

Alegre, María; Pernice, Sergio; Streb, Jorge M.

Working Paper

Determinants of the development of corporate bond markets in Argentina: Survey to firms and investors

Serie Documentos de Trabajo, No. 345

Provided in Cooperation with:

University of CEMA, Buenos Aires

Suggested Citation: Alegre, María; Pernice, Sergio; Streb, Jorge M. (2007) : Determinants of the development of corporate bond markets in Argentina: Survey to firms and investors, Serie Documentos de Trabajo, No. 345, Universidad del Centro de Estudios Macroeconómicos de Argentina (UCEMA), Buenos Aires

This Version is available at:

<https://hdl.handle.net/10419/84415>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

UNIVERSIDAD DEL CEMA
Buenos Aires
Argentina

Serie
DOCUMENTOS DE TRABAJO

Área: Economía y Finanzas

**DETERMINANTS OF THE DEVELOPMENT OF
CORPORATE BOND MARKETS IN ARGENTINA:
SURVEY TO FIRMS AND INVESTORS**

María Alegre, Sergio Pernice and Jorge M. Streb

Abril 2007
Nro. 345

www.cema.edu.ar/publicaciones/doc_trabajo.html
UCEMA: Av. Córdoba 374, C1054AAP Buenos Aires, Argentina,
tel. 54-11-6314-3000, fax 54-11-4314-1654

Determinants of the development of corporate bond markets in Argentina: Survey to firms and investors

María Alegre, Sergio Pernice and Jorge M. Streb*

Universidad del CEMA

April 2007

Abstract: Conventional theory leads to expect bonds to be a financing vehicle for large firms because of economies of scale and contracting costs. In this paper we present the results for Argentina of a survey of firms and of investors on the use of corporate bonds. The result of these surveys supports the idea that for Argentine firms, bonds are a financing vehicle of choice only for firms above a certain (large) size. This is independent of the criteria used for firm size. This result is similar to results in other countries such as the United States.

JEL classification codes: G3, E6

Key words: debt structure, leverage, short-term debt, corporate bonds, firm size, firm value

I. Introduction

In this paper we present the results and methodology of a survey run during 2005-2006 to both firms (the issuers, or sell side) and investors (the buy side) about the use of corporate bonds as a form of financing for Argentine firms. This is part of a larger study supported and directed by the IADB Research Network called “The Development of Latin-American Bond Markets”. The same survey was run in Brazil, Chile, Colombia, Mexico and Uruguay by researchers of these countries. The objective of the survey (and of the rest of the study) was to further our knowledge of the state and development of the main non-bank credit vehicle, the bond market, in Latin America and try to determine the causes behind the current state of development of the market.

* This research was supported by a grant from the IADB Research Network as part of a project on the development of Latin American bond markets. The team that directed this general study was composed by: Eduardo Borensztein (IADB), Kevin Cowan (Banco Central Chile), Barry Eichengreen (University of California, Berkeley) & Ugo Panizza (IADB). We would like to thank the research assistance of Maria Eugenia Cobanera. Data and cooperation from the following institutions was invaluable to complete this study: Economática, Guía Senior, Reuters and Standard & Poor’s. Our views are personal and do not necessarily represent the views of Universidad del CEMA.

Latin American corporate bond markets are very small as a percentage of GDP when compared with other regions of the world. As Table 1 shows, while the Latin American average size of the corporate bond market is 7% of GDP, the East Asian average is 32% and the high income countries average is 40%.

Table 1. Domestic bond markets in different regions of the world (in %)

Country	Share of GDP (1)	Share of total private debt (2)	Share of financial system (3)
Argentina	4.8	19	5
Brazil	9.6	26	13
Chile	22.8	27	14
Colombia	0.2	1	1
Mexico	2.5	15	7
Peru	4.3	15	9
Latin American average	7.0	17	8
East Asia average	32.0	22	13
United States	109.0	72	38
High income average	40.0	27	18

Sources: BIS, IFS. Private domestic debt is the sum of private domestic bonds and domestic bank credit to the private sector. The total financial system is equal to total private domestic credit plus stock market capitalization. All averages are computed as simple averages. The data is taken from Table 1 of the IDB *Call for Research Proposals* for this project, March 24, 2005.

This survey intends to inquire into the reasons why firms do not choose bonds as a form of financing in Argentina and what drives the appetite of investors for these instruments. The answers we found proved to be very useful in guiding our further investigation (presented in other papers) into the ultimate reasons behind the small size of the corporate bond market in Argentina and the rest of Latin America.

The rest of the paper is organized as follows: Section II is devoted to the survey of firms; in Subsection A we present the methodology, in Subsection B we present the results, and in Subsection C we analyze the incidence of size in the responses. Section III is devoted to the survey of investors; in Subsection A we present the methodology and in Subsection B we present the results. Finally, in Section IV we conclude. Also, in Appendix A we show the survey we sent to firms and in Appendix B the survey we sent to investors.

II. Survey of Firms (Sell side)

A. Sampling Procedure and Response Rates

In Appendix A we present the survey to firms in English. The actual survey was sent in Spanish, adapted to the local language of each country.

Once the whole team of IADB and the rest of Latin American researchers agreed on the final form of the survey, the first step we undertook for our survey of the sell side was to design a sample for the data collection. For this, we obtained an updated copy of *Guía Senior*, a commercial guide produced by the company of the same name, which includes information regarding 17,000 Argentinean companies and it is updated three times a year (see <http://www.guiasenor.com>). The guide includes, among other things, the company name, main industry, number of employees and annual revenues.

We also checked the criteria used by INDEC in its annual survey of large companies (see section “Grandes Empresas” in <http://www.indec.mecon.ar>), where the sample composition by industry is available over the 1993-2002 period.

From the full list of companies included in the *Guía Senior*, we selected those that have more than 200 employees. We also added those firms that have over \$150M Argentinean pesos in annual revenue, and either had less than 200 employees or the number of employees was unknown. We were left with a list of 769 companies with characteristics that closely matched the INDEC sample for 2002. From this preliminary list, we randomly selected companies from each of these Principal Activities so that we ended up with a sample of 250 companies that was stratified as to closely match the sector composition of the INDEC sample (see Tables 2 and 3 below).

Firms in our sample tend to be somewhat larger than INDEC firms in terms of both number of employees and annual revenue. However, this is at least in part a systematic measurement error, given that the *Guía Senior* tends to have missing data (either revenue or number of employees) only for the smallest firms in the group. Thus, these data points are excluded in the calculation of average values.

Table 2. Large firms in Argentina by INDEC: Characteristics, year 2002

Principal Activity	N	%	Employees		Value of production (2)	
			Total	Average by firm	Total	Average by firm
Total	500		506,434	1013	166,081.7	332
Mining	27	5.4	12,799	474	22,647.7	839
Manufacturing	313	62.6	216,114	690	105,700.9	338
- Food, Beverages & Tobacco	114	22.8	96,994	851	41,054.2	360
- Oil, Chemicals & Plastic	89	17.8	45,720	514	38,903.6	437
- Machinery, Equipment & Vehicles	37	7.4	21,221	574	8,259.5	223
- Other Manufacturing	73	14.6	52,179	715	17,483.6	240
Electricity, Gas & Water	45	9.0	31,255	695	9,304.5	207
Communications	15	3.0	52,614	3508	10,282.2	685
Other Industries (1)	100	20.0	193,652	1937	18,146.4	181

Source: INDEC, National Survey of Large Firms. (1) Includes Construction, Retail, Transport and Other Services. (2) Millions of pesos in constant purchasing power adjusted to 2002 average.

