



**Center for Applied
Microeconomics**

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The Rising Middle Class in Brazil

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Expansion in Brazil, India and South Africa***

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Paper Structure

1

Introduction

Presents and overviews economic growth, poverty and inequality in Brazil in cross-country and intertemporal comparison

2

Profiling the Brazilian Middle Class

Defines what is considered “middle class” in this paper and presents the evolution of some indicators (*Demographics, Education, Labor market and Possession of Durable Goods*) for Brazil

3

Explaining the Rise of the Middle Class

Analyses the evolution of the middle class and explains what factors contributes the most for it

4

The Future of The Middle Class

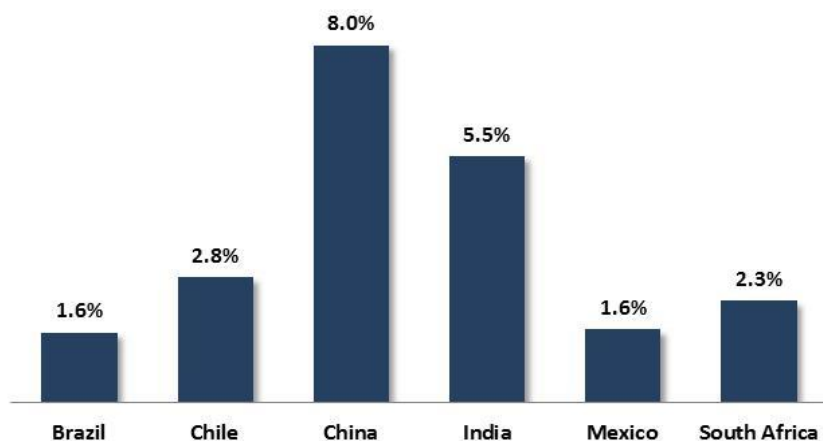
Explores some characteristics of the middle class expansion and discuss some perspectives for the next years

Introduction

There is renewed interest in the role of the middle class in the shaping of the social and economic prospects of societies

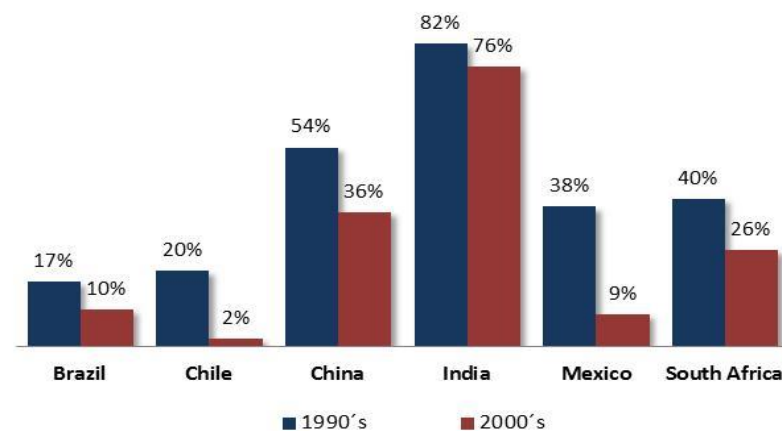
A sizeable number of developing countries have recently experienced a relatively sustained economic growth with part of the benefits accrued towards their lower income earners

Per Capita GDP Annual Growth Rate (1996-2010)



Source: Penn World Tables

Poverty Rate (Poverty Line: Below US\$ 2 a day)



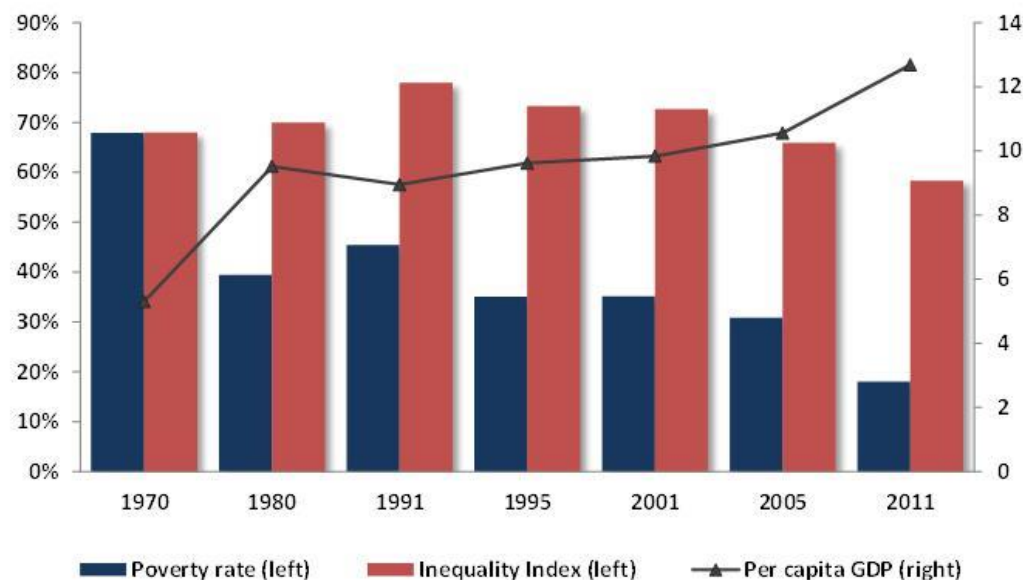
Source: World Bank

Introduction

Brazil had already experienced both economic growth and poverty reduction, but with no inequality decrease

The novelty is that, in the years 2000, there are concomitant movements of higher economic growth and faster poverty and inequality decreases

