Brazil’s Perfect Storm

Macro, Markets, Money with Markus

Introductory remarks by

Arminio Fraga
Markus Brunnermeier
Princeton
PAST AND FUTURE SPEAKERS

- **Last**
  - Bob Shiller
    - "Narrative Economics and COVID"

- **Today**
  - Armino Fraga
    - "Brazil’s Perfect Storm"

- **Next webinar**
  - Richard Zeckhauser
    - "Climate Policy: Beyond Ostriches and Pollyannas"

- **Related:**
  - Gita Gopinath
  - Raghu Rajan
  - Hyun Shin
INTEGRATED POLICY FRAMEWORK: SAFE ASSET PERSPECTIVE

- See Brunnermeier-Merkel-Sannikov (2020)

- EME: risk-on vs. risk-off regime  Flight-to-safety
- Largely *driven by US monetary policy*

RISK-OFF

- Firms/banks: issue low interest US$-debt (safe asset)
  don’t internalize that FX more volatile
- Official sector: holds US$-reserves
  anti-Keynesian monetary policy
- Citizens: hold R$  Rush to hold US$ (as safe asset)
  (domestic safe asset) Exchange rate collapses
2. **MAIN EFFECTS OF CURRENCY DEPRECIATION**

**Expert/import**  
- **$-debt burden**
  - **Inflation**
  - **balance sheet impairments**

Mario Simonsen: “*Inflation hurts but the foreign exchange rate kills.*”

- **Brazil then:**  
  - *anti-Keynesian MoPo*  
  - GDP volatility  
  - defend currency in crisis

- **Brazil now:**  
  - low inflation (so far)  
  - firms repaid US$-debt  
  - banks long US$  
  - official sector US$-reserves  
  - citizens hold R$ gov. bonds
NOMINAL AND REAL INTEREST RATE IN DECLINE

Policy Rate - SELIC
Real Interest Rate (Policy Rate - Inflation YoY)
FLIGHT TO SAFETY IN US-$

- Fiscal debt structure
  - Inflation indexed ($≈35\%) Less inflation temptation or not?
  - Floating interest rate ($≈50\%$)
  - Short maturity ($≈2-3$ years)

- Flight to safety by citizens
  - Loss of domestic safe asset status
  - Run into money/reserves US$ (depends on $-$interest rate and FX-rate)
  - Defend currency domestically (off-equilibrium credibility)
    - Monetary dominance 
      - hike interest rate 
      - fiscal consolidation
    - Fiscal dominance 
      - have fiscal plan in place

- Capital controls (outflows) – financial repression
POLL QUESTION

1. Brazil is economically in a better situation in this crisis
   a. Reserves holdings
   b. Less $-debt
   c. Same problem, due to “original sin redux” (BIS)

2. Low real interest rate is
   a. Good and a big benefit to manage economic crisis
   b. Bad, e.g. secular stagnation

3. Loss of domestic safe asset status
   a. CB independence would help
   b. Fiscal dominance anyways
Brazil´s perfect storm
(why Brazil is falling behind)

Arminio Fraga
1. DIVERGENCE since 1980

Brazil/US - GDP per capita ratio
Constant 2010 US$

Source: World Bank, Gávea Investimentos
2. WHY? WRONG MODEL

• Closed economy
• No focus on education
• No focus on structural inequality
• Excessive presence of the State in the economy
• Macroeconomic instability

=> Blew up in the 80s
3. Progress since the 90s

- Macro stability
- More open economy
- Focus on education (most kids in School)
- Focus on Health (SUS, important successes)
- Privatization + regulation

=> Reduction in poverty (“inflation tax” Plano Real)
=> Reduction in extreme poverty (Bolsa Família)
=> Some reduction in inequality
=> Some growth, looking good
4. But it was not to last

- Dilma Rousseff: “spending is life”
- Massive credit subsidies and tax breaks
- Growing indebtedness of states and municipalities
- Return to a failed model...

=> Massive fiscal collapse starting in 2014
Government spending & Tax breaks

Brazil - Primary budget balance, as share of GDP

Source: BCB, Gávea Investimentos
Government debt

Government debt, as share of GDP

%  


Source: BCB, Gávea Investimentos
Brazil - Evolution of federal subsidies, as share of GDP

Subsidies
- Financial and credit benefits
- Tax benefits

Source: RFB, SECAP.
Investment

Investment, as share of GDP

Source: Observatório de Política Fiscal/FGV-Ibre, Gávea Investimentos
## GDP growth: Brazil vs. LatAm

