

The Economic Consequences of the Real

Economic Department

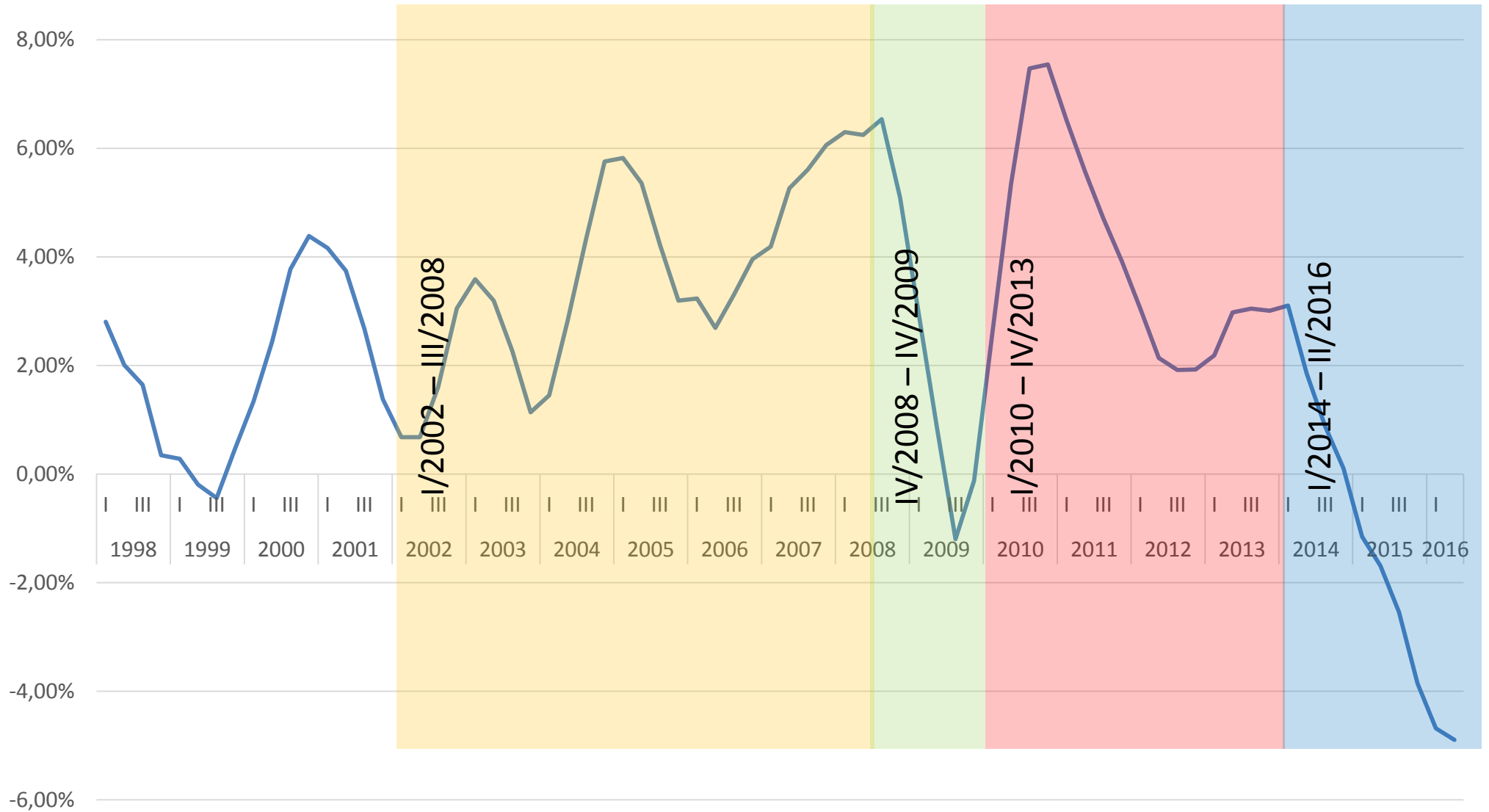


GRADUAL
INVESTIMENTOS

The great recession: A Four Act Drama.

GDP (YoY accumulated)

Source: IBGE



The Ortodox View

A portrait of the conscience.

The Ortodox View.

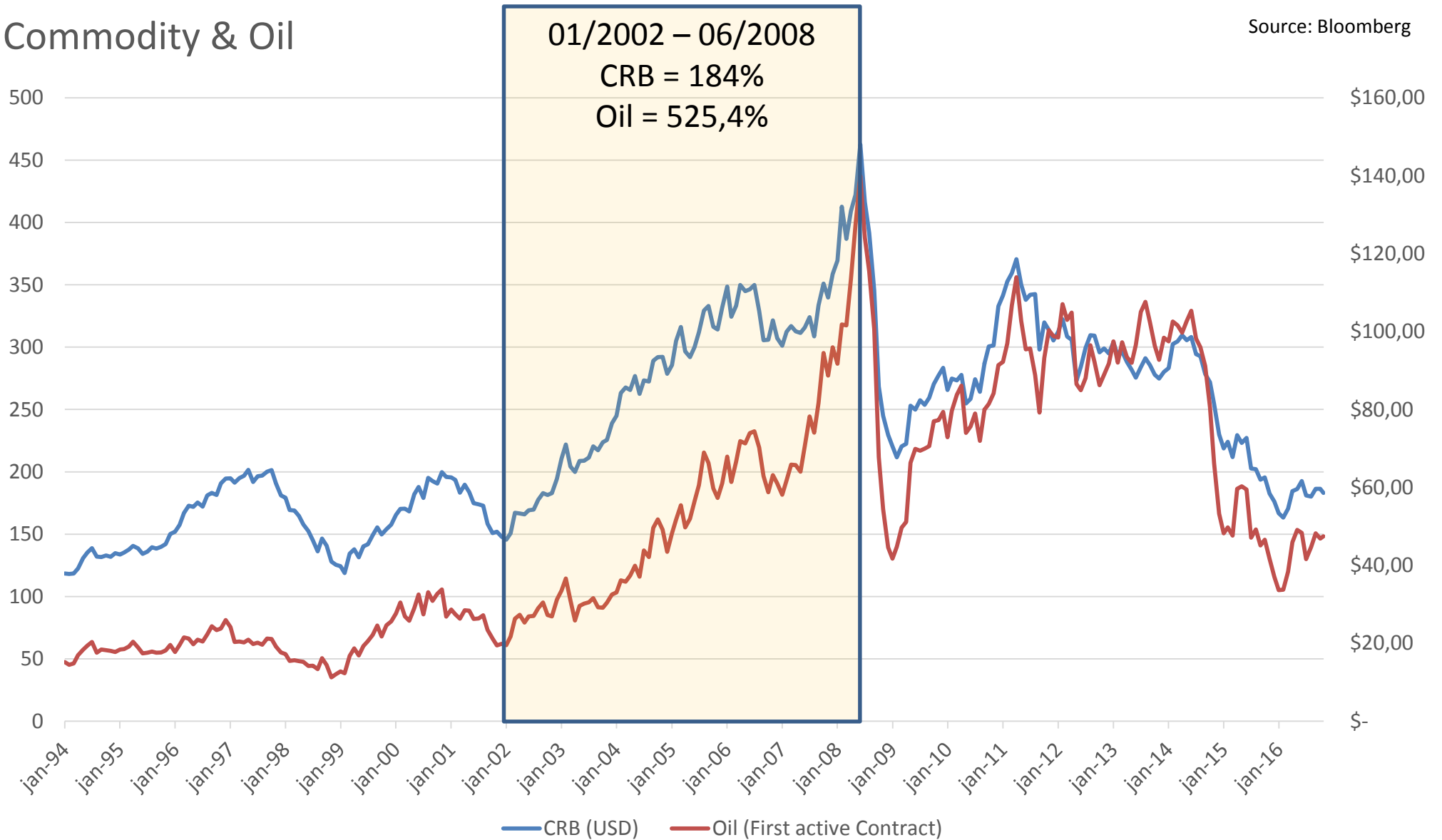
Two main hipotesis:

1. Brazil growth during 2002 and 2008 was due an external commodity shock.
2. The main brazilian problem is increasing government spending that delivered fiscal imbalance.

The Orthodox View: commodity boom and gloom.

Commodity & Oil

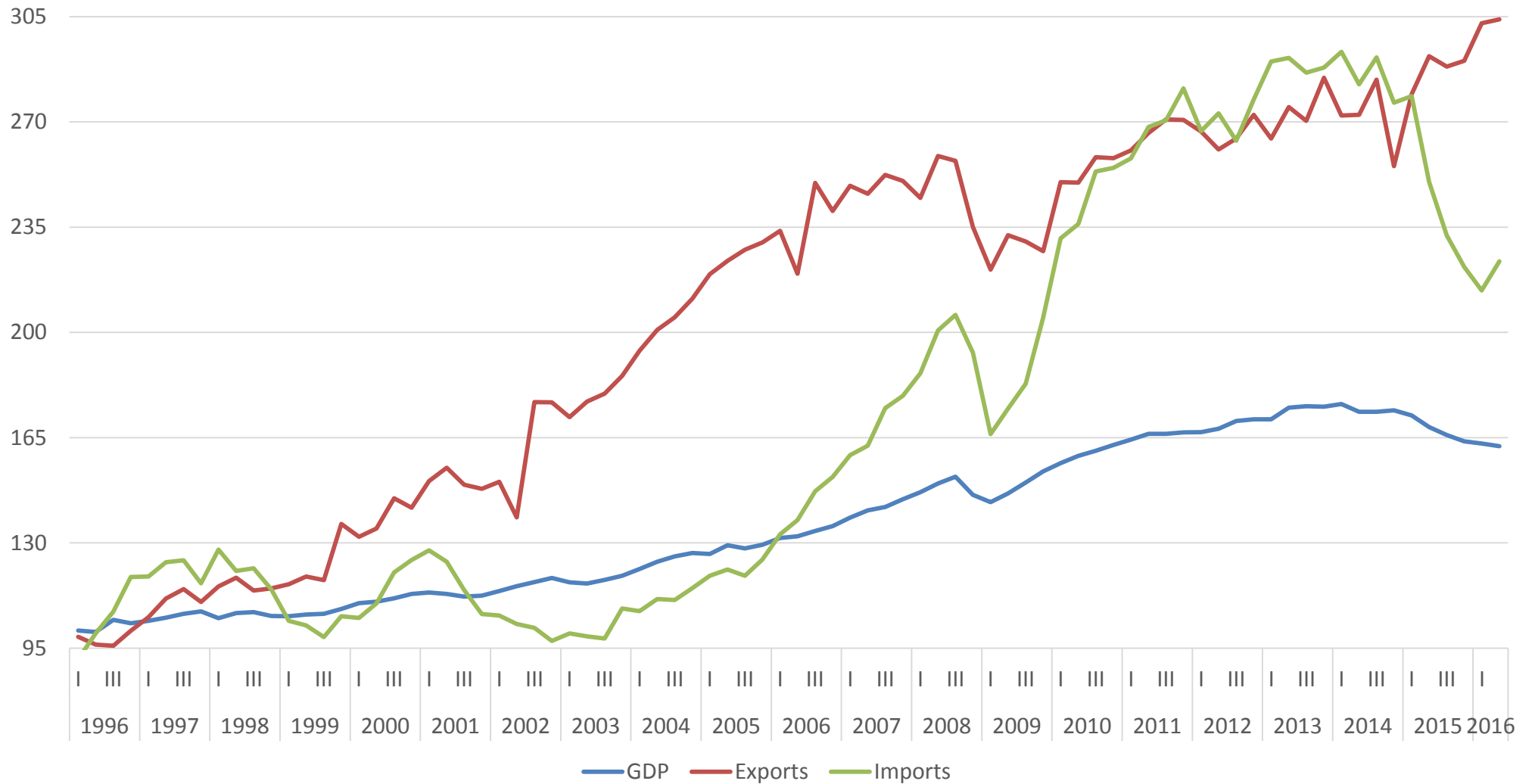
Source: Bloomberg



The Orthodox View: commodity boom and gloom.