Table 3. Large firms in Argentina: INDEC 2002 sample vs. our base and sample

Principal Activity	INDEC				OUR BASE				OUR SAMPLE			
	N	% of total	Em- ployees	Value of Production (2)	N	% of total	Em- ployees	Annual Revenue	N	% of total	Em- ployees	Annual Revenue
Total	500	100	1013	332	769	100	1025	358	250	100	1167	485
Mining	27	5	474	839	16	2	464	365	12	5	502	280
Manufacturing	313	63	690	338	394	51	761	383	153	61	963	564
-Food, Beverages & Tobacco	114	23	851	360	118	15	1051	439	56	22	1240	519
- Oil, Chemicals & Plastic	89	18	514	437	120	16	580	489	45	18	799	854
- Machinery, Equipment & Vehicles	37	7	574	223	33	4	963	442	17	7	1003	384
- Other Manufacturing	73	15	715	240	123	16	616	211	35	14	711	352
Electricity, Gas & Water	45	9	695	207	39	5	758	283	23	9	966	312
Communications	15	3	3508	685	22	3	2931	684	13	5	1777	437
Other Industries (1)	100	20	1937	181	298	39	1380	347	49	20	1899	370

Notes: (1) Includes Construction, Retail, Transport and Other Services. (2) From INDEC. In millions of pesos in constant purchasing power adjusted to 2002 average.

Beginning the first week of September of 2005, we have personally contacted the CFO or equivalent in these 250 firms. In order to locate the CFO's personal information, we relied on two sources. First, we used *Guía VIP*, a second commercial guide published by Comunicaciones Públicas S.A., which includes contact information for all high-ranking executives in large Argentinean firms. Second, we relied on our network of UCEMA graduates working within those firms (UCEMA has nearly 4.000 graduates at the present time, most of them working in leading companies, which means we have one or more of them within most large firms operating in the country).

In all, 230 of these CFOs have been personally contacted three or more times. We initiated contact with a one-on-one telephone communication in which the survey

and the research project in which it is embedded were presented to the CFOs. We followed the initial phone call by sending the survey either by e-mail or by fax, according to each person's preference. In a second personal phone call, we made sure the survey had been received and opened, and we surveyed willingness to answer. Additionally, we sent two additional reminders by e-mail, and we made at least one additional phone call to review progress and explore reasons for delays in answers.

We have collected 56 answered surveys. This reflects the obvious fact that CFOs from large firms are very difficult to reach and very busy, which means that establishing contact is a very demanding task, and obtaining answers from them requires a very large dose of patience.

The other companies in our original sample have refused to participate. The most frequent reasons for refusal have been: (1) That it is against the company policy to answer surveys (25%); (2) Lack of interest (24%); (3) Unwillingness to disclose what it is perceived to be confidential information (24%); (4) Questionnaire is too long (17%).

B. Results

Most of the 56 firms for which we obtained answers had over 50% of ownership in the hand of foreigners (61%). An additional 36% did not have foreign owners, and the remaining 3% had foreign ownership below 49%. Of the 36 firms with more than 20% foreign ownership were of American (36%), European (31%) and Latin American (22%) origin. Additionally, there was one firm from China and one from Canada.

There was a good distribution of firms by sector as represented by CIIU codes:

Table 4. Distribution of firms by sector as represented by CIIU codes

CIIU	N	%	CIIU	N	%	CIIU	N	%	CIIU	N	%
A0	3	5	D21	1	2	D29	2	4	G5	1	2
C0	1	2	D22	1	2	D31	2	4	I0	1	2
C1	1	2	D23	5	9	D34	2	4	I6	6	11
D00	1	2	D24	6	11	E4	2	4	K7	3	5
D15	10	18	D25	1	2	F0	1	2	O9	3	5
D16	1	2	D26	1	2	G0	1	2			

In addition their distribution in terms of principal activity closely matched the distribution of the original sample:

Table 5. Distribution by industry of responses obtained

Principal Activity	Responses Obtained		Original Sample
	N	%	%
Total	56	100	100
Mining	2	4	5
Manufacturing	34	61	61
- Food, Beverages & Tobacco	11	20	22
- Oil, Chemicals & Plastic	12	21	18
- Machinery, Equipment & Vehicles	6	11	7
- Other Manufacturing	5	9	14
Electricity, Gas & Water	2	4	9
Communications	3	5	5
Other Industries (1)	15	27	20

Notes: (1) Includes Construction, Retail, Transport and Other Services.

The firms that responded to the survey tended to be very large. They had an average of 1.964 employees and \$1.745 millions of pesos in annual revenue. On average, 27% of revenue came from exports. Yet, only 14% of them had circulating corporate bonds, 9% of them had issued bonds in 2002-2004, and 22% were either planning to issue bonds in 2005-2006 or were uncertain about it. Overall, 25% of firms reported any recent experience with corporate bonds and/or were planning to issue them or were at least uncertain about it for the near future. The remaining 75% were completely out of the corporate bonds market at the time.

The nine companies with recent experience in the bond market (16% of the sample) were significantly larger than those without such experience, both in terms of number of employees and in terms of annual revenue (both t-tests are significant, $p < .05$). All but one of the firms that have issued bonds had more than 1.500 employees and annual revenues of over \$350 million. In contrast, among those 47 firms without recent experience issuing corporate bonds, 79% had less than 1.500 employees (38% had less than 300), and 68% had less than \$350 million in annual revenue.

Sixteen firms reported having issued bonds at some point but having stopped doing so since then. Asked to describe the reasons why they have stopped issuing bonds, the leading reasons indicated by those firms that have stopped are: high issuing costs (25%); low demand (13%); and issuing requirements (19%).

With regard to bank loans in Argentina, 55 respondents gave opinions regarding factors that affect their willingness to use such instruments and only one declined to answer. Respondents identified the following problems:

Table 6. Factors identified as problems for local loan financing

Factor	%
Collateral requirements	33
Bank monitoring of firm's operations	11
Perception that banks are not lending much	50
Slow process of loan approval and disbursement	37
Other [please specify]	26

In the “Other” category, the most frequent reason mentioned was the availability of internal financing from corporate headquarters in more convenient terms.

Asked about problems for financing operations with foreign bank loans, 27% of the sample declined to answer due to lack of experience or relevance for their businesses. The remaining 73% (41 firms) identified the following problems:

Table 7. Factors identified as problems for foreign loan financing

Factors	%
Collateral requirements	34
Bank monitoring of firm's operations	10
Perception that banks are not lending much	39
Slow process of loan approval and disbursement	24
Other [please specify]	24

The “Other” category includes the same firms making once again reference to the fact that they have access to internal financing from corporate headquarters in more convenient terms.

When asked about factors that might be a problem for financing operations using local corporate bonds, 19 firms (34%) declined to answer and marked the issue as not relevant for their business. From the 37 firms that did provide answers, only 7 had recent experience with bonds, and 11 planned to issue bond in 2005-2006. Of these 11, 5 firms have had no recent experience with bonds. Respondents identified the following problems:

Table 8. Factors identified as problems for domestic bond financing

Factors	%
Underwriters' fees	30
Credit rating agencies' fees	24
Disclosure requirements	46
Minimum issue requirements	27
Other regulatory requirements	24
The market is very small	51
There is no junk bond market	30
Other [please specify]	14

As the following table shows however, perceptions regarding factors that represent problems for issuing domestic bonds were very different among those firms with experience in the area vs. those that did not have such experience:

Table 9. Problems for domestic bond financing according to experience

Problems	All (%)	With experience (%)	Without experience (%)
Underwriters' fees	30	29	30
Credit rating agencies' fees	24	0	30
Disclosure requirements	46	14	53
Minimum issue requirements	27	0	33
Other regulatory requirements	24	14	27
The market is very small	51	71	47
There is no junk bond market	30	0	37
Other [please specify]	14	14	13

When asked about factors that might be a problem for financing operations using foreign corporate bonds, 27 firms (48%) declined to answer and marked the issue as not

relevant for their business. From the 29 firms that did provide answers, 6 had recent experience with bonds, and 9 planned to issue bonds in 2005-2006. Once again, responses were different if we compare firms with and without experience in the bond market:

Table 10. Problems for foreign bond financing according to experience

Problems	All (%)	With experience (%)	Without experience (%)
Underwriters' fees	34	14	39
Credit rating agencies' fees	31	14	35
Disclosure requirements	48	29	52
Minimum issue requirements	34	29	35
Other regulatory requirements	28	14	30
The market is very small	24	14	26
There is no junk bond market	24	0	30
Other [please specify]	14	14	13

If we compare the last two tables it becomes clear that experienced players see large differences between the local and foreign bond markets while inexperienced players do not seem to draw major distinctions between the two.

