Inequality in Brazil: measurement, trends, impacts and policies

Marcelo Neri
Strategic Affairs (SAE/PR) and EPGE/FGV

Wider, Helsinki, September 2014
• Overview: The Middle Path

• Inequality: Trends, Causes and Impacts
  – Per Capita Household Income - Various Surveys
  – Interactions with Growth, Perceptions & Assets
  – Residential Capital & Personal Income Tax (PIT)

• Public Policies Agenda: Bolsa Família (CCT)
Income Distribution Relative to the World

Brazilian Per Capita GDP (PPP) is 93.7% of the World GDP in 2012

Source: Milanovic (2011)
Brazil is a small World

Brazilian Per capita GDP PPP has grown 3.5% against 3.6% of the world between 2002 and 2012.

Falling in Brazil but still the 18th highest in 155 countries.

Source: Milanovic (2011) and Neri (2011)
Inequality Within Municipalities

Gini Index of Per Capita Income by Municipality - 2000

Source: Demographic Census/IBGE microdata
Inequality within Municipalities

Gini Index of Per Capita Income by Municipalities - 2010

Inequality fell in 80% of the 5500 Brazilian Municipalities

Source: Demographic Census/IBGE microdata
% Population with Income Below U$ 1.25 per day PPP

Brazil: Middle of the World

Source: IPEA / SAE from PNUD
% Population with Income Below U$ 1.25 per day PPP

A World within Brazil

Source: IPEA / SAE from the Demographic Census / IBGE
What explains + Social Inclusion? Growth or + Equity?

1st MDG: Extreme Poverty Line ($1.25 a day PPP) fell 69% in 10 years

<table>
<thead>
<tr>
<th>Component that Explains</th>
<th>Proportion of Extremely Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income growth</td>
<td>50.5%</td>
</tr>
<tr>
<td>Inequality Fall</td>
<td>49.5%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: IPEA/SAE from PNAD/IBGE microdata
New Middle Class: Evolution of Economic Classes Pyramid

2003 - 2014
A to E Classes

Classes AB
- 2003: 14.1 Million
- 2012: 25.1 Million
- Increase: 11 Million

Class C
- 2003: 68.5 Million
- 2012: 110.5 Million
- Increase: 42 Million

Classes DE
- 2003: 97.8 Million
- 2012: 63.5 Million
- Decrease: 34.3 Million

Source: CPS/FGV from PNAD/IBGE microdata
* Forecast
% Evolution of ABC Classes (Traditional and New Middle Classes)

Source: Ipea from PNAD/IBGE microdata
1st Acquisition of Goods and Services

1st time acquiring goods or services: Among those who purchased it in the last 3 years

Source: SAE designed questions in SECOM – Quarterly Public Perception Poll – July/2014
Inequality of Per Capita Income (Gini)

Source: CPS; FGV from PNAD, PME and Census / IBGE microdata and Langoni (1973)
**Changes in Income Distribution 2001 - 2012**

**Cumulative Growth Rate of Per Capita Income by Vintiles 2001-2012(%)**

Income of the 5% poorest has grown 550% faster than the 5% richest.

**Source:** IPEA/SAE from PNAD/IBGE microdata
Between 2011 and 2012

Per Capita Household Income Variation by Vintiles (%)

Stability of the Gini in 2012: Has inequality stopped falling?

Source: SAE from PNAD/IBGE microdata
Income Inequality

Inequality index, March 2002 to March 2014 – Per Capita Labor Earnings 6 Main Metrocities

Gini

Moving Average 12 Months – Only 4 MRs*

<table>
<thead>
<tr>
<th></th>
<th>Jan./14</th>
<th>Feb./14</th>
<th>Mar./14</th>
<th>April/14</th>
<th>May/14</th>
<th>June/14</th>
<th>July/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb/14</td>
<td>55.4</td>
<td>55.3</td>
<td>55.2</td>
<td>55.1</td>
<td>55.0</td>
<td>54.9</td>
<td>54.8</td>
</tr>
</tbody>
</table>

Source: IPEA/SAE from PME/IBGE (2002-2014) microdata *the table only covers SP, RJ, BH and Recife

*Per Capita Household Labor Income - 15 to 65 Years
**Income Inequality**

*Theil-T*

*Inequality index, March 2002 to March 2014 – Per Capita Labor Earnings 6 Main Metrocities*

