

MP 777/ 2017  
Audiência Pública no Senado Federal



**MINDS**



**Felipe Rezende**  
**Professor Associado de Economia e**  
**Finanças, Bard College e Levy**  
**Economics Institute, NY, EUA**

**Research Fellow, Multidisciplinary**  
**Institute for**  
**Development and Strategies (MINDS)**

**Brasília, Brasil**  
**8 de Agosto, 2017**

# Objetivos da proposta (MP 777/ 2017) do governo para alterar a TJLP

- Melhorar resultados fiscais e a dinâmica da dívida pública
- Aumentar a potência da política monetária
  - Queda da taxa de juros
- Acabar com o caráter discricionário da formação da taxa de juros
- Reduzir o volume de crédito direcionados e estimular o mercado privado de capitais
  - Permitir a Securitização de ativos do BNDES
- Documento público que embase a MP 777 /2017 ?

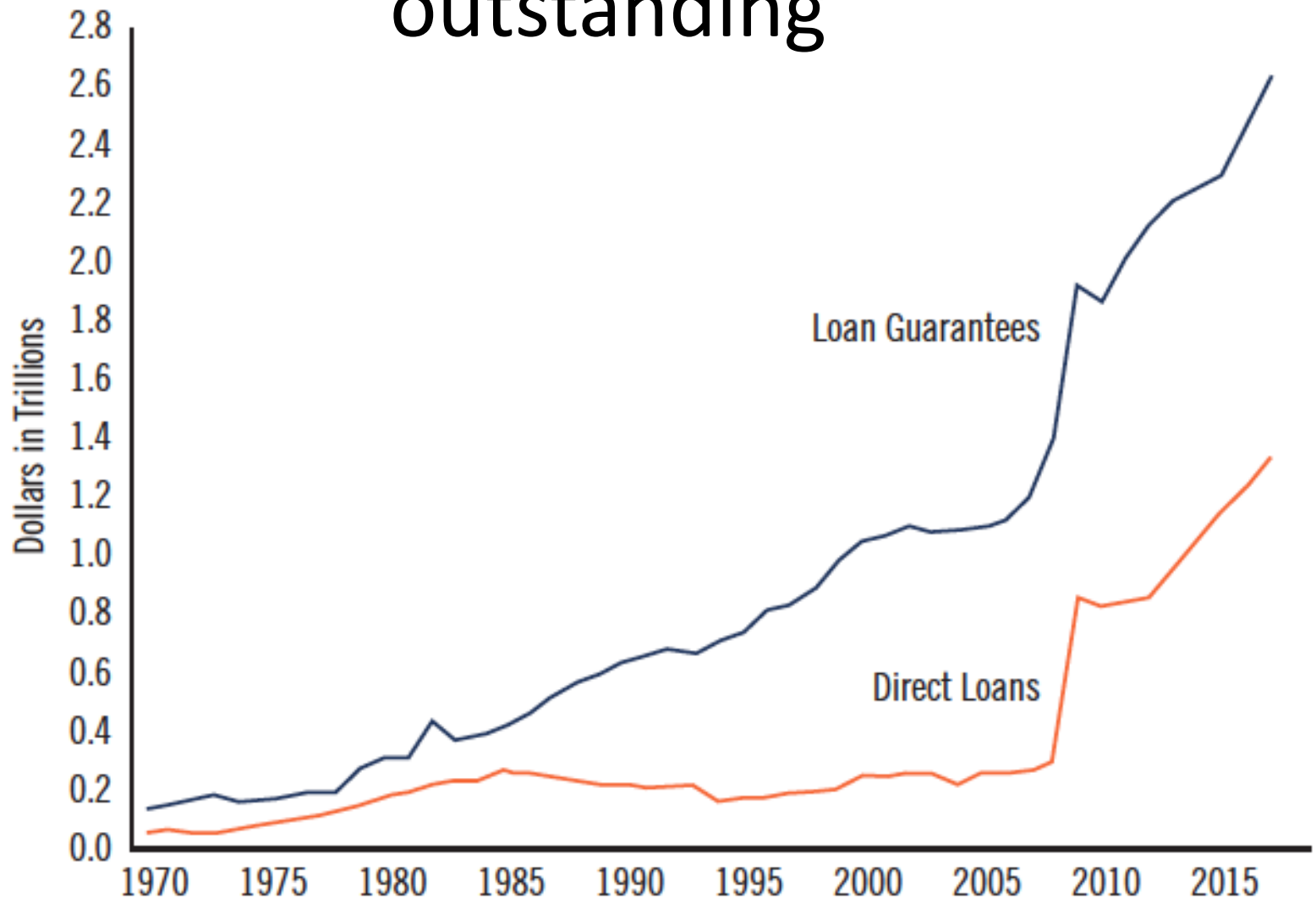
# Pontos Principais

- O Crédito direcionado não é uma jabuticaba.
  - Período pós II Guerra Mundial: Uso generalizado e em larga escala de crédito direcionado e controle das taxas de juros por 3 décadas.
  - Diversos países desenvolveram mecanismos de crédito direcionado
  - Década de 70 e 80: CMP vs. FMP (Relatório do Banco Mundial)
    - Liberalização financeira, desintermediação e transformação dos principais sistemas financeiros.
    - Liberalização das taxas de juros na década de 80 (objetivos e resultados)
    - Subsídios de Juros nos EUA
    - Pós crise global de 2007/2008: QE, ZIRP, NIRP. Limites da Pol. Monet.?
    - Volta da intervenção dos governos nas taxas de juros longas.
  - Qual o papel do BNDES?
    - Discussão no Brasil (TJLP; Selic)
  - Ampla reforma financeira e agenda de crescimento.

# Experiência Internacional

- Regulação Q nos EUA
- Liberalização das taxas de juros na década de 80 (objetivos e resultados)
- Subsídios de Juros nos EUA
- Pós Crise Global: Intervenção dos governos nas taxas de juros longas através dos BCs.

# Face Value of federal credit outstanding



Source: "Face Value of Federal Credit Outstanding," Chart 20-1 of the *Budget of the United States Government, FY 2017, Analytical Perspectives*, p. 329.

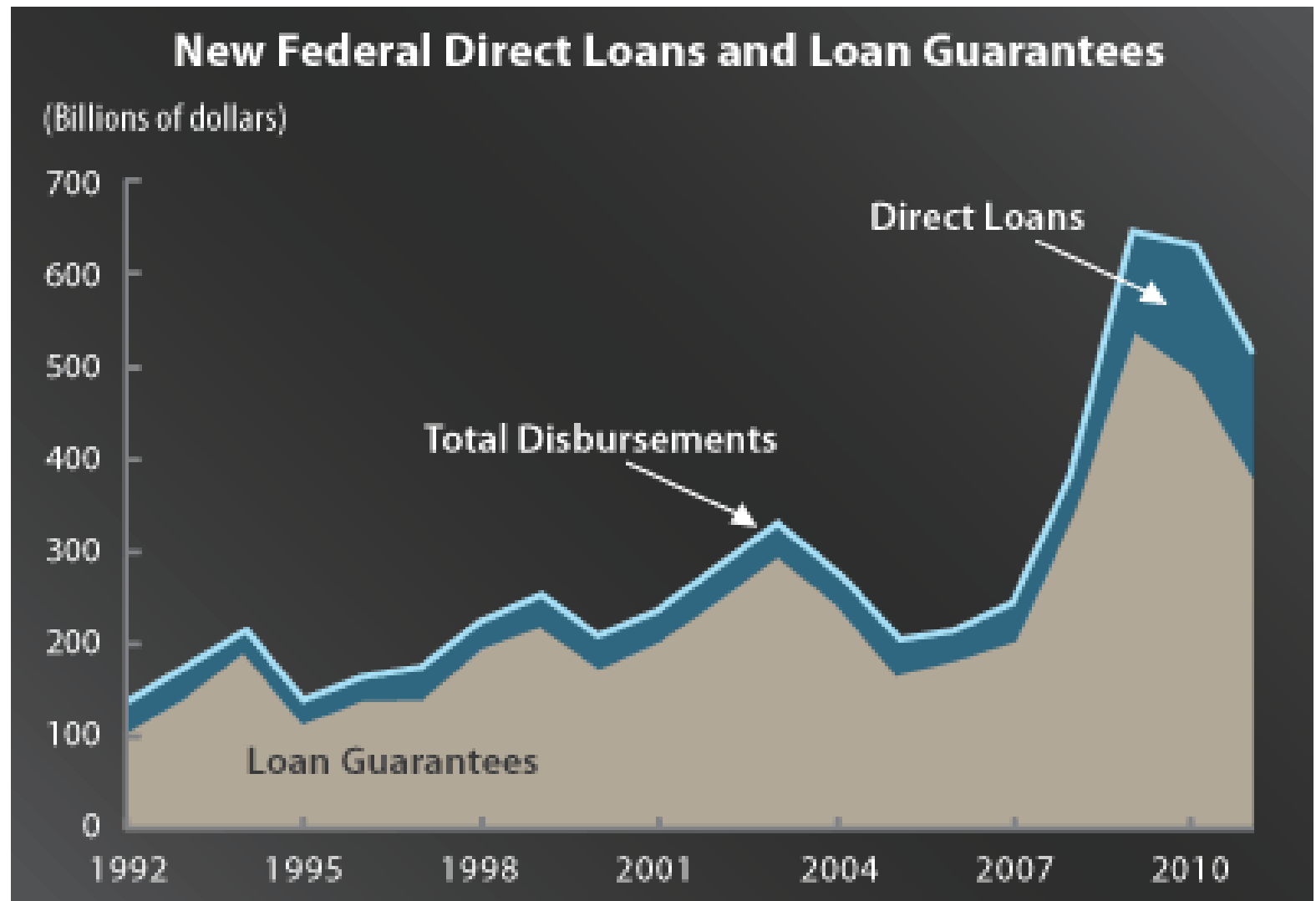
# EUA: crédito direcionado (US\$ bilhões)

Program	Outstanding FY 2015
<b>Direct Loans:<sup>1</sup></b>	
Federal Student Loans	839
Education Temporary Student Loan Purchase Authority	77
Rural Utilities Service and Rural Telephone Bank	52
Farm Service Agency, Rural Development, Rural Housing	55
Export-Import Bank	23
Advance Technology Vehicle Manufacturing, Title 17 Loans	16
Housing and Urban Development	19
State Housing Finance Authority Direct Loans	8
Transportation Infrastructure Finance and Innovation Act Loans	11
Disaster Assistance	6
International Assistance	3
Public Law 480	3
Troubled Asset Relief Program (TARP) <sup>2</sup>	1
Small Business Lending Fund (SBLF) <sup>2</sup>	2
Other direct loan programs <sup>2</sup>	29
<b>Total direct loans</b>	<b>1,145</b>

# EUA: Crédito Federal Total (US\$ bilhões)

Guaranteed Loans: <sup>1</sup>	
FHA Mutual Mortgage Insurance Fund	1,123
Department of Veterans Affairs (VA) Mortgages	462
Federal Student Loan Guarantees	220
FHA General and Special Risk Insurance Fund	149
Farm Service Agency, Rural Development, Rural Housing	134
Small Business Administration (SBA) Business Loan Guarantees <sup>3</sup>	106
Export-Import Bank	62
International Assistance	24
Commodity Credit Corporation Export Loan Guarantees	3
Title 17 Loan Guarantees	3
Government National Mortgage Association (GNMA) <sup>3</sup>	.....
Other guaranteed loan programs <sup>2</sup>	13
Total guaranteed loans	2,300
<b>Total Federal credit</b>	<b>3,445</b>

# EUA: Crédito Federal (desembolsos e garantias)

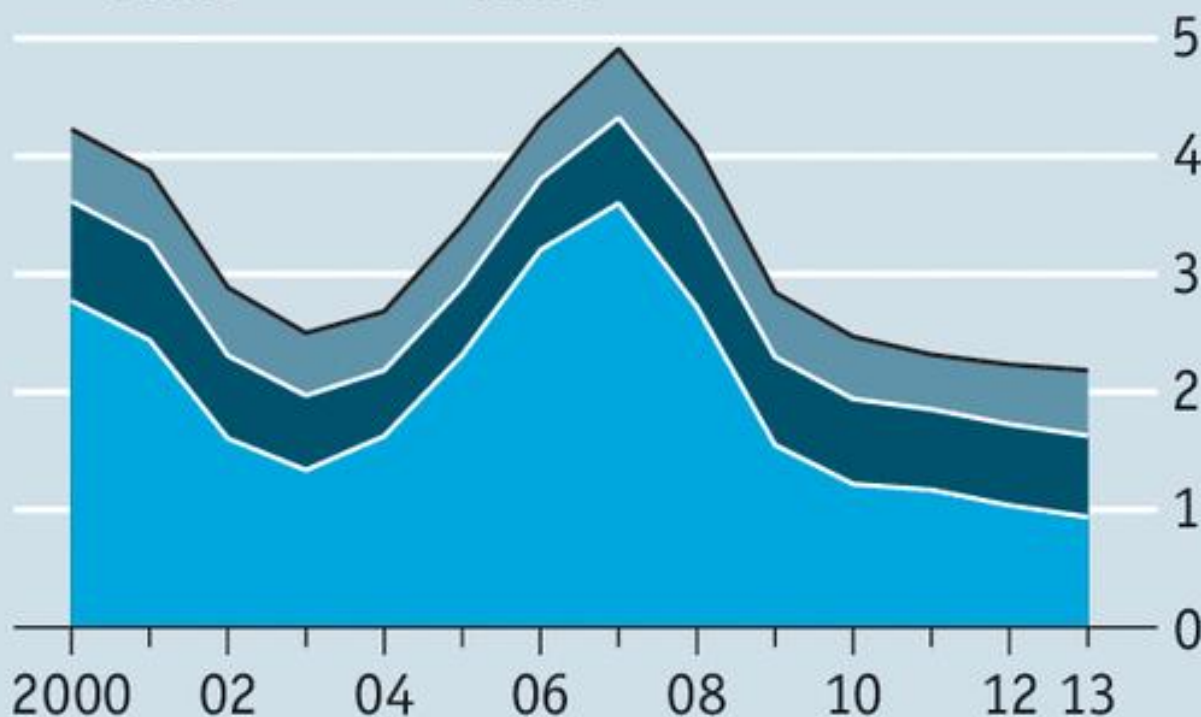




# The greatest gift

United States tax revenues forfeited as a result of interest deductibility, as a % GDP

Financial firms   Non-financial firms   Mortgages



Sources: Federal Reserve; Bureau of Economic Analysis;  
*The Economist*

Subsídio  
taxa de  
juros nos  
EUA: 2-5%  
do PIB por  
ano

# Subsídio taxa de juros nos EUA, Zona do Euro, UK

## Quantifying debt subsidies

Tax revenues forfeited as a result of interest deductibility as a % of GDP

	2007			2013		
	America	Euro zone	Britain	America	Euro zone	Britain
Financial firms' debt	3.6	1.4	2.7	0.9	0.7	0.5
Non-financial firms' debt	0.7	0.5	0.9	0.7	0.3	0.4
Mortgage debt	0.6	0.5	–	0.6	0.2	–
<b>Total</b>	<b>4.9</b>	<b>2.4</b>	<b>3.5</b>	<b>2.2</b>	<b>1.3</b>	<b>0.9</b>

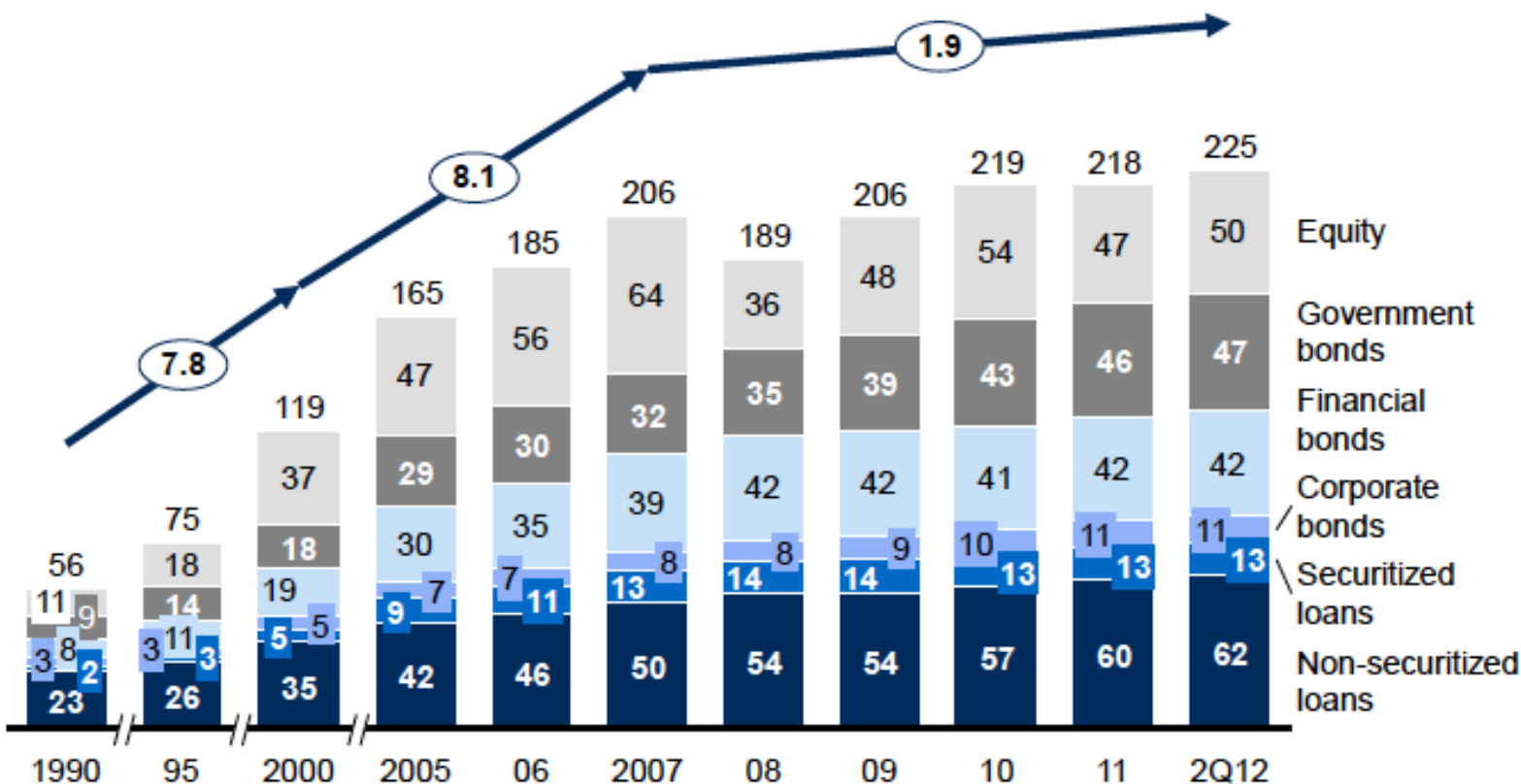
Sources: National accounts; central banks; *The Economist*

