columns are defined in Table 2.

The main differences in the financial management of firms in our sample are found in the estimation of the cost of capital and capital structure decisions. We find that fewer firms estimate the cost of capital (relative to the US sample); when firms pursue a cost of capital estimation, they seem to rely primarily on what shareholders actually seek as an expected return. This behavior is consistent with the existence of smaller number of shareholders and arm's length transactions between the management and the shareholders. Additionally, we find that the (smaller number of) firms that try to use CAPM tend to have problems in adapting it to the local environment.

We report that Latin American small and medium firms lean toward lower leverage ratios, shorter debt maturity, and less use of target debt-equity ratios. They additionally tend to favor internally generated funds, and do not seem to put comparable weight on most of the aspects that theory suggests that should shape the capital structure choice. It is interesting that some even argue that cost of equity is cheaper and less risky than cost of debt (since they avoid getting trapped on pre-defined promised payments).

In sum these results suggest that some aspects of the financial theory seem to be frequently adapted when taking decisions in emerging markets and, most particularly, among the subset of small and medium firms. More sophisticated firms (in terms of size, dividend policy, age and qualification of CFOs, share of foreign sales, etc.) select corporate choices most coincident with those prevalent among US large firms. But differences intensify for the rest of the sample. For these cases, we provide several potential intuitions between corporate practice and local market conditions.

It would be interesting to continue this line of research by running a more direct comparison between small and medium businesses practices in developed and developing countries, and how they correlated to differential market conditions. Nevertheless, data would be a great challenge for pursuing this task.

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References

- Beim, D.O., Calomiris, C.W., 2001. *Emerging Financial Markets*. The McGraw-Hill Companies, Inc., New York.
- Bekaert, G., Harvey, C., 1995. Time varying world market integration. *Journal of Finance* 50, 403–444.
- Berger, N.A., Udell, F.G., 1998. The economics of small business finance: the roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance* 22 (6–8), 613–673.
- Booth, L., Aivazian, V., Demirguc-Kunt, A., Maksimovic, V., 2001. Capital structure in developing countries. *Journal of Finance* 56, 87–130.
- Braun, M., Larrain, B., 2009. Do IPOs affect the prices of other stocks? Evidence from emerging markets. *The Review of Financial Studies* 22 (4), 1505–1544.
- Bruner, R.F., Conroy, R.M., Li, W., O'Halloran, E.F., Palacios Lleras, M., 2003. *Investing in Emerging Markets*. The Research Foundation of AIMR, Virginia.
- Bruner, R.F., Li, W., Kritzman, M., Myrgren, S., Page, S., 2008. *Emerging Market Review* 9, 89–103.
- Castanias, R., 1983. Bankruptcy risk and optimal capital structure. *Journal of Finance* 38, 1617–1635.
- Céspedes, J., González, M., Molina, C.A., 2010. Ownership and capital structure in Latin America. *Journal of Business Research* 63, 248–254.
- Chen, N., Roll, R., Ross, S.A., 1986. Economic forces and the stock market. *Journal of Business* 59, 383–403.
- Chong, A., López-de-Silanes, F., 2007. *Corporate governance in Latin America*. Inter-American Development Bank. Working Paper No 591.
- Cole, R.A., 2011. What do we know about the capital structure of privately held U.S. firms? Evidence from the Surveys of Small Business Finance, Working Paper.
- Danielson, M.G., Scott, J.A., 2006. The capital budgeting decisions of small businesses. *Journal of Applied Finance* 45–56 Fall/Winter.
- De la Torre, A., Schmukler, S.L., 2006. *Emerging Capital Markets and Globalization: The Latin American Experience*. World Bank and Stanford University Press, pp. 62–67.
- Desai, M.A., Foley, C.F., Forbes, K.J., 2008. Financial constraints and growth: multinational and local firm responses to currency depreciations. *Review of Financial Studies* 21, 2857–2888.
- Espinosa, C. and Maquieira C., 2010. Investment-cash flows sensitivities in South America: empirical evidence for Chile. Unpublished Working Paper. Universidad Diego Portales and Universidad Santo Tomás, Santiago, Chile.
- Espinosa, C., Maquieira C., and Vieito J.P., 2010. Capital structures in developing countries: the Latin American case, Unpublished Working Paper.

- Fama, E.F., French, K.R., 1992. The cross-section of expected stock returns. *Journal of Finance* 47, 427–465.
- Ferson, W.E., Harvey, C.R., 1991. Sources of predictability in portfolio returns. *Financial Analysts Journal* 47, 49–56.
- Garcia-Sanchez, J., Preve, L.A., Sarria-Allende, V., 2010. Valuation in emerging markets: a simulation approach. *Journal of Applied Corporate Finance* 22, 100–108.
- Glen, J., Singh, A., 2004. Comparing capital structures and rates of return in developed and emerging markets. *Emerging Markets Review* 5, 161–192.
- Godfrey, S., Espinosa, R., 1996. A practical approach to calculating costs of equity for investments in emerging markets. *Journal of Applied Corporate Finance* 9, 80–90.
- Graham, J.R., Harvey, C.R., 2001. The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics* 60, 187–243.
- Grandes, M., Panigo, D.T., Pasquini, R.A., 2010. On the estimation of the cost of equity in Latin America. *Emerging Markets Review* 11, 373–389.
- Harvey, Campbell, 1995. Predictable risk and returns in emerging markets. *Review of Financial Studies* 8, 773–816.
- Hooke, J.C., 2001. *Emerging Markets: A Practical Guide for Corporations, Lenders, and Investors*. John Wiley & Sons, Inc., New York.
- Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review* 76, 323.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1997. Legal determinants of external finance. *Journal of Finance* 52, 1131–1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1998. Law and finance. *Journal of Political Economy* 106, 1113–1155.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2000. Agency problems and dividend policies around the world. *Journal of Finance* 55, 1–33.
- Love, I., Preve, L.A., Sarria-Allende, V., 2007. Trade credit and bank credit: evidence from recent financial crises. *Journal of Financial Economics* 83, 453–469.
- Madhani, P.M., 2008. RO based capital budgeting: a dynamic approach in new economy. *The ICFAI Journal of Applied Finance* 14 (11), 48–68.
- Miller, M., 1977. Debt and taxes. *Journal of Finance* 32, 261–276.
- Modigliani, F., Miller, M.H., 1963. Corporate income taxes and the cost of capital: a correction. *The American Economic Review* 53, 433.
- Moore, J.S., Reichert, A.K., 1983. An analysis of the financial management techniques currently employed by large U.S. corporations. *Journal of Business Finance & Accounting* 10, 623–645.
- Myers, S.C., Majluf, N.S., 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13, 187–221.
- Osteryoung, J., Constand, R.L., Nast, D., 1992. Financial ratios in large public and small private firms. *Journal of Small Business Management* 30, 35–46.
- Pereiro, L.E., 2002. *Valuation of Companies in Emerging Markets: A Practical Approach*. John Wiley & Sons, New York.
- Qi, H., 2010. Valuation methodologies and emerging markets. *Journal of Business Valuation and Economic Loss Analysis* 5, 18.
- Sabal, J., 2002. *Financial Decisions in Emerging Markets*. Oxford University Press, New York.
- Titman, S., Wessels, R., 1988. The determinants of capital structure choice. *Journal of Finance* 43, 1–19.
- Van Auken, H., Holman, T., 1995. Financial strategies of small, public firms: a comparative analysis with small, private firms and large, public firms. *Entrepreneurship: Theory and Practice* 29–41.