Brazilian Federal Public Debt
Investor Presentation

November - 2017
Summary

1. Macroeconomic Outlook
2. Fiscal Performance
3. Structural Reforms
4. Subnational Governments
5. Public Debt in Details
Brazil

The largest economy in Latin America

9th largest GDP in the world
(USD 1.8 trillion in 2016)

5th largest population
(206 million)

5th largest country by area
(8,515,767 sq km)

6th FDI host economy

GDP per capita USD 8,587
Monetary Policy

The inflation is already below the target

Expectations find anchored (both FOCUS and implicit inflation)

Real interest rate on long term bonds*

* NTN-B Long-term Benchmarks. Maturities in 2035 and 2055.

Long term interest rate is responding to the price stabilization

Source: National Treasury (November 03rd 2017)
Confidence has bounced back

Industrial Confidence Index  
*seasonally adjusted*

Consumer Confidence Index  
*seasonally adjusted*

Source: FGV
Market Expectations for 2017-2020

Forecasts estimate that growth will return in 2017, recovering from the longest recession in our history.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>(% GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth over the last 20 years</td>
<td>3.3</td>
</tr>
<tr>
<td>Demographic and world growth effect (China)</td>
<td>-1.0</td>
</tr>
<tr>
<td><strong>Potential GDP without reforms</strong></td>
<td>2.3</td>
</tr>
<tr>
<td>Microeconomic reforms</td>
<td>+</td>
</tr>
<tr>
<td>Private sector crowding-in</td>
<td>+</td>
</tr>
<tr>
<td><strong>Potential GDP with reforms</strong></td>
<td>3.5 - 4.0</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance (2017, July)

Real GDP Growth

Agenda aiming to reduce government crowding-out effect and raise private sector crowding-in.

Potential Growth

Scenario

- Growth over the last 20 years
- Demographic and world growth effect (China)
- Potential GDP without reforms
- Microeconomic reforms
- Private sector crowding-in
- Potential GDP with reforms

Source: IBGE and Central Bank (FOCUS – November 03rd 2017)

* Market forecasts
Despite the end of the commodities cycle, current account deficits have been fully financed by the flows of Foreign Direct Investment (FDI).

It highlights the importance of attracting foreign capital for the consequent increase in domestic savings.
# Market Expectations for 2017-2020

<table>
<thead>
<tr>
<th>Market Expectations - Central Bank pool of forecasts (median)</th>
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</thead>
<tbody>
<tr>
<td><strong>11/03/17</strong></td>
</tr>
<tr>
<td>Primary Balance (% GDP)</td>
</tr>
<tr>
<td>Current Account Balance (US$ billion)</td>
</tr>
<tr>
<td>Exchange Rate Year End (R$/US$)</td>
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<tr>
<td>Inflation (IPCA in %)</td>
</tr>
<tr>
<td>CB Year End Interest Rate - %</td>
</tr>
<tr>
<td>GDP Growth (%)</td>
</tr>
<tr>
<td>Foreign Direct Investment (US$ billion)</td>
</tr>
<tr>
<td>Net Public Sector Debt (% GDP)</td>
</tr>
</tbody>
</table>

Source: Central Bank - Market Forecast (FOCUS – November 03rd 2017)
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The primary spending, mostly mandatory, showed a persistent upward trend during the past years.

From 1998 to 2015, the average growth of government spending exceeded the average inflation of the period.

Although discretionary spending has been reduced, this fiscal effort has been insufficient to curb the dynamics of total spending.
Fiscal trend

Budget rigidity and lack of reform coupled with unfavorable business cycle led to fiscal deficit.

In 2016 the private social security deficit (INSS) represents 96% of the public sector deficit (BRL 155.8 bn)

The current reforms (detailed on the following slides) contribute to revert the trend for the fiscal balance