### GDP Growth - Brazil and Latin America

<table>
<thead>
<tr>
<th>Average Growth</th>
<th>Brazil</th>
<th>LATAM Ex-Brazil</th>
<th>Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-2002</td>
<td>2.2%</td>
<td>2.1%</td>
<td>0.04%</td>
</tr>
<tr>
<td>2003-2010</td>
<td>4.1%</td>
<td>3.7%</td>
<td>0.43%</td>
</tr>
<tr>
<td>2011-2016</td>
<td>0.4%</td>
<td>2.6%</td>
<td>-2.24%</td>
</tr>
<tr>
<td>2017-2019</td>
<td>1.6%</td>
<td>1.7%</td>
<td>-0.11%</td>
</tr>
</tbody>
</table>

Source: IBGE, IMF, Gávea Investimentos
6. Brazil just before Covid-19

- Low productivity
- High inequality
- Vulnerable macroeconomy
Inequality

Gini Index

Source: World Bank, Gávea Investimentos
Inequality: income distribution

Brazil - Share of average monthly earnings, by income

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom 5%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Bottom 10%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Bottom 40%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Top 10%</td>
<td>43%</td>
</tr>
<tr>
<td>Top 5%</td>
<td>31%</td>
</tr>
<tr>
<td>Top 1%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: IBGE, Gávea Investimentos
Education

Average years of schooling, all sexes

Education

Adult education level - Tertiary, % of 25-64 year-olds, 2017

Source: OECD, Gávea Investimentos
Education: government spending vs. Latam

Government spending on education (% of GDP)

Source: United Nations Development Programme, World Bank, Department of Basic Education/Brazilian Ministry of Education
Education: proficiency vs. spending

Proficiency in mathematics vs. education spending, 2015-2016

Ease of doing business: Brazil vs. other EM

Global Ranking in Doing Business indicators
Rankings range 1 (highest) - 190 (lowest)

Source: World Bank, Gávea Investimentos
Governance

Percentile rank in Worldwide Governance Indicators

Source: World Bank, Gávea Investimentos
Global competitiveness index (GCI)

Source: World Economic Forum
Social Mobility

Figure 1: Competitiveness and intergenerational mobility, selected countries

Number of generations

1 —
2 —
3 —
4 —
5 —
6 —
7 —
8 —
9 —
10 —
11 —
12 —

GCI 4.0 2019 score (0–100 scale)


Notes: Number of generations refers to the number of generations needed for those born in low-income families (bottom 10% of the income distribution) to reach mean income in their society.

AUS = Australia; BRA = Brazil; CAN = Canada; CHL = Chile; CHN = China; COL = Colombia; DEU = Germany; DNK = Denmark; ESP = Spain; FIN = Finland; FRA = France; GBR = United Kingdom; HUN = Hungary; IND = India; IRL = Ireland; ITA = Italy; JPN = Japan; KOR = Korea; NOR = Norway; PRT = Portugal; SWE = Sweden; USA = United States; ZAF = South Africa.
Government spending

Government spending on pensions and civil servant wages, as share of primary spending

Perfect storm

• Health crisis
• Another massive recession (two 7% drops in 7ys)
• Political crisis (three branches at war)
• Weak leadership
Major risks

- Debt dynamics
- Slow growth, social tensions
- The quality of Brazil’s democracy
Deforestation

Annual deforestation of the Amazon rainforest (km²)

Source: PRODES/INPE, Gávea Investimentos
A picture is worth a thousand words

Caption: “Act in Brasilia with flags in favor of military intervention and AI-5”.
Picture source: Agência O Globo,
“Shut down Congress and the Supreme Court”


Picture source: Gabriela Bilô/Estadão Counteúdo,
Surge in Latin America means global daily death toll on the rise once again

Daily deaths of patients diagnosed with coronavirus (7-day rolling average)

Latin America now accounts for 50 per cent of average global deaths

Mar 15-21
Average daily deaths 393

Jul 2-Jul 8
Average daily deaths 4,700

Rest of N America*

Brazil

LatAm total Jul 2-Jul 8 2,361

US

Rest of LatAm

Peru

Rest of Europe

EU

India

Rest of Asia

Rest of Middle East

The US share of average global daily deaths has fallen to 12 per cent

* Canada, Bermuda, Greenland and St Pierre and Miquelon

Source: Financial Times
Covid-19

Projected crisis spending, as share of GDP

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>4.9%</td>
</tr>
<tr>
<td>Businesses</td>
<td>2.0%</td>
</tr>
<tr>
<td>States/cities</td>
<td>1.0%</td>
</tr>
<tr>
<td>Direct health</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

Source: IFI, Gávea Investimentos
Government spending

Brazil - Primary budget balance, as share of GDP

Source: BCB, Gávea Investimentos
Government debt

Government debt, as share of GDP

Source: BCB, Gávea Investimentos
Hope and resistance

- Institutions responding
- Free press / media
- Young people engaging in politics
- Reform agenda has been alive since Temer
- Labor, BNDES, Social Security, Sanitation
- Needed: Tax (VAT and Income), Fiscal (again), State (HR)
- Above all: politics