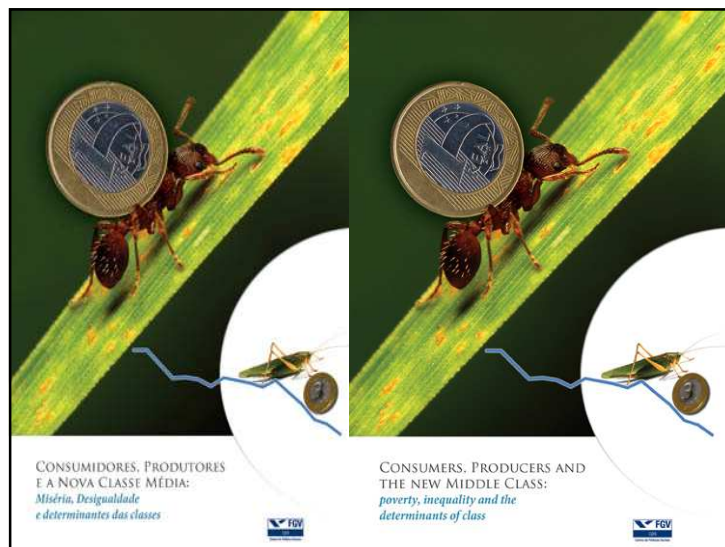




- **Objective :** have a brief portrait of the Brazilian conditions based on a range of information from PNAD.
- The chapter on social indicators based on income conveys information on salary, journey, occupation, unemployment, pensions and access to social programs, among others, in fewer numbers

How much has the Brazilian purchase power increased or decreased?

Why has it change? And what has changed?

Reasons for Change:

Income sources: the first line looks at the close determinants of people's income sources, the role of pensions, social programs and work in diverse synthetic measures.

Producers and Consumers The second perspective looks at the less direct, but more lasting, relationship between asset stocks and per capita income flows. This helps understand how people transform their incomes into current and past living standards and their respective consumption potential.

Brazilian Income by Economic Classes

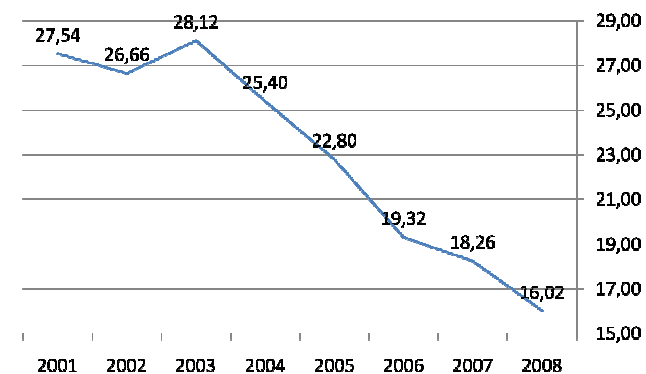
Definition of Economic Classes

Total Household Income from All Sources* limits

	Inferior	Superior
Class E	0	804
Class D	804	1115
Class C	1115	4807
Class AB	4807	-

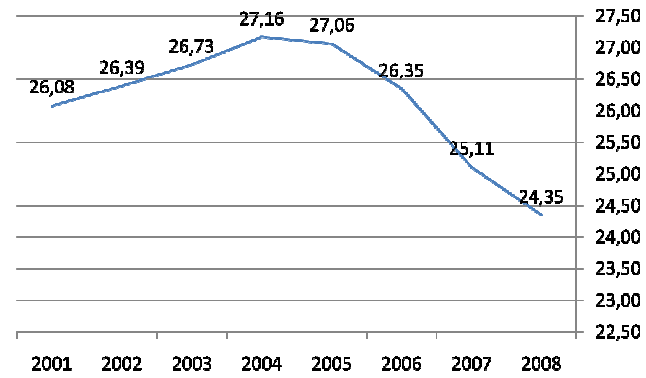
* At December 2008 prices

Class E (% in total population)



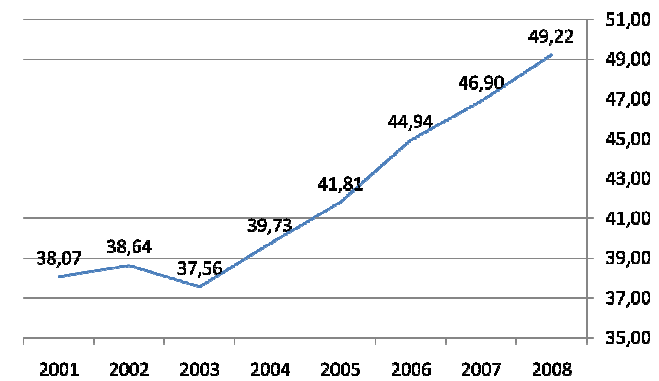
Source: CPS/FGV based on PNAD/IBGE microdata

Class D (% in the total population)



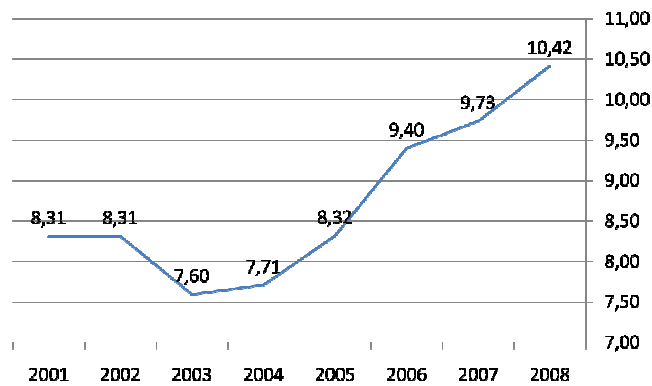
Source: CPS/FGV based on PNAD/IBGE microdata

Class C (% in the population)



Source: CPS/FGV based on PNAD/IBGE microdata

Class AB (% in the total population)