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<table>
<thead>
<tr>
<th>Year</th>
<th>Central Government</th>
<th>Subnational Government</th>
<th>State-owned companies</th>
<th>Public Sector</th>
<th>Primary Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>-159.0</td>
<td>-1.1</td>
<td>-3.0</td>
<td>-163.1</td>
<td>-159.0</td>
</tr>
<tr>
<td>2018</td>
<td>-159.0</td>
<td>1.2</td>
<td>-3.5</td>
<td>-161.3</td>
<td>-159.0</td>
</tr>
<tr>
<td>2019</td>
<td>-139.0</td>
<td>4.7</td>
<td>-3.5</td>
<td>-137.8</td>
<td>-139.0</td>
</tr>
<tr>
<td>2020</td>
<td>-65.0</td>
<td>16.6</td>
<td>-3.4</td>
<td>-51.8</td>
<td>-65.0</td>
</tr>
</tbody>
</table>

Source: Central Bank
Projections: 2018 Budget Guidelines Law Amendment (LDO)

The projections are made based on a real GDP growth of 0.5% in 2017, 2.5% in 2018, 2.5% in 2019 and 2.6% in 2020.
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Spending Cap – limits the growth of public spending to the inflation, for the next 20 years

The inflation correction refers to the previous 12-month period

The Spending Cap starts off with a minimum spending on health and education for 2017, then the general rule to all

Health and Education have represented 8.7% and 4.3%, respectively of the total expenditures subject to the cap in 2016

Penalties for not complying with the cap include the interdiction to adjust civil-servant wages, to hire new staff and to create new expenses on the budgetary process

There are few exception that add only to about 5% of the total expenditures:

- The regular federative transfers set by default on the Constitution referring to tax sharing
- Transfers from taxes on water, oil, natural gas and mineral resources exploration
- Federal District Constitutional Fund
- Exceptional emergency funds
- Funds for holding of elections
- Capital increase in budget-independent state-owned enterprises
3. Spending Cap should anchor the fiscal policy

Goals of the Spending Cap:

• Ensure that federal public expenditures return to the 2008 levels
• Reduce the tax burden
• Reduce the level of public debt and interest payments
• Represent a reference of medium-term fiscal planning
• Increase the transparency in budget discussions
• Expand discussion about the best spending profile 16.2%
• Foster debate on further structural reforms

% of the spending cap reached

Total Expenditure in 2016

✅ BRL 1,221 bn

Limit for 2017

⚠️ BRL 1,309 bn

69.55%

Spending in 2017 so far

✅ BRL 910 bn

Source: National Treasury - RTN (2017, Sep)

Projection of Primary Expenditures with and without Expenditures Cap (% GDP)

Source: National Treasury
Social Security Reform - Justifications

- Reduction in fertility rate
- Increase in the expectation of survival at 65 years old
- Increase in the share of elderly in the total population

Brazilian demographic transition indicates unsustainability of social security spending under current rules

In 2015, 8 people worked for every person aged 65 years and older

In 2040, 4 people will work for each person aged 65 years and older

Source: IBGE
Welfare Expenditures - International Comparison

Source: OECD and MF. Data for 2009.
Social Security Reform - Key Features and Positive Impacts

The proposed social security reform aims to reach a stable spending over the next ten years for private sector and a declining rate for public sector.

The social security reform savings could reach up to BRL 604 billion.
Structural reforms will increase the Brazil’s productivity

Modernize Labor Legislation
✓ Labor Reform – Law 13467/17 (approved in July)
  • Collective agreements will prevail over law provisions
  • Temporary work contracts maximum period will go from 3 to 8 months
  • Creates the category of intermittent employment contracts
✓ Outsourcing law – Law 13429/17 (approved in May): lifts outsourcing restrictions

Credit Market Improvements
✓ Creation of Mortgage-backed security (LIG), a covered bond
✓ Electronic receivables system
  • Streamline Credit-Worthiness Register
  • Reform of the Bankruptcy law
✓ New benchmark for BNDES interest rate (TLP)

Simplification Tax System
• Federal taxes simplification (IPI and PIS-Cofins)
• Includes a series of IT system improvements to reduce red-tape costs

Energy Sector Reform
• Electric Power Sector
  • Regulatory framework revision
  • Eletrobras privatization
  • Privatization of 11 transmission lines
✓ Privatization of 4 hydropower plants previously operated by CEMIG, for BRL 12 bn (done in September)
• Oil and gas sector
✓ Public bids for exploratory oil blocks, with a total collection of BRL 3.8 bn (done in September)
✓ Petrobras no longer holds exclusive rights over pre-salt exploitation
✓ New policy: permanent offer and local content requirements reduction
✓ Waiver resolution

