Observação para Apresentações no Brasil

✓ A última versão acadêmica da apresentação foi totalmente revista e formatada para esta apresentação para profissionais do mercado organizada pela Andima em 23 de novembro de 2006 em São Paulo.

✓ Os *slides* da apresentação, entretanto, permanecem no seu idioma original, o inglês, para facilitar a disseminação, que é uma exigência contratual do BID.
Previous presentations

✔ The current version of this working paper can be obtained from the IADB website through the link provided at the end of this presentation.

✔ Previous versions of this project have been presented at the IADB, UC Berkeley, LACEA Conference (Mexico), Universidad San Andres (Argentina), Brazilian Central Bank, Ibmec SP, UCB, PUC-Rio
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✓ All errors and omissions are solely the authors responsibility

✓ This presentation does not necessarily reflect the opinions of the IADB, of Andima, and of UFRJ
Presentation structure

- Public sector bonds background
- Private sector bonds background
- Debentures sample
- Evolution of debenture covenants
- Financial instruments interactions
- Investor and issuer survey
- Conclusions and recommendations
Motivation

- The bond market represents a large proportion of the GDP in developed countries but seems to be underdeveloped in emerging markets.
- In the particular case of Brazil, it is widely known that firms do not have access to enough credit at a reasonable cost.
- The Brazilian bond market as a % of GDP is small (22%) compared to the average of developed (47%) countries and to emerging markets in East Asia (36%).
Goals

✓ Provide a better understanding of the Brazilian bond market by means of a comprehensive institutional description, covering both public and private debt instruments (*not discussed in this presentation*)

✓ Show the evolution of bond covenants

✓ Perform an econometric analysis of financing interactions

✓ Identify some of the barriers for bond market development through a survey of investors and issuers

✓ Offer policy recommendations for bond market development
Public Sector Bonds

Characteristics and profile
Profile of Federal Gov. Domestic Bonds

✓ Increased from 6% of the GDP in 1990 to 55% of GDP in 2005
✓ Most bonds are issued domestically (48% of GDP in 2005)
  ✓ Floating-rate (26% of GDP)
  ✓ Fixed-rate (14% of GDP)
  ✓ Foreign currency (0.3% of GDP)
  ✓ Inflation-adjusted notes (7% of GDP)
✓ The average domestic debt term was 2.29 years in 2005
  ✓ Fixed-rate bills (0.79 year)
  ✓ U.S. dollar notes (1.00 year)
  ✓ Floating-rate bills (1.59 years)
  ✓ Inflation adjusted notes (5.68 years)
Federal Government International Bonds

- Internationally, most bonds are issued in foreign currency (7% of GDP)
- The average term of external debt was substantially higher than that of internal debt in 2005 (6.32 years)
  - Global bonds (7.00 years)
  - Brady bonds (6.16 years)
  - Eurobonds (3.68 years)
- Recent issuance of BRL denominated bonds in 2005 and 2006 extended the real yield curve maturity beyond 10 years.
Secondary Market for Public Bonds

- In 1979, the Central Bank initiated the SELIC settling and custody system and soon all treasury securities transactions were paperless.
- The volume of trade in government securities in the secondary market is very high.
- The total volume traded in 2005 exceeded R$ 3.9 trillion and the turnover ratio reached 3.96.
- Overall trade on floating-rate securities has remained higher than on fixed-rate securities, reflecting the much higher amount outstanding of LFTs.
Private Sector Bonds

Profile and characteristics
Private Sector Bonds - Domestic

- Publicly issued debentures represent 73% of our sample.
- Domestic bonds represented only 2.6% of the GDP in 1992, while they reached 15% of the GDP in 2005
  - Floating-rate (13% of GDP)
  - Inflation adjusted (2% of GDP)
  - U.S. dollar adjusted rates (0.5% of GDP)
- Average maturity of 3 to 5 years
Debentures – Characteristics (cont.)