GDP Brazil (index SA)

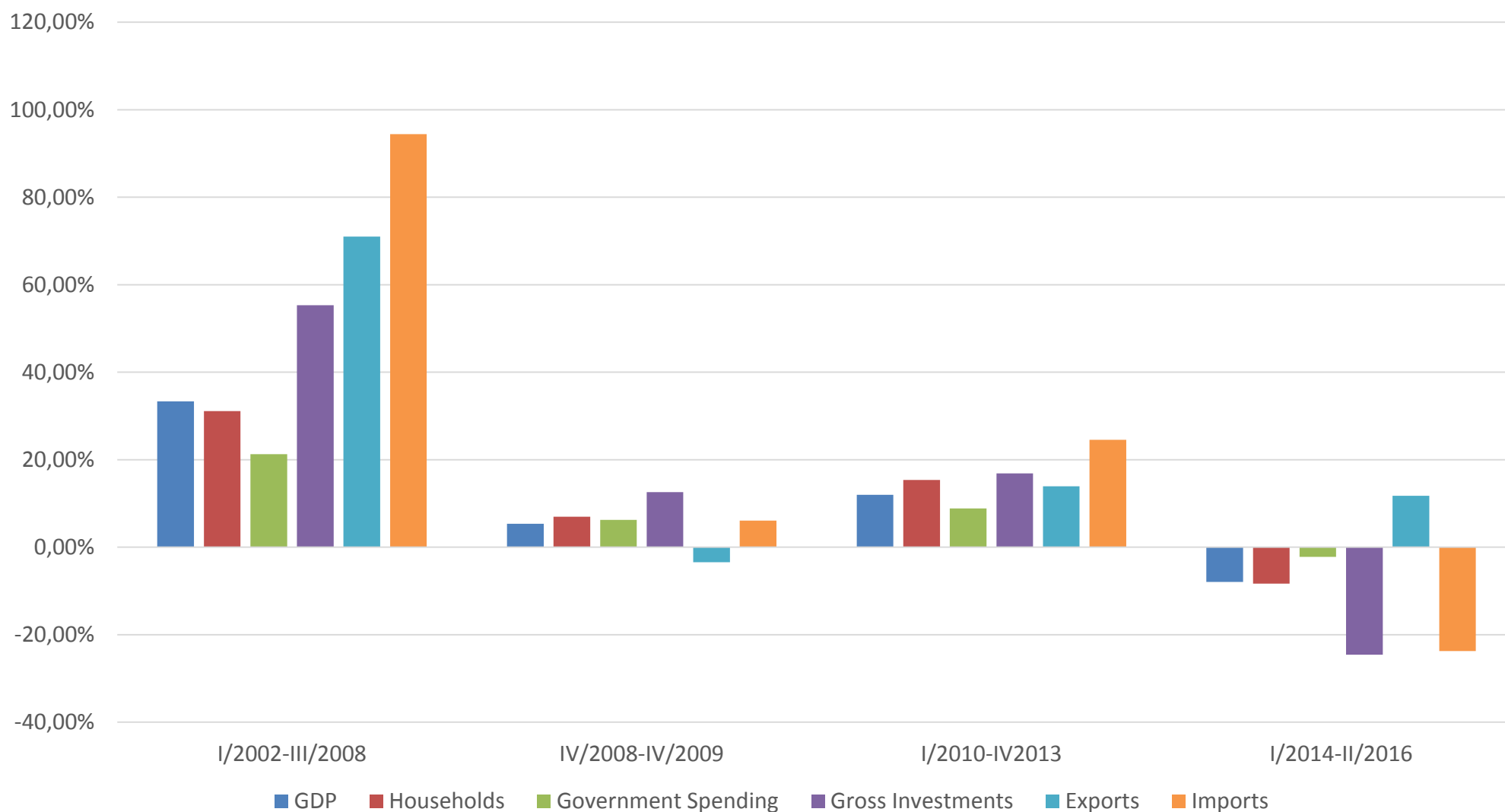
Source: IBGE



The Orthodox View: commodity boom and gloom.

GDP growth - Brazil (%) (SA)

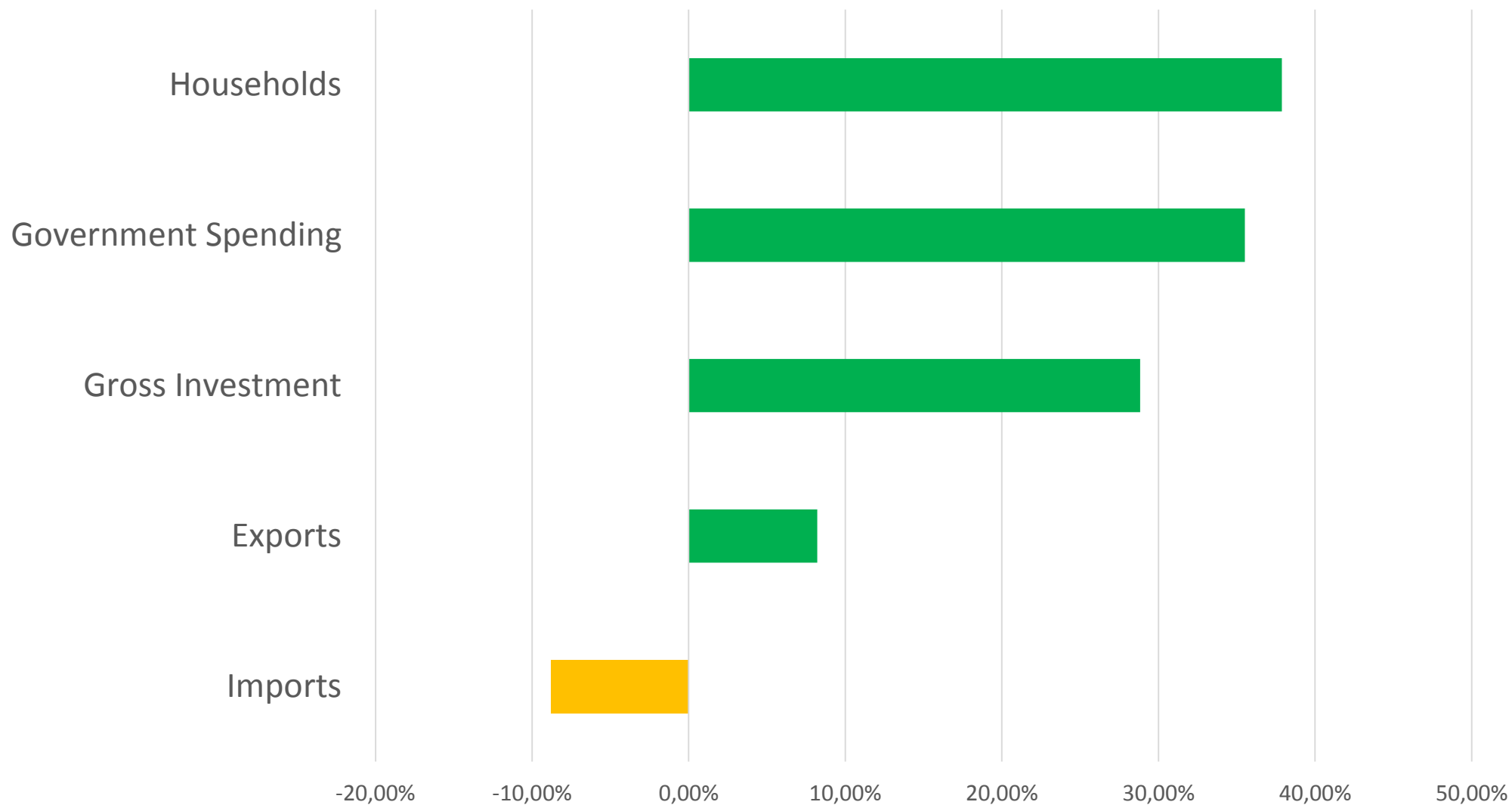
Source: IBGE, Gradual Investimentos



The Orthodox View: commodity boom and gloom.

Components contribution to GDP - Brazil (estimated)

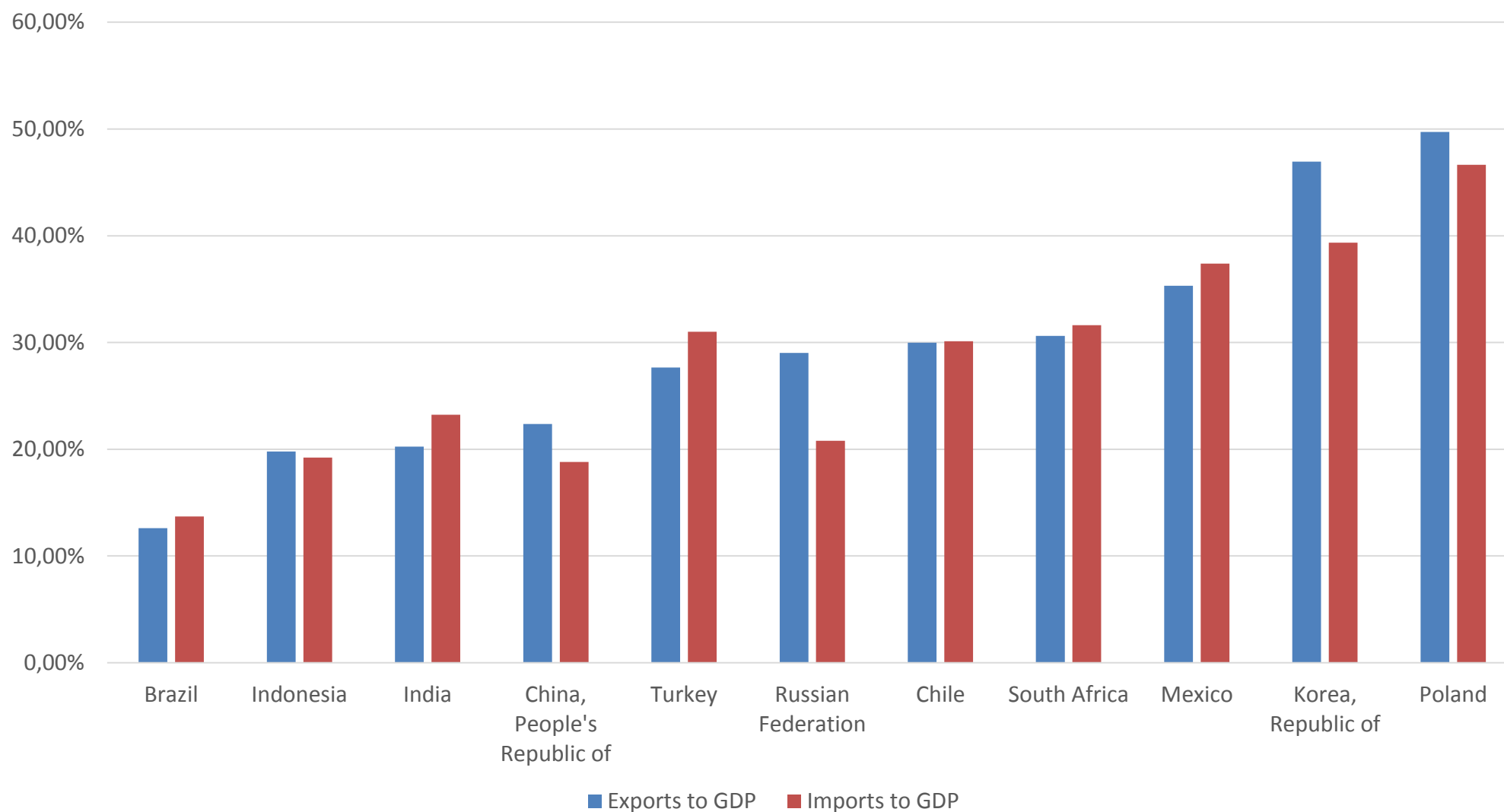
Source: IBGE, Gradual Investimentos



The Orthodox View: commodity boom and gloom.