Source: CPS/FGV based on PNAD/IBGE microdata

Accumulated Variation

	2008-2003	2008-2007
Class E	-43,04%	-12,26%
Class D	-8,90%	-3,02%
Class C	31,05%	4,94%
Class AB	37,12%	6,99%

Source: CPS/FGV based on PNAD/IBGE microdata

Difference (population)

	2008-2003	2008-2007
Class E	(19.458.924,00)	(3.798.432,00)
Class D	(1.485.360,00)	(899.594,00)
Class C	25.890.892,00	5.285.627,00
Class AB	6.095.662,00	1.68.397,00

Source: CPS/FGV based on PNAD/IBGE microdata

Total Population

	2008	2007	2006	2005	2004	2003
TOTAL	186440290	184384292	182218501	180001710	177758060	175398020
Class E	29860927	33659359	35196724	41047646	45147533	49319851
Class D	45399117	46298711	48007385	48713422	48286025	46884477
Class C	91762175	86476548	81888963	75266156	70620183	65871283
Class AB	19418071	17949674	17125429	14974486	13704319	13322409

Source: CPS/FGV based on PNAD/IBGE microdata

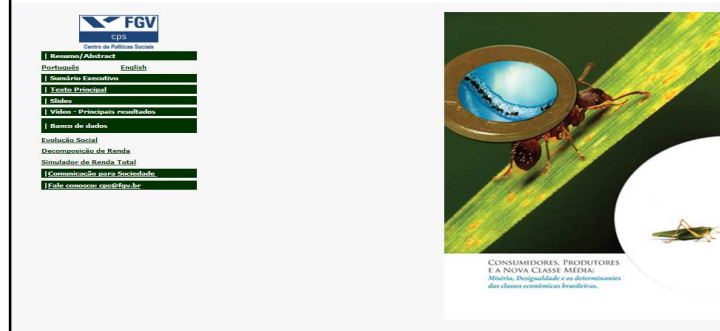
Summary

- **Class AB:** the proportion of people in class AB grows 7% in the last year alone, which corresponds to the entry of 1.5 million people in the highest income group. In the last five years, 6 million people have entered this class, which reached 19,4 million people in 2008.
- **Class C:** 37,56% of the Brazilian population in 2003, goes up to 49,22% in 2008, or 91 million Brazilians in 2008 – the dominating class in terms of population size. An accumulated growth of 31% , which in population terms means that 25,9 million Brazilian people who have become class C in the last five years. (5,3 million people last year alone).

Summary

- **Class D:** 24,35% in 2008 reaching 45,3 million Brazilian people. A reduction of 0,9 million in one year or a decrease of 3%, or 1.5 million if we consider the least five years.
- **Class E:** A reduction of 12,27% in the last year, 3.8 million people exiting poverty. Since the end of 2003 recession, poverty in Class E dropped 43%, 29,9 million poor people crossed the poverty line. In 2008, we had 29,9 million poor people (16,02% who would be 50 million instead if poverty had not dropped with per capita income below 137 reais monthly (at Greater São Paulo area, or 145 reais at national prices weighed according to each state population).

Research website:
www.fgv.br/cps/fc



Social Measures based on Per Capita Income
Evolution Panorama - Brazil - 1992 - 2008

Theme: Indicator:

Social-demographic Characteristics

☒ Total population ☐ Sex ☐ Age group
☐ Ethnic background ☐ Position in the household ☐ Maternity
☐ Immigration

Income

☐ Has income from all jobs ☐ Has income from social security system ☐ Has income from other sources
☐ Has income from all sources ☐ Has income from social programs ☐ Has income from main job
☐ Economic class

Producer's Characteristics

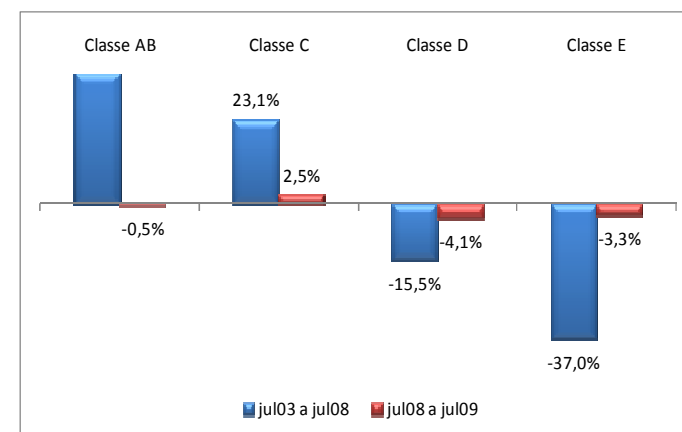
☐ Goes to private school ☐ Attends or has attended to college ☐ Company size

http://www.fgv.br/ibrecps/RET4/CPC_evolucao_temporal/index-eng.htm

Year 1 A.C.:

Will 2009 Pnad be just like
its 2008 version?

Variation of economic classes; pre versus post-crisis



Source: CPS/FGV based on PME/IBGE microdata

Consumers and Producers

FGV
CPS/IBRE
Centro de Políticas Sociais

Decomposition of Income in different Sources Panorama
Brazil 1992 - 2008

CP
Centro de Políticas Sociais

* Years: 2008
2007

Regional Cut: Total
Metropolitan Total

Groups: Total - Total

* Choose 1 to 2 periods and/or regional cuts for the comparison.