Question six asked respondents to evaluate side-by-side factors that might be a problem in terms of financing operations domestically, with domestic loans and domestic bonds. The following table provides a summary of results:

Table 11. Problems for domestic financing

Problems	With loans (%)	With bonds (%)
Speed of access to required financing	25	62
Maturity of financing	55	50
Interest rate	57	46
Minimum amount required for loans or issuance	11	27
Guarantee requirement	28	38
Information requirement	19	38
Other [please specify]	6	8

It is important to note that while all but 3 of the respondents provided answers for domestic loans, 30 of them indicated bonds as not relevant for their business. In

other words, only 26 firms (46%) provided answers for bonds. From these, 7 had experience issuing bonds while the remaining 19 did not. As the following table shows, firms with and without experience in the bond market had somewhat different perspectives regarding problems associated with both types of instruments:

Table 12. Problems for domestic financing according to experience

Problems	With loans		With bonds	
	With experience (%)	Without experience (%)	With experience (%)	Without experience (%)
Speed of access to required financing	13	27	43	68
Maturity of financing	75	51	57	47
Interest rate	63	56	57	42
Minimum amount required for loans or issuance	0	13	14	32
Guarantee requirement	25	29	29	42
Information requirement	13	20	29	42
Other [please specify]	13	4	14	5

Question 7 asked respondents to rank-order 5 different credit forms in terms of relative advantage regarding 9 different credit attributes, using a 1-5 scale where 1 is the best alternative and 5 is the worst. In the following table the first number of each cell reflects average rankings for the corresponding item, and the second number reflects the number of either non-responders or responses with “9” (does not apply/ does not know):

Table 13. Relative advantage of different forms of credit

	Domestic Loans	Domestic Bonds	Foreign Loans	Foreign Bonds	Suppliers' Credit
Interest rate cost	3.1 / 8	3.3 / 27	2.6 / 17	2.8 / 29	2.1 / 17
Availability of local currency lending	1.9 / 7	2.3 / 28	3.6 / 31	4.3 / 39	2.1 / 19
Available indexation alternatives (CPI, others)	2.7 / 22	2.4 / 36	3.2 / 38	3.3 / 44	2.4 / 29
Availability of long term lending	3.4 / 8	2.5 / 27	2.0 / 20	1.8 / 30	3.9 / 24
Non interest rate costs (*)	2.5 / 8	3.2 / 27	2.8 / 19	4.2 / 30	1.9 / 24
Tax treatment	2.2 / 17	2.6 / 31	3.6 / 29	3.4 / 35	1.8 / 33
Possibility of renegotiation	2.0 / 7	3.5 / 27	2.9 / 18	4.5 / 30	1.7 / 21
Costs related to disclosure requirements	1.9 / 9	3.4 / 27	2.8 / 21	4.3 / 30	1.4 / 25
Size of potential market relative to needs	2.6 / 10	3.2 / 27	2.3 / 21	2.5 / 30	3.0 / 27

As we can see (from the number of non-responders and responses with 9) of the 56 firms that responded the survey, a large proportion of them did not consider

Domestic Bonds, Foreign Loans, and Foreign Bonds as relevant for their business. The following table presents the preferences in financing alternatives for each item. The order is from the preferred to the least desirable form of credit:

Table 14. Preferences of different forms of credit

Interest rate cost	Availability of local currency lending	Available indexation alternatives (CPI, others)	Availability of long term lending	Non interest rate costs (*)	Tax treatment	Possibility of renegotiation	Costs related to disclosure requirements	Size of potential market relative to needs
Suppliers' Credit	Domestic Loans	Suppliers' Credit	Foreign Bonds	Suppliers' Credit	Suppliers' Credit	Suppliers' Credit	Suppliers' Credit	Foreign Loans
Foreign Loans	Suppliers' Credit	Domestic Bonds	Foreign Loans	Domestic Loans	Domestic Loans	Domestic Loans	Domestic Loans	Foreign Bonds
Foreign Bonds	Domestic Bonds	Domestic Loans	Domestic Bonds	Foreign Loans	Domestic Bonds	Foreign Loans	Foreign Loans	Domestic Loans
Domestic Loans	Foreign Loans	Foreign Loans	Domestic Loans	Domestic Bonds	Foreign Bonds	Domestic Bonds	Domestic Bonds	Suppliers' Credit
Domestic Bonds	Foreign Bonds	Foreign Bonds	Suppliers' Credit	Foreign Bonds	Foreign Loans	Foreign Bonds	Foreign Bonds	Domestic Bonds

We can see a high degree of discrimination in the responses, for example, while Suppliers Credit is the preferred form of credit for most items, it ranks last in “Availability of long term lending”.

Finally, only 16% of respondents report using derivative instruments.

C. The incidence of size

As we show in Fernández, Pernice and Streb (2007), our econometric results show that the size of firms is a key determinant of the use of bonds. So it is important to see if the result of our survey is consistent with this hypothesis. In this section we analyze the impact of size in the responses to the questions of the firms survey. For the purpose of this analysis, and taking into account the sample of our survey, we will call big firms to those that have assets larger than 600 million Argentinean pesos (about USD 200 million) and small firms to those that have assets smaller than 600 million Argentinean pesos. Four firms did not respond for assets size and we were not able to find out, so the number of big firms is 18 and of small firms is 34 (52 total).

Question 3

Table 15. Experience with bonds by size (in %)

	Y	Y Big	Y Small
Bonds Now	15	39	3
Bonds Past	10	22	3
Bonds Future	24	47	12
Experience	17	44	3

17% of firms in our sample have recent experience in the bond market. Of these, all but one are big firms and the only small firm is not Argentinean. This represents 44% of big firms and only 3% of small firms. So experience in bond markets and size correlate strongly.

As regard to question 3.c (whether the company plans to issue bonds during 2005-2006) 47% of big companies plan to do so while only 12% of small companies answered yes.

Question 4

Respondents are asked whether the following factors are a problem for financing through a) Banks in Argentina, b) Banks abroad. The factors are:

Requirement of collateral: Regarding the financing through banks in Argentina, on average 32% of firms found this to be a problem. When divided by size, while for 18% of the big companies this is a problem, 39% of the small ones find this factor to represent a problem.

Regarding the financing through banks abroad, the results were not significantly different than before for those firms that answered this question. On average 30% of firms found this to be a problem, but when divided by size, while for only 20% of the big companies this is a problem, 36% of the small ones find this factor to represent a problem.

There are only 2 non-responders of the question about financing through banks in Argentina, one big and one small firm. For banks abroad however, 15 companies did not respond, 3 of them big ones and the other 12 small ones (35% of small firms).

Adding the firms that find the requirement of collateral by foreign banks a problem plus those who did not respond (which presumably did so because they are not even considering financing through foreign banks), we end up with a 59% of small firms.

Requirement of collateral is definitely a bigger problem for small firms than for big ones, as it should be obvious intuitively. But while it seems not to be deadly for small firms financing themselves through Argentinean banks, financing through banks abroad seems to be very unusual for small companies.