Trade Balance to GDP (at 2015)

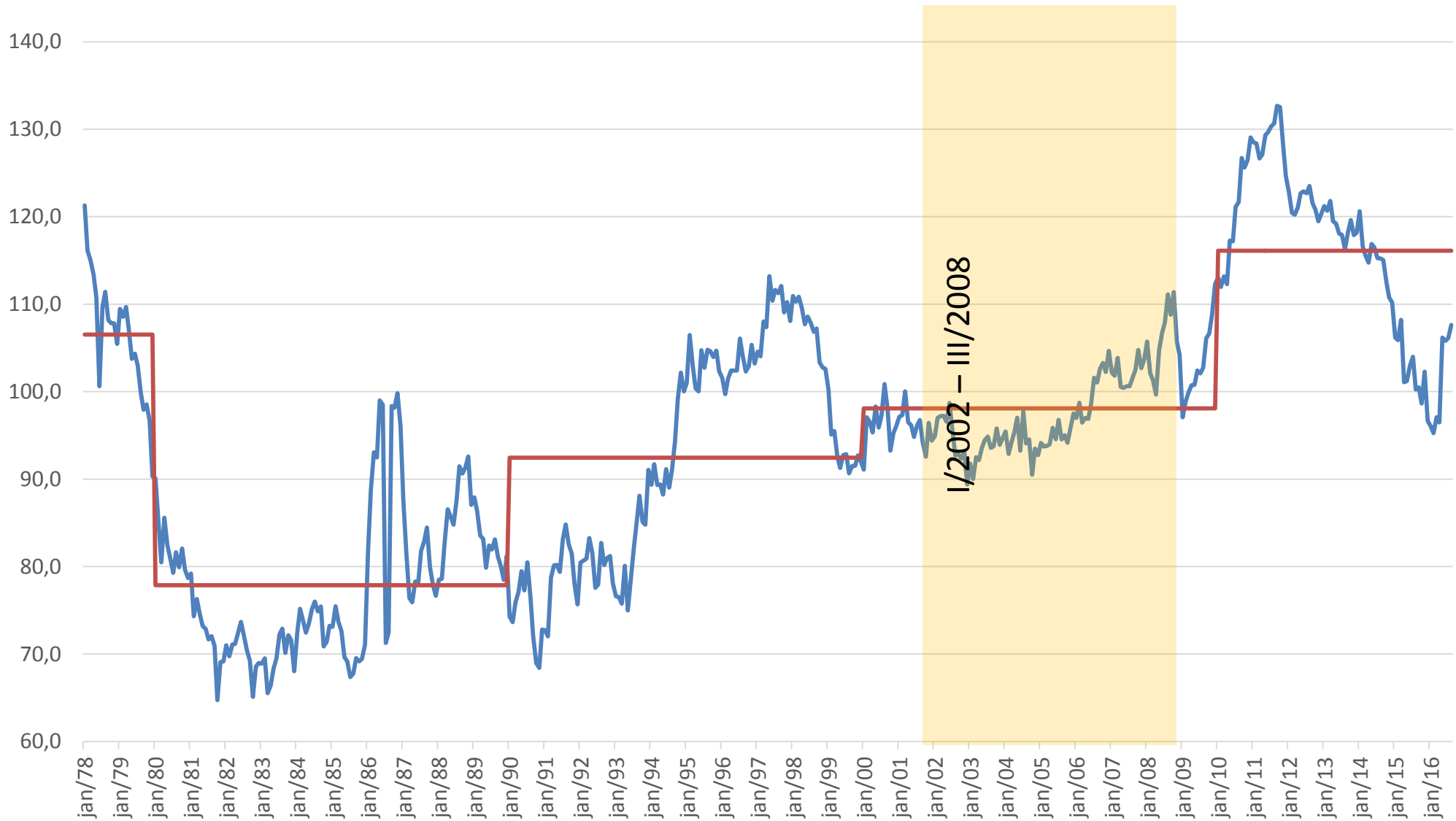
Source: IMF - WEO



The Orthodox View: commodity boom and gloom.

Terms of Trade - Brazil (index)

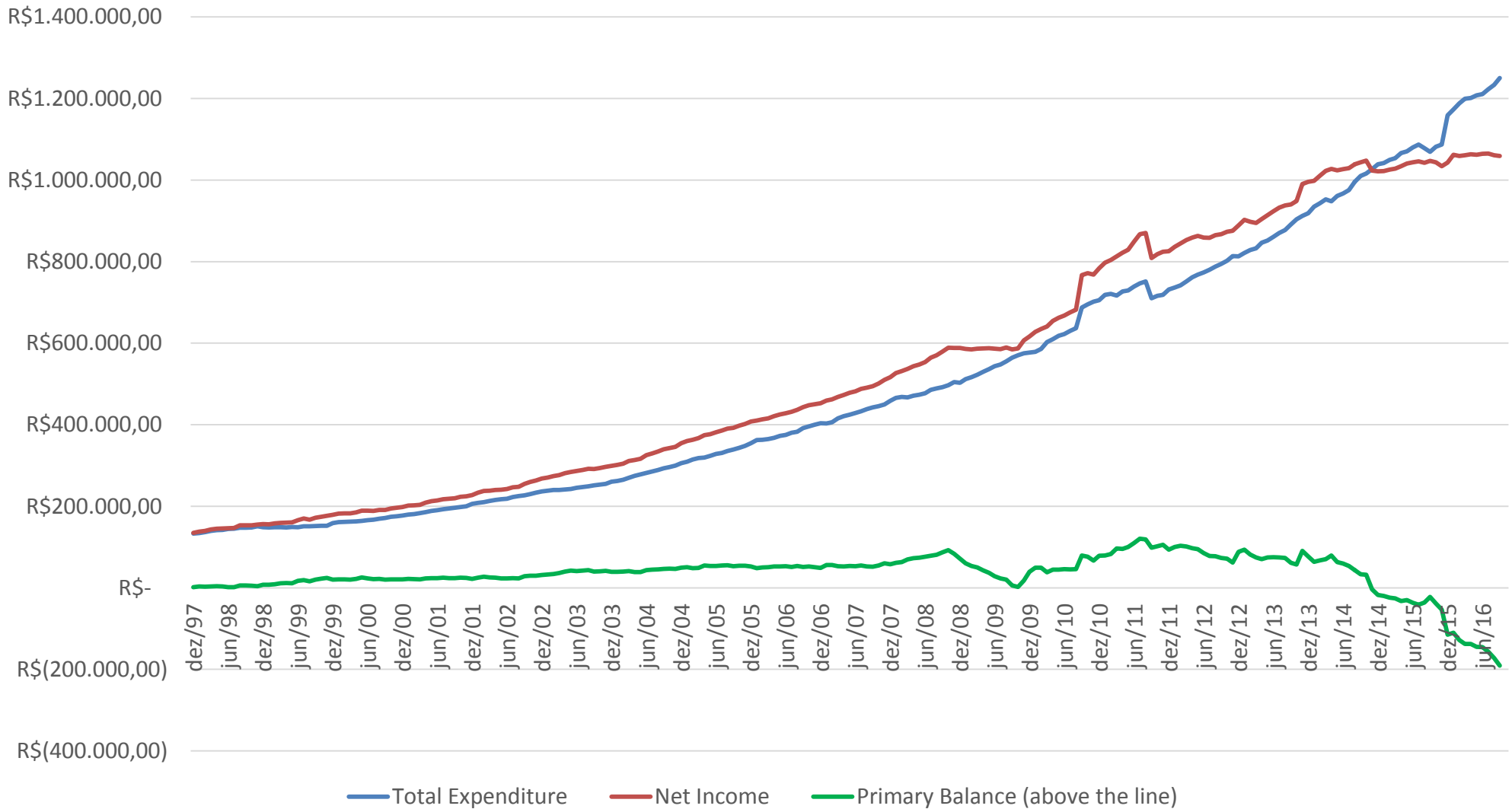
Source: FUNCEX



The Orthodox View: spending fast?

Primary Balance - Brazil (BRL millions) (12 month accumulated)

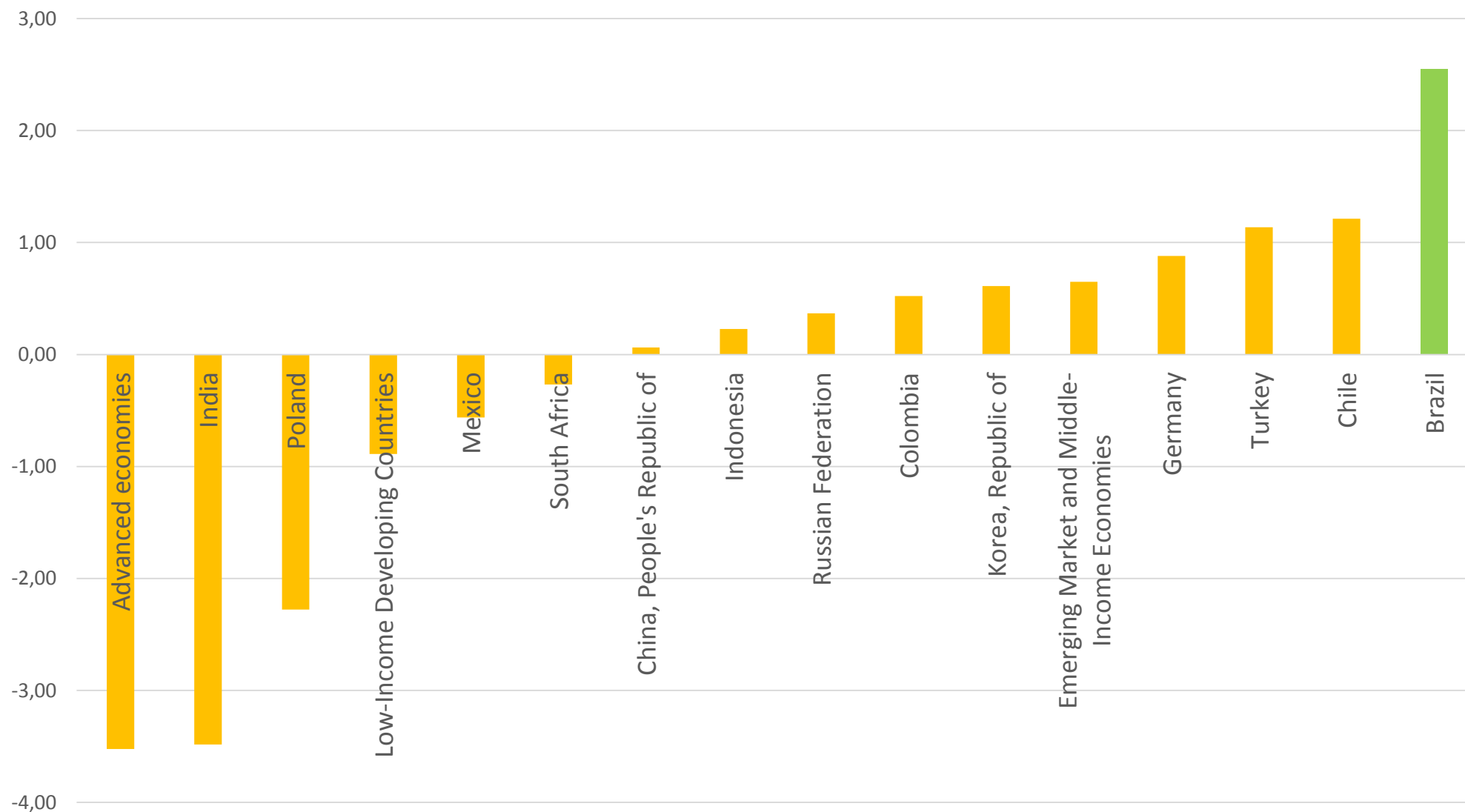
Source: Ministry of Finance



The Orthodox View: spending fast?

