

Labor Market Changes in Brazil

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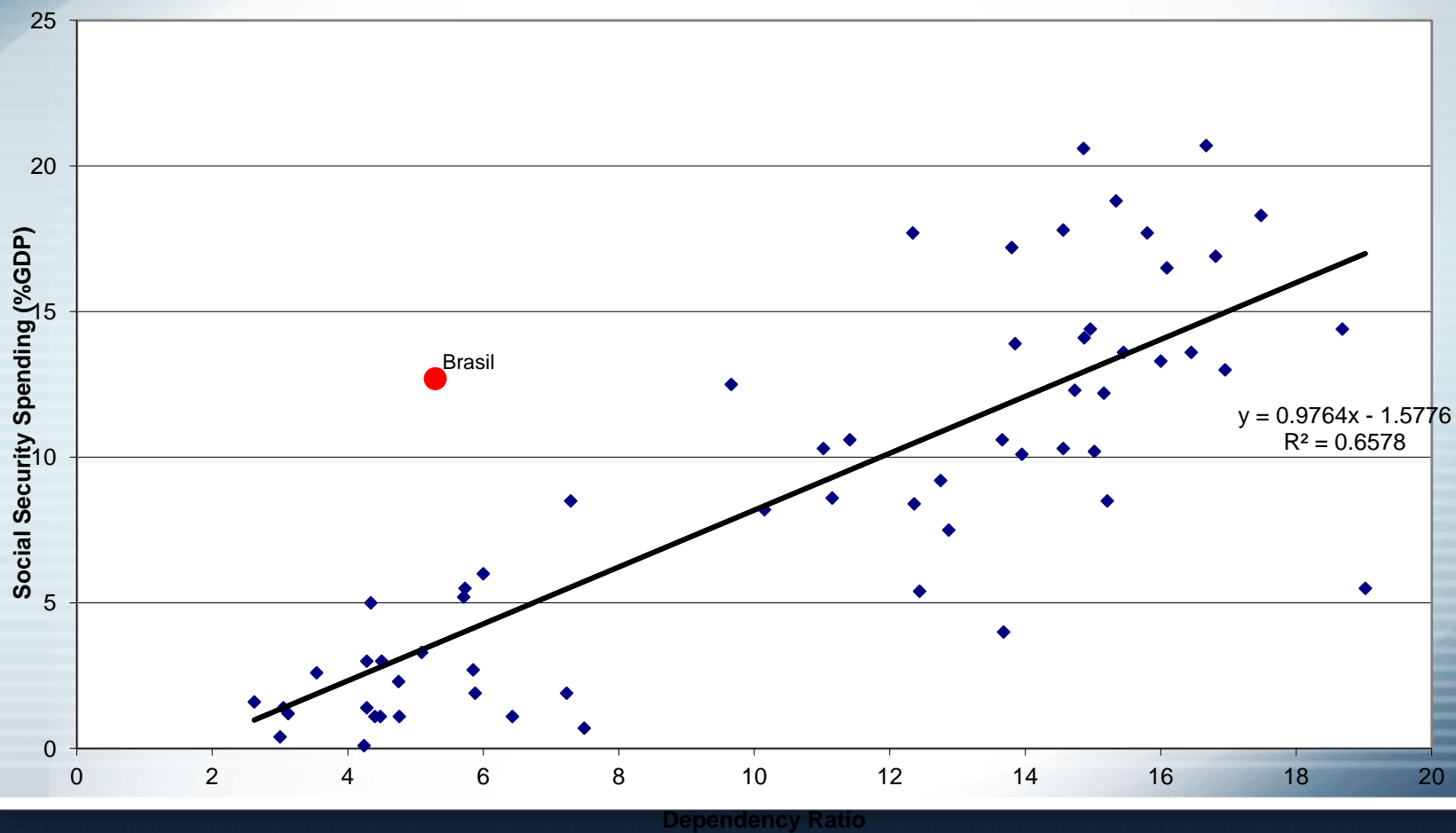
IBRE – FGV