- Substantial increase in the amount outstanding (from R$ 13.80 billion in 1995 to R$ 84.99 billion in 2005)
  - Floating rates (80%)
  - Inflation adjusted (12%)
  - Long-term interest rate “TJLP” (2%)
  - Fixed rates (0.04%)
  - U.S. dollar (3%)

- Collateral
  - 66% subordinated
  - 27% unsecured
  - 2% floating collateral
  - 5% fixed collateral

- 94% are not convertible (straight)
• International bonds also increased significantly from 0.1% of GDP in 1987 to 6.7% of GDP in 2005
  • Foreign currency (6.6% of GDP)
  • Local currency (0.1% of GDP)

• Most international bonds are issued by the government (US$ 63 billion), followed by financial institutions (US$ 34 billion) and corporate issuers (US$ 10 billion)

• Foreign debt has longer term => only 7% have maturity of up to 1 year

• Most international debt securities are bonds and notes (99%)
Private Sector Foreign Bonds in BRL

- Since 2004, Brazilian banks, such as Banco Votorantim, Unibanco, Banco do Brasil etc issued foreign bonds denominated in BRL
- Banco Votorantim was the first, issuing US$ 75 million worth of eurobonds with a maturity of 18 months and a 18.5% fixed coupon rate
- Furthermore, Unibanco was the first Brazilian financial institution to issue US$ 100 million worth of BRL eurobonds with a coupon linked to inflation index IGP-M
- Prior to Unibanco, only the IADB had issued eurobonds in BRL with a coupon linked to IGPM

Besides private financial institutions, some corporations, such as Eletropaulo and Telemar, also issued foreign bond in BRL in 2005
Asset-Backed Securities

- Mortgage-backed securities, called CRI (“certificado de recebíveis imobiliários”) and receivables investment funds, the FIDC (“fundos de investimentos em direitos creditórios”) are the main securitization instruments in Brazil.
- The volume of CRIs and FIDCs has increased significantly from 1999 (0.02% and 0.00% of the GDP, respectively) to 2005 (0.16% and 0.43% of the GDP, respectively).
- Export notes represented less than 0.01% of the GDP in 2005 (down from 0.07% of the GDP in 1996).
Private Securities Secondary Market

- **National Debenture System** (SND, “Sistema Nacional de Debêntures”)
- **Bovespa Fix**
- Debenture volume and turnover in 2005 was R$ 16.28 billion and 0.19 (relative to the amount outstanding of R$ 84.99 billion), respectively.
- Debenture volume and turnover are very low when compared to those of federal debt securities (R$ 3.9 trillion and 3.96, respectively).

Most volume (98%) is concentrated on the SND
Debentures Sample

Issue Characteristics
Domestic Bond Characteristics

- Most domestic bond offers are public (72.93%)
- Average issued volume is R$ 227.19 million (ranging from R$ 2 million to R$ 1,500.00 million)
- Low turnover in the secondary market (mean of 0.23)
- Average original term of 8.37 years (ranging from 2.00 to 31.34 years)
Domestic Bonds by Industry

- Financial intermediation, generally leasing companies (70% of the total volume). Leasing company bonds are largely used by commercial banks as collateral for repo market transactions because their CD’s are taxed for deposit insurance and these bonds are not.

- Electricity, gas and water supply (13%)