---

**Theil-T**

Moving Average 12 Months – Only 4 RMAs*

<table>
<thead>
<tr>
<th>Month</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan./14</td>
<td>60.7</td>
</tr>
<tr>
<td>Feb./14</td>
<td>60.5</td>
</tr>
<tr>
<td>Mar./14</td>
<td>60.2</td>
</tr>
<tr>
<td>April/14</td>
<td>59.9</td>
</tr>
<tr>
<td>May/14</td>
<td>59.7</td>
</tr>
<tr>
<td>June/14</td>
<td>59.4</td>
</tr>
<tr>
<td>July/14</td>
<td>59.3</td>
</tr>
</tbody>
</table>

---

*Source: IPEA/SAE from PME/IBGE (2002-2014) microdata *the table only covers SP, RJ, BH and Recife*

*Per Capita Household Labor Income - 15 to 65 Years*
Why Did It Fall? 2003 - 2014

Increase in Productive Attributes between 2003* e 2014**
(in percentage points)

- 11 or + completed years of schooling: 18.84%
- Professional Course: 12.94%
- Contributes to Social Security: 12.88%
- Formal Employees: 12.00%
- Firm with 11 or + Employees: 7.49%
- 2 Years or + in the Job: 3.51%

Source: microdata from PME/IBGE. * between May 2002 and April 2003. ** between May 2013 and April 2014
Real Income Growth by Productive Attributes between 2003* e 2014**
(Growth rate annual)

Why Did It Fall?

11 or + completed years of schooling: 0.914%
Professional Course: 1.220%
Contributes to Social Security: 0.505%
Formal Employees: 1.914%
Firm with 11 or + Employees: 1.014%
2 Years or + in the Job: 1.474%

Total Mean: 3.06%

Source: microdata from PME/IBGE. * between May 2002 and April 2003. ** between May 2013 and April 2014
Why Did It Fall?  

Increase in Income (%) by Personal Attributes between 2003* and 2014**  
(Growth rate annual)

Real Growth between 2003 and 2014 (%)

<table>
<thead>
<tr>
<th>Women</th>
<th>Blacks</th>
<th>Periphery</th>
<th>Youth</th>
<th>&gt;5 people in the HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2%</td>
<td>4.7%</td>
<td>4.1%</td>
<td>3.8%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

Total Mean 3.06%

Idiosyncratic Risk of Per Capita Labor Income

Risk of Falling & Opportunity to Rise Across the Median in 12 months – Panel Data

The risk of crossing the median in an upward direction has never been so high: 27% of the people who were below the median crossed it in 2012/2013 – inversion of the risks of falling/rising 10 years later.

Despite having lower chances of rising, the less educated, since 2002/2003, increased the controled chances (Dif in Dif) compared to the more educated. The same happens in favour of the black people and in favor of the residents in the periphery.
**Inclusive Development?: Interactions**

**Equality**
Looking at the distribution among individuals and social groups of income flows, stocks of assets and rights.

**Sustainability (Assets)**
Ability to maintain the standards of living achieved. Stocks of human, environmental, physical, cultural and social assets.

**Prosperity (Growth)**
Growth in mean income and consumption (not only GDP/National Accounts but also look to Household Surveys data and PIT).

**Sensibility (Perceptions)**
The last dimension is subjective, based on people’s perception about the country, the public services and life quality.
How much did it grow?

**Prosperity**

**Equality**

**GDP X Mean Income PNAD X Median Income PNAD X 10% Poorest**

Real Per Capita 2003 = 100

Real differences are explained by the use of different deflators, in nominal terms mean growth rates are similar

Source: IPEA/SAE from PNAD/IBGE microdata and National Accounting/IBGE
Which source of income (program) contributed the most to growth?

2001 – 2012 in annual percentage points.