Economist.com

In 2007, before the financial crisis led to the slashing of interest rates, the annual value of the forgone tax revenues in Europe was around 3% of GDP—or \$510 billion—and in America almost 5% of GDP—or \$725 billion

# Global stock of debt and equity outstanding \$ trillion, end of period, constant 2011 exchange rates

Global stock of debt and equity outstanding<sup>1</sup>  
\$ trillion, end of period, constant 2011 exchange rates



Compound annual  
growth rate (%)

2000–07	2007–2Q12
8.1	1.9
8.0	-5.5
8.3	9.2
10.7	1.5
5.1	9.1
15.9	-0.7
5.5	4.8

Financial depth (% of GDP)

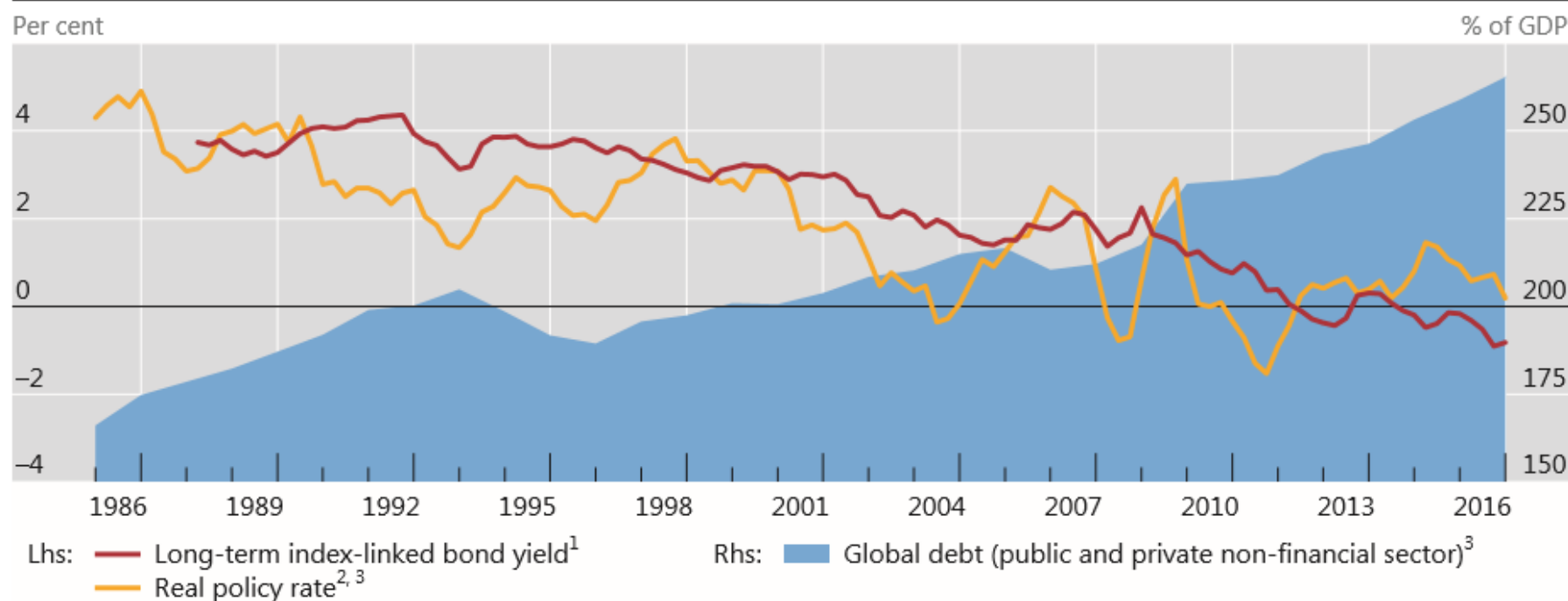


<sup>1</sup> Based on a sample of 183 countries.

# Dívida global total explode e juros de longo prazo desabam

Interest rates sink as debt soars

Graph I.6



<sup>1</sup> From 1998, simple average of FR, GB and US; otherwise only GB. <sup>2</sup> Nominal policy rate less consumer price inflation. <sup>3</sup> Weighted average of G7 economies plus CN based on rolling GDP and PPP exchange rates.

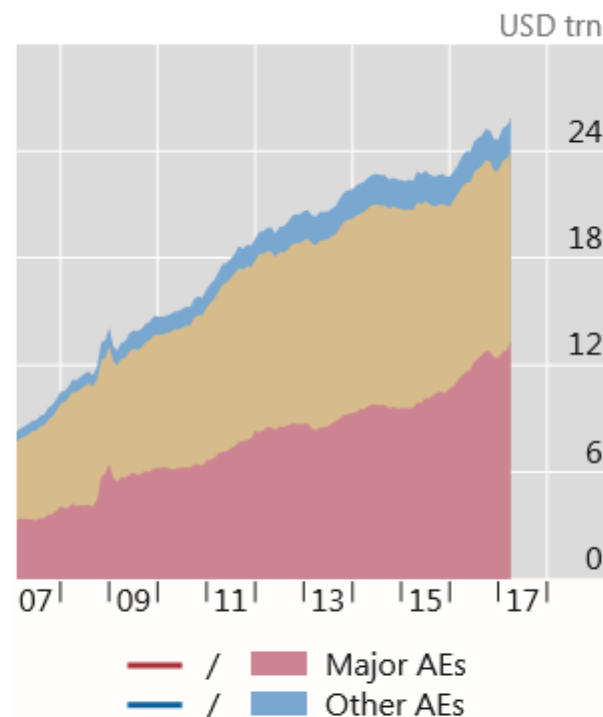
Sources: IMF, *World Economic Outlook*; OECD, *Economic Outlook*; national data; BIS calculations.

# Pós Crise Global: Intervenção dos governos nas taxas de juros longas através dos BCs. E baixa inflação...

Nominal policy rate<sup>1</sup>



Total central bank assets



Global inflation<sup>2</sup>

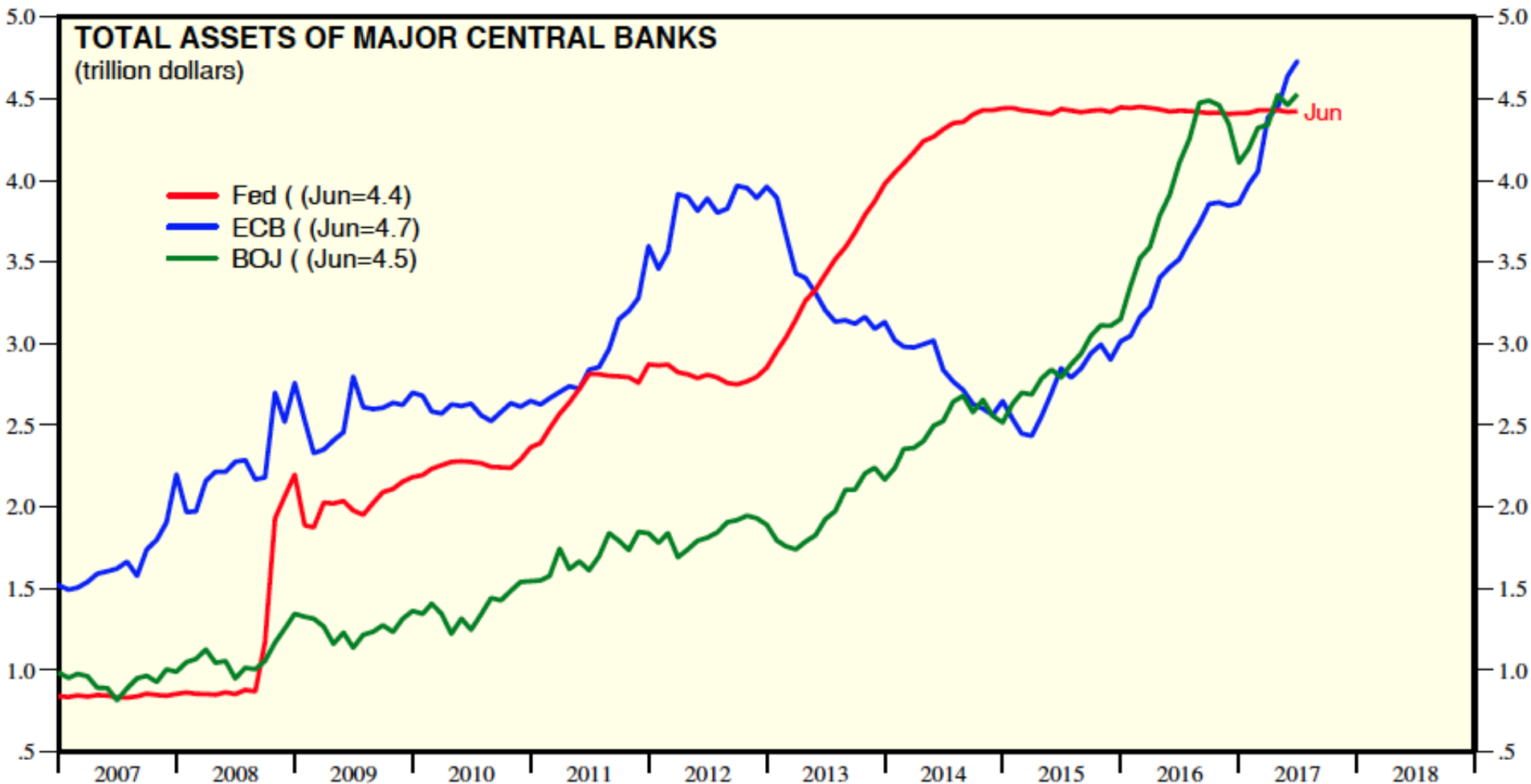


Major AEs = EA, JP and US; other AEs = AU, CA, CH, DK, GB, NO, NZ and SE.

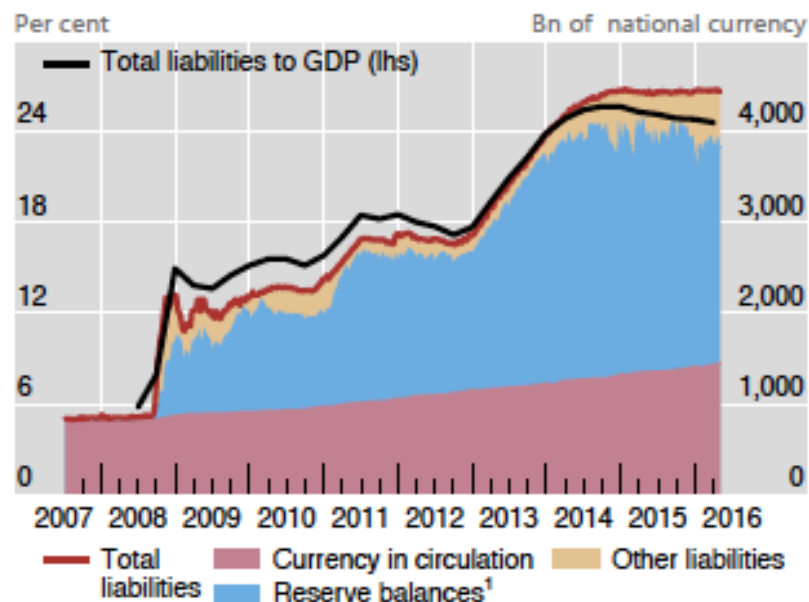
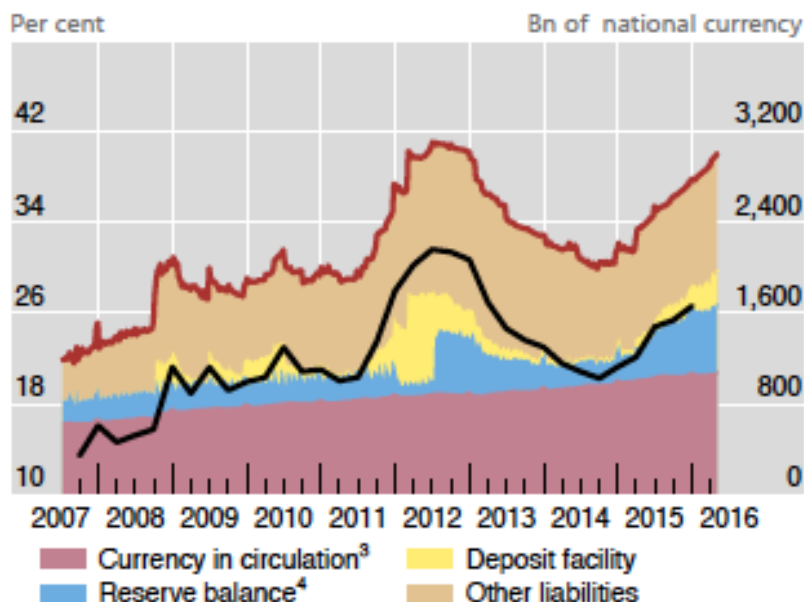
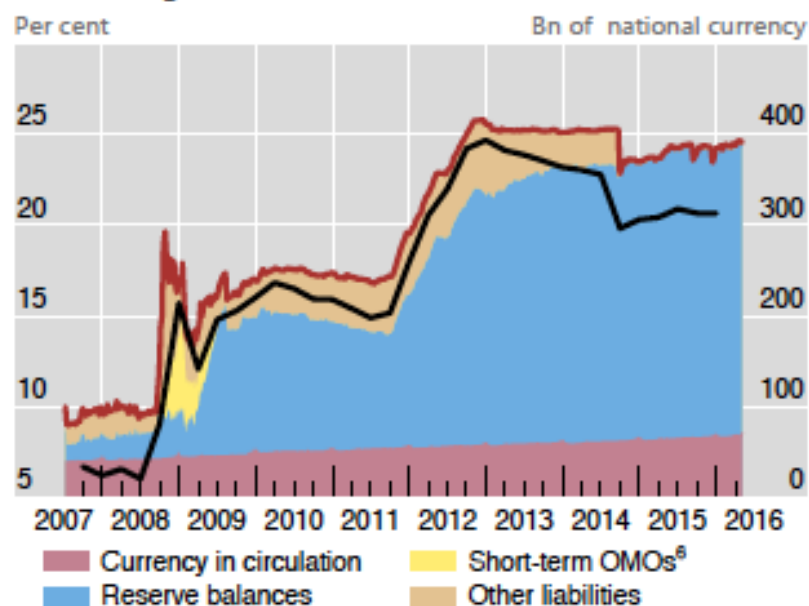
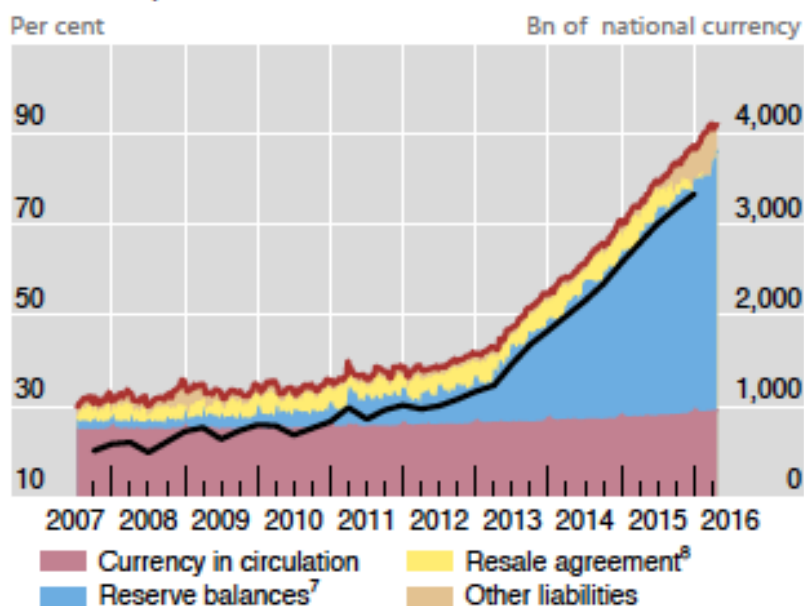
<sup>1</sup> Policy rate or closest alternative; simple averages. <sup>2</sup> Consumer prices; weighted averages based on rolling GDP and PPP exchange rates.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*; Datastream; national data; BIS calculations.