Generate Tables Clean Selection Select All

Social-demographic Characteristics

☒ Total population ☐ Sex ☐ Age group
☐ Ethnic background ☐ Position in the household ☐ Maternity
☐ Lives with his/her mother ☐ Mother is still alive ☐ Has birth certificate
☐ Poverty ☐ Immigration

Income

☐ Has income from all jobs ☐ Has income from social security system ☐ Has income from other sources
☐ Has income from all sources ☐ Has income from social programs ☐ Has income from main job
☐ Economic class

http://www.fgv.br/ibrecps/cpc/PNAD_DECOMP/index-eng.htm

Decomposition of Income from different sources, Panorama, PNAD

Year	Income from all sources	Income from all jobs	Other private incomes	Public Transfers - BF*	social Security basic benefit - MW*	Social security above > MW*
2008 – R\$	592,12	450,29	12,86	12,73	28,05	88,2
2008 – %						
Composition	100%	76,05%	2,17%	2,15%	4,74%	14,90%
Average						
annual growth	5,26%	5,13%	2,62%	20,99%	6,64%	4,44%
2003-08						
Growth	5,49%	4,5%	15,13%	30,83%	1,63%	7,68%
2007-08						

Source: CPS/FGV based on PNAD/IBGE microdata

Composition by type of income sources

Classes	Ind benefits Soc Security >MW	Ind benefits Social Sec<=SM	Public Transfers BF	Income from work	Benefits Total social security
2008					
Total	14,90%	4,74%	2,15%	76,05%	19,63%
Class E	1,18%	9,47%	16,25%	71,25%	10,65%
Class D	4,40%	12,66%	5,46%	76,35%	17,06%
Class C	13,48%	7,25%	1,38%	76,40%	20,73%
Class AB	18,94%	0,44%	1,68%	75,85%	19,39%
2003					
Total	15,50%	4,44%	1,07%	76,52%	19,93%
Class E	1,98%	12,74%	4,87%	77,85%	14,71%
Class D	6,23%	12,37%	1,36%	78,62%	18,60%
Class C	15,53%	5,39%	0,58%	76,57%	20,91%
Class AB	19,59%	0,25%	1,10%	75,74%	19,84%

Empirical Strategy

At each update of the series of various economic classes we include a new dimension:

- **Entrepreneurship** (WWW.fgv.br/cps/crediamigo2),
- **Microcredit** (WWW.fgv.br/cps/crediamigo3),
- **Micro-insurance** (WWW.fgv.br/cps/ms),

At each research, a new vision.

- **Presently, there is an integrated multidimensional vision based on the wealth of data from PNAD.**

Two Focuses: Consumer and Producer

By comparing these two dimensions of consumers and producers we will be able to separate Brazilians as ants and grasshoppers.

- Family is the basic reference unit.
- - Income as reference unit to integrate different information on the access and use of productive assets or consumption.
- Whether we like it or not, income is the most used income if we want to widen the analytical breadth, it is interesting to start where there is practice.
- - consumer view: expenditure potential
- - producer view : income generation capacity

Consumer's Viewpoint

The first identifies the expenditure potential of families through the following :

- Access to consumer goods (TV, Freezer etc),
- Access to public services (refuse, sanitation),
- Housing conditions (finance, number of toilettes)
- And type of family (couple without children etc).

The synthetic index for consumer potential increase 14,8% between 2003 and 2008.

Producer's Viewpoint

- We identify the potential of household income generation so as to capture the sustainability of perceived income through:
- Productive inclusion and educational level of different household members;
- Investments in physical capital (public and private pension; use of ICT),
- social capital (unions; family structure)
- And human capital (children attending public and private schools),

The synthetic index for producer potential increase 28,32% between 2003 and 2008.

Income Simulator

Consumer Features

Has radio ☐ Yes

Has a TV set ☐ Yes

Has a washing machine ☐ Yes

Has a fridge ☐ Yes

Has a freezer ☐ Yes

Has Access to sewerage ☐ Yes

Access to waste collection ☐ Yes

Type of families

Producer Features

Has a computer

Has a telephone

Pays social security tax

Household head occupation

Members of up to 6 years old

Members between 7 to 14 years old

Members from 15 to 17 years old

Housing condition

Number of household members

Number of bathrooms

Number of rooms

Number of bedrooms

Age when the head of the household started working

Unionized head of the household

Education level of the household head

Total household income

Renda do trabalho familiar

Education level of the spouse

Spouse education

http://www.fgv.br/ibrecps/cpc/SIM_PNAD_0208_RENDATOT_eng/renda.htm

- **Models for Choosing Explanatory Variables**
- We begin exploring the information related to ownership and use of assets based on PNAD, by using a model of variable selection according to the level of statistical significance to explain the household per capita income (although expressed in total income terms)
- We omitted spatial and socio-demographic variables when explaining per capita income so that only afterwards we would infer which is the respective income of people with different features.

Order of Entry in the Model

1	Per capita number of bathrooms
2	Telephone
3	Spouse education
4	Type of family
5	Hh head pays social security tax
6	Washing machine
7	Number of per capita rooms
8	Head's education
9	Spouse's occupation
10	Children's school attendance (7 to 14 years old)
11	Children's school attendance (0 to 6 years old)
12	Head's occupation
13	Computer
14	Fridge
15	Children's school attendance (15 to 17 years old)
16	Type of household(own, financed and rent)
17	Unionized household head
18	Freezer
19	Number of per capita rooms
20	Sewerage
21	Radio
22	Number of bathrooms
23	Number of household members
24	TV set
25	Refuse collection
26	Age when the household head began to work
27	Number of rooms
28	Share of income from work
29	Number of bedrooms

Fonte: dados microdados da PNAD/IBGE

Interpretation

- **The variable of number of per capita bathrooms income class was the first to enter the income forecast model, followed by access to mobile telephones well ahead of years of education of the reference person, which comes in 8th place (3rd in the case of spouse's education).**
- **Keeping the same attributes constant, the income of a person living in a household with one bathroom for each person (say with two bathrooms for four people instead of one toilet) income grows 27,5% in relation to the previous**