- Manufacturing (7%)
### Issuers by Industry

<table>
<thead>
<tr>
<th>ISIC Code</th>
<th>Description</th>
<th>Number of Issues</th>
<th>Amount Issued (R$ million)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Financial Intermediation</td>
<td>36</td>
<td>125,895.00</td>
<td>70.17%</td>
</tr>
<tr>
<td>E</td>
<td>Electricity, Gas and Water Supply</td>
<td>152</td>
<td>23,145.48</td>
<td>12.90%</td>
</tr>
<tr>
<td>D</td>
<td>Manufacturing</td>
<td>83</td>
<td>13,029.85</td>
<td>7.26%</td>
</tr>
<tr>
<td>I</td>
<td>Transport, Storage and Communications</td>
<td>44</td>
<td>10,548.00</td>
<td>5.88%</td>
</tr>
<tr>
<td>C</td>
<td>Mining and Quarrying</td>
<td>16</td>
<td>4,560.30</td>
<td>2.54%</td>
</tr>
<tr>
<td>G</td>
<td>Wholesale and Retail Trade</td>
<td>14</td>
<td>1,527.83</td>
<td>0.85%</td>
</tr>
<tr>
<td>F</td>
<td>Construction</td>
<td>23</td>
<td>503.99</td>
<td>0.28%</td>
</tr>
<tr>
<td>K</td>
<td>Real Estate, Renting and Business Activities</td>
<td>4</td>
<td>182.71</td>
<td>0.10%</td>
</tr>
<tr>
<td>H</td>
<td>Hotels and Restaurants</td>
<td>1</td>
<td>10.00</td>
<td>0.01%</td>
</tr>
</tbody>
</table>
Primary Bond Market Structure

- All public security issues must be brought to the market by a financial institution.
- Corporate bond underwriters may be an investment bank associated or not to large retail commercial banks or a department of a large universal or “multiple” bank.
- The 20 lead underwriters represent more than 90% of all corporate bonds outstanding.
## Underwriters Ranking

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Number of Bonds</th>
<th>Number of Issuers</th>
<th>Associated to large retail commercial bank?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banco Itaú BBA S/A</td>
<td>46</td>
<td>24</td>
<td>Yes</td>
</tr>
<tr>
<td>Unibanco S/A</td>
<td>30</td>
<td>17</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco Bradesco S/A</td>
<td>23</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco Pactual S/A</td>
<td>15</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>Banco Votorantim S/A</td>
<td>9</td>
<td>7</td>
<td>No</td>
</tr>
<tr>
<td>Banco Santander Brasil S/A</td>
<td>8</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Bankboston Banco Multiplo S/A</td>
<td>8</td>
<td>4</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco ABC-Brasil S/A</td>
<td>7</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Banco ABN AMRO Real S/A</td>
<td>7</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco Sudameris Brasil S/A</td>
<td>6</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco Inv. CSFB Garantia S/A</td>
<td>5</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Banco Bracscap S/A</td>
<td>3</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Banco Fator S/A</td>
<td>3</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Banco Fenícia S/A</td>
<td>3</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Banco Banif Primus S/A</td>
<td>2</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Banco Citibank S/A</td>
<td>2</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Banco BVA S/A</td>
<td>1</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Banco Industrial e Comercial S/A</td>
<td>1</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Banco Interamerican Express S/A</td>
<td>1</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Banco J.P. Morgan S/A</td>
<td>1</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>181</strong></td>
<td><strong>106</strong></td>
<td></td>
</tr>
</tbody>
</table>
Purpose of Debenture Issuance

Figure 3. Purpose of Debenture Financing in Brazil

- 41.02% Increase Working Capital
- 35.88% Increase Investments in Operations
- 20.55% Increase Debt Term
- 2.55% Other

Rating Agencies

- Bond rating is not mandatory
- However, the number of bonds rated is growing particularly due to incentives in prudential regulations for closed pension funds
- Rating agencies operating in Brazil: Standard & Poor’s, Fitch, Moody’s, SR Rating, and Austin Rating
- Most issues are rated by Fitch (39%) and Standard & Poor’s (38%)
Underwriting Fees

- Corporate bond underwriting fees have been decreasing in Brazil. They have hovered between 3% and 6% in the past but now stay between 1% and 2.5% in recent issues.
- The median underwriting fee is 2%
Evolution of Debenture Covenants