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- Brazilian labor market has an important wedge (40%-50%):
 - 1 - minimum wage
 - 2 - huge tax on the wage bill
 - 3 - firing penalties to employers
 - 4 – Several labor rights that increase the labor cost
- As a consequence the level of the unemployment rate was high in Brazil: Above 10% until the beginning of 2005

Social Security

Dependence Ratio and Social Security Spending



Informal Labor

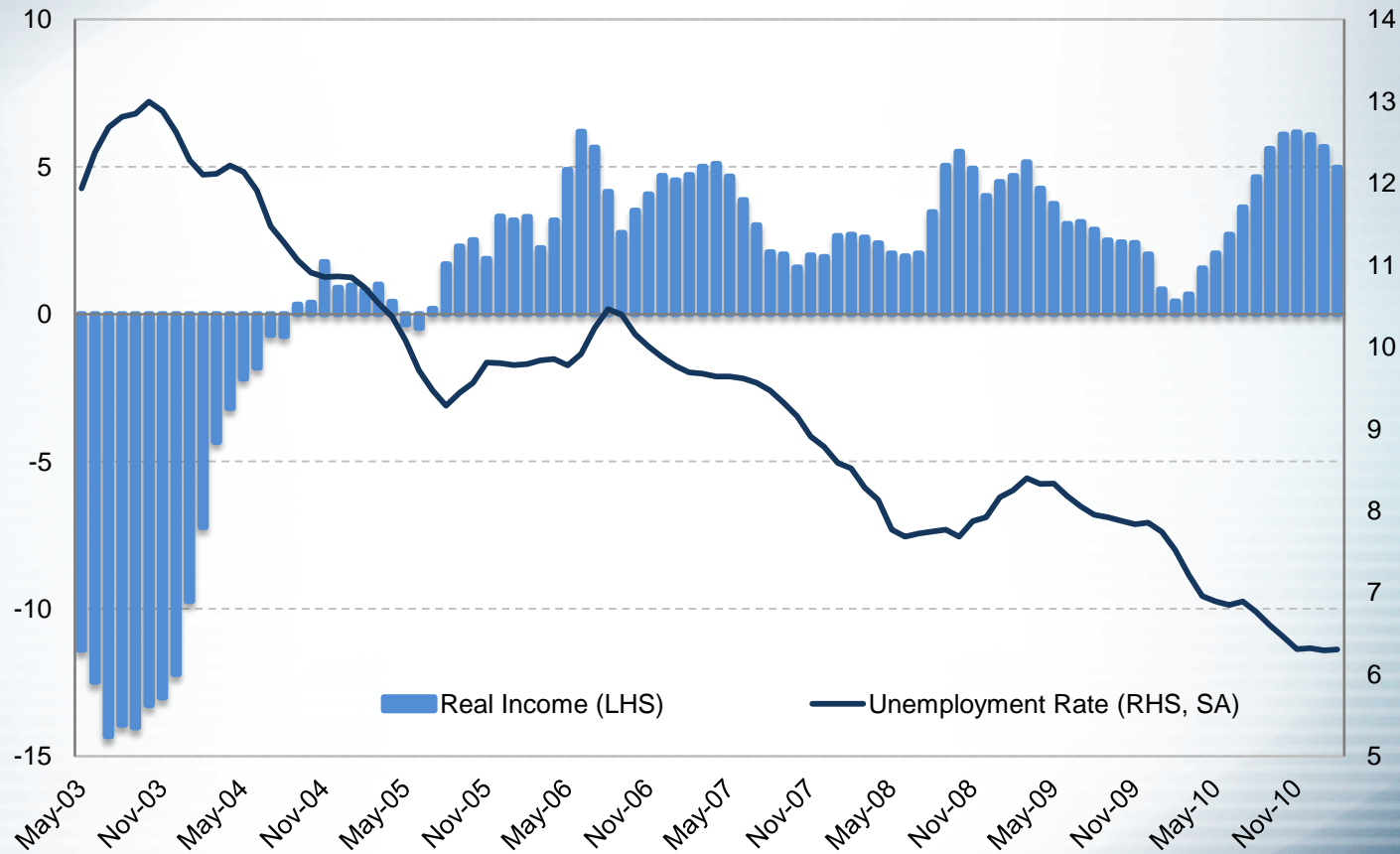
Informal Labor in Brazil

	Informal Income	Percentage of Informal workers
2003	28.2%	43.0%
2004	28.8%	43.2%
2005	27.7%	42.3%
2006	28.0%	41.5%
2007	27.0%	39.8%
2008	25.2%	38.2%
2009	26.3%	38.2%

Source: PNAD Dataset.



