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 changed? 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

<table>
<thead>
<tr>
<th>Total Household Income from All Sources*</th>
<th>Inferior</th>
<th>Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class E</td>
<td>0</td>
<td>804</td>
</tr>
<tr>
<td>Class D</td>
<td>804</td>
<td>1115</td>
</tr>
<tr>
<td>Class C</td>
<td>1115</td>
<td>4807</td>
</tr>
<tr>
<td>Class AB</td>
<td>4807</td>
<td>-</td>
</tr>
</tbody>
</table>

* At December 2008 prices

Class E (% in total population)
### 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).

- **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).
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

Decomposition of Income from different sources, Panorama, PNAD

<table>
<thead>
<tr>
<th>Year</th>
<th>Income from all sources</th>
<th>Income from all jobs</th>
<th>Other private incomes</th>
<th>Public Transfers - BF</th>
<th>Social security basic benefit - MW</th>
<th>Social security above &gt; MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-08</td>
<td>592.12</td>
<td>450.29</td>
<td>12.86</td>
<td>12.73</td>
<td>28.05</td>
<td>88.2</td>
</tr>
<tr>
<td>2008 – R$</td>
<td>592.12</td>
<td>450.29</td>
<td>12.86</td>
<td>12.73</td>
<td>28.05</td>
<td>88.2</td>
</tr>
</tbody>
</table>

**Composition 2008 – %**
- Total: 100%
- Income from work: 76.05%
- Benefits: 2.17%
- Social security basic benefit - MW: 2.15%
- Social security above > MW: 4.74%

**Average annual growth 2003-08**
- Total: 5.26%
- Income from work: 2.62%
- Benefits: 4.4%
- Social security basic benefit - MW: 4.74%

**Growth 2007-08**
- Total: 5.49%
- Income from work: 4.5%
- Benefits: 1.63%
- Social security above > MW: 7.68%

Source: CPS/FGV based on PNAD/IBGE microdata
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.
**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. Head pays social security taxes
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. Number of bathrooms
12. Head’s occupation
13. Computer
14. Socioeconomic Feature
15. Children’s school attendance (0 to 6 years old)
16. Income of household/own, financed or rent
17. Unionized household head
18. Franked
19. Number of per capita rooms
20. sewerage
21. Radio
22. Number of bathrooms
23. Number of household members
24. Type
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 rooms

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

\[ y = 1E-04x + 4.4338 \]
\[ R^2 = 0.6499 \]

Future happiness (in five years time)

Brazil

Denmark

Italy

India

Future Happiness (in 5 years time)

<table>
<thead>
<tr>
<th>Country</th>
<th>Future Happiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>brazil</td>
<td>8.78</td>
</tr>
<tr>
<td>venezuela</td>
<td>8.52</td>
</tr>
<tr>
<td>denmark</td>
<td>8.51</td>
</tr>
<tr>
<td>ireland</td>
<td>8.32</td>
</tr>
<tr>
<td>jamaica</td>
<td>8.25</td>
</tr>
<tr>
<td>canada</td>
<td>8.14</td>
</tr>
</tbody>
</table>

Source: CPS/FGV based on Gallup World Poll 2006 microdata - FGV/IADB project
<table>
<thead>
<tr>
<th>Country</th>
<th>Future Happiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimbabwe</td>
<td>4.04</td>
</tr>
<tr>
<td>Cambodia</td>
<td>4.86</td>
</tr>
<tr>
<td>Paraguay</td>
<td>5.04</td>
</tr>
<tr>
<td>Haiti</td>
<td>5.10</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5.13</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>5.22</td>
</tr>
<tr>
<td>Uganda</td>
<td>5.31</td>
</tr>
</tbody>
</table>

**Future Happiness**

**Youth 15 to 29 Years Old**

**Current Happiness (About the Country)**

**Future Perception (Country) x Future Happiness**

**Brazil**

<table>
<thead>
<tr>
<th>Future Happiness</th>
<th>Perception Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.78</td>
<td>6.84</td>
</tr>
</tbody>
</table>
Future Perception (Country) x Future Happiness

(Individual)

Dissonance Index

\[ y = 0.2402x + 5.291 \]

\[ R^2 = 0.15 \]

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

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

Country | Country | Country | Country
---------|---------|---------|---------
37 new zealand | 6.98 | 1 chile | 8.78 | 1 panama
38 canada | 6.97 | 2 venezuela | 8.52 | 2 trinidad & tobago
39 bielorussia | 6.95 | 3 estonia | 8.51 | 3 jamaica
40 france | 6.9 | 4 ireland | 8.32 | 4 venezuela
41 colombia | 6.88 | 5 jamaica | 8.25 | 5 france
42 hong kong | 6.86 | 6 estonia | 8.16 | 6 netherlands
43 philippines | 6.84 | 7 canada | 8.14 | 7 united kingdom
44 brunei | 6.84 | 8 new zealand | 8.14 | 8 united states
45 australia | 6.83 | 9 australia | 8.09 | 9 south korea
46 jamaica | 6.74 | 10 panama | 8.05 | 10 netherlands
47 switzerland | 6.72 | 11 israel | 8.03 | 11 united kingdom
48 uruguay | 6.71 | 12 hong kong | 7.98 | 12 germany
49 jamaica | 6.62 | 13 russia | 7.97 | 13 russia
50 nepal | 6.62 | 14 colombia | 7.97 | 14 russia
51 colombia | 6.61 | 15 morocco | 7.94 | 15 colombia
52 tajikistan | 6.59 | 16 animals | 7.94 | 16 animals
53 russia | 6.54 | 17 morocco | 7.94 | 17 russia
54 ethiopia | 6.52 | 18 bulgaria | 7.94 | 18 ethiopia
55 paraguay | 6.5 | 19 russia | 7.92 | 19 russia
56 uae | 6.5 | 20 uned | 7.82 | 20 uned