1989-2004
Four covenant studies

- 4 sub-periods:
  - **Most recent** (2002-2004): this paper
## Indexing, Coupon, & Maturity (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 - Indexing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No indexation</td>
<td>0</td>
<td>41</td>
<td>68</td>
<td>69</td>
<td>Increases</td>
<td>Increases</td>
<td>Same</td>
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<tr>
<td>Inflation indexation</td>
<td>88</td>
<td>59</td>
<td>32</td>
<td>27</td>
<td>Decreases</td>
<td>Decreases</td>
<td>Same</td>
</tr>
<tr>
<td>Exchange rate indexation</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>Decreases</td>
<td>Same</td>
<td>Increases</td>
</tr>
<tr>
<td><strong>2 - Interest payments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No interest</td>
<td>36</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>Decreases</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Fixed interest</td>
<td>56</td>
<td>57</td>
<td>33</td>
<td>31</td>
<td>Same</td>
<td>Decreases</td>
<td>Same</td>
</tr>
<tr>
<td>Floating interest</td>
<td>7</td>
<td>5</td>
<td>17</td>
<td>33</td>
<td>Same</td>
<td>Increases</td>
<td>Increases</td>
</tr>
<tr>
<td>Floating interest plus a spread</td>
<td>2</td>
<td>34</td>
<td>48</td>
<td>36</td>
<td>Increases</td>
<td>Increases</td>
<td>Same</td>
</tr>
<tr>
<td><strong>3 - Early or contingent maturity clauses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>No early maturity</td>
<td>18</td>
<td>1</td>
<td>8</td>
<td>22</td>
<td>Decreases</td>
<td>Increases</td>
<td>Increases</td>
</tr>
<tr>
<td>Programmed renegotiation</td>
<td>66</td>
<td>26</td>
<td>29</td>
<td>31</td>
<td>Decreases</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Call provision</td>
<td>60</td>
<td>98</td>
<td>85</td>
<td>46</td>
<td>Increases</td>
<td>Decreases</td>
<td>Decreases</td>
</tr>
<tr>
<td>Both call provision and renegotiation</td>
<td>61</td>
<td>25</td>
<td>24</td>
<td>21</td>
<td>Decreases</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Either call provision or renegotiation</td>
<td>82</td>
<td>99</td>
<td>90</td>
<td>57</td>
<td>Increases</td>
<td>Decreases</td>
<td>Decreases</td>
</tr>
</tbody>
</table>
Comments

- Inflation and foreign currency indexation decreased dramatically
- Use of floating rate bonds increased substantially
- Use of all forms of early maturity has decreased
# Dividend, Investment, & Financial Covenants