Social and Economic Indicators*: Brazil (Selected Years)



Source: IPEADData

* Income data are in US\$ 1,000 *per capita* (2005 prices)

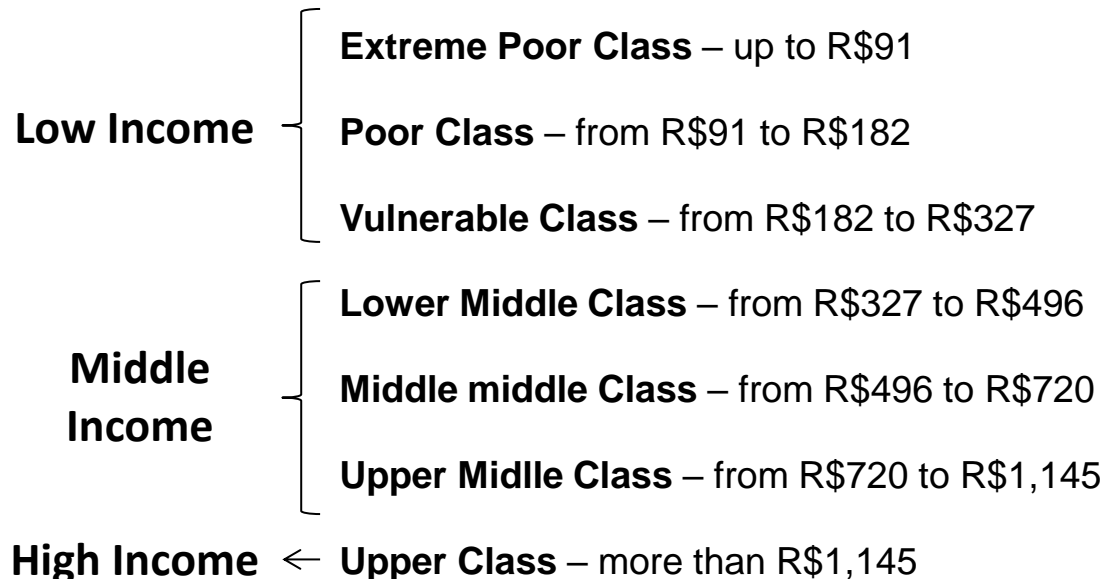
Profiling the Brazilian Middle Class

The definition of middle class is not an uncontroversial issue:
a) dimension to be considered; b) measurement

In this paper we used
per capita family
income in absolute
terms

It is possible to
compare the size of
the middle class
throughout the years

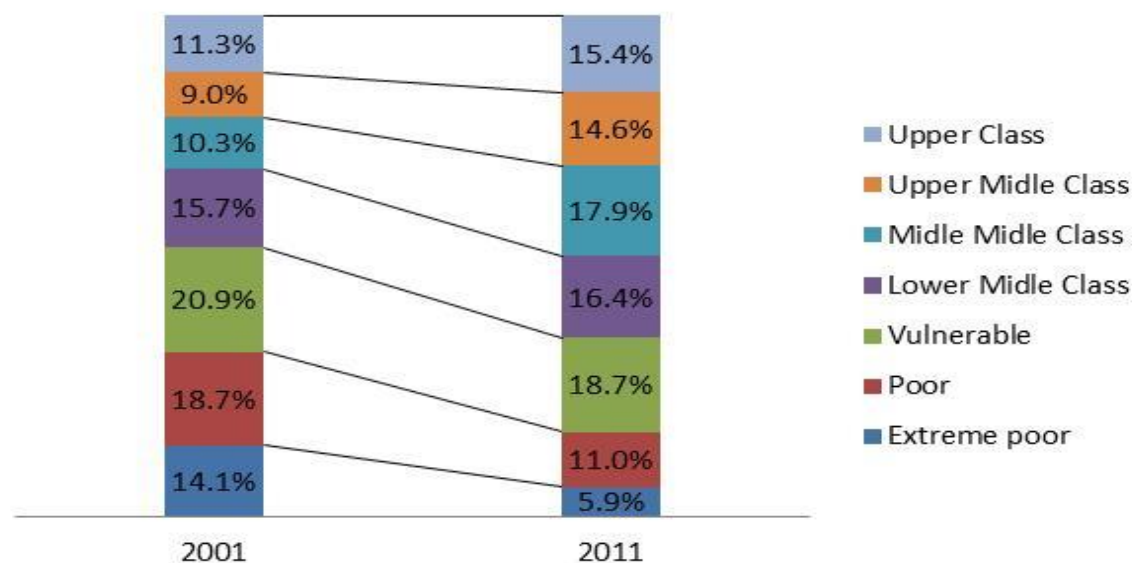
Criteria: Secretary of Strategic Affairs of
the Presidency of the Republic of Brazil
(cut offs are in monthly R\$ from 2011)



Profiling the Brazilian Middle Class

The Middle Class share of Brazilian population has grown from 35% to 49% and meanwhile the Low Income share fell from 54% to 36%

Share of Brazilian population by income class (2001-2011)



To shed light on the recent income dynamics, two decomposition exercises are made

Profiling the Brazilian Middle Class

Evolution of some basic social and demographic characteristics for Middle Class in Brazil