Median primary surplus 2007-2013 (as % of GDP)

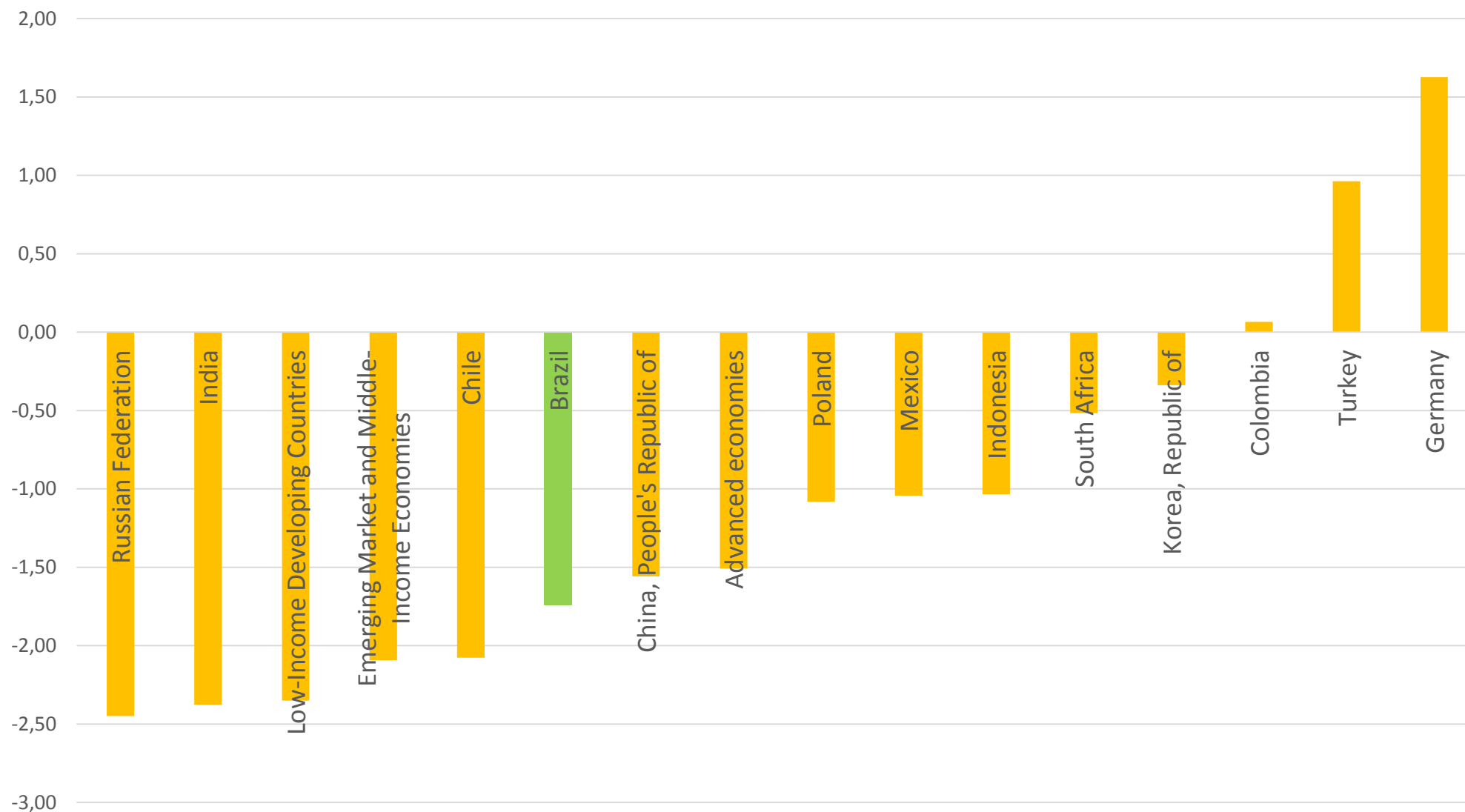
Source: IMF - Data Mapper/WEO



The Orthodox View: spending fast?

Median primary surplus 2014-2016 (as % of GDP)

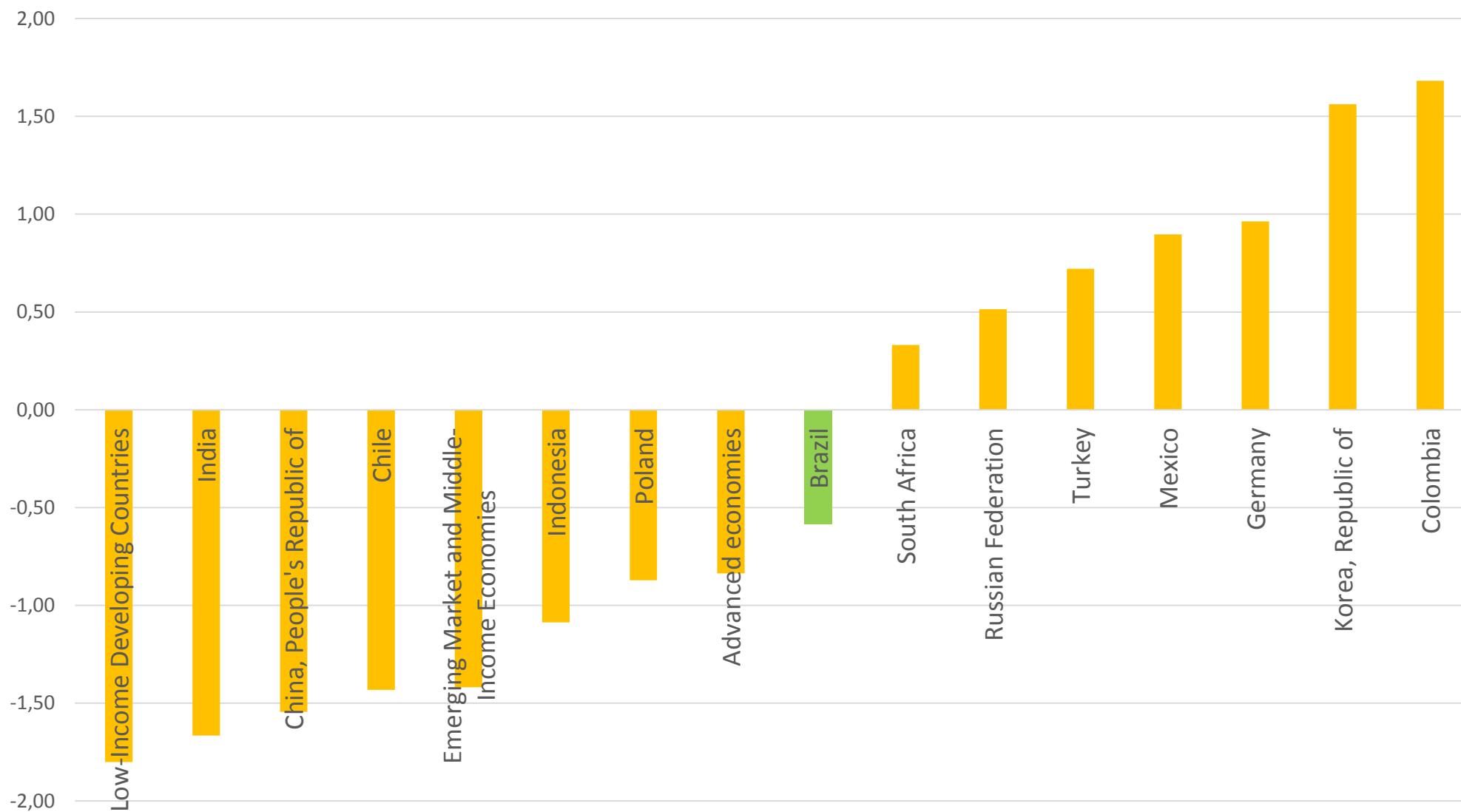
Source: IMF - Data Mapper/WEO



The Orthodox View: spending fast?

Median primary surplus 2017-2021 (as % of GDP)

Source: IMF - Data Mapper/WEO



The Economic Consequences of the Real

Unconsciousness speaks.

Two simple equations...

Marginal Efficiency of Capital (mec)

$$mec = \frac{\sum Qn}{(1 - r)^n}$$

Where:

Q = prospective return

r = risk free interest rate

n = number of periods

Zero Cupon Bond Yield (yield)

$$Yield = \left(\frac{F}{PV} \right)^{1/n} - 1$$

Where:

F = Face Value

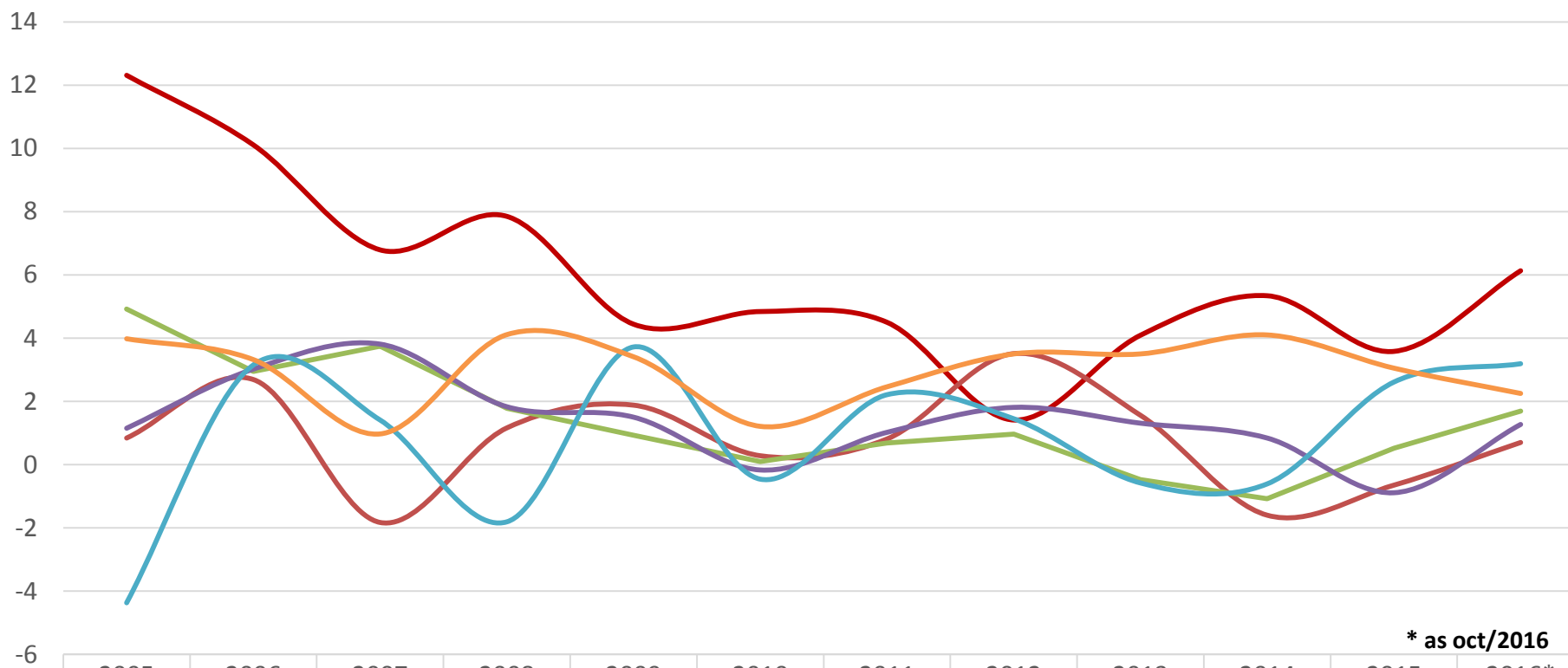
PV = Present Value

n = number of periods

The Economic Consequences of the Real.

