Alternative trading and price discovery mechanism: Call Market

Apr/2017
We seek to represent all the different types of institutions that are active in Brazilian capital markets.

- **Asset Managers/Administrators**: 41%
- **Universal Banks**: 25%
- **Brokerage Firms**: 13%
- **Distributors**: 12%
- **Commercial Banks**: 4%
- **Other Institutions**: 3%
- **Investment Banks**: 2%
COMMITMENTS

- REPRESENT
- SELF-REGULATE
- INFORM
- EDUCATE
Provide information, studies, and other tools that encourage greater transparency and liquidity
Amount outstanding of domestic government bonds: R$ 3,020 billion (USD 970 billion) – Feb/17

**Bar Chart**
- Fixed rate: 35.1%
- Inflation Linked: 32.8%
- Floating rate (Selic rate): 30.5%
- Others: 1.6%

**Pie Chart**
- LTN: 30%
- NTN-F: 70%
- NTN-B (IPCA): 91%
- NTN-C (IGP-M): 9%
DOMESTIC GOVERNMENT BONDS

Government bonds - share by Holders

- Pension Funds 15.5%
- Mutual Funds 26.1%
- Financial Institutions 22.4%
- Non-residents 13.7%

Bar chart showing the distribution of government bonds by type and category:

- Financial Institutions: 2% Fixed Rate, 34% Inflation Linked, 19% Floating Rate, 46% Others
- Pension Funds: 23% Fixed Rate, 55% Inflation Linked, 14% Floating Rate, 87% Others
- Mutual Funds: 14% Fixed Rate, 61% Inflation Linked, 25% Floating Rate, 10% Others
- Non-residents: 3% Fixed Rate, 87% Inflation Linked, 10% Floating Rate, 0% Others
SECONDARY MARKET
Turnover by type of security - 2016

<table>
<thead>
<tr>
<th>Security</th>
<th>Amount Outstanding</th>
<th>Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTN</td>
<td>900 R$ billion</td>
<td>230%</td>
</tr>
<tr>
<td>NTN-F</td>
<td>300 R$ billion</td>
<td>196%</td>
</tr>
<tr>
<td>NTN-B</td>
<td>700 R$ billion</td>
<td>144%</td>
</tr>
<tr>
<td>NTN-C</td>
<td>15 R$ billion</td>
<td>4%</td>
</tr>
<tr>
<td>LFT</td>
<td>450 R$ billion</td>
<td>45%</td>
</tr>
</tbody>
</table>
SECONDARY MARKET

On-the-run x Off-the-run turnover - 2016

- Inflation Linked (NTN-B)
  - Off-the-run: 107%
  - On-the-run: 246%

- Fixed Rate
  - Off-the-run: 138%
  - On-the-run: 307%
Voice OTC Market – dealer (based) and agency (commission-based)
Electronic platform is increasing its share
• Although declining share, trading volume through brokerage sustained its relevance;

- The Call Market plays an important role for liquidity
CALL MARKET CHARACTERISTICS

• Performed by brokers, is comprised of OTC bid and ask offers among clients, scheduled during the day;
• There are rules that must be followed: The document establishing the rules must be registered at Anbima (for self-regulation purposes);
• In general, orders are displayed by phone or through quotes services and “chats”;
• Price quotes are firm and for standard quantities of bonds or multiple of that;
• There is a queue that must be followed;
• The quotation is in sequence from the first maturity to the last one. The best bid and ask prices is set as the “call result”;
CALL MARKET CHARACTERISTICS

• The length of time of each call varies accordingly to the liquidity of each maturity;
• All bid and ask quotes are recorded and the results are sent to ANBIMA to be released in an specific web page;
• Clients are mainly institutional investors (investment funds and pension funds), bank treasuries and non-residents;
• Some brokers are able to gather more than 300 clients in the call;
## Call Market - Statistics

### Number of Brokers

<table>
<thead>
<tr>
<th>Year</th>
<th>Fixed Rate Bonds</th>
<th>Inflation Linked Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>2016</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2017*</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

### Distribution per Shifts (2017)

<table>
<thead>
<tr>
<th>Type of Bond</th>
<th>Morning</th>
<th>Afternoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Rate Bonds</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Inflation Linked Bonds (NTN-B) Bonds</td>
<td>58%</td>
<td>42%</td>
</tr>
</tbody>
</table>

### Percentage of Bids, Offers and Spreads (2017)

<table>
<thead>
<tr>
<th>Type of Bond</th>
<th>Only Bid or Offer</th>
<th>Bid and Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Rate Bonds</td>
<td>12%</td>
<td>88%</td>
</tr>
<tr>
<td>Inflation Linked Bonds (NTN-B) Bonds</td>
<td>7%</td>
<td>93%</td>
</tr>
</tbody>
</table>
In 2017, 11 of 15 inflation-linked and 14 of 18 fixed rate maturities registered spreads (bid and ask) in more than 75% of the days.
PRICE DISCOVERY

The bid/asks spreads are price references during the day

- Inflation-Linked (NTN-B) - on 2017/01/12
Fixed Rate - on 2017/01/12

The bid/asks spreads are price references during the day.
PRICE DISCOVERY

Resulting quotes are important references for price discovery

- Intraday - 2017/01/12
  - On-the-run maturities are highlighted

2) Considering maturities after 2018.
• Closing - 2017/01/12
  • On-the-run bonds are highlighted

Inflation-Linked bonds (NTN-B)

Fixed Rate bonds (LTN and NTN-F)

2) Considering maturities after 2018.
• Products derived from the pricing activity: reference prices, fixed income indices, zero coupon yield curves, break-even inflation

  - **ANBIMA Market Index (IMA)**

  - **Inflation-Linked bonds – IMA-B**

  - **Fixed Rate bonds – IRF-M**

  - **Yield Curves**

  - **Real Zero Coupon Curve**

  - **Nominal Zero Coupon Curve**