	1992	2001	2011
<u>Demographics</u>			
Population Share	31%	35%	49%
Individuals per household	3.4	3.2	3.0
% under 5 years of age	9%	7%	6%
% urban	91%	92%	89%
% white	68%	64%	51%
<u>Education</u>			
Enrollment Rate (8 - 17 years old)	88%	95%	94%
Enrollment Rate (18 - 24 years old)	25%	34%	27%
Less than 1 year of schooling	14%	13%	15%
1 - 8 years of schooling	58%	55%	44%
9 - 11 years of schooling	19%	24%	31%
More than 11 years of schooling	9%	8%	10%
<u>Labor Markets Outcomes</u>			
% employed	95%	93%	95%
% formal private jobs	41%	39%	45%
<u>Possession of Durable Goods</u>			
% home ownership	70%	73%	75%
% refrigerator	87%	92%	97%
% telephone (mobile or landlines)	25%	71%	90%

Source: PNAD

Explaining the Rise of the Middle Class

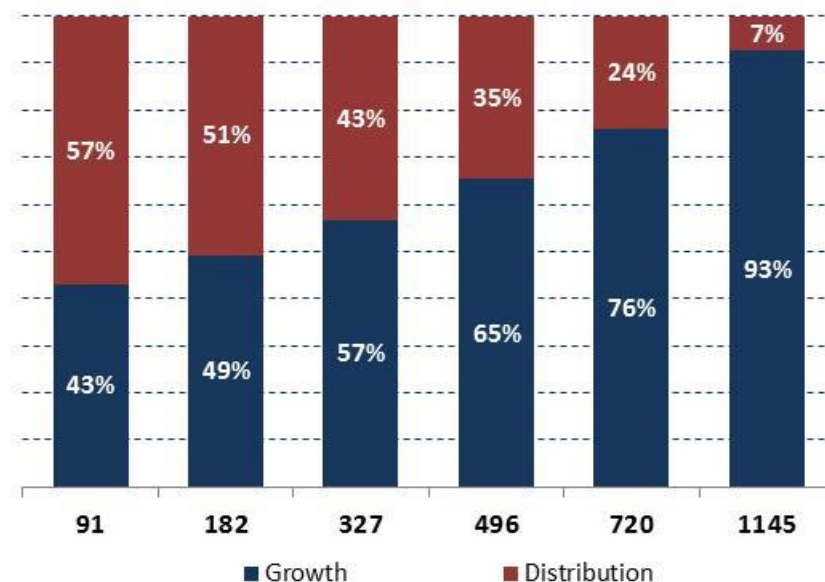
Decomposition Exercise 1

Change in poverty rate or
population share in
different income classes

Growth
Component

Distribution
Component

Decomposition in the Incidence Rate

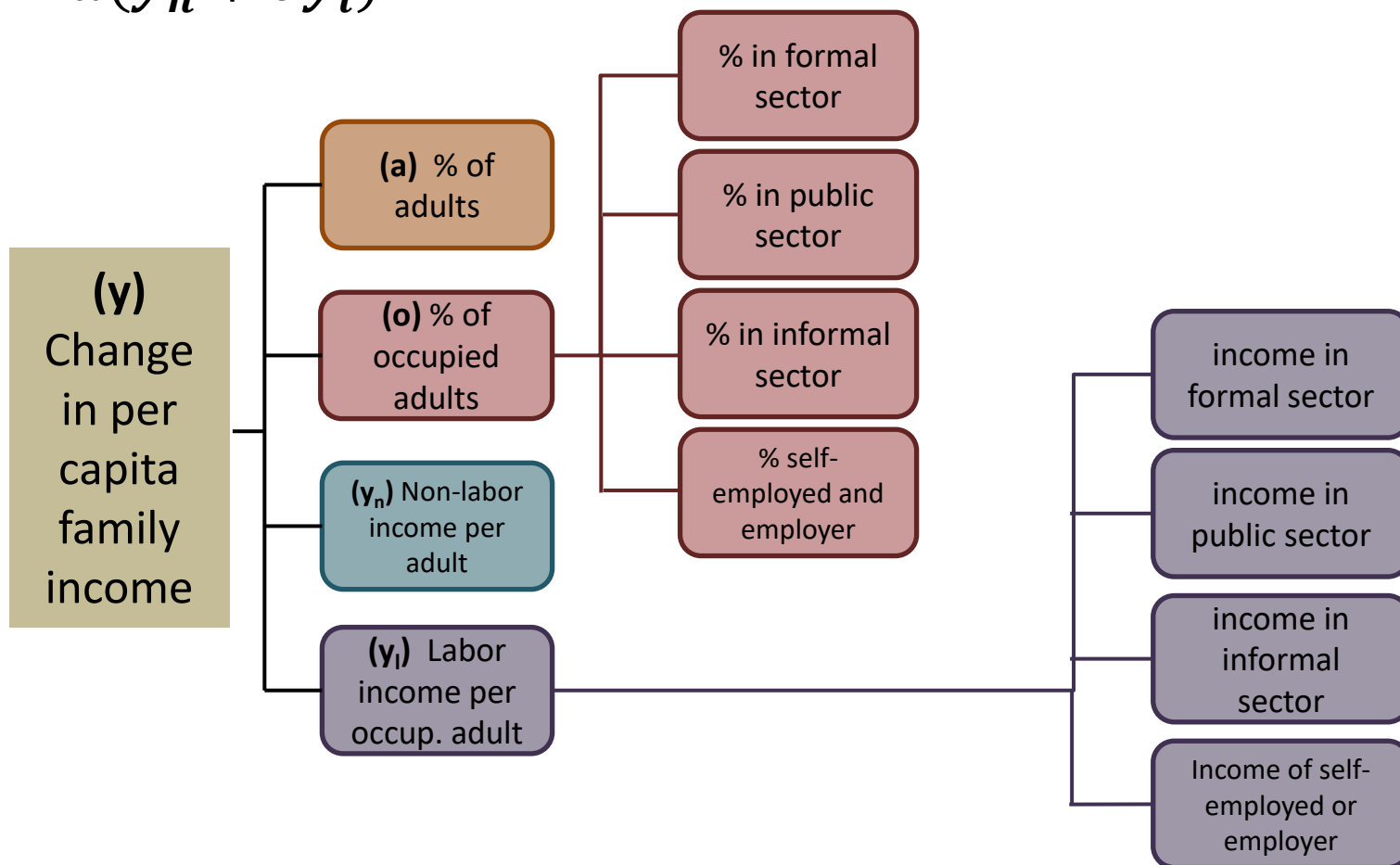


Redistribution policies implemented in the period seem to be more important than economic growth in reducing extreme poverty. However, the relative importance of the growth component increases as the income cut-off levels increases.