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>40% Poorest</th>
<th>5% Richest</th>
<th>10% Poorest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>2.75</td>
<td>4.27</td>
<td>1.99</td>
<td>2.97</td>
</tr>
<tr>
<td>Bolsa Família</td>
<td>0.10</td>
<td>0.83</td>
<td>0.00</td>
<td>3.29</td>
</tr>
<tr>
<td>BPC (Social Assistance)</td>
<td>0.06</td>
<td>0.28</td>
<td>-0.06</td>
<td>0.16</td>
</tr>
<tr>
<td>Social Security</td>
<td>0.74</td>
<td>0.89</td>
<td>0.32</td>
<td>0.23</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
<td>0.11</td>
<td>-0.02</td>
<td>0.14</td>
</tr>
<tr>
<td>Total</td>
<td>3.64</td>
<td>6.38</td>
<td>2.23</td>
<td>6.80</td>
</tr>
</tbody>
</table>

Source: SAE from PNAD/IBGE microdata
Determinants of the Gains in Real Per Capita Prosperity from 2001 and 2012 in annual percentage points

**Shared Prosperity**

*Mean and Shared Bottom 40%*

**Determinants**

- **Bolsa Familia**
  - 0.1 and 0.83
  - 3.64 and 6.39

- **Total Effect**
  - 2.75 and 4.27

- **Social Security & BPC**
  - 0.79 and 1.17
  - 0.37 and -0.23

- **Value of Education**
  - 0.55 and 1.00
  - 2.75 and 4.27

- **Labor**
  - 0.37 and -0.23
  - 1.85 and 2.96

- **Wages and Profits**
  - 1.85 and 2.96

- **Educational Bonus**
  - 0.37 and -0.23

**Quantity** = Participation Rate + Unemployment + Hours
MEAN AND GINI OF YEARS OF SCHOOLING

Average and Gini Index of Years of Schooling in the Occupied and Paid Population


Still Bad Photo but Good Movie
Grade in Maths in PISA/OECD (2003)

Source: Pisa/OECD (countries that are in both 2003 and 2012 samples.)
Points Improvement in Maths in PISA/OECD (2003-2012)

Source: Pisa/OECD.
In 2000, 41% of the municipalities presented very low HDI.
In 2010, 0.6% of the municipalities presented very low HDI.
PARTICIPATION OF RESIDENTIAL CAPITAL IN FAMILIES’ PHYSICAL ASSETS IS AROUND 50% IN BRAZIL AND ELSEWHERE

Own House Effect - 2003 to 2012

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Rural</th>
<th>Northeast</th>
<th>Time to Work &gt;2 hours</th>
<th>Room</th>
<th>Wall made of Straw</th>
<th>No indoor plumbing</th>
<th>No bathroom or toilet</th>
<th>Total Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own House Effect (2003-2012)</td>
<td>80.7%</td>
<td>54.34%</td>
<td>81.7%</td>
<td>77.10%</td>
<td>92.70%</td>
<td>75.66%</td>
<td>74.71%</td>
<td>37.41%</td>
</tr>
</tbody>
</table>

Source: IPEA from PNAD/IBGE microdata.

Obs: The Own House Effect refers to the increase in imputed rent.
Own House Effect - 2003 to 2012

Also conditions within homes (durables) improved + than twice coverage of public services outside homes

Source: IPEA from PNAD/IBGE microdata.

Obs: The Own House Effect refers to the increase in imputed rent.
Inequality Fall in Residential Capital

Differences between concentration curves in time: 2003 to 2012 and 2009 to 2012

Source: microdata from PNAD/IBGE
Besides equality and sustainability aspects, Popular Housing is also more Efficient.
## Personal Income Tax (PIT) Records and PNAD

**In Atkinson chartbook: mean correlation between Gini and the Top 1% share = 0.9**

<table>
<thead>
<tr>
<th></th>
<th>2007 and 2012</th>
<th>Number Reporters</th>
<th>Gross Income*</th>
<th>Net Income*</th>
<th>Tax Due</th>
<th>A. Total Population PNAD</th>
<th>B. Household Per Capita Income PNAD</th>
<th>C. Social Security / Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2012</strong></td>
<td></td>
<td>25,617,525</td>
<td>2,106.72</td>
<td>1,990.86</td>
<td>115.86</td>
<td>195,376,249</td>
<td>943.61</td>
<td>60.39%</td>
</tr>
<tr>
<td><strong>2007</strong></td>
<td></td>
<td>25,224,768</td>
<td>1,406.65</td>
<td>1,326.26</td>
<td>80.39</td>
<td>185,502,098</td>
<td>766.55</td>
<td>50.96%</td>
</tr>
<tr>
<td><strong>Var 2012/2007</strong></td>
<td>1.56%</td>
<td>49.77%</td>
<td>50.11%</td>
<td>44.12%</td>
<td>5.32%</td>
<td>23.10%</td>
<td>18.5%</td>
<td></td>
</tr>
</tbody>
</table>

But how high income growth in PIT will impact top incomes shares wrt National Accounts?