Principal Components Analysis

Main Components		Fator1	Fator2	Fator3
RADI	Radio	29	1	0
TV	TV	35	3	13
LAVA	Washingmachine	62*	-8	0
GEL	Fridge	43*	-5	12
FREE	Freezer	43*	-2	-15
Esgoto		35	-10	9
Lixo		40	-7	23 *
PARTICIPACAO		21	13	54*
COMPNET	Computer with internet	67*	-7	-8
COMP		23	1	1
NCOMP		-71*	5	7
FIXOCEL		68*	-3	-6
FIXO		-2	-5	-4
CEL	Mobile	-11	2	24
NTEL		-57*	5	-13
NBAN		72*	-11	-16
NCOMODOS		64*	2	-34
NDORMITORIO		33	55*	-33
NBAN_PC		47*	-60*	-21
NCOMODOS_PC		33	-69*	-30
NDORMITORIO_PC		32	-46*	-41*
MORADORES		-6	83*	0

EDUCACHEFE	68*	-19	29
CHCONTRIB_PUBPRIV	27	-4	0
CHCONTRIB_PUB	31	-4	47*
CHCONTRIB_PRIV	10	-4	-6
CHCONTRIB_DESEMP	-6	10	4
CHCONTRIB_INATIVO	-11	-9	-44* *
CHPOS_DESEMP	-6	10	4
CHPOS_PRIV	-4	-2	52*
CHPOS_LIB	-12	8	-17
CHPOS_EMP	27	-2	-4
CHPOS_PUB	28	-1	10
CHPOS_NREM	-10	0	-18
NFREQ_0_6	-24	23	37
FREQpub_0_6	-10	12	17
FREQpriv_0_6	19	-1	17
N_0_6	20	-27	-50*
NFREQ_7_14	-11	13	-2
FREQpub_7_14	-20	58*	13
FREQpriv_7_14	37	6	7
N_7_14	4	-63*	-16
NFREQ_15_17	-12	23	-8
FREQpub_15_17	1	49*	-21
FREQpriv_15_17	31	8	-10
N_15_17	-6	-57*	26
CHTRAB_9ANO	-16	6	-12
CHTRAB_1014ANO	-8	8	15
CHTRAB_1517ANO	12	-2	24
CHTRAB_1819ANO	19	-4	14
CHTRAB_2024ANO	17	-5	5
CHTRAB_2529ANO	8	-2	0
CHTRAB_30ANO	1	1	-2
chsINDICATO	16	-1	5

PROPRIOGP	7	15	-41*
PROPRIO	13	-3	13
ALUGUEL_AB	-17	-8	24
ALUGUEL_AC	17	-9	18
CEDIDO	-18	-6	16
DOM_OUT	-4	2	2
CASALFILHO	-4	-37	-7
CASALFILHO_AB14	-8	-5	63*
CASALFILHO_AC14	23	3	-31
CASALFILHO_14	6	53*	-6
MAE_AB14	-9	9	4
MAE_AC14	-2	-6	-25 *
MAE_14	-5	18	-5
MAE_IG	0	0	-1
FAM_OUT	-10	-38	-21
EDUCONJ_SEM	-25	13	-21
EDUCONJ_1_3	-18	11	-9
EDUCONJ_4_7	-11	11	13
EDUCONJ_8_11	27	-4	36
EDUCONJ_12	48*	-7	2
CONUPOS_DESEMP	-2	1	18
CONUPOS_PRIV	7	4	31
CONUPOS_LIB	6	8	4
CONUPOS_EMP	21	0	-1
CONUPOS_PUB	25	3	3
CONUPOS_NREM	-20	7	-22 *
CONUPOS_NCONJ	-14	-20	-29 *

Variação Explicada por cada Fator

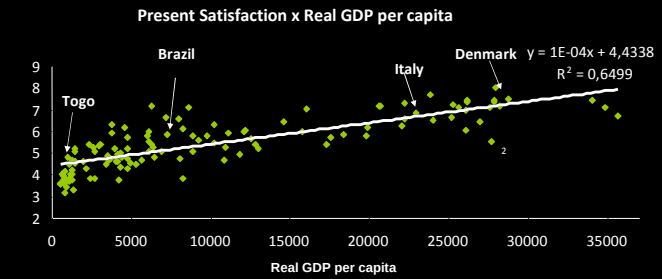
Fator1	Fator2	Fator3	Fator4
6.7790241	4.4784225	4.0032332	2.9953943

Fonte: CPS/PGV a partir dos microdados da PNAD/IBGE

- Cognitive Dissonance: Grasshoppers or Ants?
- Subjective approach
- Comparison among countries.

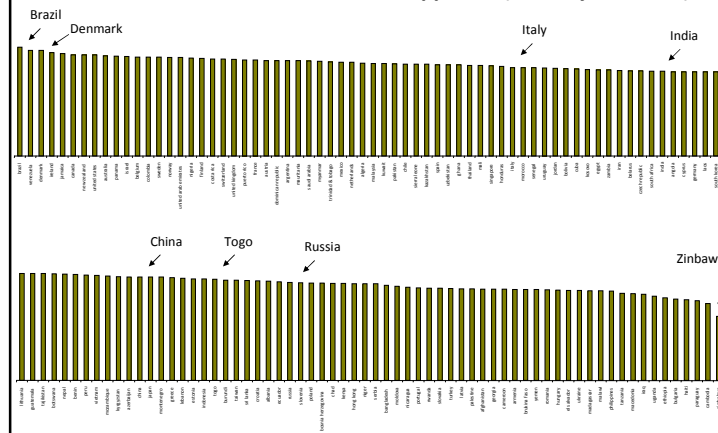
Present Life Satisfaction X Per Capita GDP PPP

Does money bring happiness?