Explaining the Rise of the Middle Class

Decomposition Exercise 2

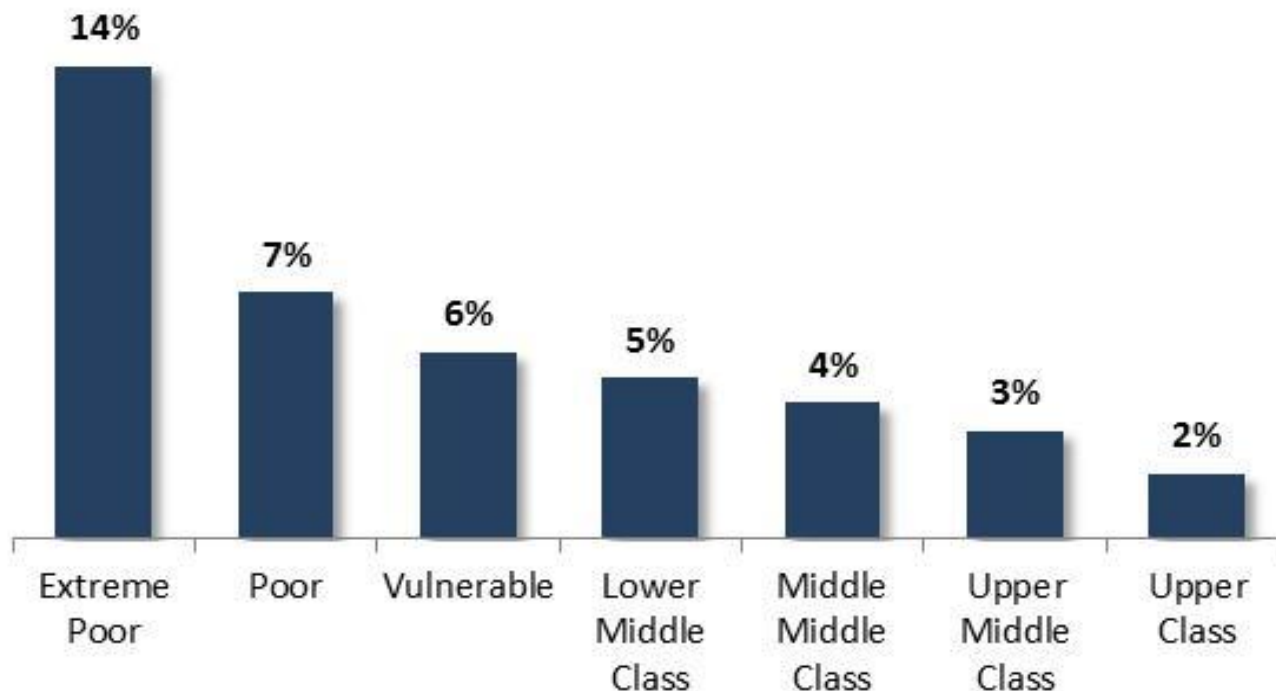
$$y = a(y_n + o y_l)$$



Explaining the Rise of the Middle Class

Income of the poorer individuals increased faster than the income of the richer individuals in the 2000's

Annual Growth Rate of the Average Family Per Capita Income (2001-2011)



Source: PNAD

Explaining the Rise of the Middle Class

Results: Decomposition Exercise 2

Factor Contribution to Income Change by Income Groups

	Extreme Poor	Poor	Vulnerable	Lower Middle	Middle Middle	Upper Middle	Upper Class
Percentage of Adults	3%	10%	14%	17%	21%	27%	20%
Non-Labor Income per Adult	41%	28%	19%	12%	7%	3%	2%
Percentage of Adults Occupied	-7%	-15%	-14%	5%	34%	53%	48%
Labor Income per Occupied Adult	62%	77%	81%	66%	39%	17%	30%
Total	100%	100%	100%	100%	100%	100%	100%

Occupation Factor

	Extreme Poor	Poor	Vulnerable	Lower Middle	Middle Middle	Upper Middle	Upper Class
Private Sector	0%	29%	-70%	10%	72%	107%	8%
Public Sector	0%	0%	-1%	0%	0%	-15%	17%
Informal Sector	0%	-25%	46%	-4%	-19%	-19%	-4%
Employer or Self-Employed	-7%	-19%	12%	-2%	-19%	-20%	27%
Total	-7%	-15%	-14%	5%	34%	53%	48%