Other concessions and privatizations
• 14 airports
• 2 state highways
• 16 ports
• Lotteries, Currency House, Airport Administration
TLP - the new benchmark long term interest rate

Congress recently approved the Federal Gov’t reform on the benchmark rate for National Development Bank – BNDES:

- Reduces implicit subsidies
- Increases efficiency of the financed projects
- Enhances monetary policy effectiveness and potentially lowers overall interest rate
- Lower interest rates should widen the access to credit market
- Incentives to access credit persist:
  - NTN-B interest rate lower than interest rate market loans to companies
  - NTN-B interest rate in declining trend

Source: BCB, National Treasury
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Economic downturn, fall in tax revenues and spending rigidities had a strong impact on the fiscal performance of regional governments.
## Subnational Gov’t Debt Restructuring

Relief measures affect neither the National Treasury loans net worth nor the Federal primary balance

| Benefit | Law 156/16 - approved last December | Special Recovery Regime  
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>20 year lengthening on federal debt and a 6 months grace period</td>
<td>Debt Rescheduling: grace period for 3 years; possibility on new loans if guarantees provided</td>
<td></td>
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<tr>
<td>Eligibility Criteria</td>
<td>Applies to all states willing to accept compensating measures</td>
<td>Net revenues &lt; Debt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personnel expenditures and debt service &gt; 70% of net current revenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liability stock &gt; cash position</td>
</tr>
</tbody>
</table>
| Compensating Measures | 24-month primary spending freeze  
| | Comply with new more strict accounting rules | Privatization program |
| | | Reduction of tax benefits |
| | | Freezing wages |
| | | Prohibition on hiring additional civil servants |
| Impact on payment flows to the Federal Government | BRL 20 bn in 2017  
| | BRL 50 bn in total | Estimated only for RJ, MG and RS: |
| | | BRL 7 bn in 2017 |
| | | BRL 37 bn until 2019 |

Law 156/16 - approved last December

Special Recovery Regime
Law 159/17 – approved in May
Subnational Gov’t Debt Restructuring

Special Recovery – the case of Rio de Janeiro State

The Fiscal Recovery Regime of the State of Rio de Janeiro was approved on September 6. The new regime will enable the balancing of the state’s accounts, an adjustment of around BRL 68 billion until 2020.

Four basis of the fiscal adjustment:

- **Grace period of the federal debt** for 3 years, extendable for 3 further years: BRL 29.6 billion
- Permission to take **new loans** in the order of BRL 11.1 billion.
- **Increase in revenues**: BRL 22.6 billion
- **Expenditures cuts**: BRL 4.7 billion

The authorization of a BRL 3.5 billion loan is expected to take place in 30 days. It will count with Federal guarantee and collateralized by the privatization of Rio’s water and sanitation company. The raised funds will be used to pay expenditure arrears.

### Estimates of the adjustment measures – BRL billion

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<tr>
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</thead>
<tbody>
<tr>
<td>Grace period of debt</td>
<td>5.0</td>
<td>9.0</td>
<td>9.0</td>
<td>6.6</td>
<td>29.6</td>
</tr>
<tr>
<td>New loans</td>
<td>6.6</td>
<td>4.5</td>
<td>-</td>
<td>-</td>
<td>11.1</td>
</tr>
<tr>
<td>Increase in revenues</td>
<td>1.5</td>
<td>5.2</td>
<td>6.5</td>
<td>9.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Expenditures cuts</td>
<td>0.4</td>
<td>0.5</td>
<td>1.0</td>
<td>2.8</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13.5</td>
<td>19.2</td>
<td>16.5</td>
<td>18.8</td>
<td>68.0</td>
</tr>
</tbody>
</table>

The adjustment plan contains no provision for transfers of resources from the Federal Government to Rio de Janeiro. It also does not provide forgiveness of debt, because renegotiated debts will be charged in later years.
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5 Annual Borrowing Plan

Objective of Federal Public Debt Management

To provide federal government borrowing requirements efficiently and at the lowest long-term cost, respecting the maintenance of prudent risk levels and, additionally, seeking to contribute for the smooth operation of the Brazilian government bond market