Unemployment Rate and Real Income Growth* (%)



*YoY - mm3m

Source: IBGE, IBRE/FGV



Explanation

- How this remarkable performance is possible, specially given the policy of increasing minimum wages and the existent wedge?
- Official data refers to a monthly survey (PME) produced by the IBGE whose universe is only some (not all) metropolitan regions (MRs)
- Unemployment rate calculated using annual household national survey (PNAD) does not measure an impressive drop
- PME: -5,3%
- PNAD: -2,6%

LABOR MARKET: Unemployment rates

Table 1: Unemployment Rates and its variation

	PNAD - Brazil	PNAD - MRs	PNAD - MRs from PME	PME	PNAD - NMR
2001	9,4%	12,7%	12,8%		
2002	9,1%	13,0%	13,2%	11,5%	7,3%
2003	9,7%	13,8%	14,2%	13,0%	7,8%
2004	8,9%	13,1%	13,5%	10,9%	6,9%
2005	9,3%	13,0%	13,3%	9,7%	7,6%
2006	8,4%	11,8%	12,1%	10,0%	6,8%
2007	8,2%	11,0%	11,2%	9,0%	6,8%
2008	7,1%	9,4%	9,7%	7,7%	6,1%
Variation					
2008-2002	-2,0%	-3,6%	-3,6%	-3,8%	-1,2%
2008-2003	-2,6%	-4,4%	-4,5%	-5,3%	-1,7%

Source: PNAD and PME data.

Source: IBGE, IBRE/FGV

Question

- Which group did benefit more for the tight labor market?
- Unemployment can be written as:

$$U_t = \frac{u_t}{L_t} = \frac{\sum_i u_{i,t}}{\sum_i L_{i,t}} = \frac{\sum_i L_{i,t} \times \frac{u_{i,t}}{L_{i,t}}}{\sum_i L_{i,t}} = \sum_i \frac{L_{i,t}}{\sum_i L_{i,t}} \frac{u_{i,t}}{L_{i,t}} = \sum_i \varphi_{i,t} u_{i,t} \quad (2)$$

- Unemployment variation:

$$U_t - U_{t-1} = \sum_i \Delta U_{i,t}^N + \sum_i \Delta U_{i,t}^C = \Delta U_t^N + \Delta U_t^C \quad (4)$$



Data

- We use the data from Brazilian household survey, PNAD for the years: 2001 to 2009
- The data is separated by: sex, race, schooling years, school cycles, age, experience and Human capital

- The results show that for gender, race, years of schooling and experience the level effect was the most important explaining the drop in the unemployment rate

Table 2: Unemployment Decomposition

Age Profile			
Period - Sample	Level	Composition	Total
2008-2001	-1,7%	-0,6%	-2,2%
2008-2003	-2,1%	-0,4%	-2,6%
2008-2001(RM)	-2,4%	-0,9%	-3,3%
2008-2001(RM-PME)	-2,3%	-0,9%	-3,1%
2008-2003 (RM)	-3,8%	-0,6%	-4,4%
2008-2003 (RM-PME)	-3,9%	-0,7%	-4,5%

Source: Barbosa Filho and Pessôa (2011).