Source: Gallup World Poll – IADB project

Future happiness (in five years time)



Mais

Future Happiness (in 5 years time)

Total Population

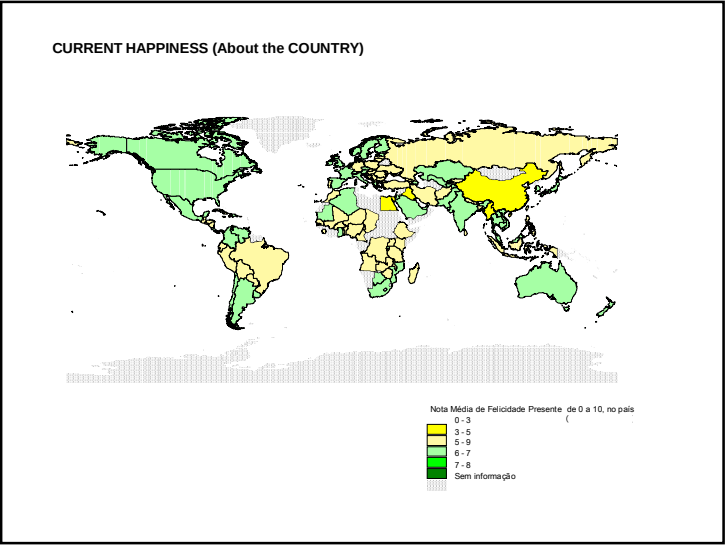
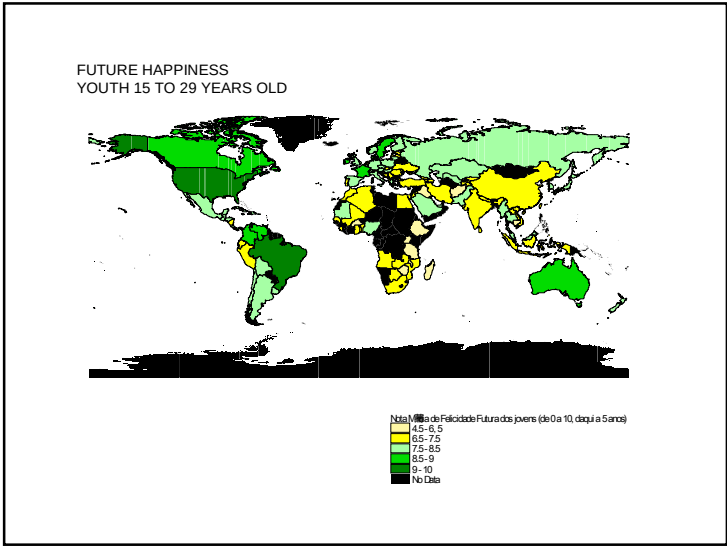
Future

<i>brazil</i>	8,78
<i>venezuela</i>	8,52
<i>denmark</i>	8,51
<i>ireland</i>	8,32
<i>jamaica</i>	8,25
<i>canada</i>	8,14

Source: CPS/FGV Processando os Microdados do Gallup World Poll 2006 – Projeto: BID pela FGV

Menos	Future Happiness (in 5 years time	
	Total	Population
	<u>Future</u>	
<i>zimbabwe</i>	4,04	
<i>cambodia</i>	4,86	
<i>paraguay</i>	5,04	
<i>haiti</i>	5,10	
<i>bulgaria</i>	5,13	
<i>ethiopia</i>	5,22	
<i>uganda</i>	5,31	

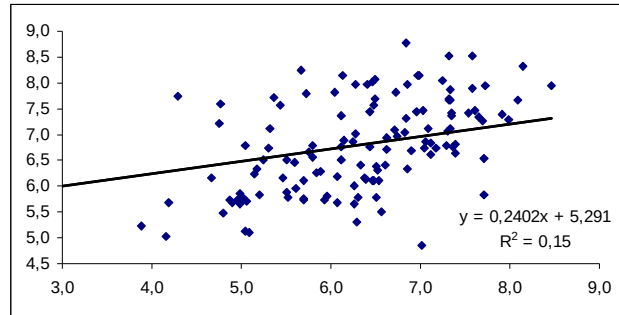
Fonte : CPS/FGV Processando os Microdados do Gallup World Poll 2006 – Projeto BID pela FGV



Future Perception (Country) x Future Happiness		
Total Population		
	<u>Future Happiness</u>	<u>Perception Country</u>
<i>Brazil</i>	8,78	6,84
source: CPS/FGV processing Gallup World Poll 2006 microdata – IADB/FGV project.		

Future Perception (Country) x Future Happiness (individual)

Dissonance Index



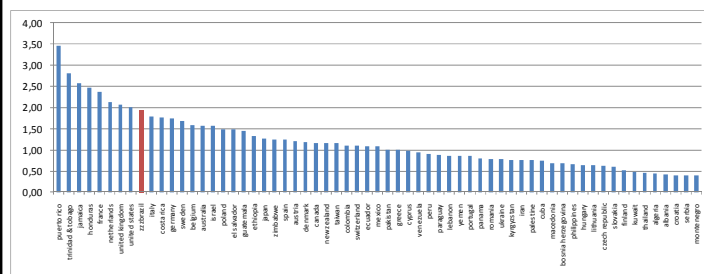
source: CPS/FGV processing Gallup World Poll 2006 microdata – IADB/FGV project.

Dissonance between Future expectations in 5 years (Individuals and country)

	Country		ind		individuo - Country
Country		Country		Country	
37 new zealand	6,98	1 zzzbrazil	8,78	1 puerto rico	3,45
38 canada	6,97	2 venezuela	8,52	2 trinidad & tobago	2,82
39 kuwait	6,96	3 denmark	8,51	3 jamaica	2,58
40 benin	6,9	4 ireland	8,32	4 honduras	2,46
41 colombia	6,86	5 jamaica	8,25	5 france	2,36
42 burundi	6,86	6 united states	8,14	6 netherlands	2,13
43 zzzbrazil	6,84	7 canada	8,14	7 united kingdom	2,06
44 thailand	6,84	8 new zealand	8,14	8 united states	2,01
45 bolivia	6,83	9 australia	8,06	9 zzzbrazil	1,94
46 kosovo	6,74	10 panama	8,05	10 italy	1,79
47 switzerland	6,72	11 israel	8,03	11 costa rica	1,77
48 uruguay	6,71	12 belgium	7,98	12 germany	1,75
49 zambia	6,62	13 sweden	7,97	13 sweden	1,69
50 nepal	6,62	14 colombia	7,97	14 belgium	1,58
51 estonia	6,61	15 norway	7,94	15 australia	1,57
52 tanzania	6,56	16 united arab emirates	7,94	16 israel	1,56
53 niger	6,54	17 nigeria	7,89	17 poland	1,49
54 sri lanka	6,52	18 finland	7,86	18 el salvador	1,49
55 afghanistan	6,51	19 costa rica	7,82	19 guatemala	1,44
56 togo	6,5	20 switzerland	7,82	20 ethiopia	1,33