Real Interest Rate (ex-post) (YoY)

Source: Bloomberg, Gradual Investimentos

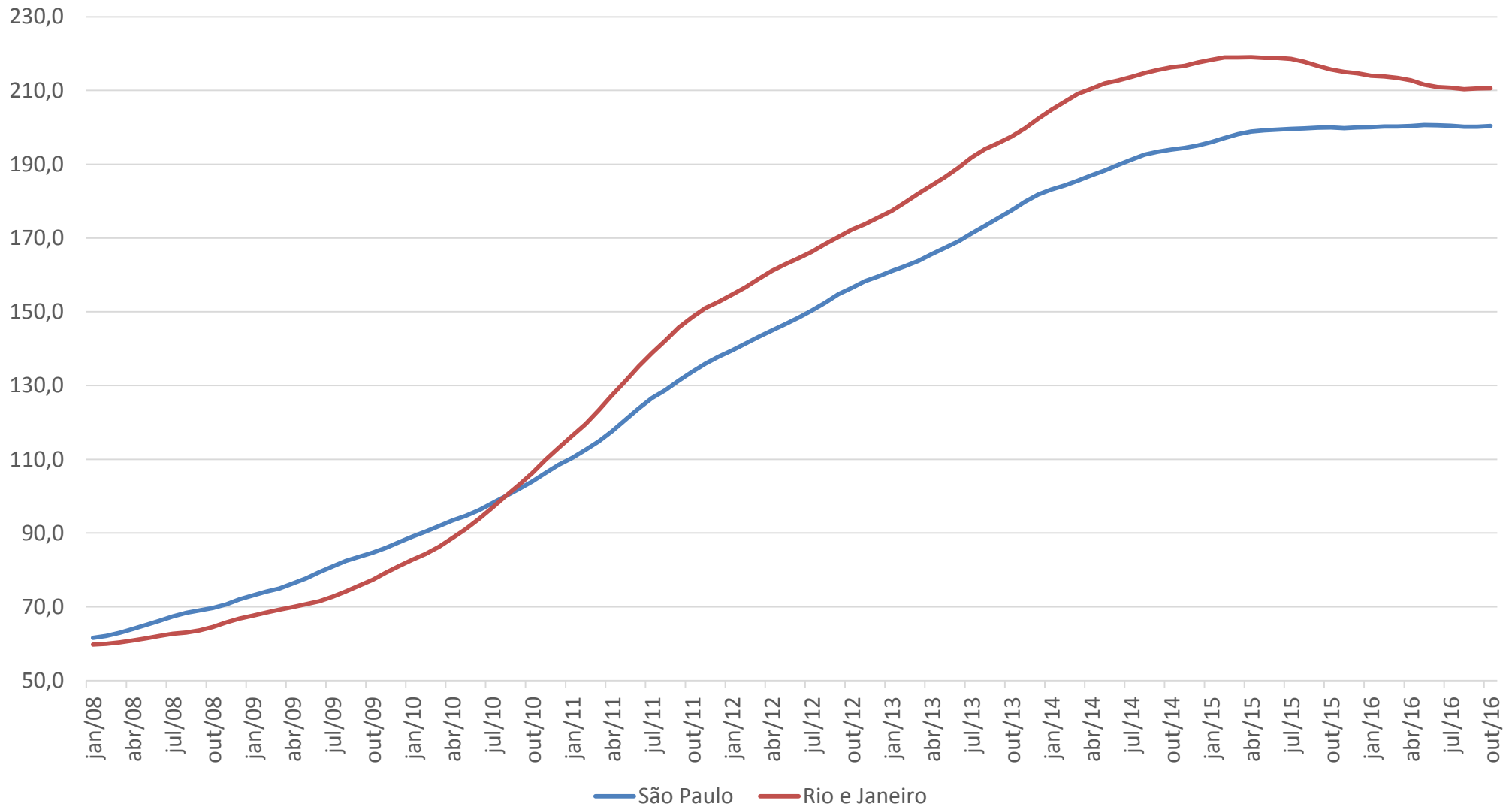


	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
— Brazil	12,31	10,11	6,79	7,85	4,44	4,84	4,5	1,41	4,09	5,34	3,58	6,13
— Chile	0,84	2,69	-1,83	1,16	1,88	0,28	0,81	3,51	1,56	-1,6	-0,65	0,7
— Mexico	4,92	2,95	3,74	1,78	0,93	0,1	0,68	0,96	-0,47	-1,08	0,52	1,69
— Colombia	1,15	3,02	3,81	1,83	1,5	-0,17	1,02	1,81	1,31	0,84	-0,89	1,27
— Indonesia	-4,37	3,15	1,41	-1,81	3,72	-0,46	2,21	1,45	-0,58	-0,61	2,61	3,19
— China	3,98	3,32	0,97	4,11	3,41	1,21	2,46	3,5	3,5	4,1	3,05	2,25

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House Price Index

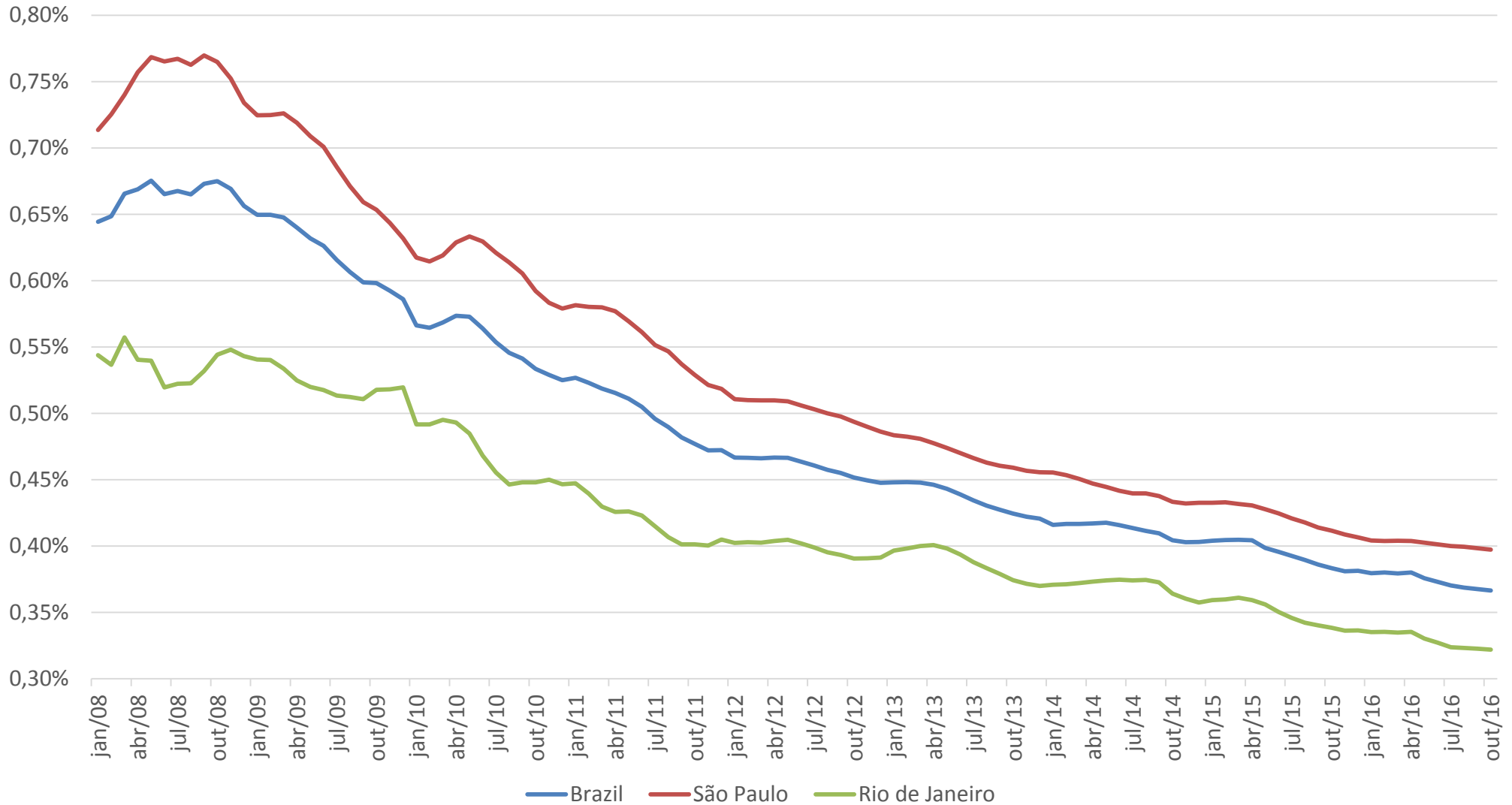
Source: FIPE/ZAP, Gradual Investimentos



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Rental Yield

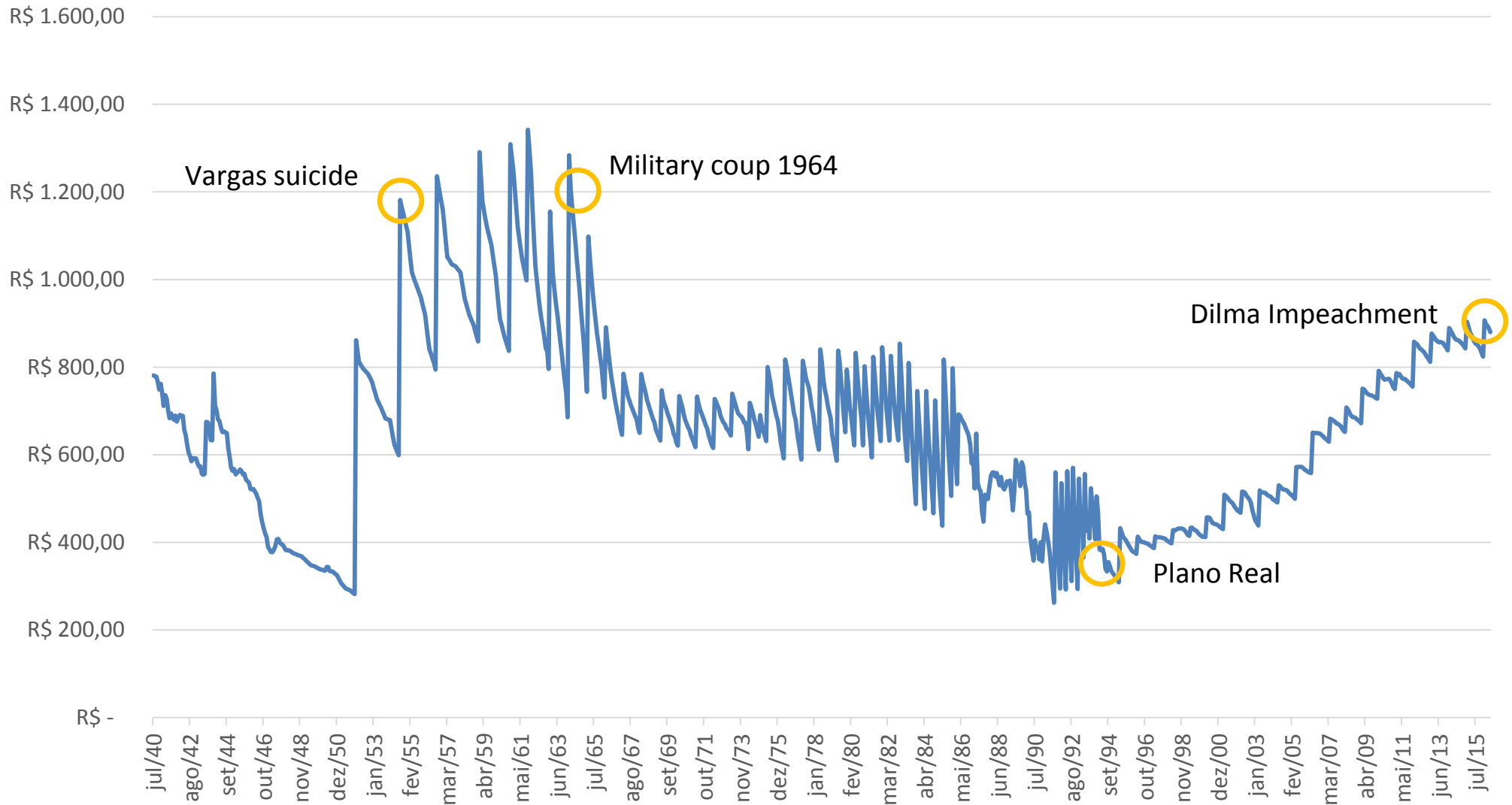
Source: FIPE/ZAP, Gradual Investimentos



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Real minimum wage (in BRL)