Table 3: Labor Force Age Profile

	2001	2003	2008
<15	2,6%	2,4%	1,5%
19-15	10,4%	9,6%	8,2%
24-20	14,3%	14,5%	13,1%
29-25	13,0%	13,1%	13,6%
34-30	12,4%	12,3%	12,3%
39-35	12,3%	11,8%	11,4%
44-40	10,6%	10,7%	11,1%
49-45	8,3%	8,8%	9,4%
54-50	6,2%	6,5%	7,6%
59-55	4,1%	4,4%	5,2%
64-60	2,7%	2,8%	3,2%
>=65	3,1%	3,2%	3,4%
Total	83243239	87996591	99500202

Source: Barbosa Filho and Pessôa (2011)

Table 4: Unemployment Age Profile

	2001	2003	2008
<15	9,6%	8,8%	10,5%
19-15	21,7%	23,2%	19,9%
24-20	15,1%	16,3%	12,7%
29-25	10,1%	10,4%	8,4%
34-30	7,7%	8,1%	6,0%
39-35	6,4%	6,6%	4,8%
44-40	5,5%	6,0%	4,0%
49-45	5,1%	5,4%	3,6%
54-50	4,5%	4,8%	3,1%
59-55	4,3%	4,2%	2,5%
64-60	3,6%	3,3%	2,3%
>=65	1,8%	2,2%	1,3%

Source: Barbosa Filho and Pessôa (2011)

Table 5: Unemployment Decomposition

Human capital			
Period - Sample	Level	Composition	Total
2008-2001	-1,9%	-0,3%	-2,2%
2008-2003	-2,3%	-0,3%	-2,6%
2008-2001(RM)	-2,1%	-1,2%	-3,3%
2008-2001(RM-PME)	-1,8%	-1,3%	-3,1%
2008-2003 (RM)	-3,5%	-0,9%	-4,4%
2008-2003 (RM-PME)	-3,6%	-1,0%	-4,5%

Source: Barbosa Filho and Pessôa (2011).

Table 6: Labor Force by Education Group

	2001	2003	2008
1	24,6%	21,9%	17,2%
4	29,5%	28,0%	23,4%
8	16,5%	17,1%	17,7%
11	21,9%	25,1%	31,8%
15	7,5%	8,0%	9,9%
Total	83243239	87996591	99500202

Source: Barbosa Filho and Pessôa (2011)

Table 7: Unemployment by Education Group

	2001	2003	2008
1	6,1%	5,9%	4,2%
4	10,2%	9,7%	6,3%
8	13,9%	15,0%	10,7%
11	9,9%	10,9%	8,4%
15	4,9%	4,9%	4,0%

Source: Barbosa Filho and Pessôa (2011)

LABOR MARKET: YEARS OF SCHOOLING

Table 8: Average years of schooling in Brazil by age group

Period	Brazil	Population Age				
		15	17	20	23	25
1995	4.2	5.3	6.3	7.1	7.4	7.4
1996	4.3	5.5	6.5	7.3	7.5	7.5
1997	4.4	5.6	6.6	7.4	7.5	7.7
1998	4.6	5.7	6.8	7.7	7.8	7.7
1999	4.8	5.8	7.0	7.9	7.9	7.9
2001	5.0	6.1	7.4	8.4	8.4	8.2
2002	5.2	6.3	7.5	8.5	8.5	8.4
2003	5.4	6.4	7.7	8.7	8.9	8.7
2004	5.5	6.5	7.8	8.9	9.1	8.9
2005	5.6	6.6	7.9	9.0	9.3	9.1
2006	5.8	6.6	8.0	9.2	9.5	9.4
2007	5.9	6.6	8.1	9.4	9.7	9.5
2008	6.0	6.7	8.2	9.5	9.8	9.7

Source: IBGE, IBRE/FGV

- Brazilian labor market, a highly regulated market, observed an important drop in the unemployment rate since 2004, concentrated on the MRs.
- No huge labor market reform was made during this period
- The unemployment drop did not favor any specific gender or race
- The main drive was the drop in each subgroup unemployment level, not a composition effect

- However, there was an important impact by age profile and human capital: both with significant composition effects
- It is a result of Brazilian educational efforts: attracting young people to school classes and delaying their entrance in the labor market
- It seems that part of the unemployment drop in the Brazilian economy is a result of an economy that is in the middle of the transition to a more educated economy