**Proxy PNAD A*B*C**

Var 2012/2007

53.63%

**Total Income PNAD A*B**

Var 2012/2007

29.65%

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th></th>
<th>Number</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gross Total</td>
<td>Net Total</td>
<td>Forms Filled</td>
<td>Income Tax</td>
<td>Taxable Income</td>
<td>Exclusive Taxable Income</td>
</tr>
<tr>
<td>Capitalists</td>
<td>33.80%</td>
<td>34.96%</td>
<td>32.56%</td>
<td>14.65%</td>
<td>20.53%</td>
<td>39.22%</td>
</tr>
<tr>
<td>Rentiers</td>
<td>14.49%</td>
<td>14.57%</td>
<td>13.94%</td>
<td>13.21%</td>
<td>12.74%</td>
<td>17.78%</td>
</tr>
<tr>
<td>Workers</td>
<td>51.70%</td>
<td>50.47%</td>
<td>53.50%</td>
<td>72.14%</td>
<td>66.73%</td>
<td>43.01%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th></th>
<th>Number</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalists</td>
<td>32.86%</td>
<td>33.90%</td>
<td>39.22%</td>
<td>15.75%</td>
<td>22.94%</td>
<td>43.81%</td>
</tr>
<tr>
<td>Rentiers</td>
<td>17.37%</td>
<td>17.23%</td>
<td>16.09%</td>
<td>19.65%</td>
<td>17.22%</td>
<td>19.11%</td>
</tr>
<tr>
<td>Workers</td>
<td>49.77%</td>
<td>48.86%</td>
<td>44.69%</td>
<td>64.60%</td>
<td>59.84%</td>
<td>37.08%</td>
</tr>
</tbody>
</table>

National accounts report an increase in labor share from 54% to 56% from 2007 to 2011

*Source: SRF - IRPF*
Income Tax – Inequality Explained by Differences in Declared Occupations - Total Net Income - 2007 and 2012

Source: SRF - IRPF

\[ Gini_{2012} = 0.287 \]
\[ Gini_{2007} = 0.37 \]

\[ \text{Var}_{2012/2007} = -22.70\% \]
### Income Tax – Inequality explained by Differences between States – 2007 and 2012 - Total Net Income by Declared Population PIT

<table>
<thead>
<tr>
<th></th>
<th>Atk_2</th>
<th>Atk_1</th>
<th>Atk_05</th>
<th>GE_2</th>
<th>GE_1</th>
<th>GE_0</th>
<th>Gini</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2012</strong>*</td>
<td>0.024592</td>
<td>0.012185</td>
<td>0.006057</td>
<td>0.011925</td>
<td>0.012035</td>
<td>0.012259</td>
<td>0.086052</td>
</tr>
<tr>
<td><strong>2007</strong>*</td>
<td>0.032563</td>
<td>0.016713</td>
<td>0.008449</td>
<td>0.017475</td>
<td>0.017063</td>
<td>0.016854</td>
<td>0.101324</td>
</tr>
<tr>
<td><strong>Dif. 2012/2007</strong></td>
<td>-0.00797</td>
<td>-0.00453</td>
<td>-0.00239</td>
<td>-0.00555</td>
<td>-0.00503</td>
<td>-0.0046</td>
<td>-0.01527</td>
</tr>
<tr>
<td><strong>Var 2012/2007</strong></td>
<td>-24.48%</td>
<td>-27.09%</td>
<td>-28.31%</td>
<td>-31.76%</td>
<td>-29.47%</td>
<td>-27.26%</td>
<td>-15.07%</td>
</tr>
</tbody>
</table>

Atk_ = Atkinson Inequality Index (respective coefficient of inequality aversion)

GE_ = Generalized Entropy Index (respective parameter: 1= Theil L; 0 = Theil T)

Source: SRF - IRPF
Brazil has the highest expected future life satisfaction: 8.8 on a 0 to 10 scale

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>8.8</td>
<td>1</td>
<td>8.8</td>
<td>1</td>
<td>8.72</td>
<td>1</td>
<td>8.81</td>
<td>1</td>
<td>8.64</td>
<td>1</td>
</tr>
</tbody>
</table>

Brazil was for nine consecutive times the first in the World ranking of Future Happiness 5 years forward: The Country of the Future?