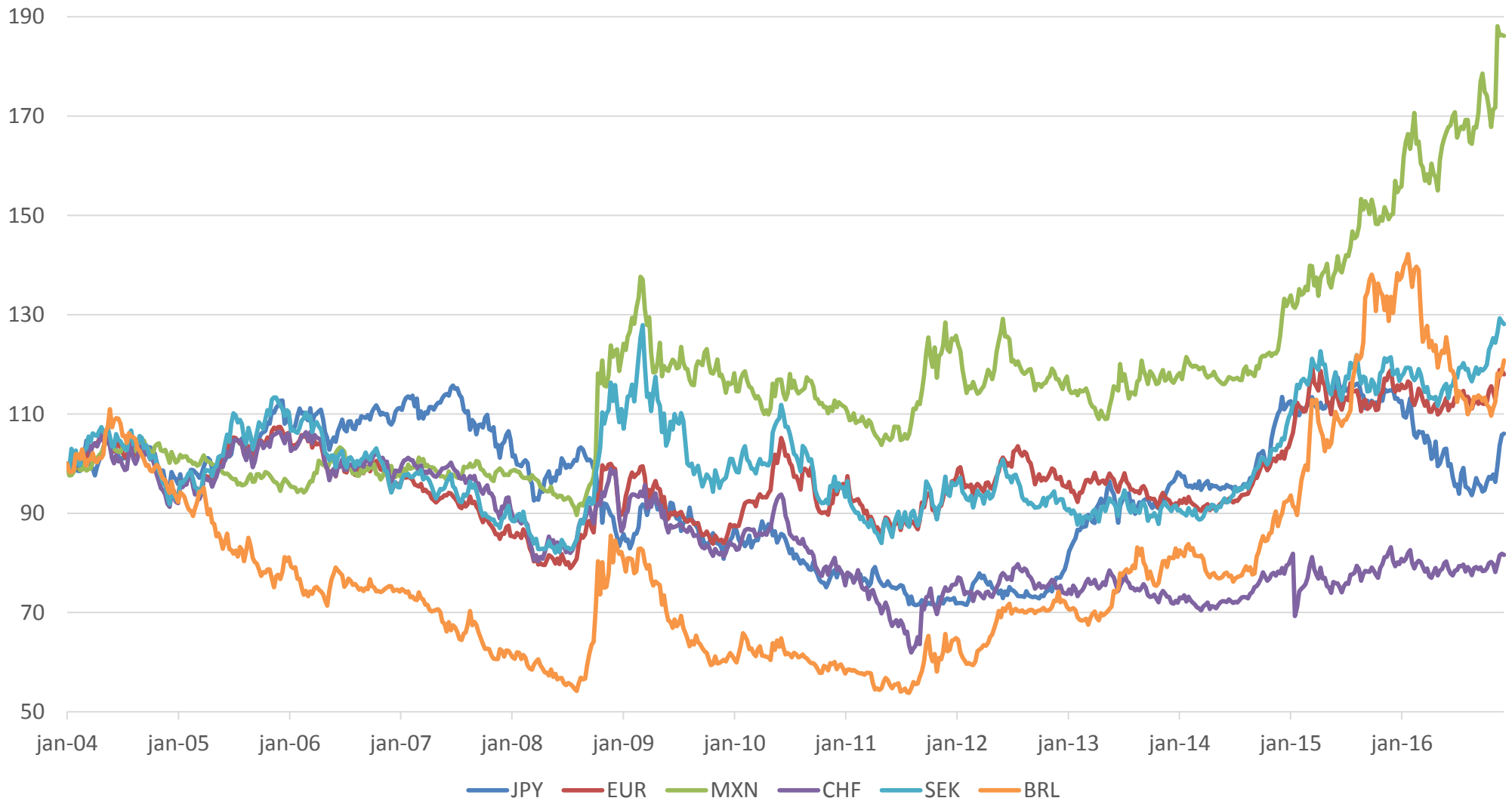
Source: IPEA Data, Gradual Investimentos



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Currencies (index 100 = 01/2004)

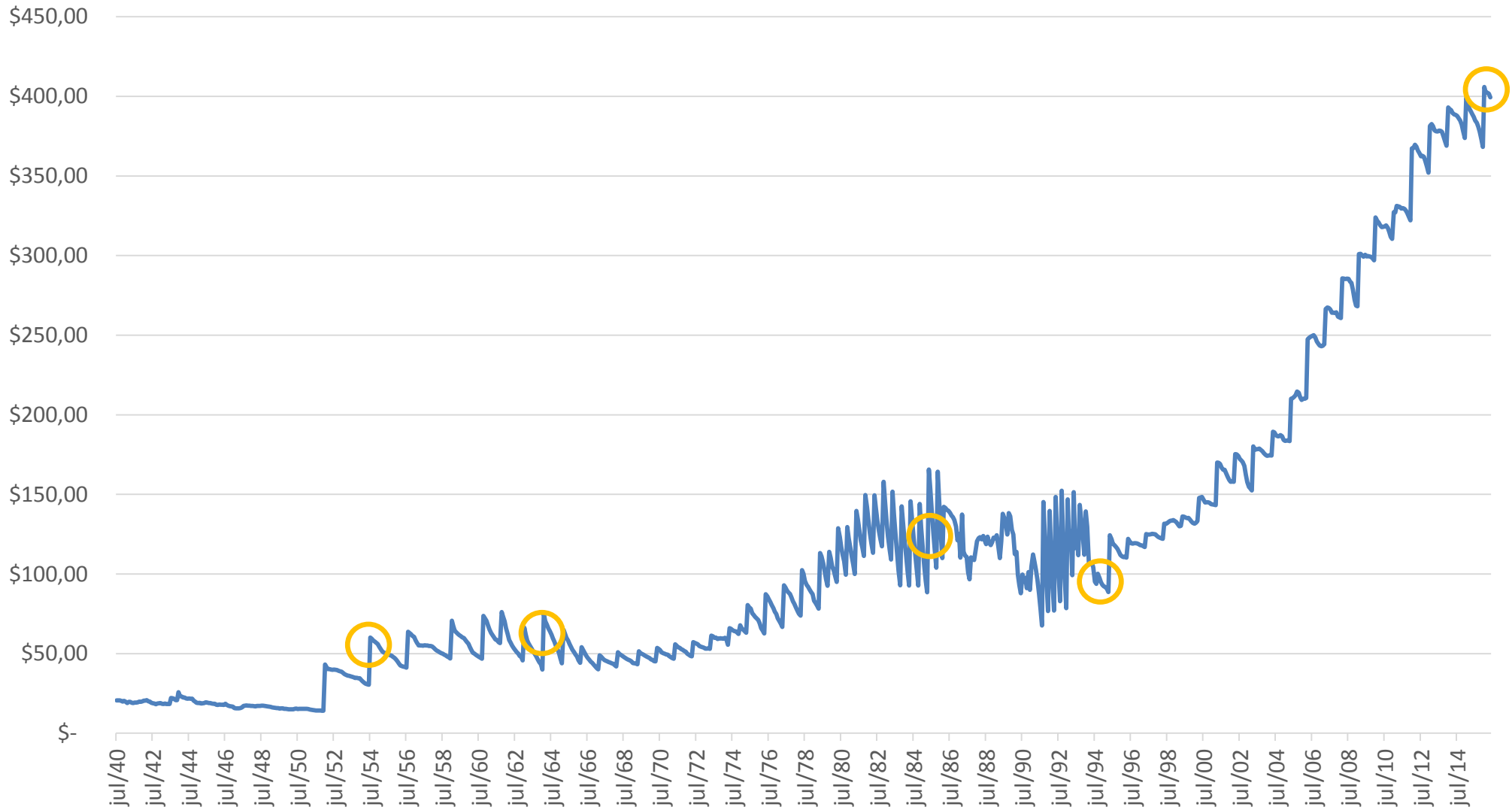
Source: Bloomberg, Gradual Investimentos



The Economic Consequences of the Real.

Minimum wage – purchasing power parity (USD)

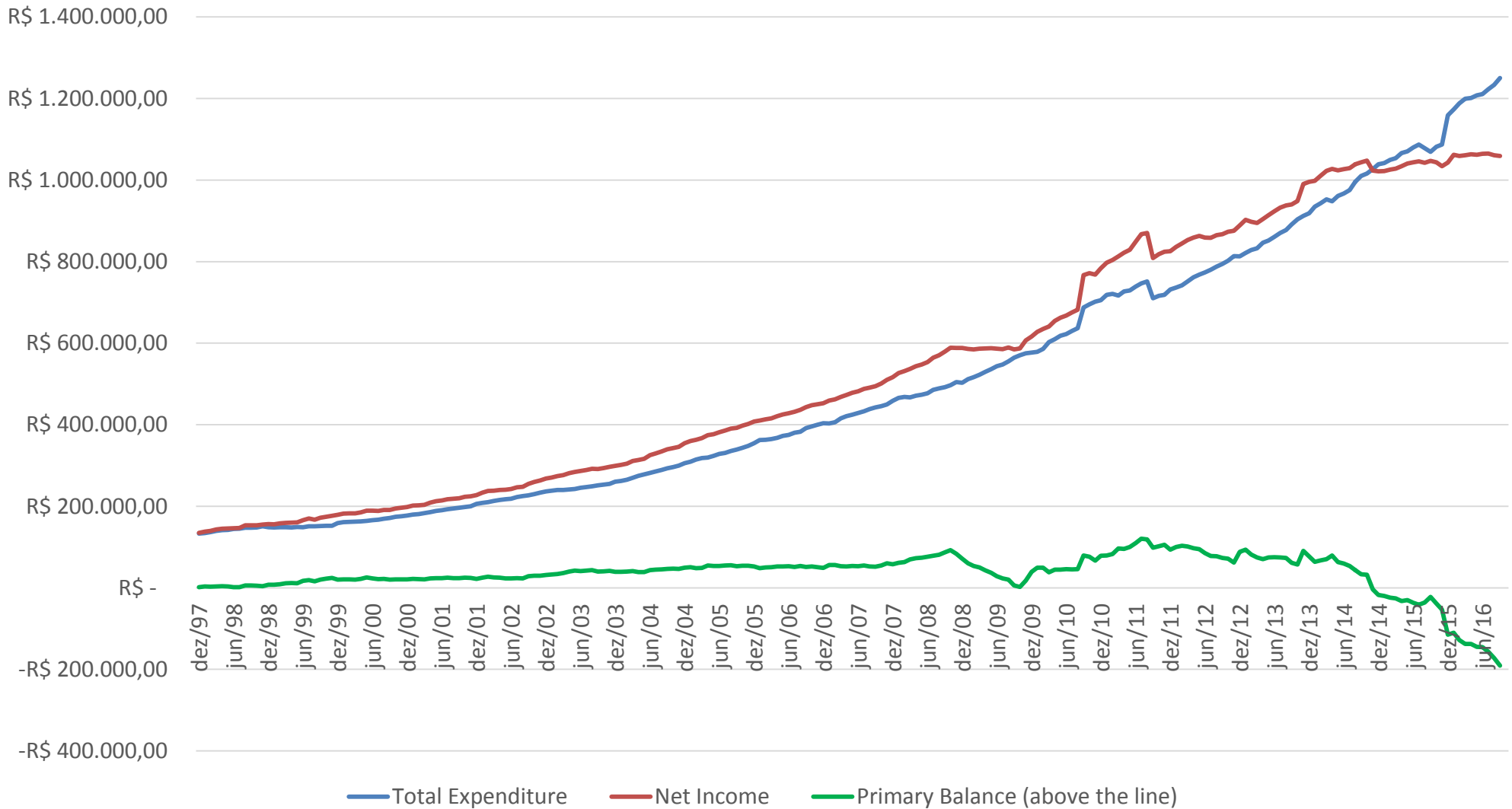
Source: IPEA Data, Gradual Investimentos



The Economic Consequences of the Real.