Guidelines of Federal Public Debt Management

- Gradually replacing floating rate bonds with fixed rate and inflation-linked instruments
- Consolidating the current share of exchange rate-linked instruments, in accordance with their long-term indicative intervals
- Smoothing of the maturity structure, with special attention to debt maturing in the short term
- Lengthening the average maturity of outstanding debt
- Developing interest rate term structure on both domestic and external markets
- Increasing the liquidity of federal government bonds on the secondary market
- Broadening of the investor base
- Improving the External Federal Public Debt (EFPD) profile by means of issuances of benchmark bonds, buyback, and structured operations
# Federal Public Debt (FPD) Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2016</th>
<th>Sep-17</th>
<th>Limits for 2017</th>
<th>Long Term Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum</td>
<td></td>
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<tr>
<td>Stock of FPD* held by the public (R$ Billion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3,112.9</td>
<td>3,430.8</td>
<td>3,450.0</td>
<td>3,650.0</td>
</tr>
<tr>
<td>FPD Profile (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Rate</td>
<td>35.7</td>
<td>35.7</td>
<td>32.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Inflation Linked</td>
<td>31.8</td>
<td>29.7</td>
<td>29.0</td>
<td>33.0</td>
</tr>
<tr>
<td>Floating Rate</td>
<td>28.2</td>
<td>31.1</td>
<td>29.0</td>
<td>33.0</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>4.2</td>
<td>3.6</td>
<td>3.0</td>
<td>7.0</td>
</tr>
<tr>
<td>FPD Maturity Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage Maturing in 12 Months (%)</td>
<td>16.8</td>
<td>17.2</td>
<td>16.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Average Maturity (years)</td>
<td>4.5</td>
<td>4.3</td>
<td>4.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Average Life (years)</td>
<td>6.4</td>
<td>6.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Includes domestic (BRL 3,311.95 billion - sep/17) and external debt (BRL 118.88 billion - sep/17) managed by the National Treasury.

Source: National Treasury (Annual Borrowing Plan 2017 and Monthly Debt Report)
Improving Public Debt Composition – Moving towards Fixed Rate + Inflation Linked

Source: National Treasury
Note1: Federal Public Debt, which includes both domestic and external liabilities.
The trajectories indicate how the National Treasury can conduct its financing strategy, depending on the country's macroeconomic and financial conditions.

Source: National Treasury (Annual Borrowing Plan 2017)
Improving Public Debt Maturity Structure

Source: National Treasury
The process of resumption of convergence to the optimal long-term guidelines is directly linked to the pace at which fiscal balance results are strengthened, economic agents confidence improves and economic growth is resumed.
Outstanding and Yields: Fixed rate bonds

Source: Anbima and National Treasury (November 03rd 2017)
Note: The yield of the NTN-F is based on the 252-d standard.
Outstanding and Yields: NTN-B

Source: Anbima and National Treasury (November 03rd 2017)
Investor base is diversified, which contributes to the reduction of risks associated with the DPF.

Source: National Treasury
Note2: “Pension Funds” includes both open and closed pension funds. “Government” comprises funds that are managed by the public sector, including those whose assets are not public.
5

Domestic Federal Public Debt (DFPD) - Holders

- Financial institutions portfolio: 49% in fixed rate bonds
- Mutual Fund’s portfolio: 61% in floating rate bonds.
- Pension Fund portfolio: 53% in Inflation-linked bonds. Pension Fund portfolio have longest duration.

Source: National Treasury
External Debt Strategy and Results

The National Treasury maintain its policy of improving external debt yield curves, seeking to mitigate refinancing risks through:

- Qualitative issuances: securities issues in the foreign market aims to establish reference points for Brazilian companies wishing to access international markets;
- Buyback of old securities that are no longer benchmarks and no longer adequately reflect the cost of external financing.

*For the A-Bond (BR 8.00 01/15/2018) the reduction in the outstanding value includes not only the amount purchased through the Buyback Program, but also the amortization.
In 2009 CDS changes not reflect on ratings

Brazil becomes investment grade may 2008

Brazil loses investment grade dec 2015

Brazil's CDS 5y rises from sep 2014 on

Brazil's CDS noticeably drops before receiving the investment grade
For additional information access the National Treasury website:

www.tesouro.fazenda.gov.br

Or contact Institutional Relations area:

brazildebt@fazenda.gov.br

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