<table>
<thead>
<tr>
<th>Covenant</th>
<th>1989-93 (n=50)</th>
<th>1994-97 (n=96)</th>
<th>1998-01 (n=119)</th>
<th>2002-04 (n=67)</th>
<th>B-A Changes</th>
<th>C-B Changes</th>
<th>D-C Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 - Dividend Covenants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>32</td>
<td>27</td>
<td>48</td>
<td>19</td>
<td>Same</td>
<td>Increases</td>
<td>Decreases</td>
</tr>
<tr>
<td>No dividends when bonds in default</td>
<td>68</td>
<td>70</td>
<td>46</td>
<td>67</td>
<td>Same</td>
<td>Decreases</td>
<td>Increases</td>
</tr>
<tr>
<td>Dividends contingent on performance</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>Same</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Other cash flow constraints to related parties</td>
<td>2</td>
<td>10</td>
<td>3</td>
<td>18</td>
<td>Increases</td>
<td>Decreases</td>
<td>Increases</td>
</tr>
<tr>
<td><strong>2 - Investment Covenants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>52</td>
<td>29</td>
<td>33</td>
<td>3</td>
<td>Decreases</td>
<td>Same</td>
<td>Decreases</td>
</tr>
<tr>
<td>To insure PPE</td>
<td>32</td>
<td>36</td>
<td>29</td>
<td>61</td>
<td>Same</td>
<td>Same</td>
<td>Increases</td>
</tr>
<tr>
<td>Operations within corporate goals</td>
<td>28</td>
<td>38</td>
<td>30</td>
<td>75</td>
<td>Same</td>
<td>Same</td>
<td>Increases</td>
</tr>
<tr>
<td>Investment limits and constraints</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>21</td>
<td>Same</td>
<td>Decreases</td>
<td>Increases</td>
</tr>
<tr>
<td>Ownership and control changes antecipates maturity</td>
<td>10</td>
<td>20</td>
<td>28</td>
<td>67</td>
<td>Increases</td>
<td>Increases</td>
<td>Increases</td>
</tr>
<tr>
<td>Constraints on the use on bond collateral assets</td>
<td>12</td>
<td>32</td>
<td>19</td>
<td>22</td>
<td>Increases</td>
<td>Decreases</td>
<td>Same</td>
</tr>
<tr>
<td>Capital asset sale prohibition</td>
<td>4</td>
<td>5</td>
<td>17</td>
<td>46</td>
<td>Same</td>
<td>Increases</td>
<td>Increases</td>
</tr>
<tr>
<td>Dilligence and compliance to regulations and standards</td>
<td>8</td>
<td>7</td>
<td>0</td>
<td>10</td>
<td>Same</td>
<td>Decreases</td>
<td>Increases</td>
</tr>
<tr>
<td><strong>3 - Financing Covenants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>80</td>
<td>31</td>
<td>72</td>
<td>25</td>
<td>Decreases</td>
<td>Increases</td>
<td>Decreases</td>
</tr>
<tr>
<td>Restrictions on additional debt</td>
<td>4</td>
<td>16</td>
<td>16</td>
<td>57</td>
<td>Increases</td>
<td>Same</td>
<td>Increases</td>
</tr>
<tr>
<td>Third party debt guarantee</td>
<td>16</td>
<td>24</td>
<td>11</td>
<td>24</td>
<td>Same</td>
<td>Decreases</td>
<td>Increases</td>
</tr>
<tr>
<td>Senior debt</td>
<td>14</td>
<td>16</td>
<td>10</td>
<td>22</td>
<td>Same</td>
<td>Same</td>
<td>Increases</td>
</tr>
<tr>
<td>New debt exchange rights</td>
<td>4</td>
<td>44</td>
<td>3</td>
<td>1</td>
<td>Increases</td>
<td>Decreases</td>
<td>Same</td>
</tr>
</tbody>
</table>
Comments

- Once inflation has come down, bond indentures took a greater emphasis on conflicts of interest
  - Ownership and control changes
  - Insurance of PPE
  - Operations within corporate goals
  - Capital asset sale prohibition
  - Restrictions on additional debt, third party debt guarantee, and the issue of senior debt
Financial Instruments Interactions

An econometric analysis
Goal

- Identify interactions between usage of overall leverage, bank loans, domestic bonds, international bonds, and asset-backed securities
- Control for determinants of capital structure suggested in the literature
- Control for corporate governance practices
- Control for potential reverse causality
Firm/Bond-Level Data

• Sample: all public Brazilian firms listed at Bovespa in 2005 (357 companies)

• The market and accounting data comes from the Economatica database, and the information on domestic and international bonds comes from the CVM, SND, and Bovespa Fix
Descriptive (Average) Statistics

- Number of employees: 7,218
- Revenues: R$ 2.71 billion, of which 12.16% are exports
- Total assets: R$ 5.43 billion
- 46.67 years since incorporation
- Almost 20% of the firms issue ADRs
- 45.33% use derivatives to hedge or change the debt profile
- 36% have foreign shareholders (mean stake of 18.60%), and 18.67% have foreign controlling shareholders
  - U.S.A. (21.90%), Spain (10.95%), Netherlands (7.30%), Italy (7.30%), and Japan (6.57%)
Capital Structure

- Shareholder's equity is 46% of assets
- Financial liabilities represent 57% of assets, and 24% are denominated in foreign currency
- Debt is represented by
  - Domestic bonds (18% of total assets)
  - National banks (15%)
  - Suppliers (8%)
  - International banks (5%)
  - BNDES (5%)
  - International bonds (1%)
  - Asset-backed securities (1%)
Capital Structure

- International bonds and foreign banks are 99.9% denominated in foreign currency
- Most financial liabilities are not foreign currency indexed
- Brazilian firms
  - 30% issue domestic bonds
  - 15.20% issue international bonds
  - 6.67% issue asset-backed securities
Aggregate Capital Structure of Firms