Primary Balance - Brazil (BRL millions) (12 month accumulated)

Source: Ministry of Finance



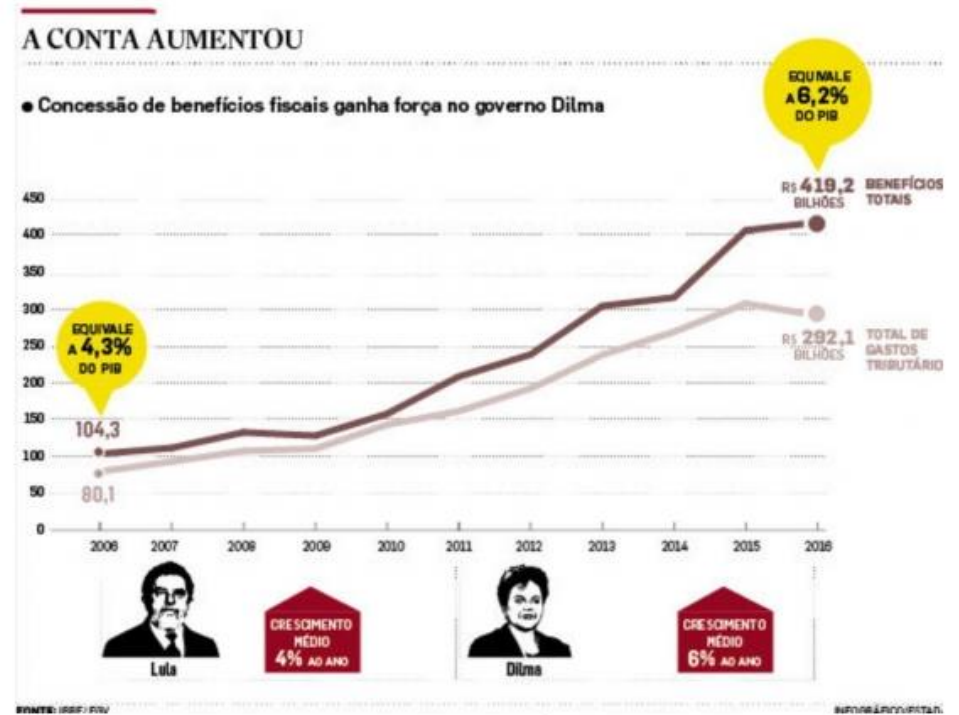
TAX RELIEF IN 2015 = BRL 400 BILLION



Benefícios fiscais dobram no governo Dilma e passam de R\$ 400 bilhões

ALEXA SALOMÃO - O ESTADO DE S. PAULO
08 Dezembro 2015 | 05h 00

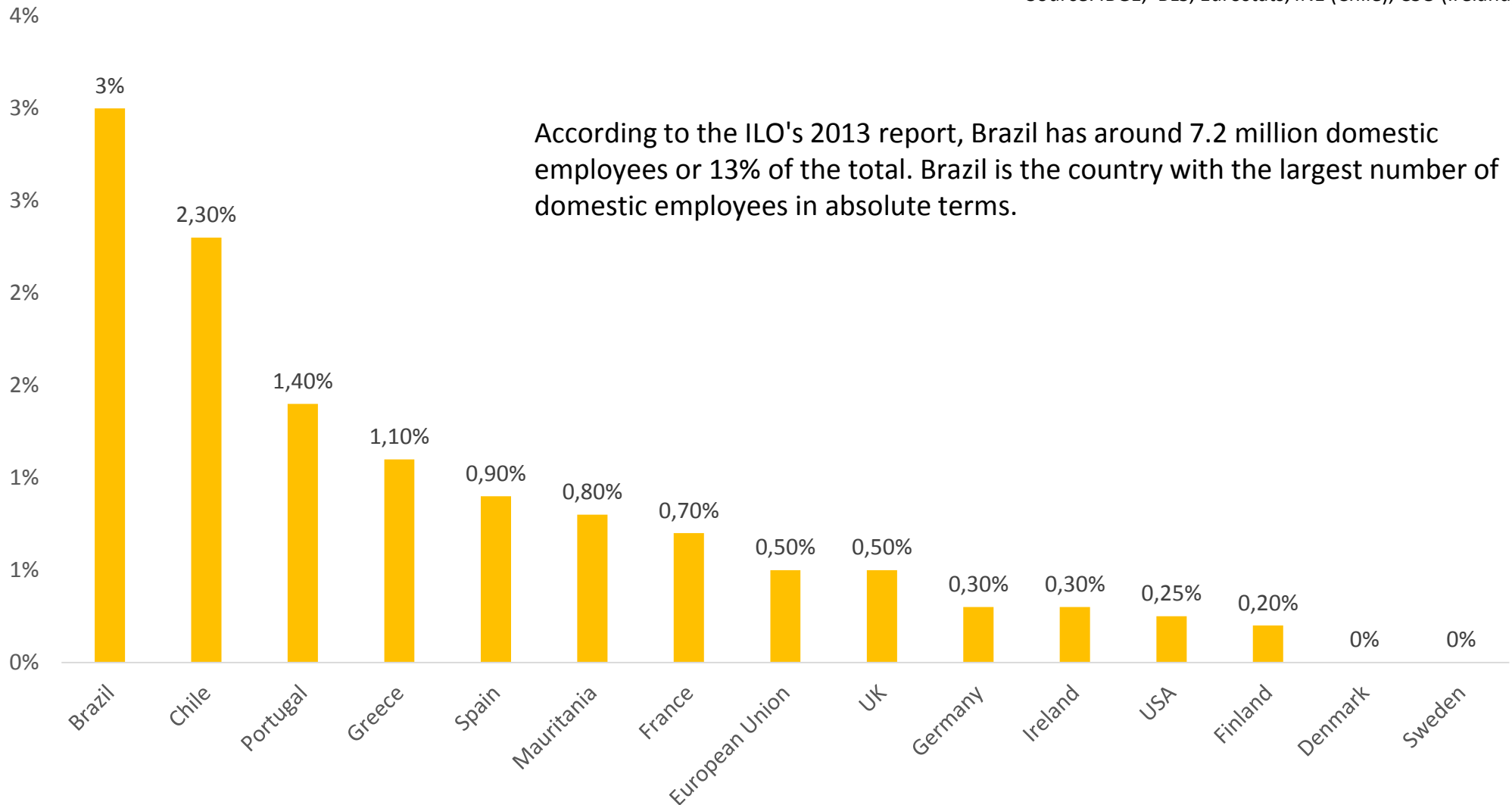
Neste ano, o total de benefícios fiscais vai representar 6,5% do Produto Interno Bruto, mais que o triplo da média que prevaleceu ao longo das décadas de 80 e 90



The Economic Consequences of the Real.

Domestic Workers as percentage of Household Expenditure Survey

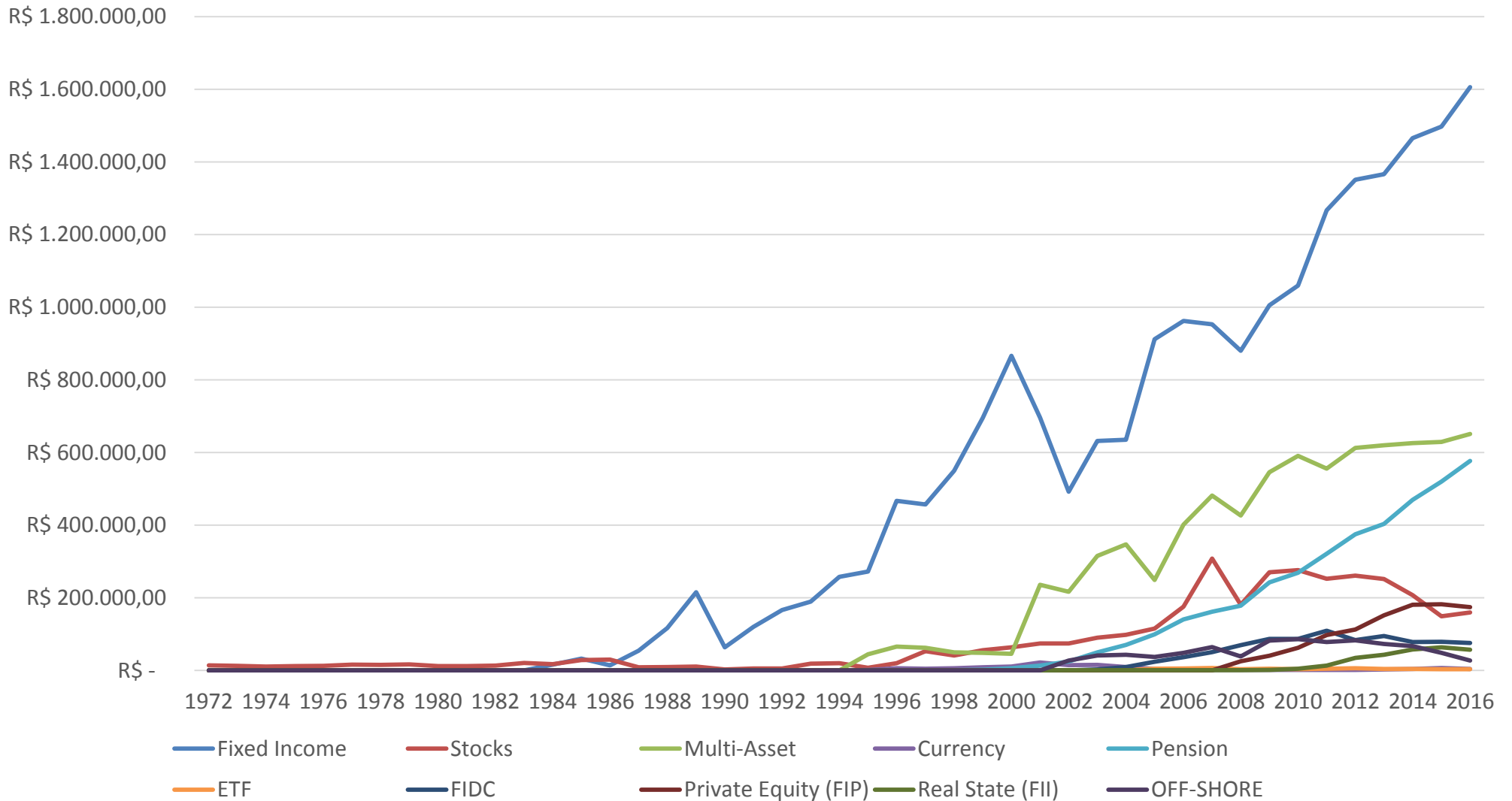
Source: IBGE, BLS, Eurostats, INE (Chile), CSO (Ireland)



The Economic Consequences of the Real.