# Ação dos Bancos Centrais via QEs: forte expansão dos Balanços

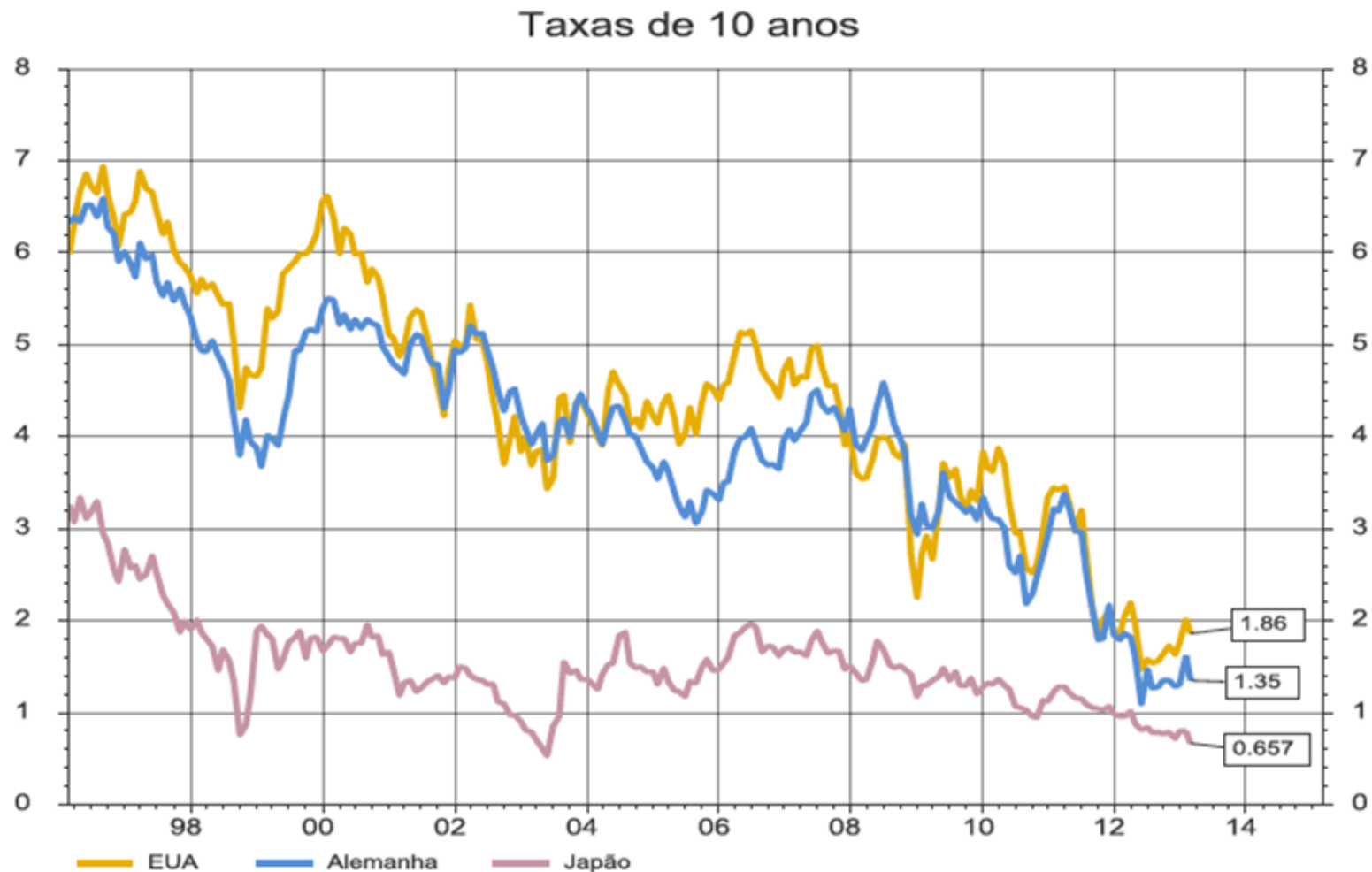


## Federal Reserve

Eurosystem<sup>2</sup>Bank of England<sup>5</sup>Bank of Japan (100 bn)<sup>2</sup>



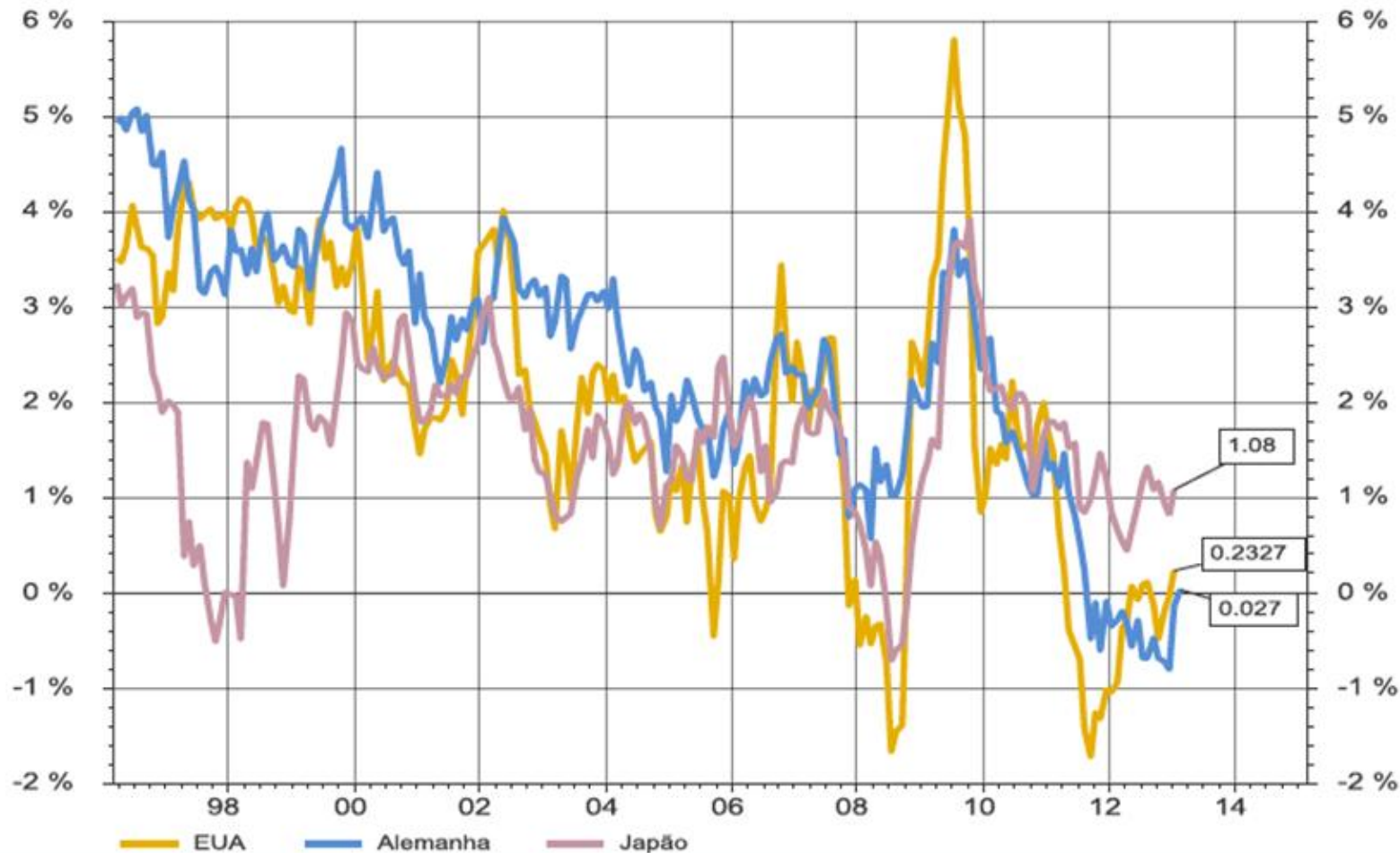
# Reduzindo as taxas de juros de longo prazo





# Para juros reais negativos

Taxas reais de 10 anos - taxas nominais descontadas pela inflação corrente



# ...e estimular ativos de risco

## S&P 500 Index

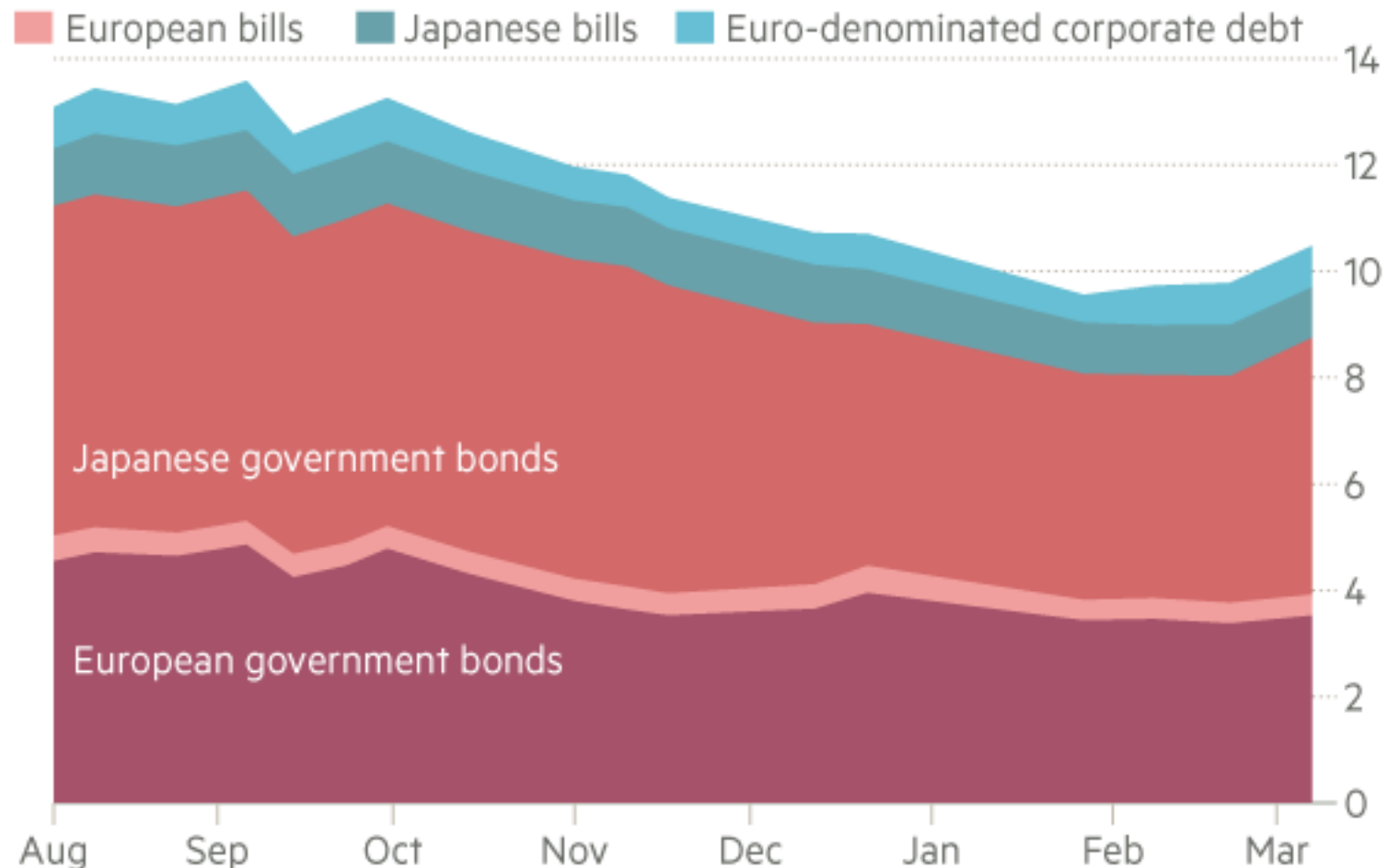


Source: FactSet, Standard & Poor's, Tullett Prebon, J.P. Morgan Asset Management. The P/E ratios are forward P/E ratios. Forward P/E ratio is a bottom-up calculation based on the most recent price data divided by the mean consensus estimates for earnings in the next 12 months and is provided by FactSet Market Aggregates. Return calculations shown in green are based on the total return index. *Guide to the Markets - Europe*. Data as of 30 June 2017.

# Títulos soberanos com *yield* negative (> US\$ 10 trilhões)

Negative yielding debt climbs back above \$10tn level

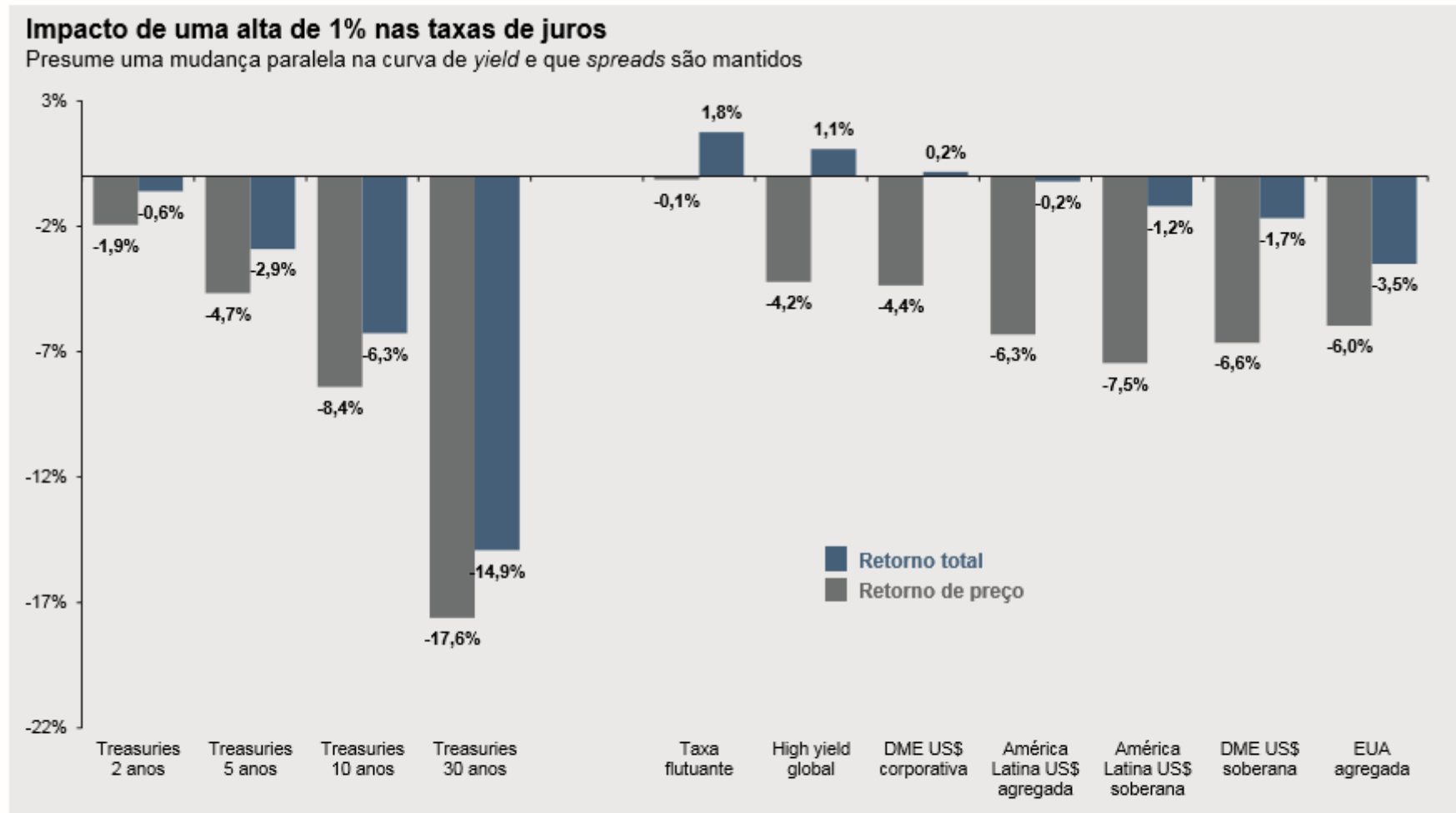
Value of debt trading with a negative yield (\$tn)