Figure 4: Aggregate capital structure of Brazilian listed companies

- Equity: 46.11%
- Dom. Banks: 15.44%
- Int'l Banks: 5.15%
- Dom. Bonds: 18.04%
- Int'l Bonds: 1.45%
- Asset backed: 1.13%
- BNDES: 4.77%
- Suppliers: 8.23%
- Other: 3.26%
- Other: 3.26%
- Other: 3.26%

Note: BNDES is the Brazilian National Development Bank. All figures for 2005. Percentages are averages of listed Brazilian companies and do not add up to 100%.

Source: Brazilian Securities Commission (CVM).
Control Variables

- Firms with more fixed assets have more debt (collateral effect) – *tangible assets proportion*
- Large and profitable firms tend to use more shareholder’s capital – *size and ROA*
- Risky firms tend to use less debt - *volatility*
- Firms with more investment opportunities have lower leverage – *growth potential – Tobin’s Q and Price-to-Book*
- Firms with better governance practices and less ownership concentration may issue more – *governance index and ownership percentages*
- Industry, year, ADR, and foreign control dummies
Econometric Note

- Initial fixed effects (Hausman) regression models
- OLS results do not deal with the potential endogeneity and may be not reliable
- Three-stage least squares (3SLS) to account for the endogeneity
- In general, results obtained with 3SLS are consistent with panel regressions
- Only the 3SLS results are reported
### 3SLS Results

<table>
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<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Lev</th>
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Debt financing interactions

- Firms that use bank loans tend to issue fewer domestic bonds
  - *Domestic bonds are used as an alternative to bank loans*
- Firms issuing international bonds tend to issue both domestic bonds and bank loans more
  - *International bond issuers use all types of financing more*
Firms characteristics and debt use

- Exporters use *less* international bonds and *more* asset backed securities (securitized export receivables)
- Firms with foreign shareholders use international bonds *more* intensively
- ADR issuers use international bonds and asset-backed securities *less*
- Firms with better corporate governance practices are *less* leveraged in general
Determinants of Bond Financing

• Signs of the usual control variables in capital structure studies show that:
  • *Larger* firms use all types of debt *more* but, as they become larger, their debt usage decreases
  • Results for general *leverage* show that it *increases* with *tangibility* and that it *decreases* with *volatility* (risk) and accounting *profitability* (ROA)
  • Results for other control variables are *mixed* depending on the type of financing analyzed
Investor and issuer survey

A qualitative analysis
Investors Survey

• Main problems of the local bond market:
  ✓ Low liquidity of the secondary market (97% of the respondents)
  ✓ Low market capitalization (74%)
  ✓ Absence of a complete benchmark yield curve (68%)
  ✓ Low quality of legal recourse in the event of default (63%)
In the absence of regulatory constraints, investors would increase the weight of foreign assets (55%), asset-backed securities (44%), and domestic bonds issued by private-owned companies (38%).

If the size of their portfolios increased by 50%, but with the current regulatory constraints, some investors would increase the weight of asset-backed securities (55%), domestic government bonds (50%), and certificates of deposit (39%).

More than 70% would be interested in holding BRL denominated bonds (inflation indexed or fixed rate) issued by AAA institutions (World Bank, IADB etc).
• Overall, investors agree that:
  ✓ The yield curve provided by public bonds is crucial for pricing corporate bonds
  ✓ They would sell private bonds and buy government bonds if the yield on government bonds increased and that of private bonds remained constant
  ✓ A large stock of public bonds is not necessarily important for the development of the corporate bond market
  ✓ Government and corporate bonds are not substitutes in their portfolios
Firms Survey

• Most firms (83%) have outstanding bonds, and have issued bonds over the last three years
• However, they are not sure about issuing bonds in the next two years
• The main reason to change the funding strategy from bonds to other types of financing instruments is associated with high issuance costs
Bank borrowings present the following problems: high interest rates, collateral requirements, and a slow loan approval and disbursement process.