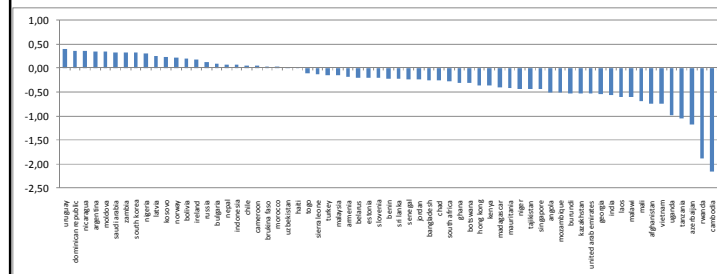
source: CPS/FGV processing Gallup World Poll 2006 microdata – IADB/FGV project

Dissonance between Future expectations in 5 years (Individuals and country)



source: CPS/FGV processing Gallup World Poll 2006 microdata – IADB/FGV project

Dissonance between Future expectations in 5 years (Individuals and country) – (cont)



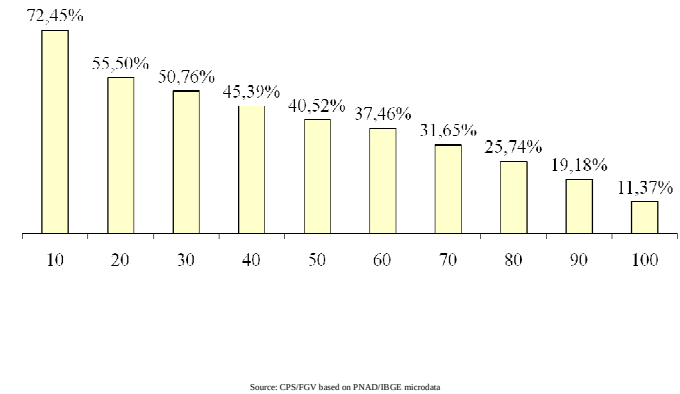
source: CPS/FGV processing Gallup World Poll 2006 microdata – IADB/FGV project

Brazilians' Income – Per Capita Income Tenths

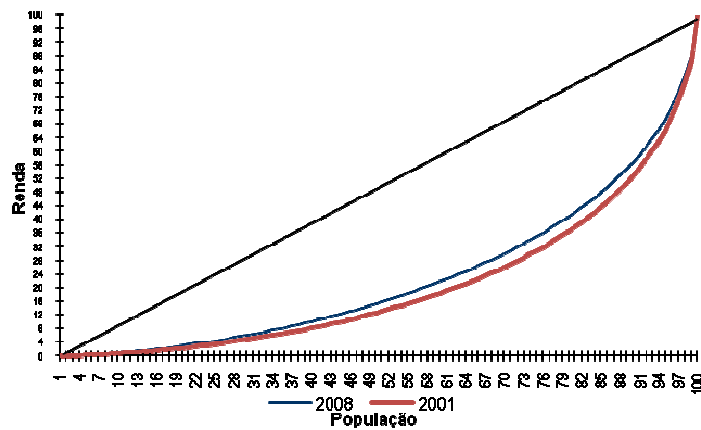
Accumulated variation of average income - Brazil
(2008/2003)



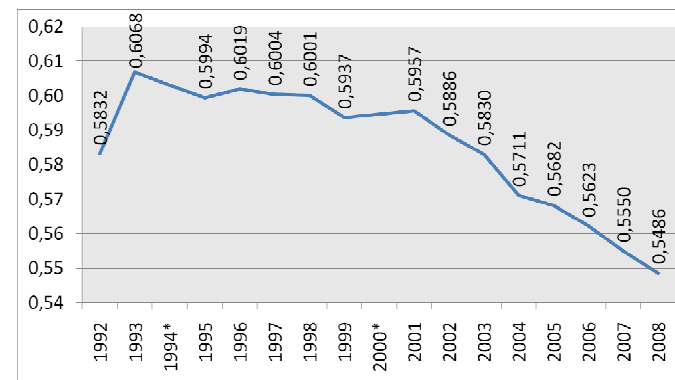
Accumulated Variation of Average Income by tenth of
income - Brazil (2008/2001)



Inequality of Household per capita Income - Brazil



Gini Index



Poverty Scenarios			
	Household Per Capita Income	% poor	Variation
<i>Brazil</i>	592,12	16,02	0,00
<i>Growth effect</i>			
-2%	580,28	16,53	3,23%
-1%	586,20	16,21	1,21%
1%	598,04	15,75	-1,65%
2%	603,96	15,54	-3,00%
3%	609,88	15,31	-4,41%
4%	615,80	15,06	-5,96%
5%	621,73	14,93	-6,79%
6%	627,65	14,68	-8,37%
7%	633,57	14,53	-9,26%
8%	639,49	14,33	-10,53%
9%	645,41	14,16	-11,61%
10%	651,33	13,95	-12,93%
11%	657,25	13,79	-13,92%
12%	663,17	13,65	-14,76%
13%	669,10	13,49	-15,76%
14%	675,02	13,34	-16,71%
15%	680,94	13,18	-17,68%
16%	686,86	13,04	-18,58%
17%	692,78	12,93	-19,28%
18%	698,70	12,75	-20,41%
19%	704,62	12,59	-21,41%
20%	710,54	12,43	-22,38%
21%	716,47	12,24	-23,58%
22%	722,39	12,06	-24,73%
23%	728,31	11,91	-25,66%
24%	734,23	11,74	-26,68%
25%	740,15	11,55	-27,87%