Source: Tradeweb; Graphic: Eric Platt/FT

# Risco de taxa de juros

## Impacto de uma alta de 1% nas taxas de juros



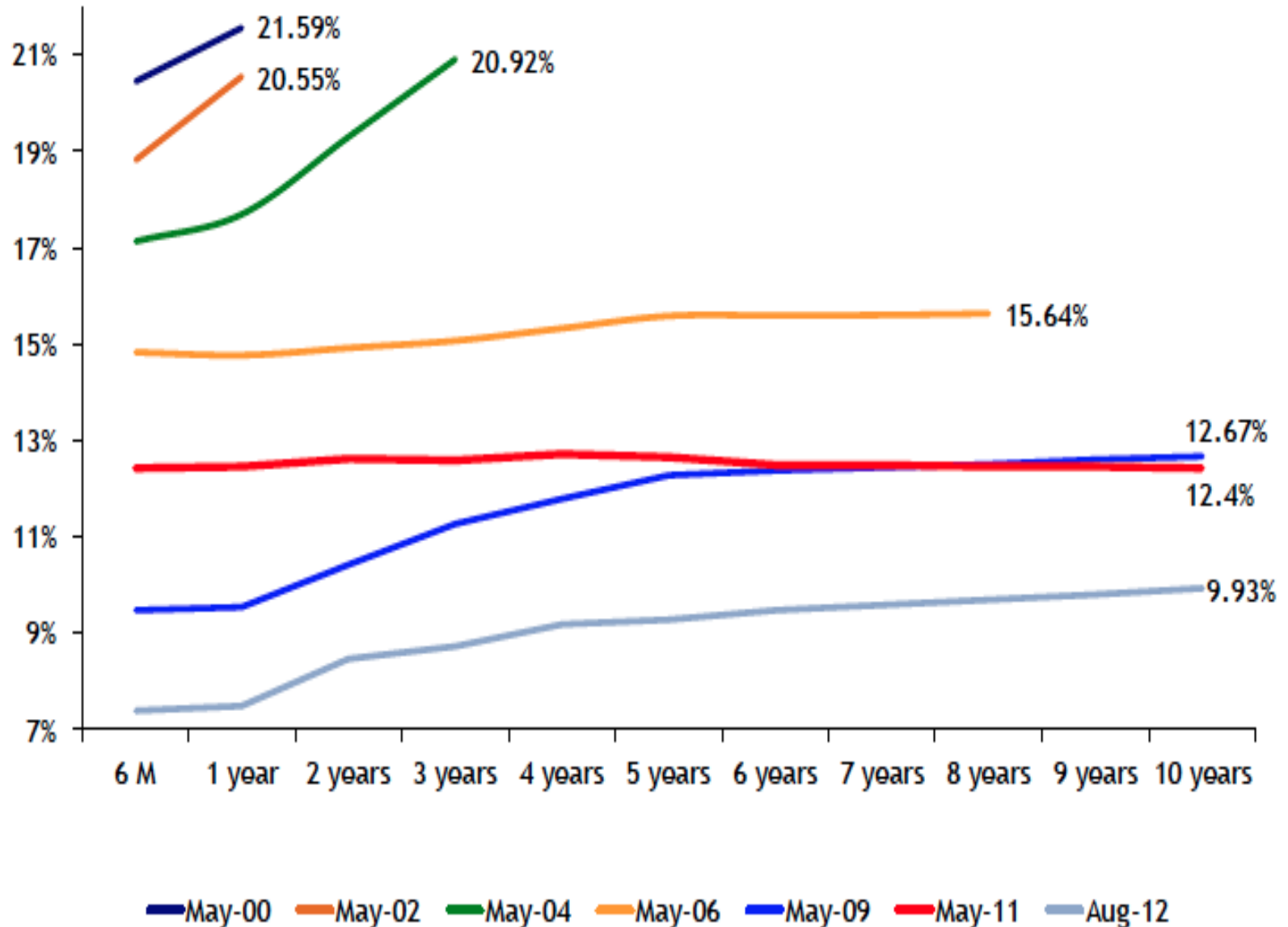
Fonte: Barclays, Bloomberg Finance L.P., FactSet, J.P. Morgan Asset Management.

Títulos do Tesouro de 2-30 anos, *High yield* global, Taxa flutuante, DME US\$ corporativo, América Latina US\$ agregada, América Latina US\$ soberana, DME US\$ soberanas e EUA agregado são baseados, respectivamente, nos índices Barclays US Treasury, Bloomberg Barclays Global High Yield, Bloomberg Barclays U.S. Floating Rate Notes (BBB), Bloomberg Barclays Emerging Markets USD Aggregate – Corporate, Bloomberg Barclays Emerging Markets USD Aggregate – Latin America, Bloomberg Barclays Emerging Markets USD Sovereigns – Latin America, Bloomberg Barclays Emerging Markets USD Aggregate – Sovereign, e Bloomberg Barclays U.S. Aggregate. Somente para ilustração. A variação no preço do título é calculada utilizando tanto *duration* quanto convexidade.

*Guide to the Markets – América Latina*. Dados de 30 de junho de 2017.

# O Brasil caminhava para ser “normal”

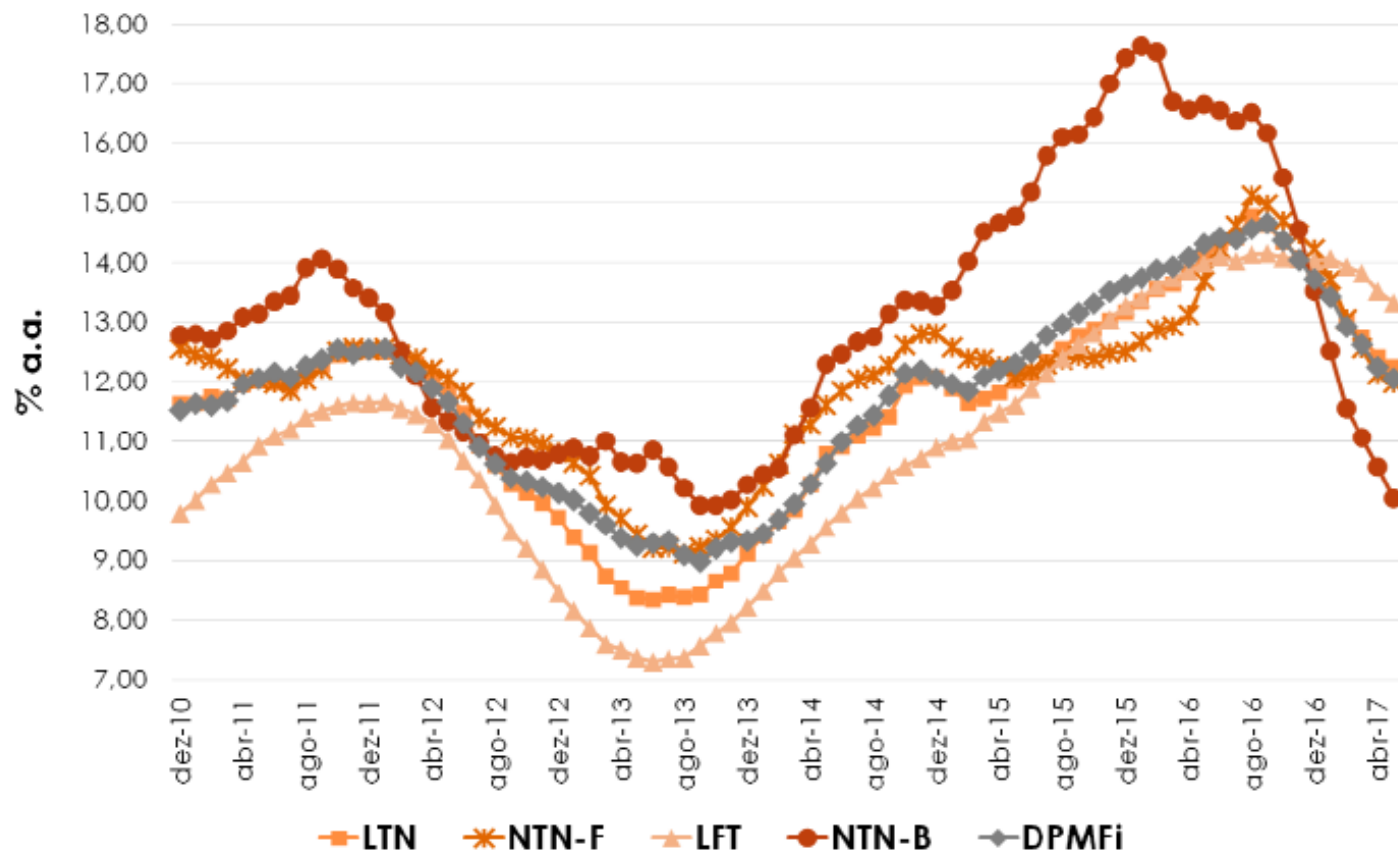
Estrutura a termo (títulos públicos prefixados)



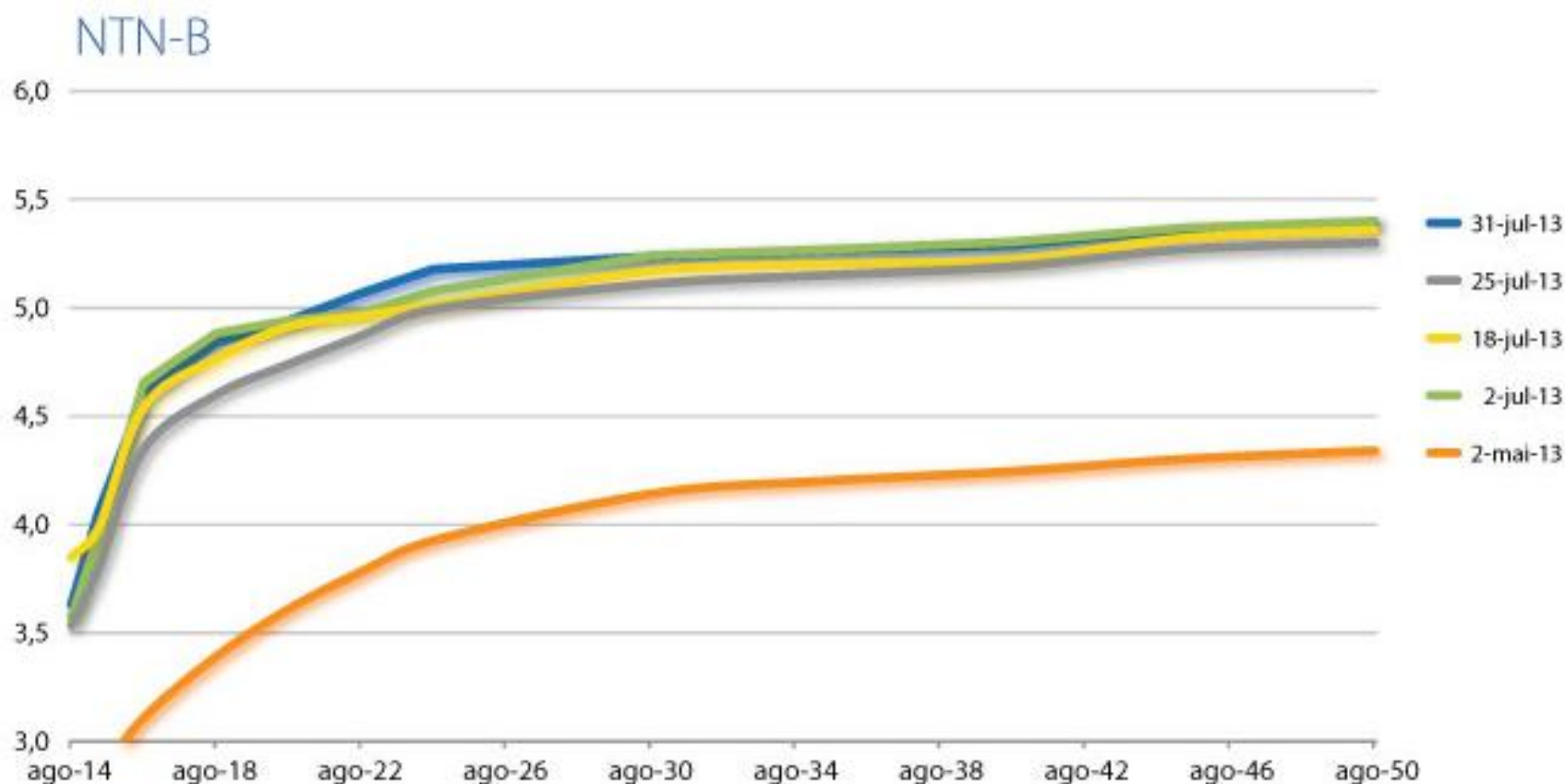
# Mercados abalados pelo “Taper Tantrum”

Gráfico 4.3

Custo médio das  
emissões dos títulos da  
DPMFi acumulado  
em 12 meses



# Bancos (Itaú Unibanco, Bradesco e Santander) "perdem" R\$ 11,7 bi com títulos do Tesouro Nacional

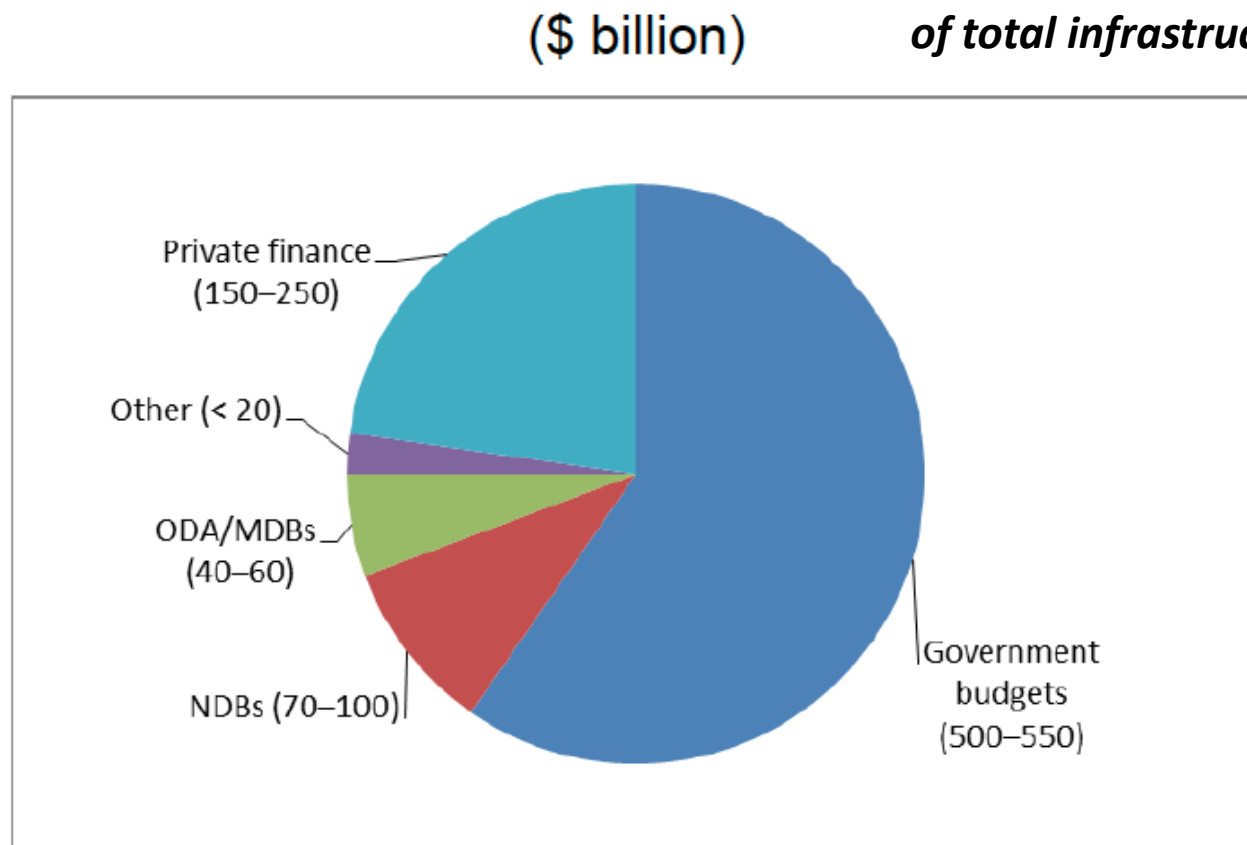


# O Desafio do financiamento de ativos de longo prazo



# Fontes do financiamento de ativos de infraestrutura nas Economias Emergentes

*In EMDEs, public funding of infrastructure accounts for about 70% of total infrastructure expenditure*



MDB = multilateral development bank, NDB = national development bank, ODA = official development assistance.

Source: Bhattacharya et al. (2012).