Investment Fund Industry Net Worth (constant price) (BRL million)

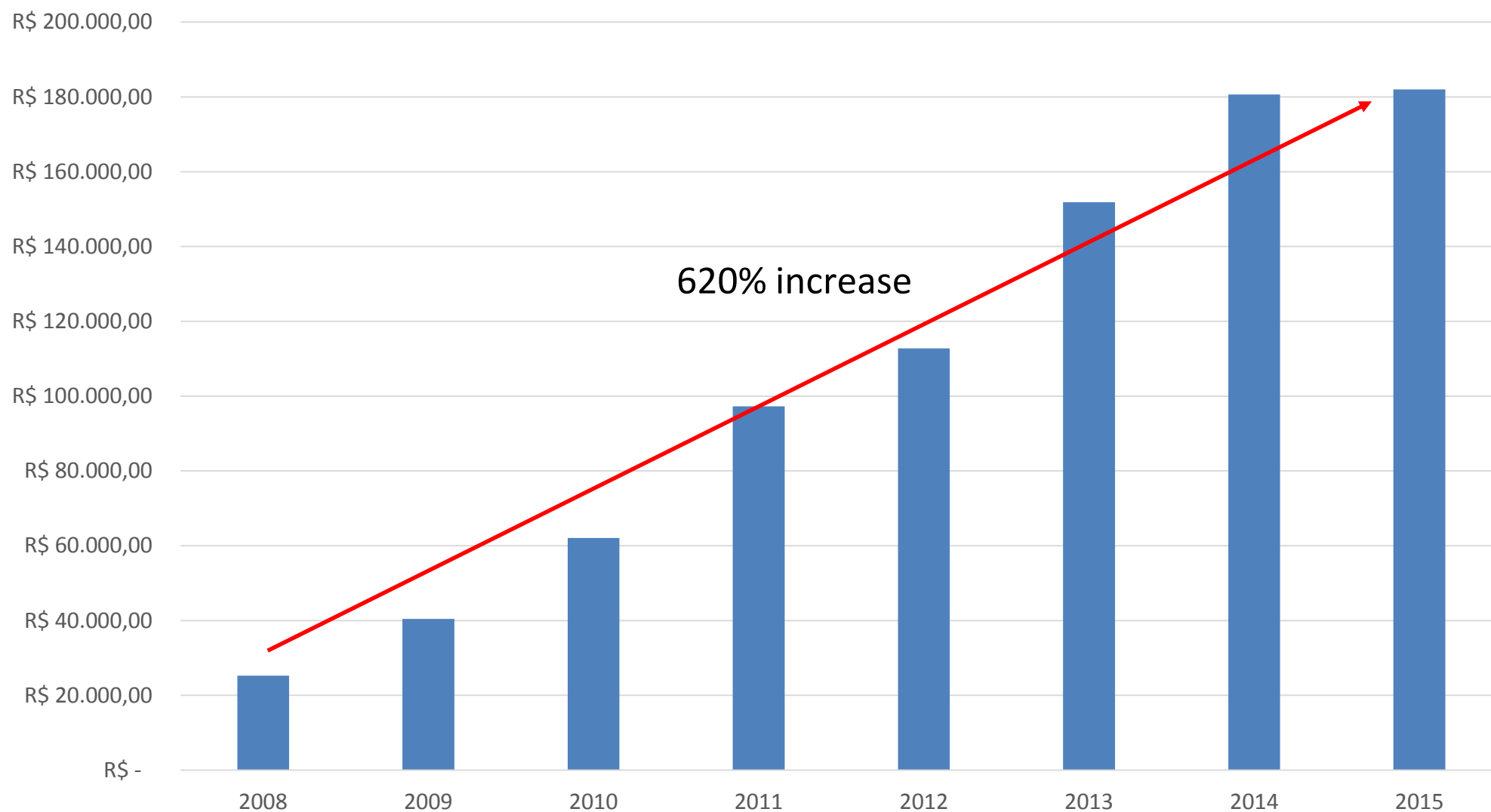
Source: ANBIMA



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Private Equity (FIP) net worth (BRL million)

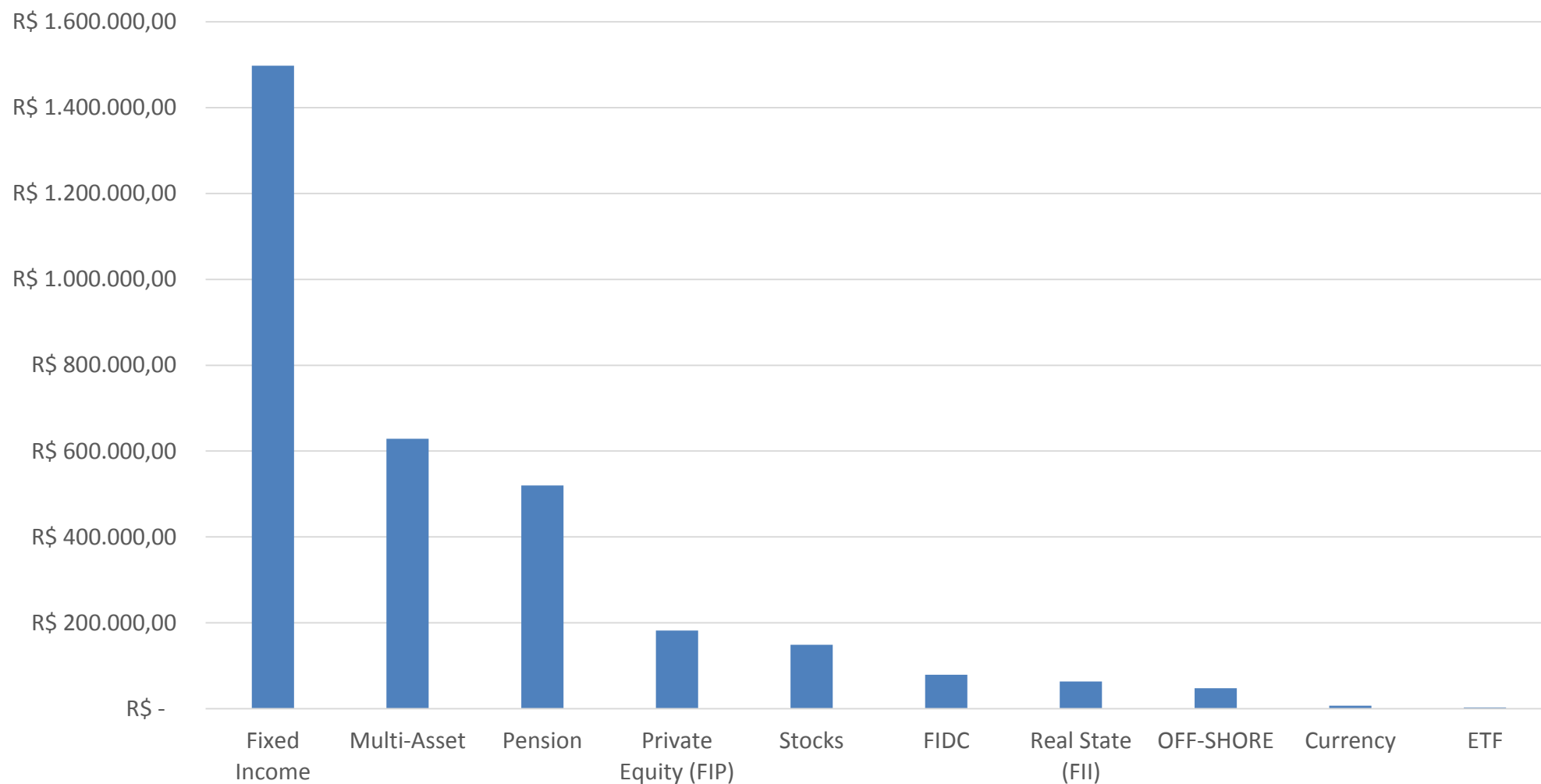
Source: ANBIMA



The Economic Consequences of the Real.

Investment Fund Industry Net Worth (constant price) (BRL million) in 2015

Source: ANBIMA



The Economic Consequences of the Real.

“The schedule of the marginal efficiency of capital is of fundamental importance because it is mainly through this factor (**much more than through the rate of interest**) that the expectation of the future influences the present. The mistake of regarding the marginal efficiency of capital primarily in terms of the *current* yield of capital equipment, which would be correct only in the static state where there is no changing future to influence the present, has had the result of breaking the theoretical link between to-day and to-morrow. Even the rate of interest is, virtually, a *current* phenomenon; and if we reduce the marginal efficiency of capital to the same status, we cut ourselves off from taking any direct account of the influence of the future in our analysis of the existing equilibrium.”

Chapter 11, The Marginal Efficiency of Capital.

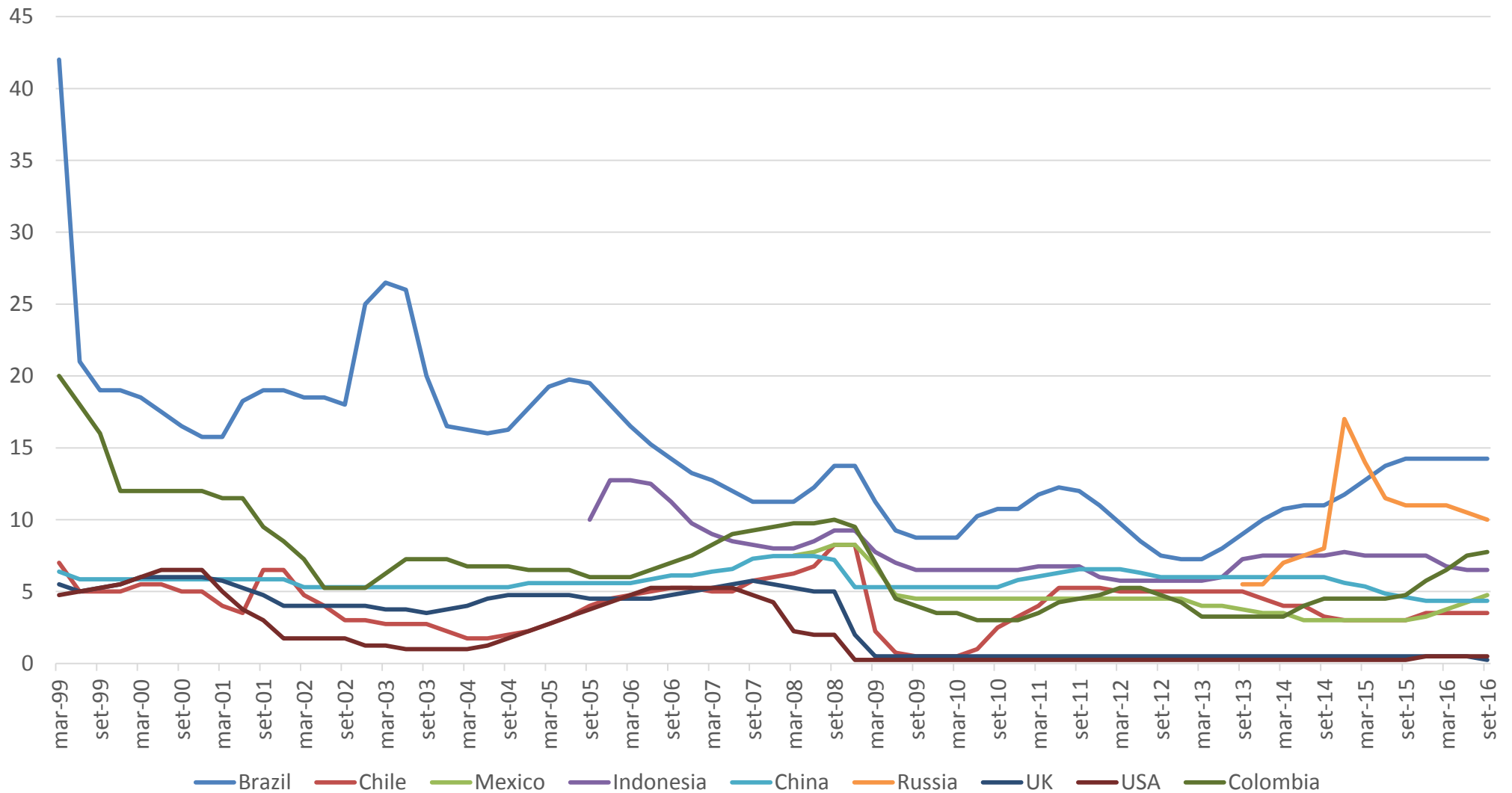
John Maynard Keynes

General Theory of Employment, Interest and Money

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Main Interest Rate Target (YoY)

Source: Bloomberg, Gradual Investimentos



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