Source : CPS/IBGE/FGV processing PNAD/IBGE microdata

Poverty Scenario	% reduction similar to the one observed between 2001 and 2008		
	Household Per Capita Income	% poor	Variation
TOTAL	592,12	16,02	
<i>Inequality Effect * GINI from 0,548 to 0,5008</i>	592,12	13,04	-18,58%
<i>Combined with growth effect of</i>			
-2%	580,28	13,48	-15,87%
-1%	586,20	13,41	-16,29%
1%	598,04	12,95	-19,14%
2%	603,96	12,64	-21,13%
3%	609,88	12,31	-23,15%
4%	615,80	12,03	-24,89%
5%	621,73	11,91	-25,63%
6%	627,65	11,54	-27,95%
7%	633,57	11,34	-29,23%
8%	639,49	11,11	-30,63%
9%	645,41	11,00	-31,36%
10%	651,33	10,95	-31,66%
11%	657,25	10,74	-32,96%
12%	663,17	10,65	-33,55%
13%	669,10	10,36	-35,34%
14%	675,02	10,33	-35,51%
15%	680,94	10,23	-36,17%
16%	686,86	10,13	-36,79%
17%	692,78	10,05	-37,29%
18%	698,70	9,97	-37,77%
19%	704,62	9,66	-39,70%
20%	710,54	9,45	-41,01%
21%	716,47	9,34	-41,72%
22%	722,39	9,24	-42,35%
23%	728,31	9,15	-42,90%
24%	734,23	9,03	-43,61%
25%	740,15	8,84	-44,84%

Source: CPS/FGV based on PNAD/IBGE microdata

What has caused the inequality decrease from 2001 to 2008?

- Income from work 66,86%
- Social security 15,72 %
- Family grant 17,00 %
- Private transfers 0,50%

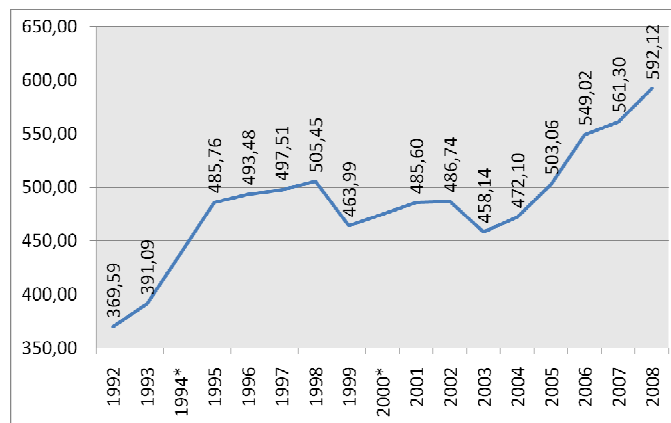
It is interesting to consider not only the impact of different income sources, in particular income transferred by the Brazilian state, in the inequality displacement but also the costs to public resources.

Stiglitz-Sen Report Commissioned by Pres. Sarkozy

The core recommendations of the report http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf are in line with our research:

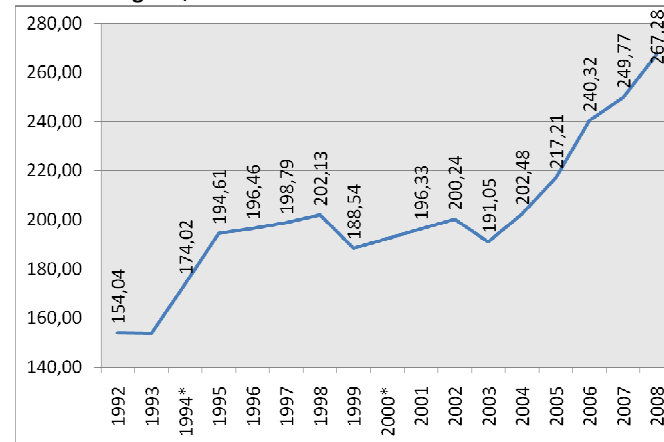
- **Emphasize the household income and consumption perspective** to better assess the material living standards. This assessment is more precise as real per capita GDP does not necessarily reflect movements in real household income; and,
- **Income, consumption and wealth measures must come together with indicators that reflect their distribution** – a constant concern of the CPS.
- The report authors recommend strongly the use of both subjective and objective measures of well-being, through the use of questions that capture the evaluation of people with their lives.
- The Center for Social Policies will release soon the Perceived Human Development Index (PHDI) based on Gallup World Survey for 132 countries.

Household per capita income – R\$



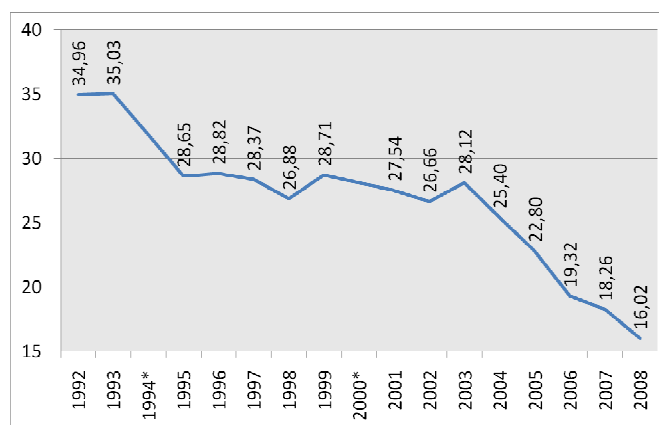
Source: CPS/FGV based on PNAD/IBGE microdata