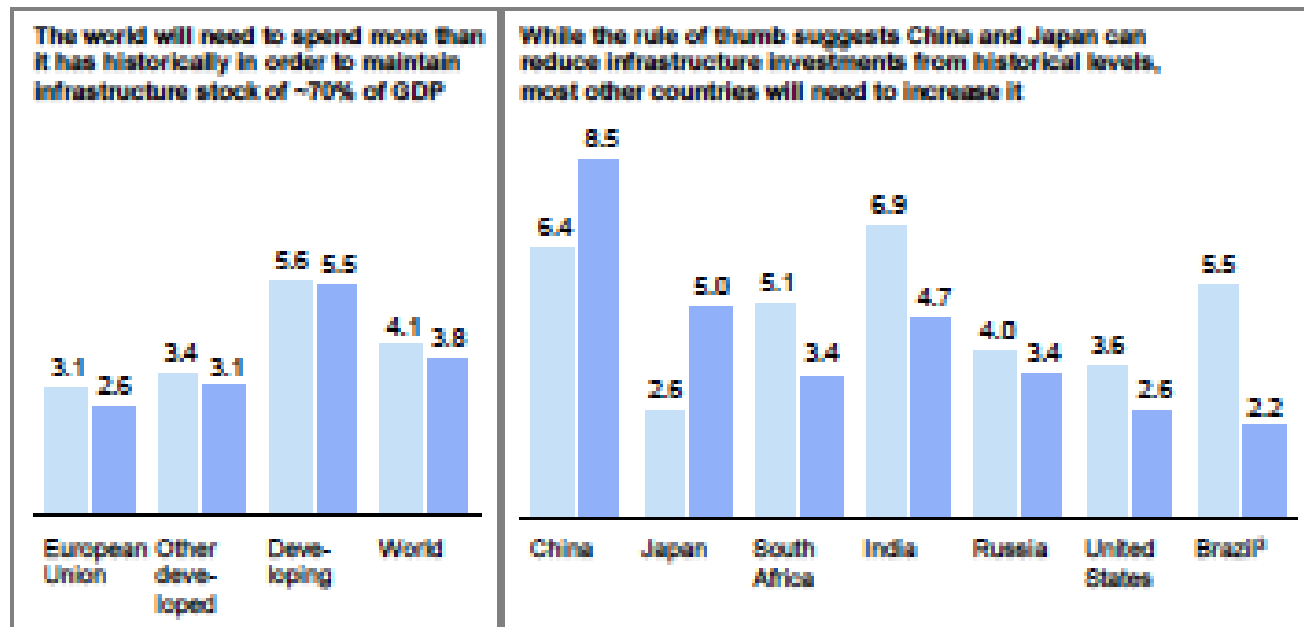
# O desafio do financiamento da infraestrutura

## Exhibit 4

Using the 70 percent rule of thumb, infrastructure investment would need to rise to 4.1 percent of GDP to keep pace with growth through 2030

Infrastructure spending  
% of GDP

Estimated need<sup>1</sup>  
Actual spend<sup>2</sup>



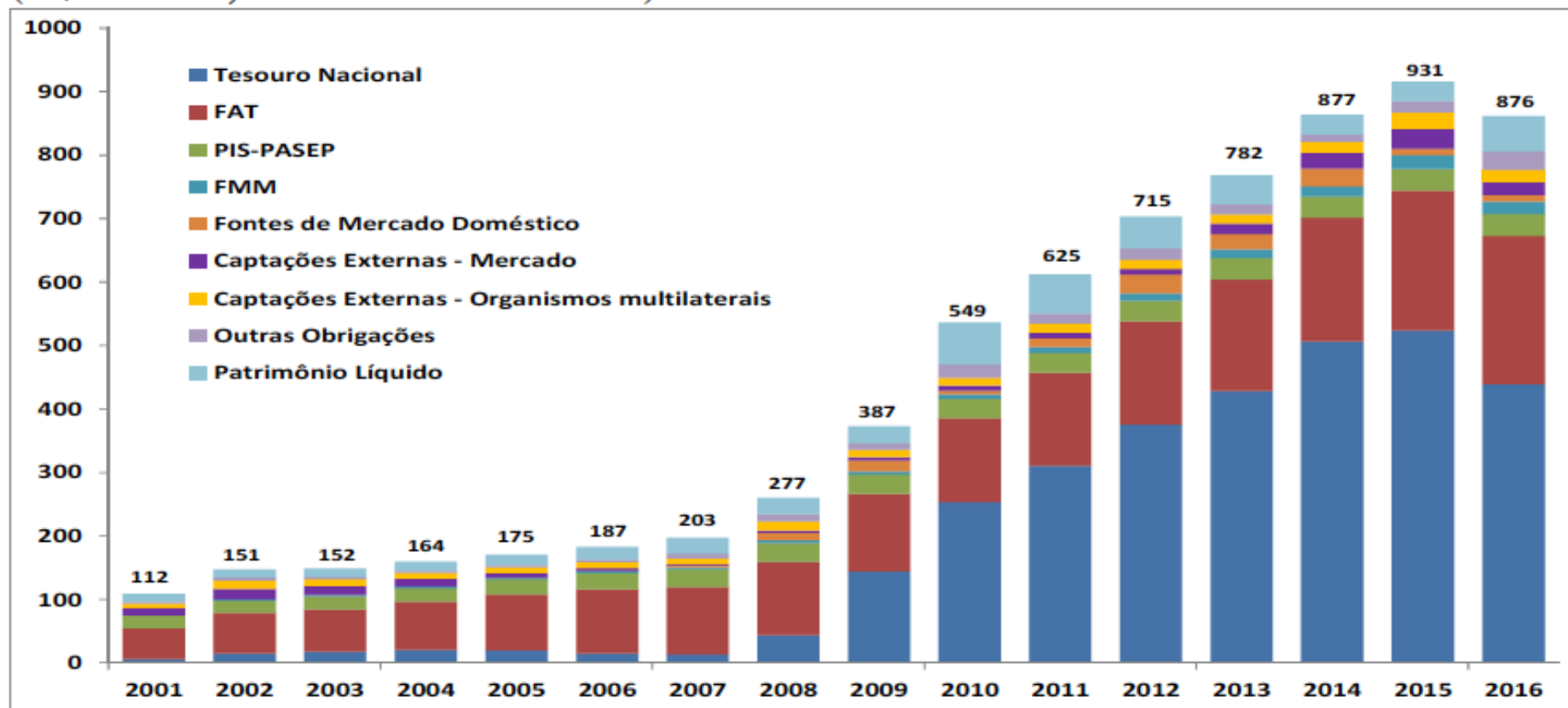
<sup>1</sup> Estimated need based on projected growth, 2013–30.

<sup>2</sup> Weighted average annual expenditure over years of available data, 1992–2011.

<sup>3</sup> Brazil actual/historic spend data revised upward from 1.5% published earlier based on a data set provided courtesy of Dr. Armando Castelar. Estimated need in Brazil includes additional investments to close the large gap over the two next decades.

# Passivo do BNDES

**Gráfico 2.1 Composição do Passivo do BNDES – Posição 31 de dezembro**  
(R\$ bilhões, em valores correntes)



Fonte: Demonstrações Financeiras auditadas do BNDES (2001 a 2016), disponíveis no *site* [www.bndes.gov.br](http://www.bndes.gov.br)

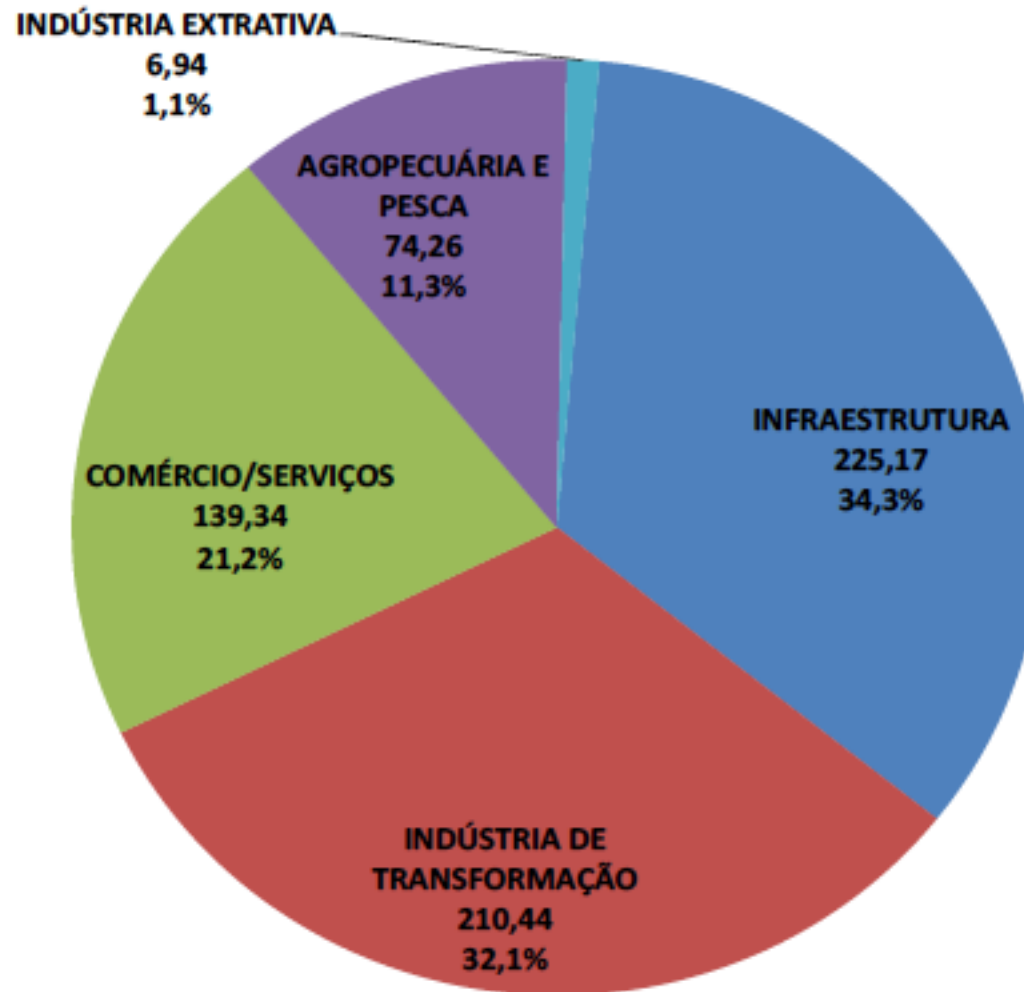
# Desembolsos com fonte de recursos do TN

**Tabela 2.2 Desembolsos com fonte de recursos Tesouro Nacional por modalidade operacional BNDES – acumulado de 2009 a dez. 2016**  
(R\$ bilhões, em valores correntes)

Modalidade	Desembolsos	Percentual
FINAME	320,16	48,8%
FINEM	137,69	21,0%
PRÉ-EMBARQUE	48,49	7,4%
BNDES AUTOMATICO	51,78	7,9%
MÁQUINAS E EQUIPAMENTOS	29,61	4,5%
LIMITE DE CRÉDITO	23,50	3,6%
PROJECT FINANCE	22,71	3,5%
DEMAIS MODALIDADES	22,22	3,4%
<b>Total</b>	<b>656,16</b>	<b>100%</b>

Fonte: BNDES.

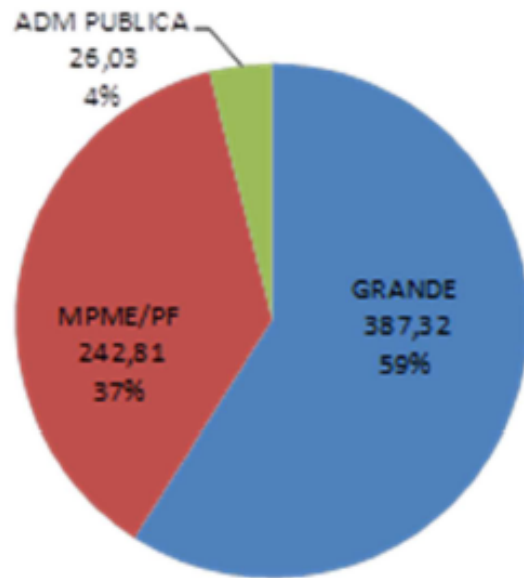
# Desembolsos com fonte de recursos Tesouro Nacional por ramo de atividade – acumulado de 2009 a dez/2016



Fonte: BNDES.

# Desembolsos com fonte de recursos Tesouro Nacional por porte de empresa

**Gráfico 2.4 Desembolsos com fonte de recursos Tesouro Nacional, por porte de empresa – Acumulado de 2009 a dez. 2016**  
(R\$ bilhões, em valores correntes)

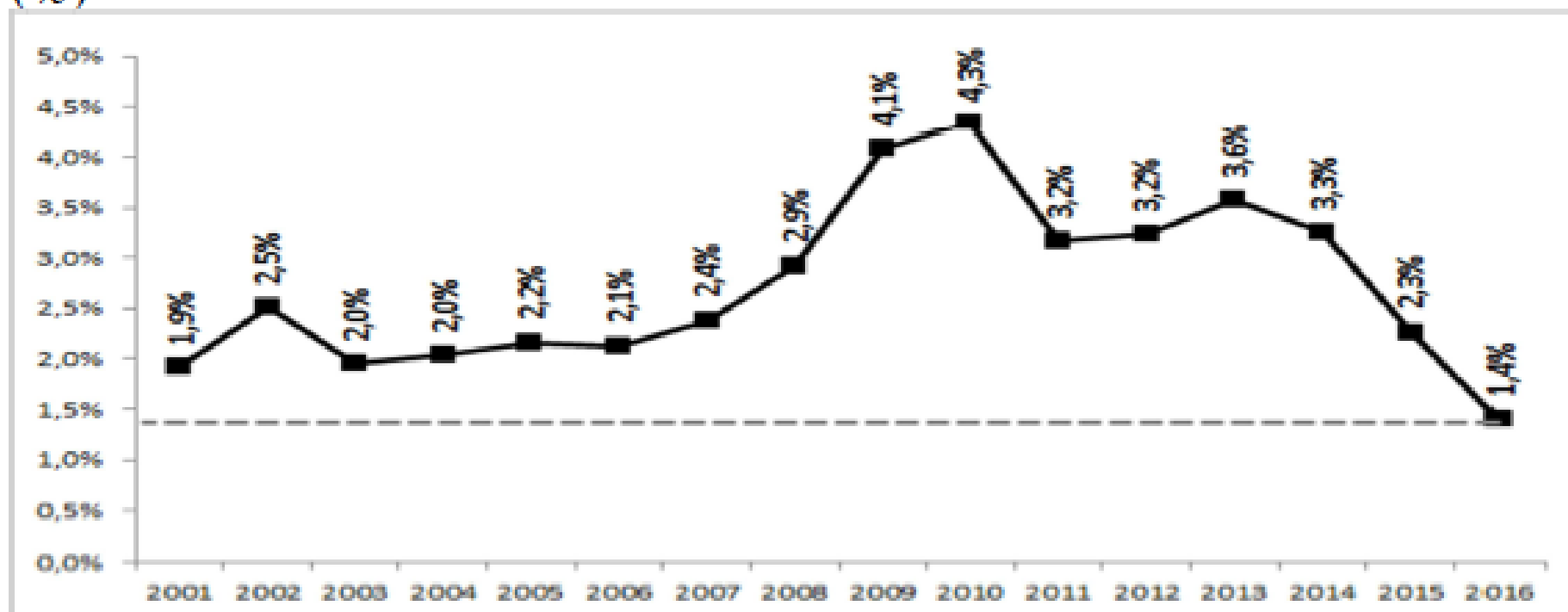


Fonte: BNDES.