Income Factor

	Extreme Poor	Poor	Vulnerable	Lower Middle	Middle Middle	Upper Middle	Upper Class
Private Sector	13%	20%	24%	20%	11%	5%	8%
Public Sector	12%	18%	19%	15%	9%	4%	8%
Informal Sector	17%	19%	19%	15%	9%	4%	7%
Employer or Self-Employed	20%	19%	19%	16%	9%	4%	7%
Total	62%	77%	81%	66%	39%	17%	30%

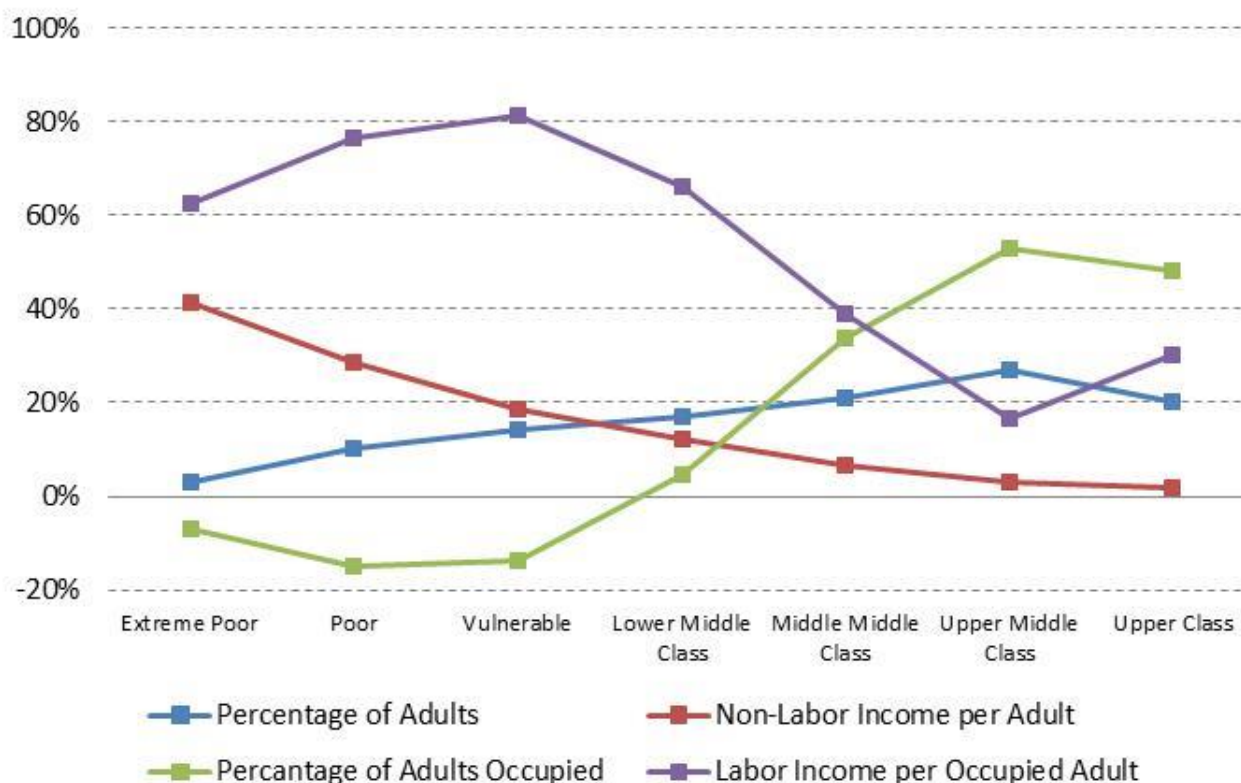
The decline of poverty rate is due to the income growth together with policy redistributions in the period. The labor income growth is associated with labor productive increase in the informal and self-employed sector

The rise of the middle class in Brazil observed in the recent past is mainly due to the economic growth of the period. The labor income growth is associated with the increase in occupation in the **formal sector** as well as the increase in the labor productivity.

Explaining the Rise of the Middle Class

The decline of poverty rate is due to income growth together with policy redistributions in the period.

Factor Contribution to Income Change by Income Groups (2001-2011)