Table 16. Problems for financing through banks in Argentina and abroad by size (in %)

Question 4	Y	Y Big	Y Small	NR	NR Big	NR Small	Y+NR	Y+NR Big	Y+NR Small
Argentinean									
Collateral	32	18	39	4	6	3	35	22	41
Monitoring	10	12	9	4	6	3	13	17	12
Limited availability	46	47	45	4	6	3	48	50	47
Slow approval	36	18	45	4	6	3	38	22	47
Other	24	24	24	4	6	3	27	28	26
Abroad									
Collateral	30	20	36	29	17	35	50	33	59
Monitoring	8	13	5	29	17	35	35	28	38
Limited availability	35	33	36	29	17	35	54	44	59
Slow approval	22	13	27	29	17	35	44	28	53
Other	24	33	18	29	17	35	46	44	47

Note: The responses to this questions where yes (Y), no (N), or the respondent did not respond (NR). The number in this table are computed in each column as follows: Y: $Y/(Y+N)$; NR: $NR/(Y+N+NR)$; Y+NR: $(Y+NR)/(Y+N+NR)$. For the columns referring to big and small firms, the same fractions have been computed but conditional to the responses from big or small firms.

Monitoring of firms operations by banks: for banks in Argentina and abroad (in parenthesis) only 10% (8%) of firms find this to be a problem. For big firms this percentage grows to 12% (13%) while for small firms 9% (5%) of them found this to be a problem. The difference is not significant (but for banks abroad we should remember the 35% of non respondent small firms).

Perception of a limited availability of credit from the banks (in Argentina): 46% of firms find this to be a problem. Distributing the firms by size, 47% of big firms and 45% of small firms find this factor to be a problem.

As far a banks abroad, on average 35% of firms find this factor to be a problem. Of the big firms 33% find this factor to be a problem, while for 36% of small firms this

factor is a problem (we should probably add here also the 35% non-responders small firms, since they are presumably firms that do not even consider financing through banks abroad).

Slow process of loan approval: for loans given by banks in Argentina, on average 36% consider this to be a problem, but interestingly, 18% of the big firms find this to be a problem while 45% of the small firms seem to have a slow process.

For banks abroad 22% of firms find this to be a problem, but while 13% of the big firms find this to be a problem, 27% of the small firms do so.

The percentage of small firms that find this factor a problem for loans given by banks abroad (27%) is smaller than the 45% who consider this factor a problem for loan given by Argentinean banks. However, when we consider that 35% of small firms did not respond this question it becomes apparent that the basic reason for this is that small firms find this question basically irrelevant for not having access to financing through banks abroad.

Slow process of loan approval seems to be a more important problem for small firms than for big ones. This is reasonable since the time it takes to approve a loan probably reflects the time it takes to the bank to convince itself that the company will be able to pay the loan back. This, in turn, must be proportional to the visible collateral the company offers. It should not be surprising then that the numbers for this factor are similar to the numbers regarding the requirements of collateral (see above).

Question 5

To what extent the following factors represent a problem for financing through bonds, either domestic or foreign bonds?

Fees of subscribers: 29% of the companies find this to be a problem for Argentinean bond financing and 33% for foreign bond financing. Only 13% of the big companies find this to be a problem for Argentinean bonds but this percentage grows to 23% for foreign bond financing. On the other hand, 40% of small firms find this to be a problem for Argentinean bonds and 43% for foreign bond financing.

In addition 17 firms did not respond to this question for Argentinean bond financing (33% of total), of these only 3 are big firms (17% of big firms) and 14 are

small firms (41% of small firms). For financing through foreign bonds, 21 firms decided not to answer this question (48% of total). Of these 25 firms, 5 are big and 20 are small, these numbers represent respectively 28% of big firms and 59% of small firms. Firms that did not respond this question did not respond any of the questions in item 5.

Assuming that firms that do not respond do not use bonds as a form of financing, we have 52% of the total companies having a negative perception of Argentinean bond financing and 65% of the total companies having a negative perception of foreign bond financing. When separating by size, 28% of the big companies have a negative perception of Argentinean bond financing and 44% of the big companies have a negative perception of foreign bond financing. On the other hand 65% of the small companies have a negative perception of Argentinean bond financing and 76% of the small companies have a negative perception of foreign bond financing

These results show that evidently honoraries are cheaper in Argentina than abroad (reasonable after the devaluation), but more importantly they have strong scale economies. While for big firms this seems not to be an important problem it is so for small firms. This result agrees with the standard theory of bond financing and will play an important role in our argument for the relevance of the size of firms in determining the size and development of the bond market.

Cost of credit ratings: 23% of the total firms find this to be a problem for Argentinean bond financing and 30% for foreign bond financing. For big firms this represents a problem for Argentinean bonds for only 7% of firms (only one firm) and for 23% of firms for foreign bonds. For small firms the cost of rating Argentinean bonds is a problem for 35% of firms and for foreign bonds it is so for 36%.

In the table below the reader can see the numbers including the effect of non-responders.

Table 17. Problem for financing through domestic or foreign bonds by size (in %)

Question 5	Y	Y Big	Y Small	NR	NR Big	NR Small	Y+NR	Y+NR Big	Y+NR Small
Domestic									
Fees	29	13	40	33	17	41	52	28	65
Fees Credit Rating	23	7	35	33	17	41	48	22	62
Public Info	46	33	55	33	17	41	63	44	74
Minimum required	23	0	40	33	17	41	48	17	65
Other requirements	23	13	30	33	17	41	48	28	59
Small Market	49	73	30	33	17	41	65	78	59
No Market Low CR	26	13	35	33	17	41	50	28	62
Other	14	13	15	33	17	41	42	28	50
Foreign									
Fees	33	23	43	48	28	59	65	44	76
Fees Credit Rating	30	23	36	48	28	59	63	44	74
Public Info	48	46	50	48	28	59	73	61	79
Minimum required	30	23	36	48	28	59	63	44	74
Other requirements	26	15	36	48	28	59	62	39	74
Small Market	19	15	21	48	28	59	58	39	68
No Market Low CR	19	15	21	48	28	59	58	39	68
Other	15	15	14	48	28	59	56	39	65

Note: The responses to this questions where yes (Y), no (N), or the respondent did not respond (NR). The number in this table are computed in each column as follows: Y: $Y/(Y+N)$; NR: $NR/(Y+N+NR)$; Y+NR: $(Y+NR)/(Y+N+NR)$. For the columns referring to big and small firms, the same fractions have been computed but conditional to the responses from big or small firms.

When asked whether the requirement of public information was a problem, of the companies that answered the question, 46% considered it to be a problem. When adding the 33% of non-respondents, a total of 63% of companies considered this to be a problem. For the big firms these numbers were lower, 33% of these firms answer positively and this number grows to 44% of total big firms when adding the non-responders. For small firms the proportion than answered positively among those that answered at all is 55%. When adding the non-responders, the proportion of total small firms grows to 74%. The numbers for this item suffer minor variations for bonds abroad. The fact that requirement of public information is a major problem especially for small firms may be indicative of institutional problems.

The answers are clearly discriminating, for example, while no big firm considered the minimum required for emission (of Argentinean bonds) to be a problem, 40% of the small firms claim it to represent a problem. Inversely, while 73% of big firms considered the smallness of the market of Argentinean bonds to be a problem,

only 30% of the small firms considered to be so. These numbers decline to 15% and 21% for foreign bonds.