Source: Gallup World Poll microdata
In spite of its high income inequality, Brazil has the second lowest inequality of expected future life satisfaction (just after Belgium).
# Profile of Protesters

<table>
<thead>
<tr>
<th>Variables / Participation</th>
<th>Participated</th>
<th>Didn’t participate but wanted to</th>
<th>Dind’t participate, didn’t want to, but approves</th>
<th>Disapproves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age</td>
<td>31</td>
<td>37</td>
<td>46</td>
<td>50</td>
</tr>
<tr>
<td>Men</td>
<td>49%</td>
<td>37%</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Until 4th grade completed</td>
<td>4%</td>
<td>18%</td>
<td>31%</td>
<td>45%</td>
</tr>
<tr>
<td>Incomplete or Complete Tertiary Education</td>
<td>26%</td>
<td>16%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Receives Bolsa Família</td>
<td>19%</td>
<td>19%</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Household Head Income R$</td>
<td>R$ 1,464</td>
<td>R$ 1,382</td>
<td>R$ 1,104</td>
<td>R$ 871</td>
</tr>
<tr>
<td>Total Household Income R$</td>
<td>R$ 2,836</td>
<td>R$ 2,544</td>
<td>R$ 1,802</td>
<td>R$ 1,722</td>
</tr>
</tbody>
</table>
## Participation on 2013 Demonstrations – Order of Importance of Explanatory Variables: Stepwise Multinomial Ordered Logit Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>p-value</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internet as Main Source Information</td>
<td>0.9893</td>
<td>&lt;.0001</td>
<td>2.69</td>
</tr>
<tr>
<td>2. Northeast</td>
<td>-0.736</td>
<td>&lt;.0001</td>
<td>0.48</td>
</tr>
<tr>
<td>3. Head or Spouse</td>
<td>-0.4172</td>
<td>0.0015</td>
<td>0.66</td>
</tr>
<tr>
<td>4. Work</td>
<td>0.2441</td>
<td>0.009</td>
<td>1.28</td>
</tr>
<tr>
<td>5. Incomes of the poorest improved +</td>
<td>0.3431</td>
<td>0.0001</td>
<td>1.41</td>
</tr>
<tr>
<td>6. Delay in Public Services Bill</td>
<td>0.2371</td>
<td>0.009</td>
<td>1.27</td>
</tr>
<tr>
<td>7. 15-29 years</td>
<td>0.7224</td>
<td>&lt;.0001</td>
<td>2.06</td>
</tr>
<tr>
<td>8. 30-59 years</td>
<td>0.3755</td>
<td>0.0019</td>
<td>1.46</td>
</tr>
<tr>
<td>9. Is against Bolsa Familia</td>
<td>0.2638</td>
<td>0.0124</td>
<td>1.30</td>
</tr>
<tr>
<td>10. Has Private Health Insurance</td>
<td>0.192</td>
<td>0.0404</td>
<td>1.21</td>
</tr>
<tr>
<td>11. Confederations Cup City Host</td>
<td>0.443</td>
<td>0.0027</td>
<td>1.56</td>
</tr>
<tr>
<td>12. Central-West</td>
<td>-0.4422</td>
<td>0.0555</td>
<td>0.64</td>
</tr>
<tr>
<td>13. Uses bus + than 3 times a week</td>
<td>0.2249</td>
<td>0.0464</td>
<td>1.25</td>
</tr>
</tbody>
</table>
Impacts of Bolsa Família on Final Goals: Changes in Life Satisfaction

“In Bolsa Família beneficiaries had initially the lowest past happiness”

“Present happiness is closer between beneficiaries and non-beneficiaries”

Past X Present Happiness

In the world ranking, Bolsa Família beneficiaries were before the program between Pakistan and Paraguay.

Source: PPPP/IPEA October 2012
"Bolsa Família beneficiaries showed the biggest jump of happiness compared with five years before leading to more equality in present life satisfaction"
The concentration curve of the Bolsa Família differs from other sources of income. Each R$ generates more Equality.

Bolsa Família covers 25% of Brazilian Population at a cost of 0.5% of GDP.