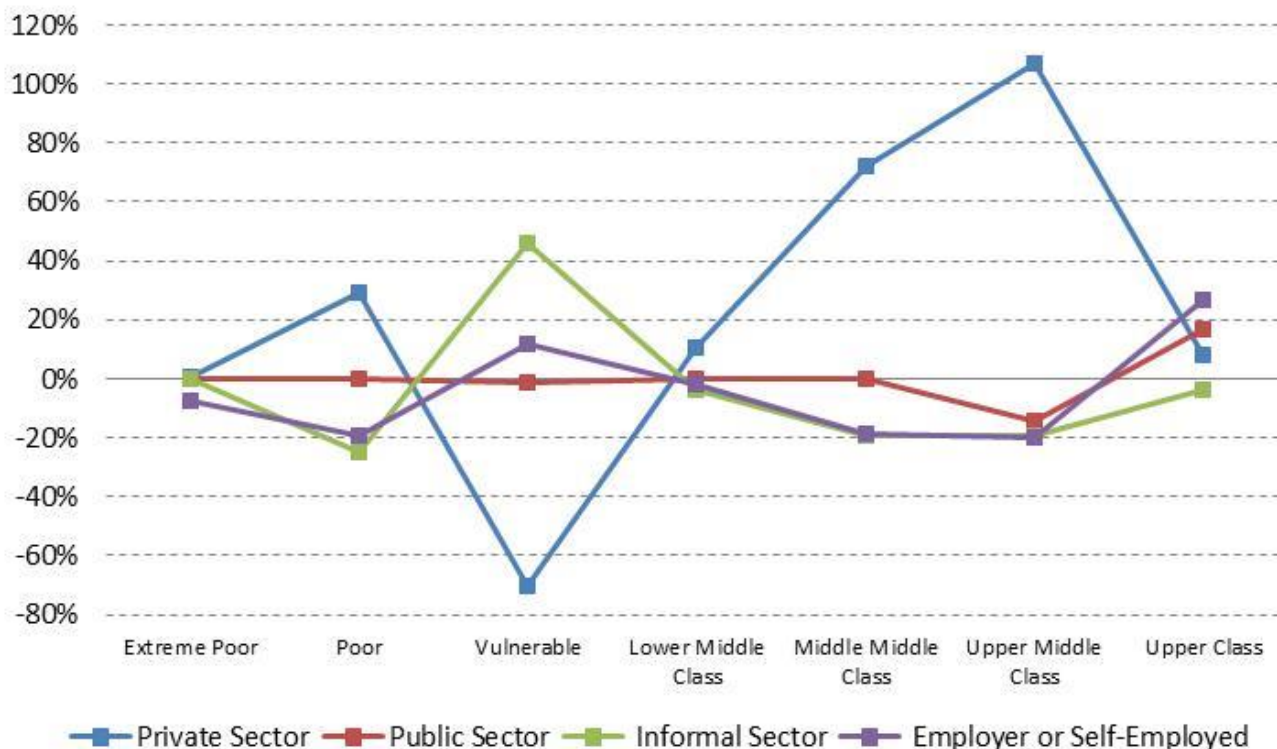


Source: Authors

Explaining the Rise of the Middle Class

The labor income growth is associated with the increase in occupation in the formal sector

Explaining Factors to The Occupation Factor Income Change

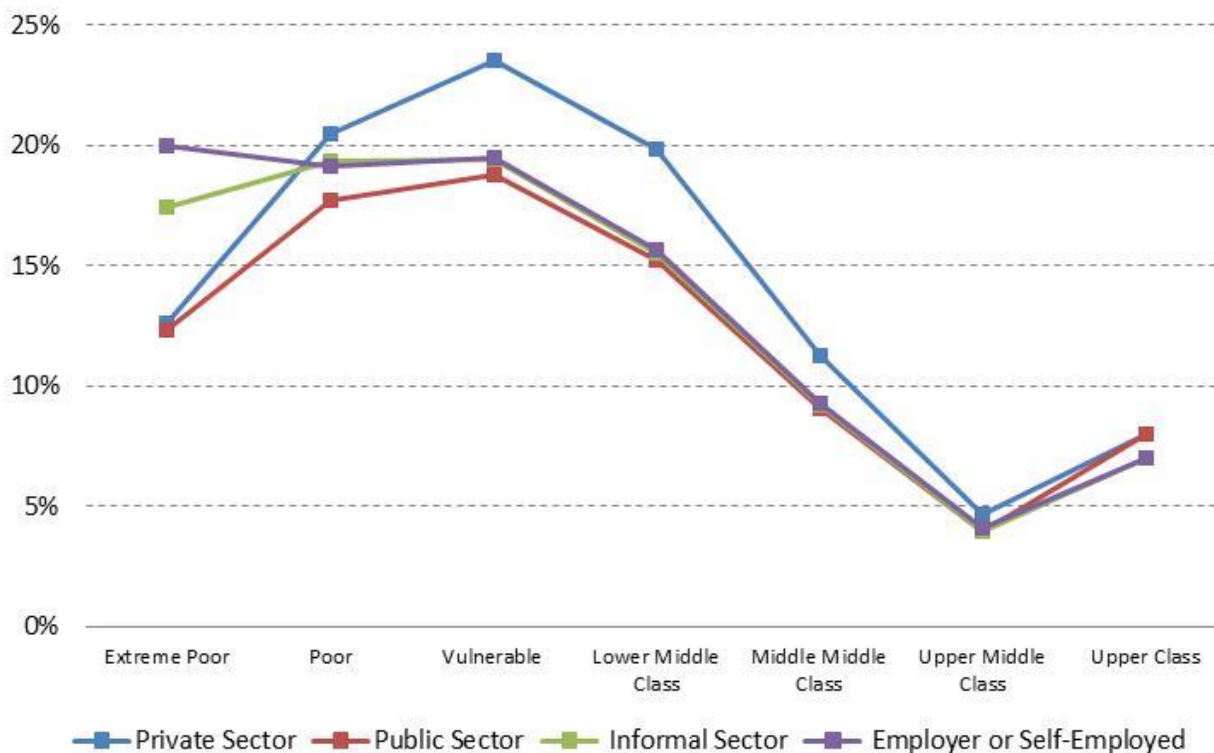


Source: Authors

Explaining the Rise of the Middle Class

All sectors experienced changes in labor income, but the magnitude among income classes vary