# Desembolsos do BNDES / PIB

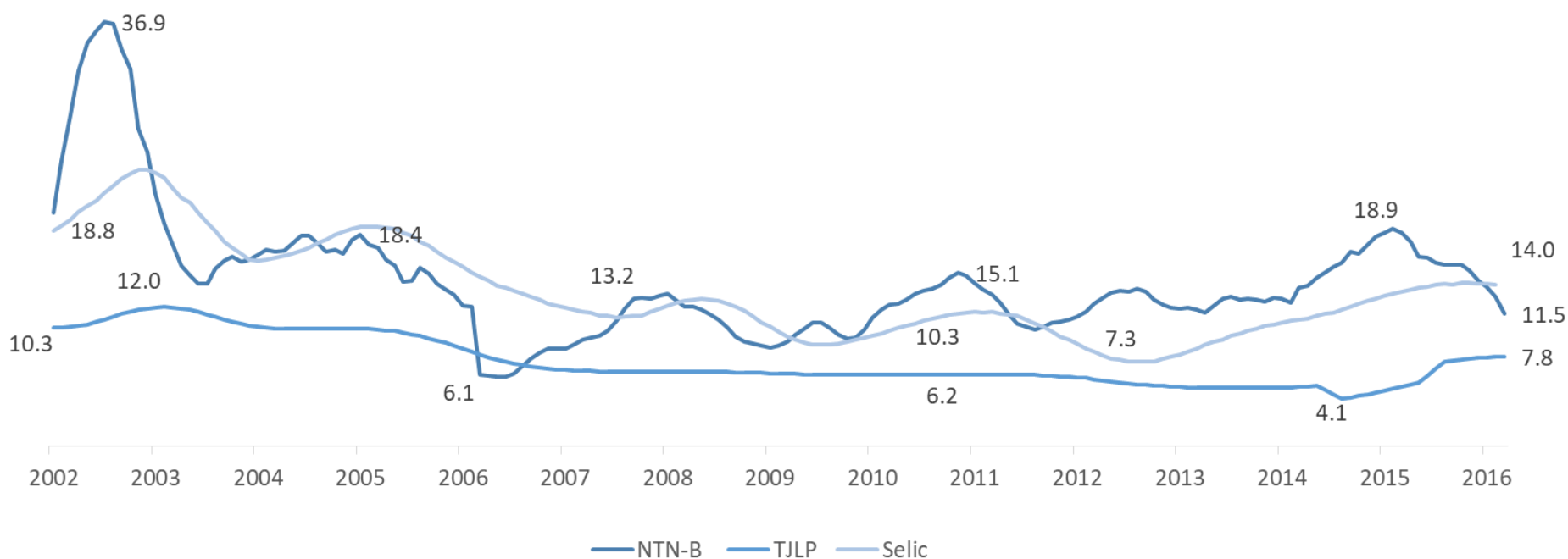
**Gráfico 1.8 Desembolsos do BNDES/PIB**

(%)



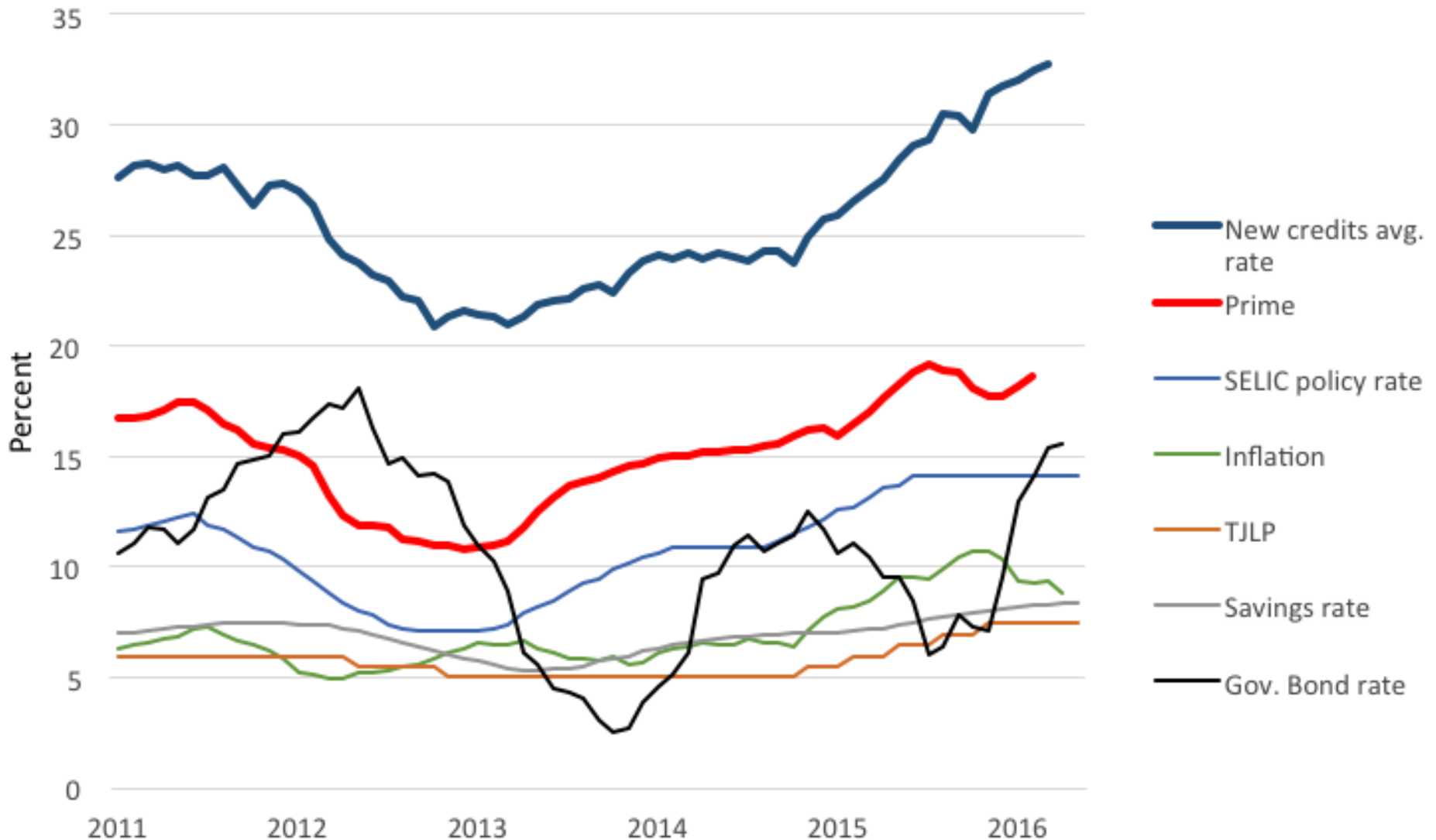
Fonte: BNDES.

# Evolução NTN-B vs TJLP vs Selic





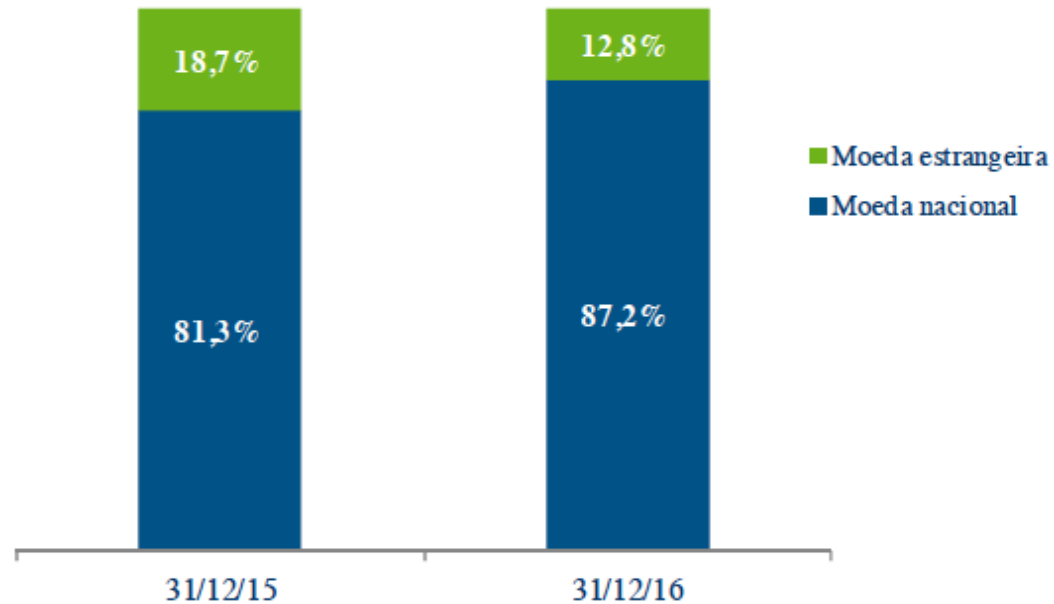
# Taxas de juros selecionadas no Brasil



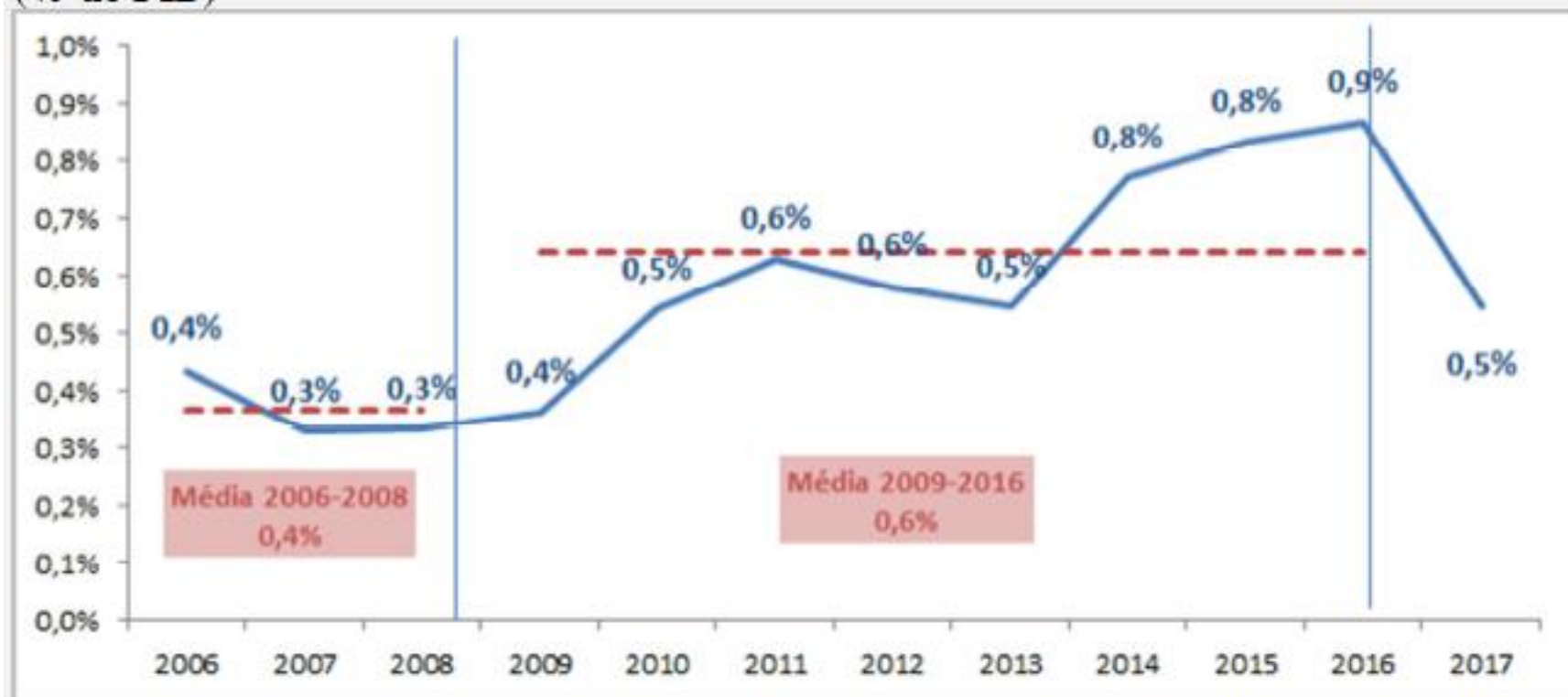
# BNDES

TJLP e Dólar são os principais indexadores da carteira de crédito, respondendo, respectivamente, por 94,2% da carteira em moeda nacional\* e 93,5% da carteira em moeda estrangeira.

\*Inclui operações equalizadas pelo TN.



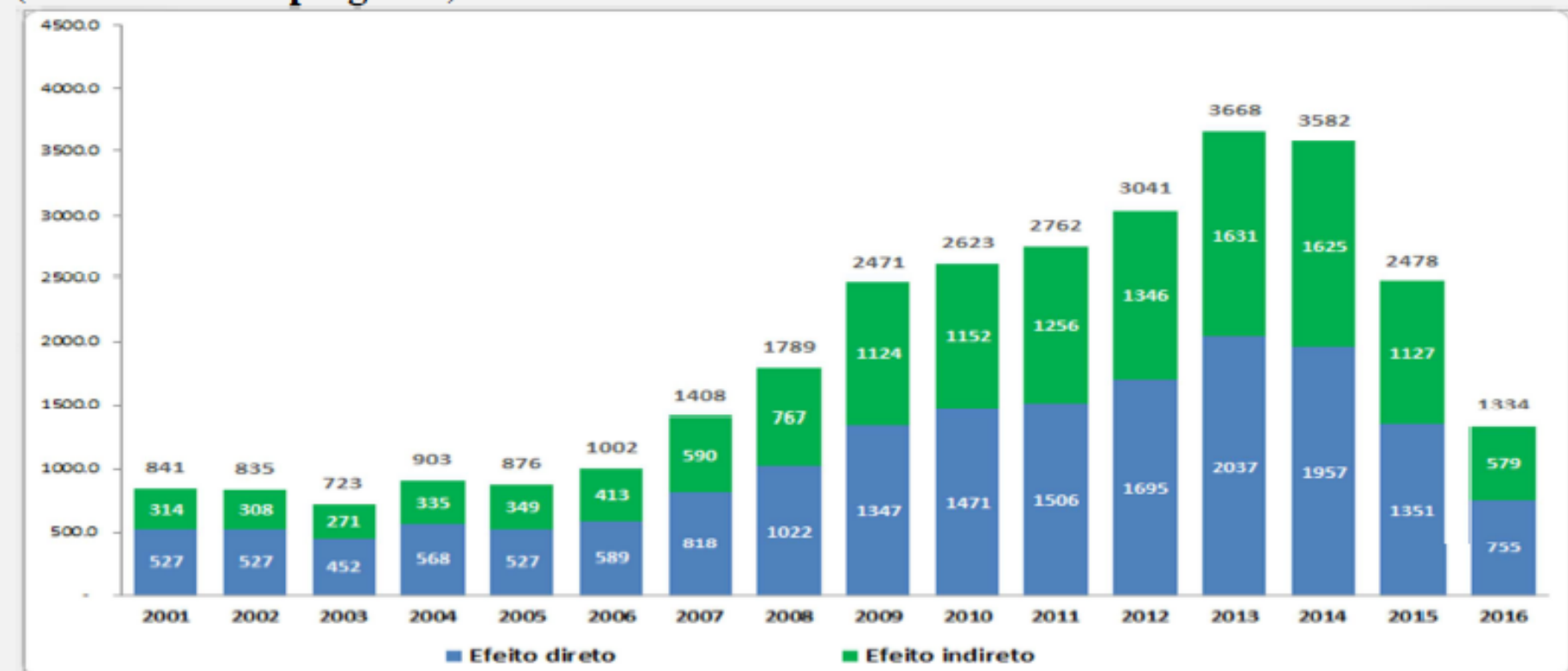
### Custo fiscal das operações do BNDES com recursos públicos (% do PIB)



Fonte: Elaboração própria, com base em dados do Tesouro Nacional, Banco Central e BNDES.

# Empregos gerados ou mantidos durante a implantação dos investimentos pelo BNDES

**Emprego gerado ou mantido durante a implantação dos investimentos apoiados pelo BNDES (milhares de empregados)**



Fonte: BNDES.

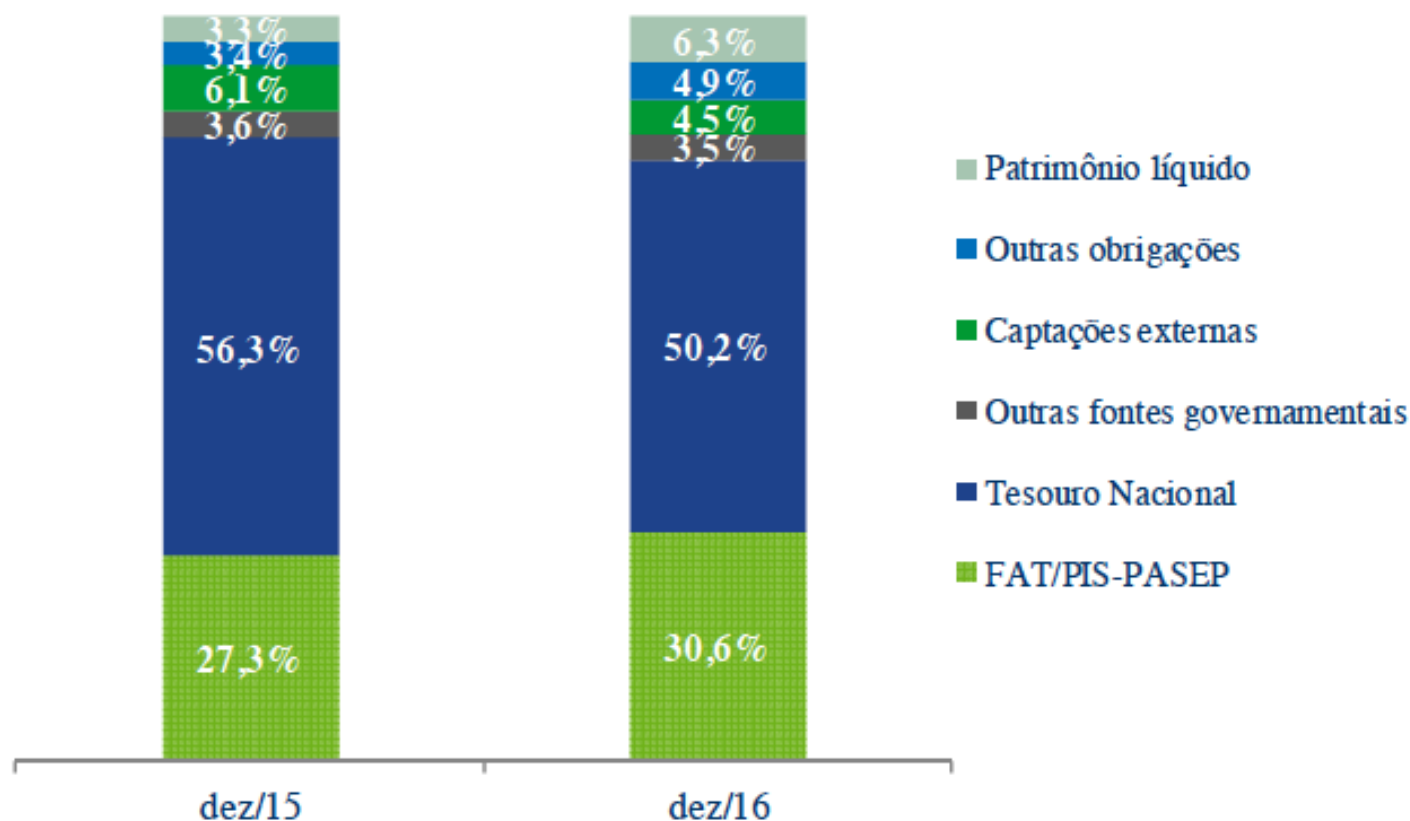
# BNDES: principais indicadores financeiros

DATA-BASE	31/12/2016	31/12/2016	31/12/2016 <sup>3/</sup>
Rentabilidade <sup>5/</sup>	BNDES	Média Maiores Bancos Nacionais <sup>1/</sup>	Média Bancos de Desenvolvimento Internacionais <sup>2/</sup>
<b>Retorno / PL Médio (ROE) (% a.a.)</b>	<b>14,6</b>	<b>14,5</b>	<b>7,4</b>
Lucro Líquido (R\$ bilhões)	6,4	11,5	16,9
PL Médio (R\$ bilhões)	43,8	79,4	227,2
<b>Retorno / Ativo Total Médio (ROA) (% a.a.)</b>	<b>0,7</b>	<b>0,9</b>	<b>0,7</b>
Ativo Total (R\$ bilhões)	876,1	1.276,5	2.760,2
Ativo Total Médio (R\$ bilhões)	903,4	1.242,4	2.404,4
<b>Alavancagem Média (Ativo Total Médio/PL Médio)</b>	<b>20,6</b>	<b>15,7</b>	<b>10,6</b>
Liquidez <sup>6/</sup>	BNDES	Média Maiores Bancos Nacionais <sup>1/</sup>	Média Bancos de Desenvolvimento Internacionais <sup>2/</sup>
<b>Disponibilidades, Aplicações Interfinanceiras e Títulos Públicos Federais / Ativo Total (%)</b>	<b>14,2</b>	<b>32,5</b>	<b>12,9</b>

# Opera com alta alavancagem, mas...

## Fontes de Recursos

Na composição de suas fontes de recursos, o BNDES conta com 6,3% de recursos próprios e 93,7% de recursos de terceiros, com destaque para as fontes governamentais, que representavam 84,3% do passivo total em 31/12/16.