Question 6

This question is especially interesting because it asks the responders the same questions for domestic bank financing and domestic bond financing (to what extent the following factors are a problem for financing their operations?). A priori these alternatives might be the real financing alternatives for many of the firms (foreign forms of financing are not real alternatives for small firms). The following table summarizes the answers:

Table 18. Problems for financing with domestic banks or domestic bonds by size (in %)

Question 6	Y	Y Big	Y Small	NR	NR Big	NR Small	Y+NR	Y+NR Big	Y+NR Small
Domestic Banks									
Speed	24	6	34	6	6	6	29	11	38
Maturity	57	76	47	6	6	6	60	78	50
Interest Rate	55	65	50	6	6	6	58	67	53
Minimum Req.	12	6	16	6	6	6	17	11	21
Collateral	27	12	34	6	6	6	31	17	38
Information	18	6	25	6	6	6	23	11	29
Other	6	12	3	6	6	6	12	17	9
Domestic Bonds									
Speed	58	43	80	54	22	71	81	56	94
Maturity	50	57	40	54	22	71	77	67	82
Interest Rate	46	57	30	54	22	71	75	67	79
Minimum Req.	25	7	50	54	22	71	65	28	85
Collateral	38	29	50	54	22	71	71	44	85
Information	38	21	60	54	22	71	71	39	88
Other	8	14	0	54	22	71	58	33	71

Note: The responses to this questions where yes (Y), no (N), or the respondent did not respond (NR). The number in this table are computed in each column as follows: Y: $Y/(Y+N)$; NR: $NR/(Y+N+NR)$; Y+NR: $(Y+NR)/(Y+N+NR)$. For the columns referring to big and small firms, the same fractions have been computed but conditional to the responses from big or small firms.

Regarding the answers for domestic banks, first note that there are only 6% of non-respondents and this percentage does not change for big and small firms. On the contrary, while there are 54% of non-responders for the questions regarding domestic

bonds, the difference between big and small firms is notorious: 22% and 71% respectively.

Of the firms that answered the questions for domestic bank financing, the speed to access funds was a problem for 24% of the total firms, which corresponds to 6% of big firms and 34% of small firms. On the other hand, 58% of all firms found this to be a problem for domestic bonds, representing 43% of big firms and 80% of small firms.

The numbers for domestic banks should be contrasted to the numbers of a similar question in item 4 (whether the slow approval was a problem for financing through banks in Argentina or abroad). In that question the numbers for banks in Argentina were: 36% of total firms found it to be a problem, divided into 18% of big firms and 45% of small firms. Even though the general picture is similar, the numbers differ with the ones in question 6. We believe that a likely reason for this difference is that the answers reflect in part the relative weight of the same factor with respect to the financing alternative given in each item. While in question 4 the financing alternative was banks abroad (which seem to be faster, at least for big firms), in question 6 the alternatives are bonds, which, as we have just seen, seems to be slower for both, big and small firms.

Interestingly, the maturity of bank loans seems to be a bigger problem for big firms than for small ones. 57% of the total firms found this to be a problem divided into 76% of big firms and 47% of small ones. For bonds the tendency is the same but the difference is minor: 50% of all firms find this to be a problem, divided into 57% of big firms and 40% of small ones. It is likely that big firms find bank loans of larger maturity than small firms, so why the answers seem to be in reverse order? Perhaps this is because the answer reflects a comparison of the actual with the ideal. The more stable a company is, the longer the ideal maturity of its debt, and for obvious reasons bigger companies tend to be more stable than smaller ones.

Interest rates seem to be a big problem for bank loans and for bonds in Argentina, with 55% and 46% respectively of total companies answering this to represent a problem. The difference between small and large firms is now not really significant.

The minimum amount required seems not to be a problem for bank loans but for bonds 25% found it to be a problem. When divided by size this represents 7% of big firms and 50% of small ones that answered the question (in addition remember that 71% of small firms did not respond).

The requirement of collateral is a problem for 27% of total firms for bank loans (in question 4 the answer was 32%), divided into 12% of big firms and 34% of small firms (in question 4 these numbers were 18% and 39% respectively). For bonds this number for total firms is 38%, 29% of big firms and 50% of small firms that answered the question.

Finally, the requirement of information does not seem to be an important problem for financing through bank loans in Argentina (18% of total firms, 6% of big firms and 25% of small firms). However the situation is different for bonds: 38% of total firms find this to be a problem, 21% of big firms and 60% of small ones that answered the question.

In general, this question, when considering the equal rate of non-responders between big and small firms when asked about domestic bank loans (6%) and the different rate when asked about domestic bonds (22% and 71%), shows that small firms basically do not use bonds as a form of financing.

Question 7

In this question responders are asked to order, for each attribute, the relative advantages of different forms of credit (1 is best, 5 is worst). The forms of credit are: Argentinean Bank Loans, Domestic Bonds, Foreign Bank Loans, Foreign Bonds, Credit from Providers. The attributes are: Interest, availability of credit in local currency, availability of alternatives of indexation, availability of long term credit, costs unrelated to interests rates, taxes, possibility of renegotiation, costs associated to requirement of information, size of potential market.

In the following table we have, for each form of credit, the average value for all the attributes, the total average, and the relative order of the forms of credit. As we see, for the full set of firms, credit from providers is the preferred form of credit. For big firms the best alternative is Foreign Bank Loans (average 2.61) followed very closely by Credit from Providers (average 2.64) and Argentinean Bank Loans (2.66). For small firms Credit from Providers is the preferred choice (2.04) with Argentinean bank Loans being the second choice by a large difference (2.36). Note that Domestic Bonds rank fourth in general and while for the small firms they rank a distant third. This is because, on the one hand, the foreign alternatives are not available for small firms (that is why Domestic Bonds rank better than the foreign alternatives), and on the other Domestic

Bonds are basically not considered as a form of financing for Small Firms (that is why they are a *distant* third). For large firms (the only ones considering bonds as a realistic alternative) domestic bonds come 4th after Foreign Bank Loan (first), Credit from Providers (second), and Argentinean Bank Loans (third). To interpret this result it perhaps helps to remember that many of the big answering firms are foreign.

Table 19. Relative advantage of different forms of credit by size

Instrument		Order	Average	Interest	Credit Local C.	Alt. of index.	Long T. credit	Non-Int. Costs	Tax	Poss. of Reneg.	Costs of Info.	Size of Pot.Mark
Total Firms	Argentinean Bank Loans	2	2.48	3.00	1.85	2.61	3.40	2.62	2.24	2.02	1.93	2.65
	Domestic Bonds	4	2.88	3.27	2.20	2.26	2.42	3.19	2.57	3.46	3.38	3.19
	Foreign Bank Loans	3	2.85	2.56	3.64	3.18	2.00	2.71	3.60	2.91	2.72	2.31
	Foreign Bonds	5	3.40	2.75	4.36	3.36	1.74	4.09	3.21	4.50	4.26	2.30
	Credit from Providers	1	2.27	2.14	2.24	2.42	3.97	1.86	1.71	1.69	1.43	3.00
Big Firms	Argentinean Bank Loans	3	2.66	3.22	1.94	3.14	3.71	2.11	2.56	1.94	1.72	3.59
	Domestic Bonds	4	2.82	3.08	2.27	2.20	2.93	3.00	2.46	3.13	3.07	3.21
	Foreign Bank Loans	1	2.61	2.25	3.30	2.86	1.94	2.31	3.64	2.56	2.56	2.07
	Foreign Bonds	5	3.07	2.86	4.20	3.00	1.47	3.93	2.38	4.27	4.00	1.50
	Credit from Providers	2	2.64	2.47	2.85	2.67	3.92	2.20	2.50	2.15	1.91	3.13
Small Firms	Argentinean Bank Loans	2	2.36	2.85	1.79	2.21	3.21	2.96	2.00	2.07	2.08	2.04
	Domestic Bonds	3	2.97	3.46	2.10	2.33	1.83	3.42	2.70	3.91	3.82	3.17
	Foreign Bank Loans	4	3.04	2.80	3.92	3.40	2.06	3.06	3.55	3.21	2.88	2.53
	Foreign Bonds	5	4.00	2.60	4.75	3.80	2.25	4.38	5.00	4.89	4.75	3.56
	Credit from Providers	1	2.04	1.90	1.86	2.29	4.00	1.68	1.23	1.37	1.12	2.94

In the second table for this question we have the ranking of each form of credit across the different attributes. It becomes very clear that the answers are really discriminating. For example, for small firms in almost all the attributes, Credit from Providers is the alternative of choice or the second. However in the attribute Long Term

Credit, small firms rank this form of financing as the worse of all the alternatives. It is well known that credit from providers is of very short maturity.