Explaining Factors to The Occupation Factor Income Change



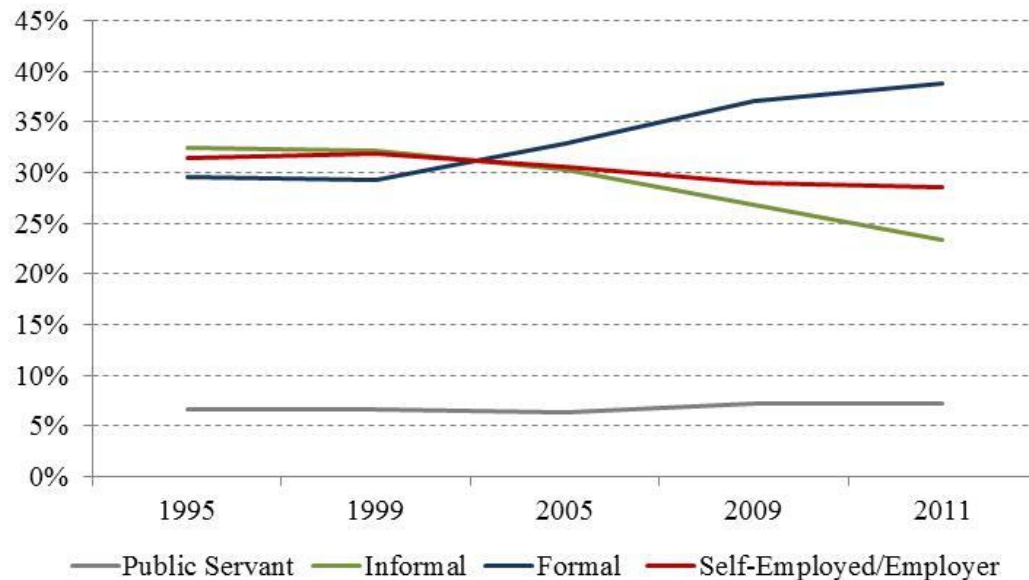
Source: Authors

The Future of Middle Class

The growth of the Middle Class in Brazil is partly due to the increase in the formal private sector jobs

Understanding the expansion of the formalization of the labor relations in Brazil can give us important clues to the understanding of the rise of the middle class

Proportion of Occupied People by Occupation Position



Source: PNAD

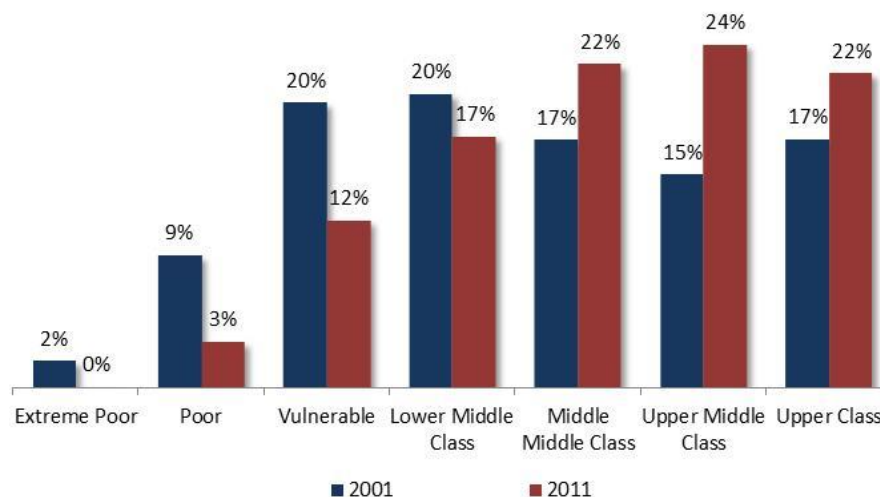
It seems that the limits of the expansion of the middle class as we experienced so far are in part the limits of the expansion of the formal jobs in Brazil

The Future of Middle Class

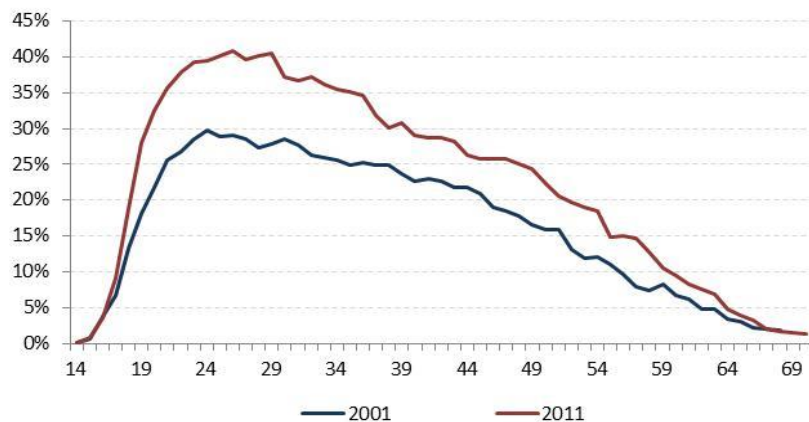
There are more young and high school or college educated individuals among the formal workers than before

The expansion of the human capital accumulation of the workforce is paramount for the formalization of labor force

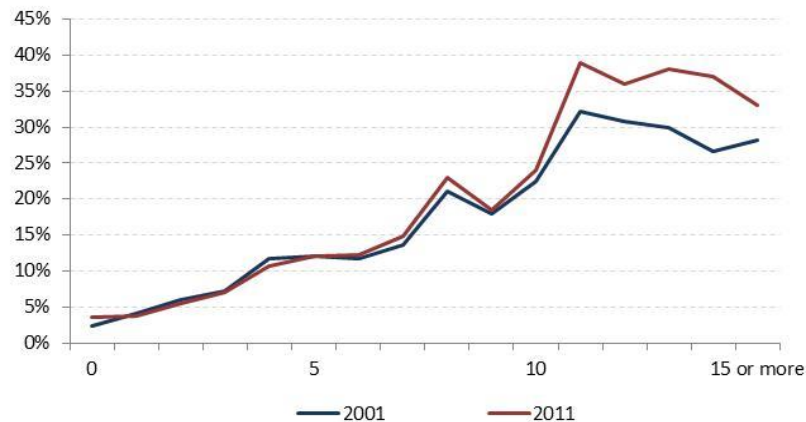
Distribution of Formal Private Workers across income classes