The different types of fees (underwriting, rating, lawyers, and registration) are obstacles to issue domestic and international bonds.

Bond issuance also posits the following problems: small market, low liquidity in the secondary market, and regulatory requirements.
Firms Survey – Financing alternatives

- The speed of access to required financing, and the information requirement is more problematic for bond issues than bank loans.
- Asset-backed securities and international bonds have the lowest interest rates while domestic banks charge the highest.
- Local currency lending is more easily available through asset-backed securities, domestic banks and bonds and obviously more difficult through international banks.
Firms Survey – Financing Alternatives

- Long-term lending is only available in the international bond market
- The greatest advantage of suppliers’ credit relative to bond financing is the possibility of renegotiation in the case of economic difficulties
- The costs related to disclosure requirements are lower for domestic bank borrowings and higher for international bond issues
Conclusions and recommendations

With potential policy notes
Summary

- The market has a great growth potential
- Larger and more sophisticated firms use all types of debt
- Domestic bond financing is a substitute for expensive bank loans and should be stimulated
- Bond indentures are increasingly concerned about conflicts of interest and bondholder rights
- Measures that reduce underwriting fees, the complexity of the issuance process, and that help develop pricing mechanisms are important for the corporate bond market development
Investor’s Outlook

- When asked what they would do if their portfolio was not constrained or if it increased in size, investors said they would buy more corporate debt.

- However, if interest rates on government debt are disproportionably raised relative to corporate debt, they would return to government debt.
Bond market perspectives

- Many respectable analysts believe that the Brazilian domestic government debt market hurts more than helps the corporate debt market because it crowds out corporate debt.
- However, the size of the public debt market is not necessarily indicative of crowding out.
- In Brazil, high interest rates may be used to entice institutional investors to hold government debt but public debt is not necessarily a substitute for private debt.
- The public debt market is the only one capable of providing a longer term yield curve in the near future.
Bond Market Perspectives

- With decreasing yields on public debt, it is possible that demand for private sector debt increases, allowing for cheaper financing by Brazilian firms. *Some believe next year will be the corporate debentures year.* 😊

- With decreasing yields and lower underwriting costs, there may be greater issuance of convertible bonds by lower credit quality issuers. 😊

- With sustained stability and better market structure and liquidity, the future for corporate bonds may be much better 😊
Recent Events

- The BNDES, will act as a market marker to improve the liquidity of the secondary corporate bond market.
- National Treasury's efforts to simplify and extend the yield curve.
- Continued efforts by agents, such as Andima, to improve market transparency, trading systems standards, practices (CONFERE) etc.
- Continued economic improvement.
Recommendations

- Revision of capital adequacy and prudential rules to reduce their bias in favor of government debt
- Possible harmonization of prudential rules across different types of institutional investors with an eye on reducing the bias in favor of public debt
- Do not increase, and possibly relax, regulation about ceilings on corporate debt in mutual funds and of foreign security holdings at least for high minimum investment funds.
More recommendations

- End of the biased tax treatment in favor of government debt, such as extending the tax exemption of foreigners to corporate debt
- Reduction of the tax load, complexity, and double taxation (IOF, CPMF, IR)
- Use of the simplified standard bond indenture may reduce issuance costs, increase market volume and reduce fees (BNDES)
Educative Recommendations

- Initiatives directed to key market agents (regulators, judiciary, politicians etc) to reduce anti-creditor bias
- Initiatives to promote the corporate debt market amongst investors in general with an eye on retail investors in particular
- Improve market information for large institutional investors
“Pie in the sky” Recommendations

- Eliminate CPMF and IOF taxation on bonds. 😊
- Gradual elimination of forms of financing based on compulsory savings, such as those that fund the BNDES 🌞
- A potential improvement in the bankruptcy code could be to give priority to short-term debt in case of default in order to develop the Brazilian commercial paper market as an easier entry mode into the corporate debt market for smaller firms 🙃
Thank you!

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