Table 20. Preferences of different forms of credit by size

Instrument		Order	Interest	Credit Local C.	Alt. of index.	Long T. credit	Non-Int. Costs	Tax	Poss. of Reneg.	Costs of Info.	Size of Pot. Mark
Total Firms	Argentinean Bank Loans	2	4	1	3	4	2	2	2	2	3
	Domestic Bonds	4	5	2	1	3	4	3	4	4	5
	Foreign Bank Loans	3	2	4	4	2	3	5	3	3	2
	Foreign Bonds	5	3	5	5	1	5	4	5	5	1
	Credit from Providers	1	1	3	2	5	1	1	1	1	4
Big Firms	Argentinean Bank Loans	3	5	1	5	4	1	4	1	1	5
	Domestic Bonds	4	4	2	1	3	4	2	4	4	4
	Foreign Bank Loans	1	1	4	3	2	3	5	3	3	2
	Foreign Bonds	5	3	5	4	1	5	1	5	5	1
	Credit from Providers	2	2	3	2	5	2	3	2	2	3
Small Firms	Argentinean Bank Loans	2	4	1	1	4	2	2	2	2	1
	Domestic Bonds	3	5	3	3	1	4	3	4	4	4
	Foreign Bank Loans	4	3	4	4	2	3	4	3	3	2
	Foreign Bonds	5	2	5	5	3	5	5	5	5	5
	Credit from Providers	1	1	2	2	5	1	1	1	1	3

The fact that Argentina (and Latin America in general) has a crisis prone economy has big effects on the debt structure of firms (we develop this point further in Fernández, Pernice and Streb 2007). It makes the possibility of renegotiation an important factor when deciding the debt instrument used. It is interesting that for the Total Firms as well as for Small Firms Credit from Providers is ranked as the best form of credit for this attribute and Big Firms ranked it as the second best after Argentinean

Bank Loans. Domestic Bonds, on the other had was ranked 4th for all firms, small and large firms as well, winning only to Foreign Bonds.

The fact that Credit from Providers is a very good form of credit with regard to an attribute specially important in a crisis prone region (and also with regard to other attributes), that it is specially important for small firms, and that in Argentina there is an specially large proportion of small firms (see Fernández, Pernice and Streb 2007), all these facts point toward the notion that this form of credit may very well be the most important form of credit in Argentina for the economy as a whole. Incidentally, the fact that it is an intrinsically short term form of financing, together with the argument just presented implies that credit in Argentina might be in general very short-term.

The analysis just presented clearly shows that firm size is a very strong determinant of the debt instrument chosen. In particular it is consistent with the hypothesis that bonds are used only by very large firms.

III. Survey of Investors (Buy side)

A. Sampling Procedure and Response Rates

It was easier to design the sample for the survey of investors given the size of the universe of interest. There are four main sets of institutions to consider for the buy side of the survey. One set includes the Pension Groups or AFJPs, and there are only 12 of them in Argentina. The second set of institutions refers to the banking sector. There are 90 banks according to the Argentinean Central Bank (BCRA). The third set of institutions involves General Insurance Companies. According to the Superintendencia de Seguros de Salud there are 279 of them. However, only the large ones manage investment portfolios. Finally we have Mutual Funds. These are associated in the Cámara Argentina de Fondos Comunes de Inversión (CAFCI), which has 34 members. This gives us a total universe of interest of 415 firms.

From these, we formed a target sample comprised of the 12 Pension Funds, the 34 Mutual Funds, and a random sample of 60 banks (out of the universe of 90). For the insurance companies, we first composed a list of all the firms that were listed in at least one of the commercial guides we purchase at UCEMA (Guía Senior and Guía VIP, see

section on sampling procedure for survey of firms for a description). There were 92 firms in this initial set, and these tend to be the largest firms in the industry. From this list, which is skewed towards large insurance firms, we selected a random sample of 60 target organizations. Thus, we ended up with a target sample of 166 organizations for the buy side survey.

We relied on the *Guía VIP* plus our network of UCEMA students and alumni to obtain contact information to reach the portfolio manager in each one of these institutions. We managed to generate contact information for 58 banks, 32 mutual funds, 11 pension funds and 60 insurance companies, for a final sample of 161 contacted organizations (see Table 21 below).

In general, it has been much simpler to locate and secure participation in the buy side of the survey vs. the sell side. Starting the first week of November 2005, our assistants personally contacted the Portfolio Manager or equivalent in these 161 firms three or more times. They initiated contact with a one-on-one telephone communication in which the survey and the research project in which it is embedded were presented to the Portfolio Manager. They followed the initial phone call by sending the survey either by e-mail or by fax, according to each person's preference. In a second personal phone call, they made sure the survey had been received and opened, and we surveyed willingness to answer. Additionally, they sent two additional reminders by e-mail, and they made at least one additional phone call to review progress and explore reasons for delays in answers.

We finally collected 41 answered surveys (see Table 21 for details). Most Portfolio Managers that have not answered expressed willingness to cooperate in every phone call we made, but somehow failed to follow through. Forty six companies from our original sample refused to participate. Among Banks and Mutual Funds, the most frequent reasons for refusal have been that it is against the company policy to answer surveys and that the questionnaire is too long. Only one Pension Fund refused to participate, due to lack of interest. Among insurance companies, the most frequent reason for refusal to participate was that the survey was perceived as not applicable or relevant to them. Looking at the responses obtained, most insurance firms manage portfolios that are very small in comparison with the rest of the investors in this study, and do not hold corporate bonds. The second most frequent reason for not answering among insurance companies was lack of time to do so / questionnaire too long.

Table 21. Universe of interest, contacted sample and rates of response for survey of investors in Argentina

	Universe	%	Contacted Sample	%	Responses	%	Response Rate (%)	Refused to Participate	%
Banks	90	22	58	36	13	32	22	16	28
Mutual Funds	34	8	32	20	13	32	41	7	22
Pension Funds (AFJPs)	12	3	11	7	8	20	73	1	9
Insurance	279	67	60	37	7	17	12	22	37
Investors Total	415	100	161	100	41	100	25	46	29

B. Results

Of the 41 companies, in 17 cases (41%) the person who answered was the Portfolio Manager, in 9 cases (22%) the CFO, and in the other 15 cases (37%) the person who answered was “other” (in one of these cases the “other” person was the President of the company). Regarding foreign ownership, 19 firms (46%) had over 50% of ownership in the hand of foreigners. An additional 44% (18 firms) did not have foreign owners, and the remaining 4 firms had foreign ownership below 49%. Of the 23 firms with more than 20% foreign ownership only 3 were of American, 14 of European, 4 of Latin American and the remaining 2 from “other” origin.

The average number of portfolio under management was 11, and the average total amount of the portfolio was 1,558 million pesos.

Question 4 asked for the main factors that limit the demand for Corporate Bonds, and Table 22 provides the number of companies and the percentage of companies that considered answered “yes” to a given factor.

Low liquidity of the secondary Market (80%), low quality of legal recourse in case of default (61%), low market capitalization (56%), high risk of insolvency (59%), and absence of a benchmark curve (59%) represent the main factors that limit the demand for corporate bonds in Argentina in the opinion of the buy side.