Well-Being – R\$



Source: CPS/FGV based on PNAD/IBGE microdata

% Poor Population (Household Per Capita Income)



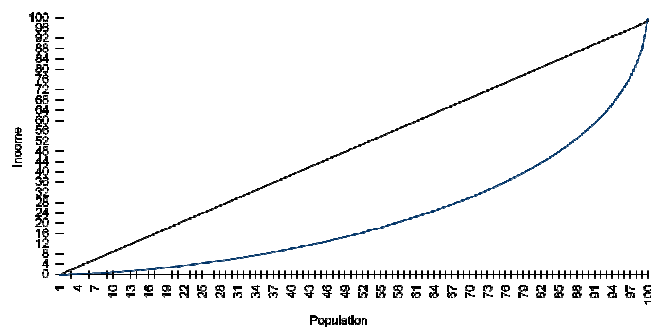
Source: CPS/FGV based on PNAD/IBGE microdata

Poverty Eradication Costs

	Minimum transfers to eradicate poverty			Transfer of wealth per non-poor	
	R\$ person	R\$ total month	R\$ total year	R\$ non-poor	R\$ poor
Brazil 2007	9,01	1.680.719.363	20.168.632.359	10,73	56,29
Brazil 2008	Transfer of wealth per non-poor				
	0.5 % a.m.		1 % a.m.	2 % a.m.	
			2147	1073	537

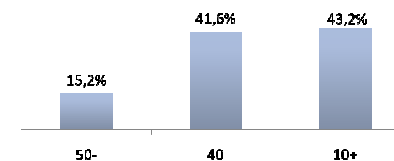
Source: CPS/FGV based on PNAD/IBGE microdata

Lorenz Curve - Brazil 2008
Household per capita income inequality

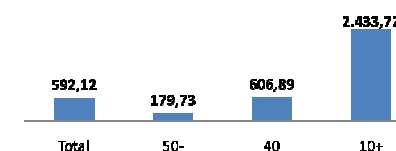


Source: CPS/FGV based on PNAD/IBGE microdata

Share in Total Income 2008 - Brazil

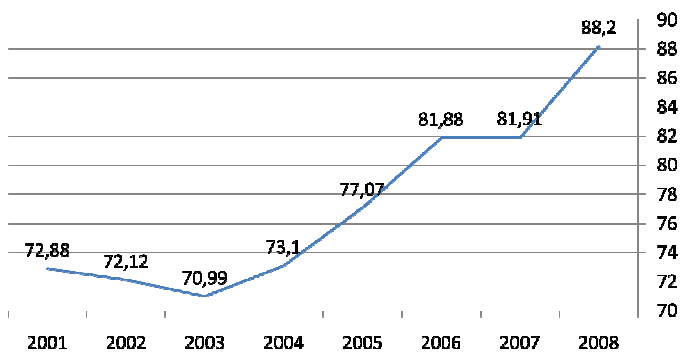


Level by Income Groups 2008 - Brazil



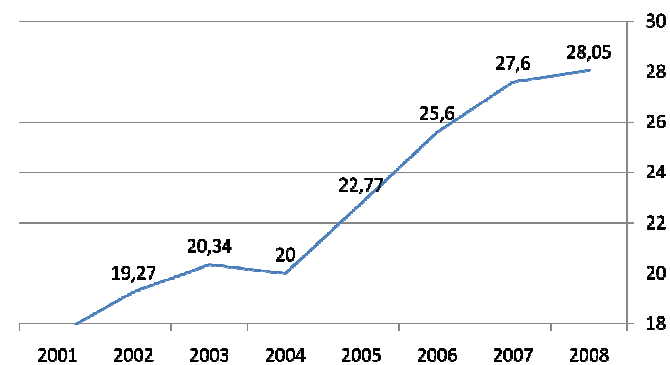
Source: CPS/FGV based on PNAD/IBGE microdata

Household Per Capita Income- social security above the basic level



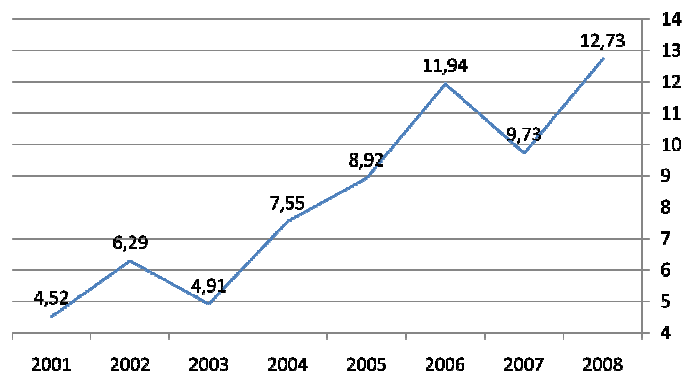
Source: CPS/FGV based on PNAD/IBGE microdata

Household Per Capita Income – social security above 1 mw



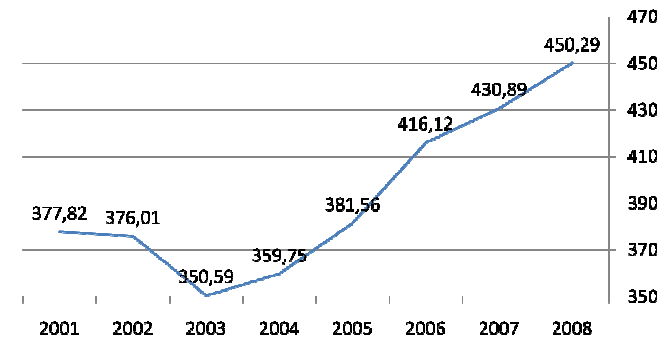
Source: CPS/FGV based on PNAD/IBGE microdata

Household Per Capita Income – Social Programs



Source: CPS/FGV based on PNAD/IBGE microdata

Household Per Capita Income – Work



Source: CPS/FGV based on PNAD/IBGE microdata



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