**MINDS**



Muito Obrigado!

fcrezende@bard.edu

[www.bankingandinstability.com](http://www.bankingandinstability.com)

@F\_Derezende

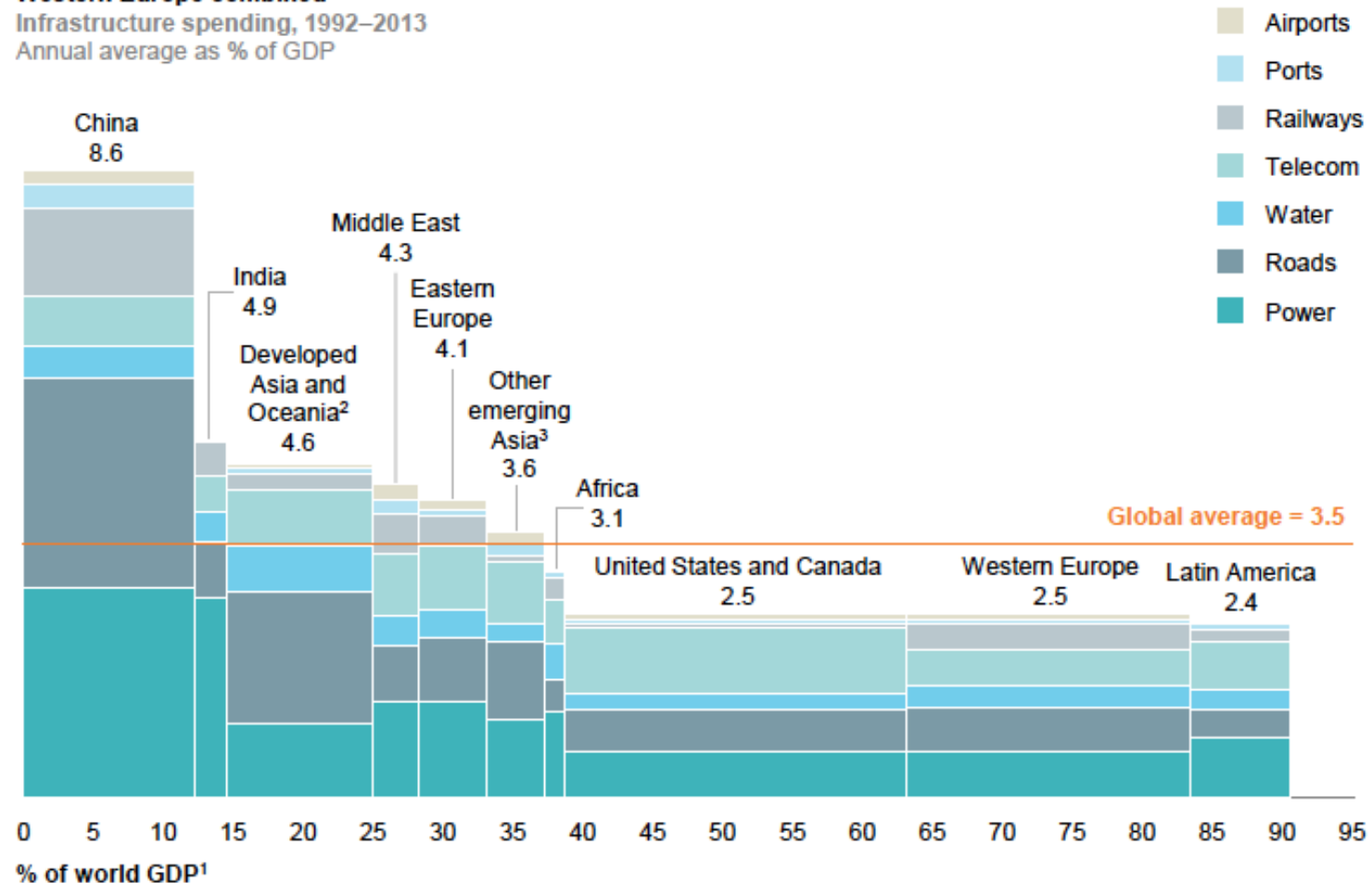
# Apêndice



# China spends more on economic infrastructure annually than North America and Western Europe combined

## Infrastructure spending, 1992–2013

Annual average as % of GDP



## Infrastructure spending, 2013

\$ billion

829

448

335

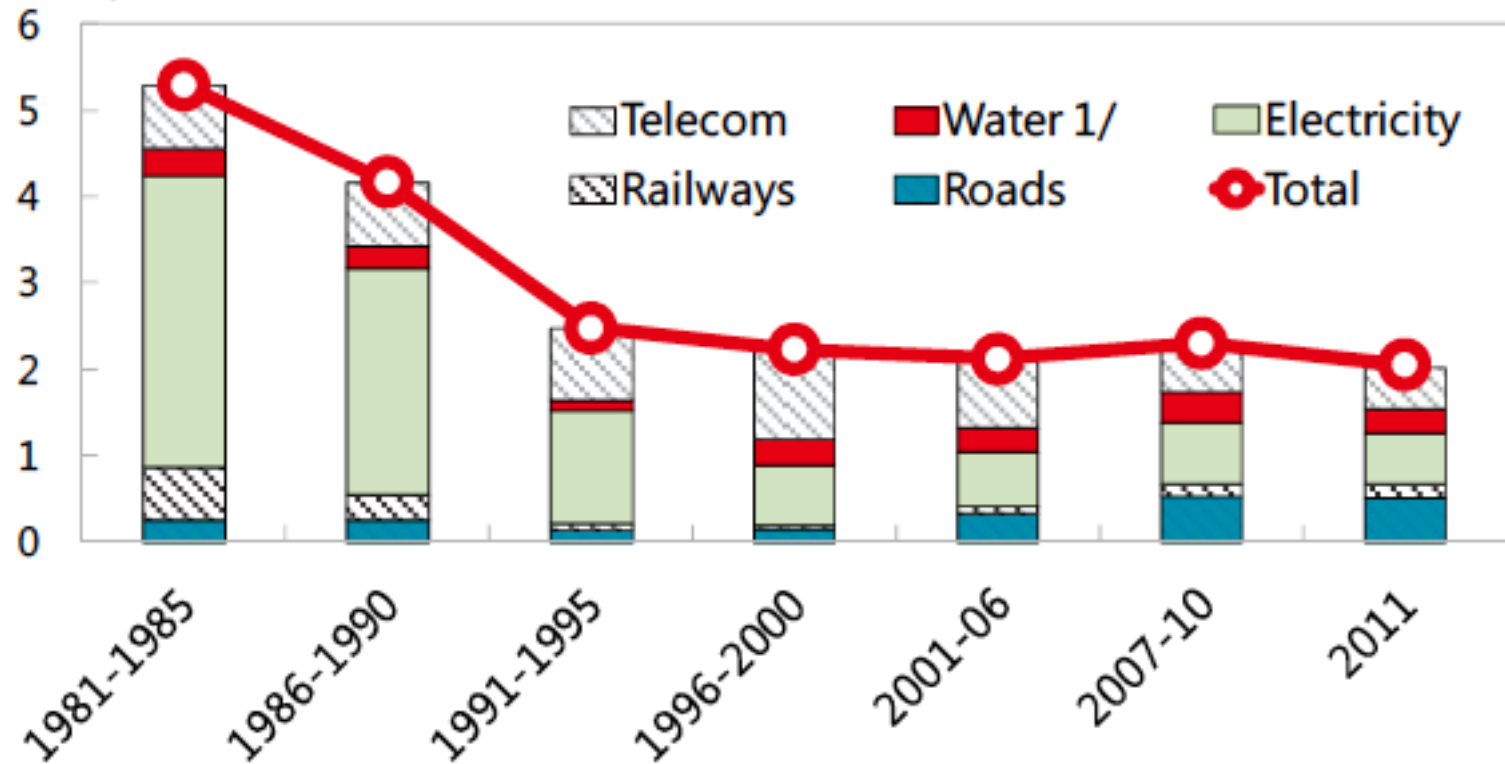
Global total = 2,500

<sup>1</sup> Percentage of world GDP generated by the 75 countries in our analysis for 2013.

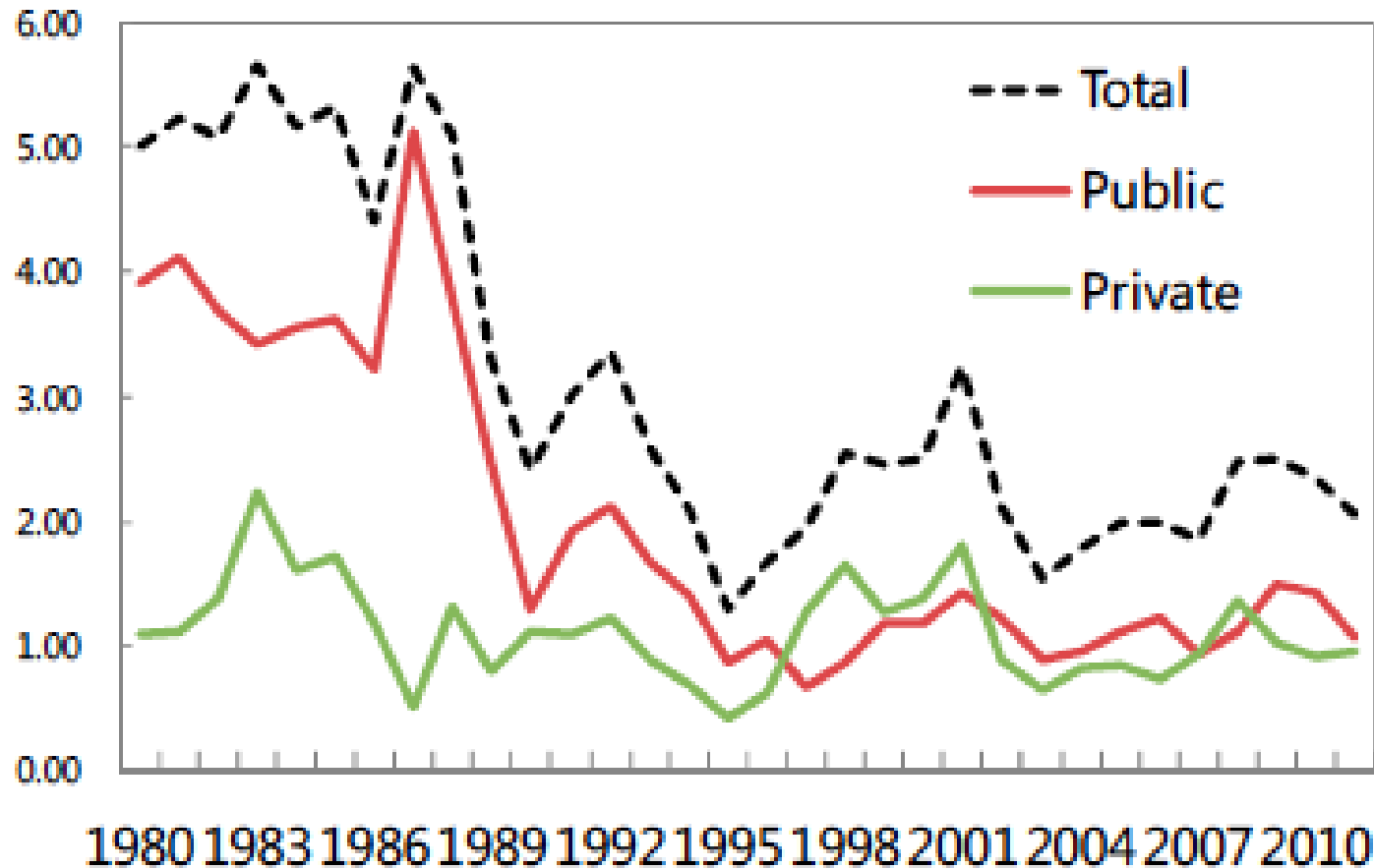
<sup>2</sup> Includes Australia, Hong Kong, Japan, New Zealand, and Singapore.

<sup>3</sup> Includes Bangladesh, Indonesia, Malaysia, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam.

# Brasil: Investimento em Infraestrutura, % do PIB

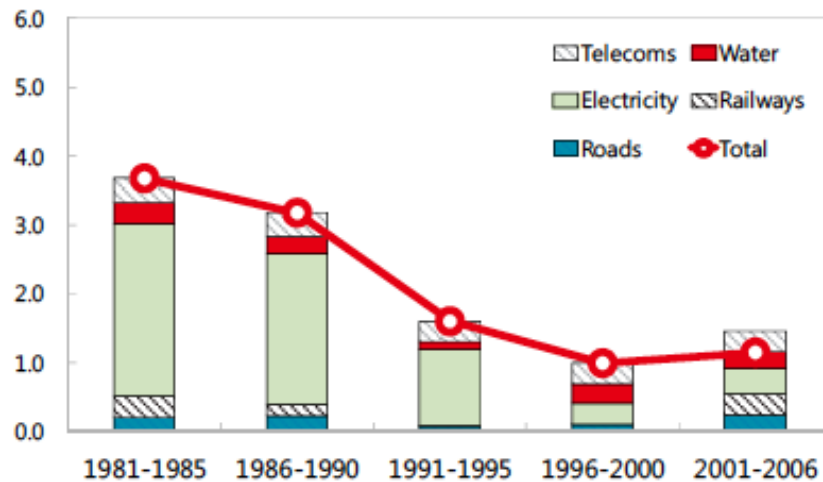


# Brasil: Investimento (público e privado) em Infraestrutura, % do PIB



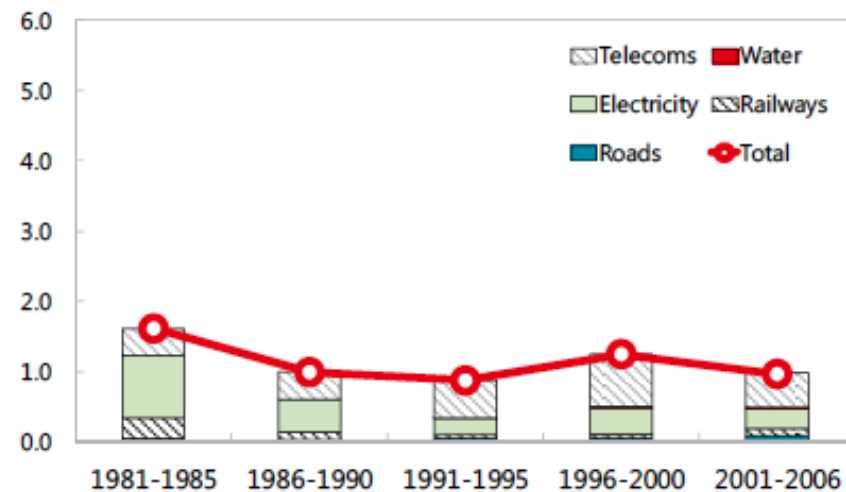
# Brasil: Investimento (público e privado) em Infraestrutura, % do PIB

**Figure 14. Brazil: Infrastructure Investment by Public Sector**  
(In percent of GDP)



Source: Calderón and Servén, 2010.