Table 22. Main factors that limit the demand for corporate bonds

Factor	Number of companies that answered "yes"	%
Low Return	16	39
High risk of default	24	59
Low liquidity of secondary market	33	80
Unfavorable tax treatment	2	5
Lack of information of issuer	14	34
Low quality of legal recourse in case of default	25	61
Regulatory and legal restrictions	15	37
Low bond market capitalization	23	56
Absence of a benchmark curve	24	59
Absence of a reference index	20	49
Absence of a good payment and clearance system	7	17
Low quality of credit ratings	10	24
Other	2	5

Question five asks first if the regulatory framework impose restrictions on the allocation of assets: 83% of the firms answered affirmatively. Asked for the relative importance of specific restrictions (1: very restrictive ... 5: not restrictive), “limit of investment for the type of instrument” and “limits of investments for the type of issuer” were the two alternatives considered most restrictive (average 2.5). The third (average 2.8) alternative was “limit for risk classification”. Finally “restrictions to investment in corporate bonds” was not considered seriously restrictive (average 4.0).

To those who answered positively the previous question, question six asks: which assets would you increase weight if there was no restriction? Clearly, Table 23 shows that investors would mostly increase their exposure to foreign assets.

Table 23. Increase in weight of assets if there was no restriction (in %)

	Increase	Equal	Decrease
Domestic Assets			
Stocks	22	59	19
Sovereign Bonds	21	52	28
Private Bonds or A. B. S.	31	62	7
Foreign Assets	77	23	0

Question seven asked how they would distribute the new resources if these resources were to increase by 50%. The answers are:

Table 24. Distribution of resources if they were to increase by 50% (in %)

	Increase	Equal	Decrease
Domestic Assets			
Stocks	35	53	12
Sovereign Bonds	34	51	14
Private Bonds or A. B. S.	46	43	11
Foreign Assets	60	33	7

Question eight asked whether a series of different bonds, if available, would form part of their portfolio. The answers are in Table 25. As we can see, all but one of them appear very attractive for investors.

Table 25. Bonds that, if available would form part of portfolio

Bond	% of yes
Public bonds indexed to CPI	95
ABS and corporate bonds indexed to CPI	85
Local currency bonds issued by AAA institutions	45
Bonds indexed to CPI issued by AAA institutions	87
Securitization of assets	89

Finally, question nine presented a series of statements and asked whether the respondent agreed with them or not (1: total agreement,..., 5: total disagreement). The averages of the answers are presented in Table 26.

Table 26. Level of agreement with statements

Statement	Average
A large stock of Public Sector Debt is important for the corporate bond market	2.69
The Yield Curve is Crucial for pricing bonds	2.00
Government and corporate bonds are substitute in your portfolio	3.56
If increase in return of public debt, would you replace ABS for public debt?	2.97

To interpret this table is convenient to recognize that if the answers were at random the average would be 3 (average of 1, 2, 3, 4 and 5 equals 3). This means that investors tend to agree (although not very strongly) with the first statement, tend to agree rather strongly with the second, tend not to agree with the third (so they do not

perceive government and corporate bonds as substitute of each other), and are ambivalent regarding the fourth statement.

IV. Summary

Our survey of non-financial firms is intended to be representative of large firms in Argentina, since the 56 responses in the survey are taken from a sample of 766 firms with over 200 employees, or with over 150 million pesos in yearly revenue that mimic the survey of large firms carried out by INDEC in Argentina.

Our survey shows that the average assets of the 8 firms issuing corporate bonds was 2.5 billion dollars, compared to 1 billion dollars of assets for those not issuing bonds (the average assets of whole sample of 56 firms was 2 billion dollars). These are large sizes, but firms that quote on the stock exchange are even larger (only 15 of the firms in our survey of large firms issued stocks).

The firms issuing bonds in our sample had on average 5000 employees, almost 4 billion pesos in yearly revenue (1.3 billion dollars), and almost 8 billion pesos in assets (2.5 billion dollars). Independently of the criteria for size (employees, revenues or assets), there is a cut-off below which almost no firms in the survey issue bonds.

If one uses employment as size indicator, firms under 1500 employees in the sample practically do not issue bonds (only one of the eight cases). Of the firms larger than this size, 41 issued bonds. If one extends the interval to include firms with 1000 employees or more, this gives 37 of the firms. Multiplying these percentages by the amount of firms that have more than 1500 employees (more than 1000 employees) in *Guia Senior* gives an estimate of 44 (60) firms issuing bonds in 2005. Our database (see Bedoya et al. 2007) shows that 56 firms had outstanding bonds in December 2005 (there were 68 firms in December 2004, and 75 firms in December 2003, with outstanding bonds). Hence, this simple cut-off point can predict fairly well the universe of firms issuing bonds in Argentina.

The result of the surveys presented in this paper support the idea that for Argentine firms, bonds are a financing vehicle of choice only for firms above a certain (large) size. This is independent of the criteria used for firm size. This result is similar to results in other countries such as the United States. As we point out in Fernández, Pernice and Streb (2007), the difference between Argentina and high income countries

is that in Argentina there are comparatively very few large firms, which helps to explain the relative size of the Argentine corporate bond market.

References

Bedoya, Alejandro, Celeste González, Sergio Pernice, Jorge M. Streb, Alejo Czerwonko and Leandro Díaz Santillán, “Database of corporate bonds from Argentina”, Documento de Trabajo 344, Buenos Aires, Universidad del CEMA, April 2007.

Fernández, Roque B., Sergio Pernice and Jorge M. Streb, “Determinants of the development of corporate bond markets in Argentina: One size does not fit all”, Documento de Trabajo 348, Buenos Aires, Universidad del CEMA, April 2007.

Appendix A

In this Appendix we present an English translation of the survey we sent to firms.

FIRM SURVEY

The Inter-American Development Bank is leading a network of research centers in six Latin American countries in a study of the state of bond markets in Latin America. The existence of a local market for corporate bonds is an important financing alternative. Banks and bond markets, according to conventional finance theory, have different natural clienteles. According to this view, bond markets would help reduce costs and increase access for both for borrowers with both very high and very low levels of risk.

This issue has raised considerable policy interest in East Asian economies and, more recently, in Latin America. While the conventional view is that bond markets are underdeveloped in Latin America, the recent surge in the scope and depth of these markets in some countries is challenging that assessment. The objective of our project is to shed light on the current situation, including on the remaining obstacles to market growth and the systemic risks that may arise in these markets.

This survey is a key component of this project. We are conducting parallel surveys of investors and firms (tailored to each group) in all six countries, so as to gain a more complete market perspective. In addition, some questions that are of specific interest to each country have been added.

We are very grateful for your cooperation, which is essential for the reliability of the results. Your answers are confidential. We will be happy to provide you with a detailed analysis of the results, and the policy conclusions from this project, when they become available.

Please do not hesitate to enquire if you need any clarifications about this survey.

FIRM SURVEY

Please provide data for end 2004. If any of your answers refer to a different period please specify.

1. Respondent information

Position in the Organization	
------------------------------	--

2. Firm data

Percentage of your firm owned by foreigners (mark with an X the appropriate answer)	0	1-19	20-49	>49
Nationality of principal foreign owner				
Ownership type	NOT LISTED IN THE LOCAL STOCK MARKET	LISTED IN THE LOCAL STOCK MARKET	LISTED IN THE LOCAL STOCK MARKET + ADR	
Main industry (ISIC rev. 2)				
Date of Incorporation				
Number of Employees				
Total Assets (millions in local currency)				
Total Sales in million local currency (millions in local currency)				
of which are exports				

a. Does your company have any outstanding bonds?

YES	NO
-----	----

b. Do you plan to issue bonds during 2005 and 2006?

YES	NO	[Don't know]
-----	----	--------------

c. If you issued bonds in the past and no longer do it what is the main reason for this change in your funding strategy?

High issuance costs	
High interest rates	
High tax costs	
Low demand	
Requirements for issuance	
Other [please specify]	

4. In what way do the following factors affect your willingness to finance your operations by borrowing from banks? [Rate each factor using 0 if the factor is not a problem and 1 if it is a problem]

	Domestic Banks	Foreign Banks
Collateral requirements		
Bank monitoring of firm's operations		
Perception of limited availability of credit from banks		
Slow process of approval		
Other [please specify]		

Please provide your comments on this question.