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.
### Poverty Scenarios

<table>
<thead>
<tr>
<th>Growth effect</th>
<th>Household Per Capita Income</th>
<th>% poor</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>592.12</td>
<td>16.02</td>
<td>0.00</td>
</tr>
<tr>
<td>1%</td>
<td>580.28</td>
<td>16.21</td>
<td>1.21%</td>
</tr>
<tr>
<td>2%</td>
<td>568.55</td>
<td>16.70</td>
<td>3.20%</td>
</tr>
<tr>
<td>3%</td>
<td>556.83</td>
<td>17.24</td>
<td>5.52%</td>
</tr>
<tr>
<td>4%</td>
<td>545.15</td>
<td>17.81</td>
<td>7.79%</td>
</tr>
<tr>
<td>5%</td>
<td>533.47</td>
<td>18.40</td>
<td>9.99%</td>
</tr>
<tr>
<td>6%</td>
<td>521.79</td>
<td>19.00</td>
<td>12.23%</td>
</tr>
<tr>
<td>7%</td>
<td>510.12</td>
<td>19.60</td>
<td>14.47%</td>
</tr>
<tr>
<td>8%</td>
<td>498.47</td>
<td>20.20</td>
<td>16.72%</td>
</tr>
<tr>
<td>9%</td>
<td>486.85</td>
<td>20.80</td>
<td>18.99%</td>
</tr>
<tr>
<td>10%</td>
<td>475.24</td>
<td>21.40</td>
<td>21.26%</td>
</tr>
<tr>
<td>11%</td>
<td>463.63</td>
<td>22.00</td>
<td>23.55%</td>
</tr>
<tr>
<td>12%</td>
<td>452.04</td>
<td>22.60</td>
<td>25.85%</td>
</tr>
<tr>
<td>13%</td>
<td>439.44</td>
<td>23.20</td>
<td>28.15%</td>
</tr>
<tr>
<td>14%</td>
<td>426.85</td>
<td>23.80</td>
<td>30.45%</td>
</tr>
<tr>
<td>15%</td>
<td>414.26</td>
<td>24.40</td>
<td>32.75%</td>
</tr>
<tr>
<td>16%</td>
<td>401.67</td>
<td>25.00</td>
<td>35.06%</td>
</tr>
<tr>
<td>17%</td>
<td>389.08</td>
<td>25.60</td>
<td>37.36%</td>
</tr>
<tr>
<td>18%</td>
<td>376.49</td>
<td>26.20</td>
<td>39.66%</td>
</tr>
<tr>
<td>19%</td>
<td>363.90</td>
<td>26.80</td>
<td>41.96%</td>
</tr>
<tr>
<td>20%</td>
<td>351.31</td>
<td>27.40</td>
<td>44.26%</td>
</tr>
<tr>
<td>21%</td>
<td>338.72</td>
<td>28.00</td>
<td>46.56%</td>
</tr>
<tr>
<td>22%</td>
<td>326.13</td>
<td>28.60</td>
<td>48.86%</td>
</tr>
<tr>
<td>23%</td>
<td>313.54</td>
<td>29.20</td>
<td>51.16%</td>
</tr>
<tr>
<td>24%</td>
<td>300.95</td>
<td>29.80</td>
<td>53.46%</td>
</tr>
<tr>
<td>25%</td>
<td>288.36</td>
<td>30.40</td>
<td>55.76%</td>
</tr>
</tbody>
</table>

Source: CPS/FGV based on PNAD/IBGE microdata.

### Stiglitz-Sen Report

**Commissioned by Pres. Sarkozy**

The core recommendations of the report [http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf](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.
- o The Center for Social Policies will release soon the Perceived Human Development Index (PHDI) based on Gallup World Survey for 132 countries.

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What has caused the inequality decrease from 2001 to 2008?

- **Income from work 66.86%**
- **Social security 15.72%**
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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.

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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  
Source: CPS/FGV based on PNAD/IBGE microdata

Minimum transfers to eradicate poverty  

<table>
<thead>
<tr>
<th></th>
<th>R$ person</th>
<th>R$ total month</th>
<th>R$ total year</th>
<th>R$ non-poor</th>
<th>R$ poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil 2007</td>
<td>9,01</td>
<td>1.680.719.363</td>
<td>20.168.632.359</td>
<td>10,73</td>
<td>56,29</td>
</tr>
</tbody>
</table>

Transfer of wealth per non-poor  

<table>
<thead>
<tr>
<th></th>
<th>0.5 % a.m.</th>
<th>1 % a.m.</th>
<th>2 % a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil 2008</td>
<td>2147</td>
<td>1073</td>
<td>537</td>
</tr>
</tbody>
</table>

Source: CPS/FGV based on PNAD/IBGE microdata