**Figure 15. Brazil: Infrastructure Investment by Private Sector**  
(In percent of GDP)

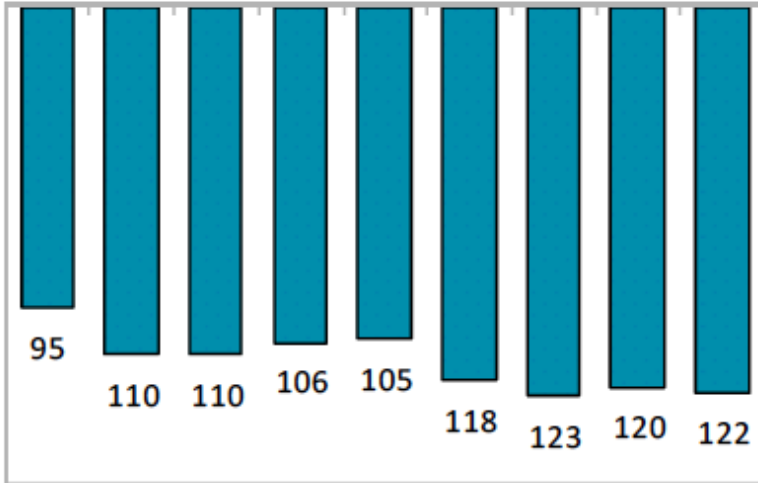


Source: Calderón and Servén, 2010.

# Brasil: Qualidade da Infraestrutura - Ranking entre 144 países

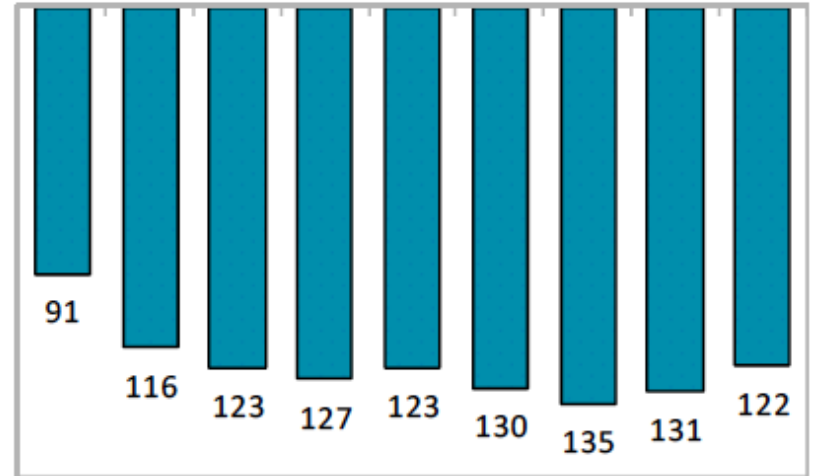
## Quality of roads

2006 2007 2008 2009 2010 2011 2012 2013 2014



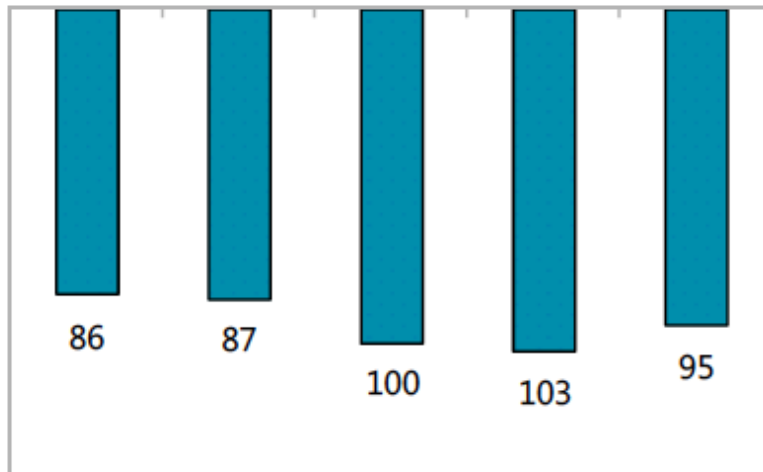
## Quality of port infrastructure

2006 2007 2008 2009 2010 2011 2012 2013 2014



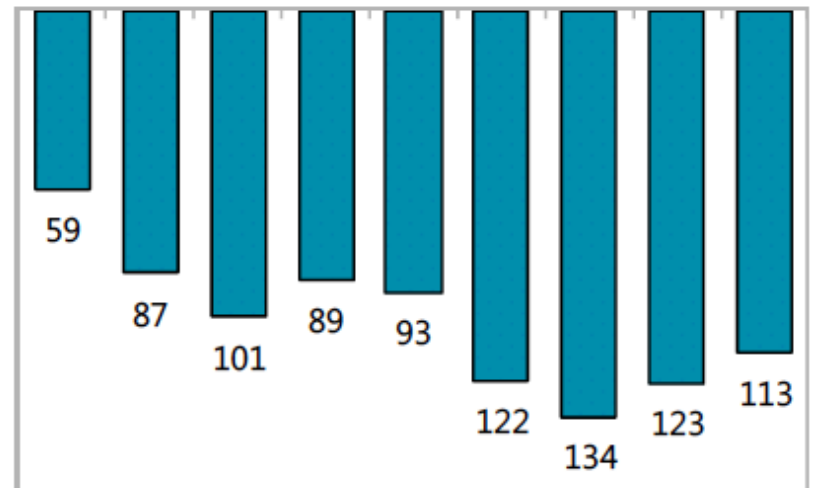
## Quality of railroad infrastructure

2009 2010 2011 2012 2013

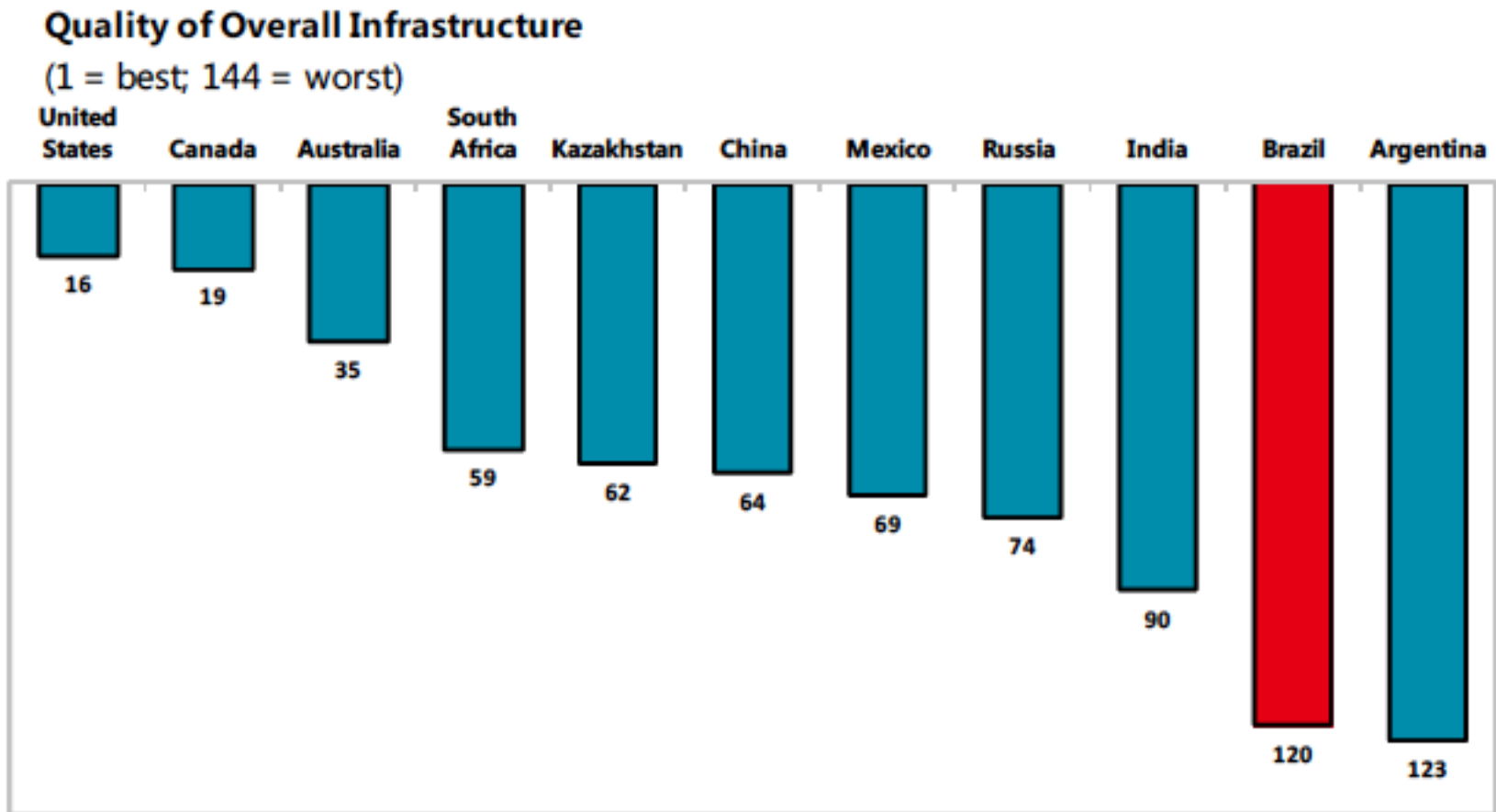


## Quality of air transport infrastructure

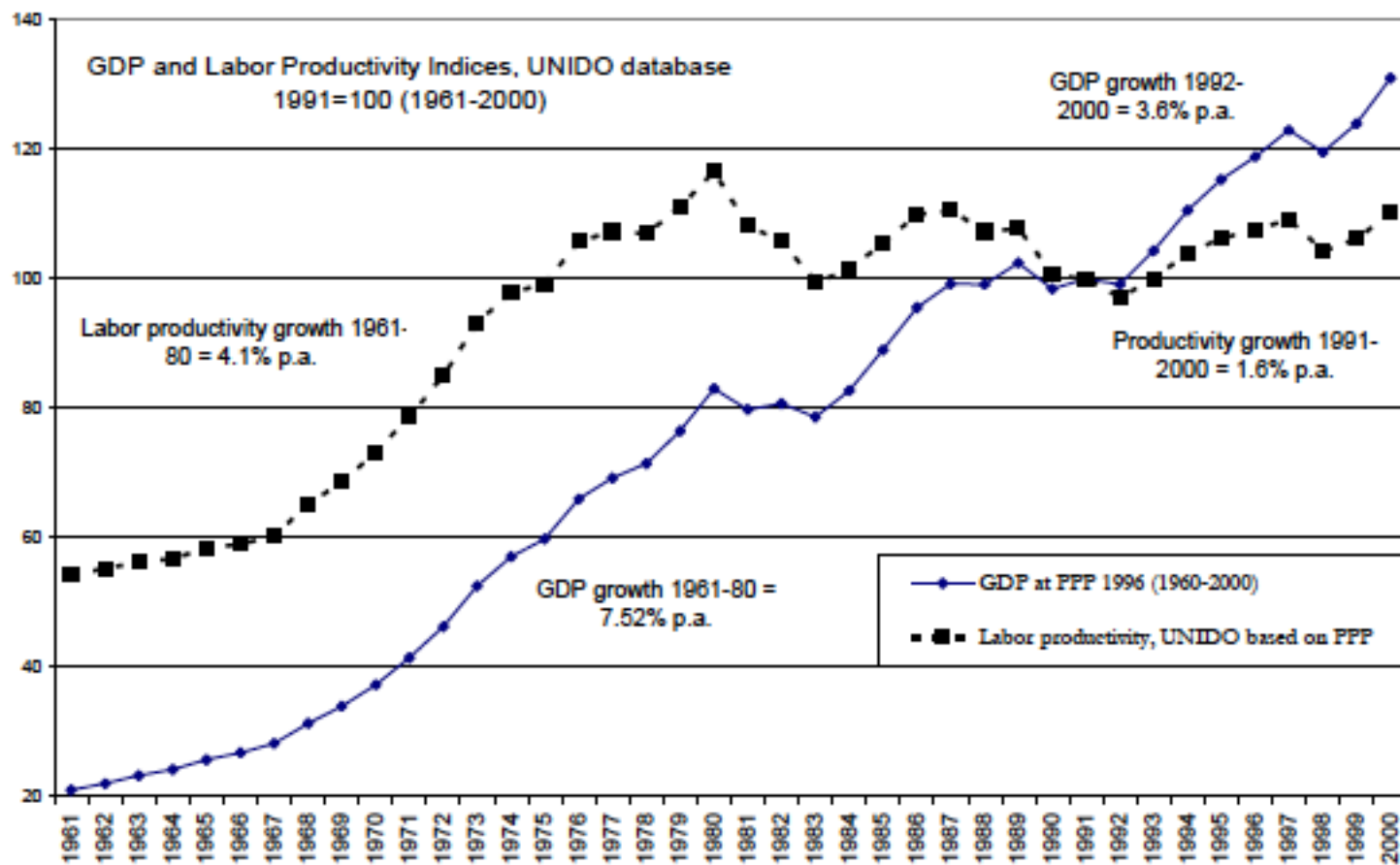
2006 2007 2008 2009 2010 2011 2012 2013 2014



# Brasil: Qualidade da Infraestrutura – 2015, Ranking entre 144 países, WEF

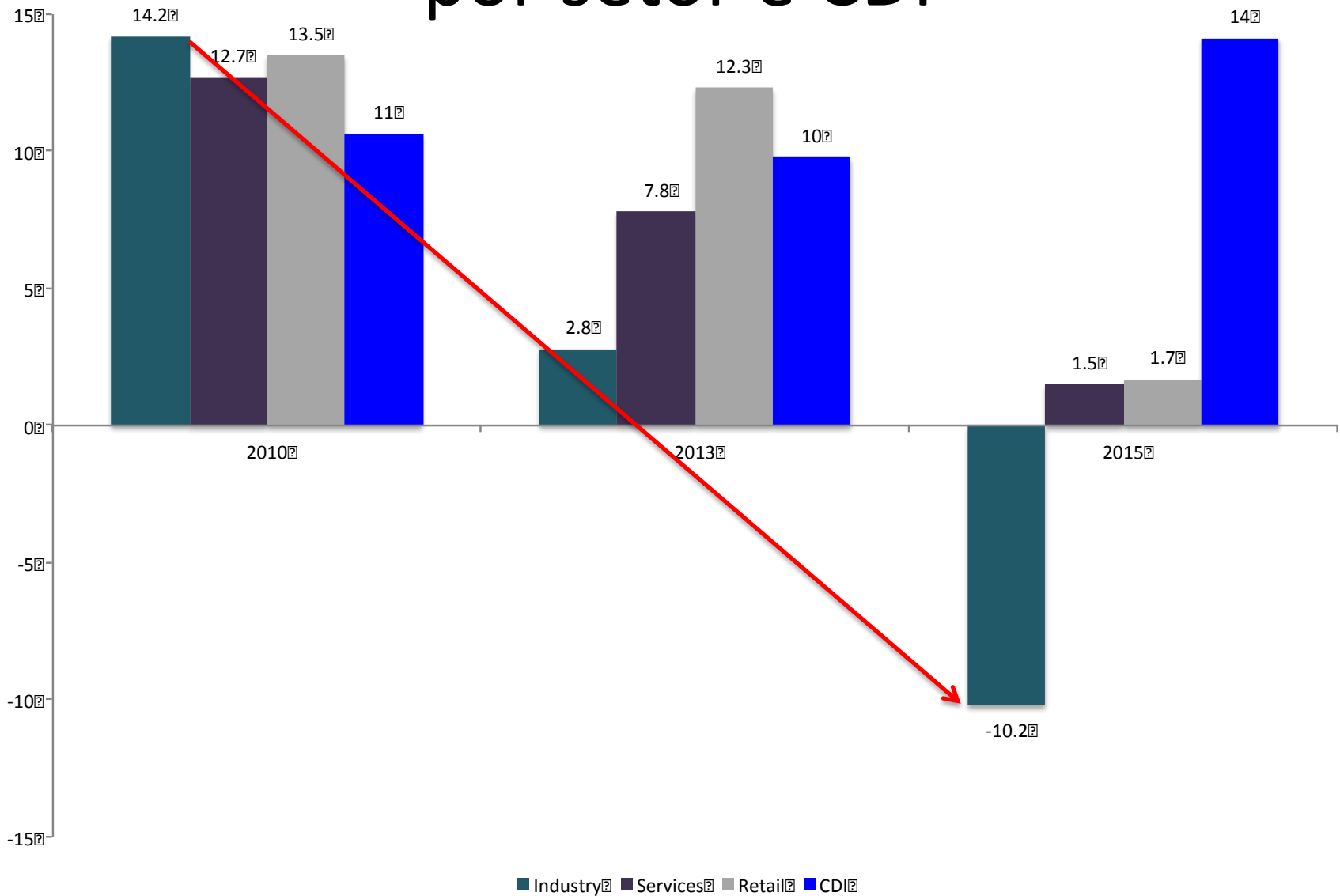


**Figure 2.4: GDP and Average Labour Productivity, 1961-2000  
(1991=100)**



Source: UNIDO database

# Retorno sobre o Patrimônio Líquido por setor e CDI





# Potencia da Política monetária?

## Crédito às Empresas (BNDES vs crédito livre)