5. In what way do the following factors affect your willingness to finance your operations by issuing bonds? [Rate each factor using 0 if the factor is not a problem and 1 if it is a problem]

	Domestic Bonds	Foreign Bonds
Underwriters' fees		
Credit rating agencies' fees		
Disclosure requirements (comply with additional accounting requirements, make accounting information publicly available...)		
Minimum issue requirements		
Other regulatory requirements		
The market is too small		
Non existence of a junk bond market		
Other [please specify]		

Please provide your comments on this question.

6. In what way do the following factors affect your willingness to finance your operations in the local markets? [Rate each factor using 0 if the factor is not a problem and 1 if it is a problem]

	Domestic Banks	Domestic Bonds
Speed of access to required financing		
Maturity of financing		
Interest rate		
Minimum amount required for loans or issuance		
Guarantee requirement		
Information requirement		
Other [please specify]		

7. What are the relative advantages of each form of credit? [Rank the following types of credit along the following factors [where 1=best alternative...5=worst alternative, 9=N/A]

	Domestic Banks	Domestic Bonds	Foreign Banks	Foreign Bonds	Suppliers' Credit
Interest rate cost					
Availability of local currency lending					
Available indexation alternatives (CPI, others)					
Availability of long term lending					
Non interest rate costs (*)					
Tax treatment					
Possibility of renegotiation in case of economic difficulties					
Costs related to disclosure requirements					
Size of potential market relative to firm's financing needs					

(*) In the case of banks: fees, commissions, signing costs etc. In the case of bonds: underwriters fees, credit rating fees, etc.

8. Do you change the profile of your liabilities by using derivatives (currency, fixed vs. floating, etc.)?

YES	NO	[Don't know]
-----	----	--------------

9. Capital Structure

	Total Capital (millions local currency)	denominated in a foreign currency
1. Equity		
2. Liabilities		
2.1 Bonds & Commercial Paper		
2.1.1 Issued domestically		
2.1.2 Issued Offshore		
2.2 Bank loans		
2.2.1 Domestic banks		
2.2.2 Offshore banks		
2.3 Other Liabilities		
2.3.1 Asset backed securities		
2.3.2 Supplier credit		
2.3.3 Others		

10. Payment of interests during 2004

	Millions in local currency
Bonds and commercial paper	
Banks	
Other liabilities	

Appendix B

In this Appendix we present an English translation of the survey we sent to investors.

INVESTORS SURVEY

The Inter-American Development Bank is leading a network of research centers in six Latin American countries in a study of the state of bond markets in Latin America. The existence of a local market for corporate bonds is an important financing alternative. Banks and bond markets, according to conventional finance theory, have different natural clienteles. According to this view, bond markets would help reduce costs and increase access for both for borrowers with both very high and very low levels of risk.

This issue has raised considerable policy interest in East Asian economies and, more recently, in Latin America. While the conventional view is that bond markets are underdeveloped in Latin America, the recent surge in the scope and depth of these markets in some countries is challenging that assessment. The objective of our project is to shed light on the current situation, including on the remaining obstacles to market growth and the systemic risks that may arise in these markets.

This survey is a key component of this project. We are conducting parallel surveys of investors and firms (tailored to each group) in all six countries, so as to gain a more complete market perspective. In addition, some questions that are of specific interest to each country have been added.

We are very grateful for your cooperation, which is essential for the reliability of the results. Your answers are confidential. We will be happy to provide you with a detailed analysis of the results, and the policy conclusions from this project, when they become available.

Please do not hesitate to enquire if you need any clarifications about this survey.

INVESTORS SURVEY

Please provide data for end 2004.

If any of your answers refer to a different period please specify.

1. Respondent information

Position in the Organization	
------------------------------	--

2. Firm data in 2004 (mark with an X the appropriate answer)

Type of firm	
Investment Bank	
Commercial Bank	
Mutual fund	
Pension fund	
Insurance company	
[Other –specify]	

Percentage of your firm owned by foreigners (mark with an X the appropriate answer)	0	1-19	20-49	>49
Nationality of principal foreign owner				

3. Portfolio (to be filled in using published data by each research team, if possible)

Number of portfolios under management	
--	--

Note: if your firm has more than one portfolio under management, in the questions below refer to the cumulative total in all your portfolios.

Size of total portfolio (millions in local currency)	\$
--	----

Portfolio composition	of the total portfolio	of each asset in foreign currency
A. Local Assets (*)		
A.1 Stocks		
A.2 Government Bonds		
A.3 Central Bank bonds		
A.4 Other government bonds (Provincial Governments, Public Enterprises, etc.)		
A.5 Private Bonds from Financial Institutions		
A.6 Private Bonds from Non-Financial Institutions		
--- Of which have risk rate below <i>investment grade</i> .		
A.7 Asset backed securities.		
A.8 Commercial Paper.		
A.9 Bank Deposits.		
A.10 [Other – please specify]		
B. Foreign Bonds		
B.1 Stocks.		
B.2 Sovereign Bonds.		
--- Of which have risk rate below <i>investment grade</i> .		
B.3 Private Bonds.		
--- Of which have risk rate below <i>investment grade</i> .		
B.4 Other [please specify]		

(*) Local assets means issued in the local market, regardless of the nationality of the issuer. Government and national enterprises debt issued in a foreign country are considered domestic instruments.

4. **What are the main disincentives for including domestic corporate bonds in your portfolio? Please describe the actual incentives and disincentives you currently face, not the situation you would like to see.** (Mark with an X the appropriate answer)

	Yes	No, this factor is unimportant in our portfolio decisions	No, this is not a characteristic of local market
Low Return			
High risk of default			
Low liquidity of secondary market			
Unfavorable tax treatment			
Lack of information of issuer			
Low quality of legal recourse in case of default			
Regulatory and legal restrictions			
Low bond market capitalization			
Absence of a benchmark curve			
Absence of a reference index			
Absence of a good payment and clearance system			
Low quality of credit ratings			
[Other -please specify]			

5. **Does the regulatory framework (laws governing your sector, state regulator for your sector...) impose any restriction on the allocation of your assets?**

YES	NO
-----	----

If the answer is yes, rank the following restrictions according to their importance [Rate each 1-5, where 1 = very restrictive... 5 = does not restrict the portfolio]

Limits in the inversion by type of instrument	
Limits in the inversion by issuer	
Limits for risk rate	
Limits in the inversion in non-financial private bonds	

If you answered NO skip to question 7.

6. If the regulatory framework did not impose any restriction on the allocation of your assets, how would you change the shares of the following items in your portfolio?

	Increase	Equal	Decrease
A. Domestic instruments			
A.i. Stocks			
A.ii Government Bonds			
A.iii Private Bonds			
B. Foreign instruments			

7. Suppose that your portfolio is increased by 50 . How would you allocate the new resources compared to your current portfolio allocation? Mark for which instruments you would increase (or decrease) its weight.

	Increase	Equal	Decrease
A. Domestic instruments			
A.i. Stocks			
A.ii Government Bonds			
A.iii Private Bonds			
B. Foreign instruments			

8. If the following bonds became widely available, would you be interested in holding them in your portfolio?

	Yes	No
a. CPI indexed government bonds		
b. CPI indexed corporate bonds		
c. Bonds in local currency issued by AAA institutions (World Bank, IDB...)		
d. CPI indexed bonds issued by AAA institutions (World Bank, IDB...)		
e. Asset backed securities		

Add in the space below comments related to this question.

9. Do you agree or disagree with the following statements [Rate each 1-5, where 1 = strongly agree... 5 = strongly disagree]

A large stock of public sector bonds is important for the development of the corporate bond market.	
The low risk yield curve provided by public bonds is crucial for pricing corporate bonds.	
Government and corporate bonds are substitutes in your portfolio.	
If the yield on government bonds were to increase significantly I would sell private bonds and buy government bonds.	