Proportion of Formal Private Workers by Age



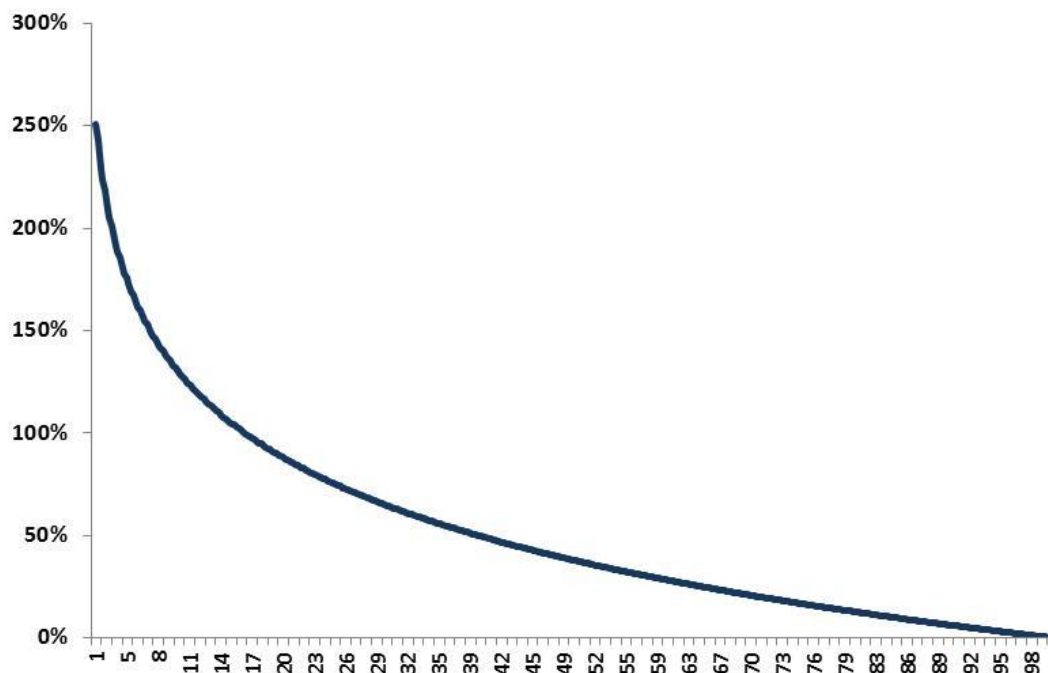
Proportion of Formal Workers by Years of Schooling



The Future of Middle Class - Simulation

Hypothesis: increase in the labor income observed in the last ten years will be the same for the next ten years*

Labor Income Ten-Year Growth Rate by Percentile (2001-2011)
Logarithm approximation



Source: PNAD

* The exercise holds all the other factors constant

The Future of Middle Class - Simulation

Results

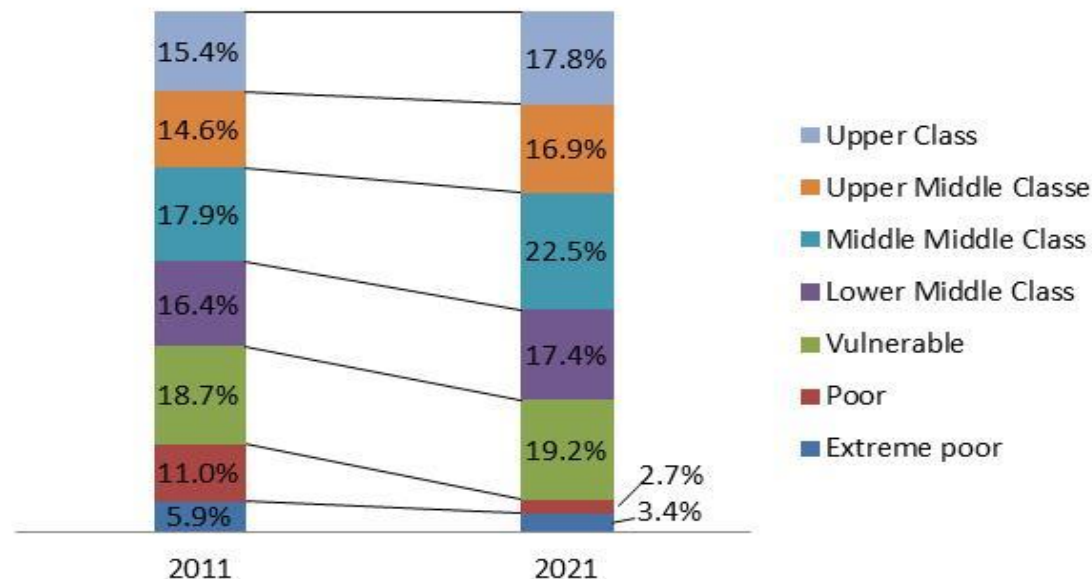
Upper Class share is expected to grow slightly (increase of 2.4p.p.)

Middle Class share is expected reach 56.9%, a substantial growth (increase of 8p.p.)

“Vulnerables” share is expected to grow just 0.5 p.p.

Lower Class are expected to decline from 16.9% to 6.1%.

Simulated Distribution



Source: Authors

The results suggest that, even if there is no expansion of the formal jobs, considering the same pattern of labor income observed in the past 10 years, we still would observe an increase in the middle class in the future