Source: SAE from microdata of PNAD/IBGE
Social Accounting Matrix and (MCS) the Circular Flow of Income obtained with the expansion of a cash transfer.
Multiplier Effects of social transfers on:

**GROSS DOMESTIC PRODUCT**

- **Bolsa Família**: 1.78
- **BPC (Social Assistance)**: 1.19
- **Unemployment Insurance**: 1.06
- **Wage Subsidy**: 1.06
- **Public Servants Pensions**: 0.53
- **Private Employees Public Pension**: 0.52
- **Severance Fund FGTS**: 0.39

Source: Neri, Vaz e Ferreira (2013) from the Social Account Matrix of 2009 (constructed from POF and National Accounts)
Benefits variable across families: Poorer get higher benefits

Permanent Income Estimate: using Administrative Records (CadÚnico) info:
Education all HH members, Housing & Public Services coverage, other benefits etc...
Identifies who is chronically poor, and not who says is poor
Without Bolsa Familia Extreme Poverty in 2012 would rise 36%

Life Cycle of Poverty - Simulation of the potential impact on extreme poverty rate by age of the new design benefits from Bolsa Família Program (%)

Bolsa Família Innovations

Payment Systems

• Completes Income towards the Poverty Line
• Use of International References (MDGs)
• Local Complements to Bolsa Família (Use of Permanent Income)
• Mothers Key Role (Search of Students Without Mother)

Conditionalities & Supply Services

• Parents Engagement (School Meetings on Saturdays)
• Early Childhood Education (Poor Kids are first in line; Cognitive & Non-Cognitive skills)
• Incentives to Perform (Alignment Teachers, Parents & Students + Youth Savings)
Bolsa Família Channels to Overcome Poverty (Means Approach)

**Productive Inclusion**

- **Productive Inclusion**
- **Income Generation**
  - *Productivity*
  - **Overcoming Poverty**
    - **Monetary Transfers**
    - **Conditionalities**
      - Demand for education and health (early childhood)
    - **Credit, insurance, and savings**
    - **Consumer protection, financial education**
    - **Income generation**
      - **Leverage opportunities and smooth shocks**
        - *Decent Markets*
      - **Internal infrastructure**
        - **Housing, cisterns**
    - **External infrastructure**
      - **Transportation, sewage**
    - **Supply of public services**
    - **Family budget**
    - **Direct effect**
      - **Well-being**
    - **Direct effect**
      - **Family budget**
    - **Cash in the hand of mothers**
    - **Monetary transfers**
    - **Production of income**

**Microcredit & Vocational Education**
Returning to Questions about the Quality of Development (Ends Approach)

- Inclusive? Falling Inequality;
- How much has grown? household perspective better than GDP;
- Perceived by the people? Subjective Measures of Well-Being rising;
- Sustainable? Rising Stocks of Education, Labor, HDI, Housing;

Poor Brazilians in household surveys have been improving more than the mean Brazil of National Accounts

Brazil has been since the dawn of the new millenium the Country of the Past (not the contry of the future)

Structural Change in the Basis of Assets Distribution = Deep Transformation
## Map of Public Use Databases

### Household Surveys Microdata

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PNAD</strong></td>
<td>(100,000 households per year)</td>
</tr>
<tr>
<td></td>
<td>Annual Cross-section (1976-2012); IBGE</td>
</tr>
<tr>
<td></td>
<td>Incomes, Residential Capital</td>
</tr>
<tr>
<td><strong>POF</strong></td>
<td>(48,000 families per year) 1974; 2002; 2008</td>
</tr>
<tr>
<td></td>
<td>Details: Incomes, Spending and Taxes</td>
</tr>
</tbody>
</table>

### Administrative Records

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Accounts</strong></td>
<td>IBGE (Hybrid)</td>
</tr>
<tr>
<td><strong>PIT</strong></td>
<td>Personal Income Tax</td>
</tr>
<tr>
<td></td>
<td>25 million individuals; 2007-2012</td>
</tr>
<tr>
<td><strong>Unified Register</strong></td>
<td>for Social Programs – CadÚnico (60 million individuals)</td>
</tr>
</tbody>
</table>

### Mapping

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CENSUS</strong></td>
<td>(18 million individuals) 1960 - 2010</td>
</tr>
<tr>
<td></td>
<td>IBGE, Long Run Income and Special Detailed Maps</td>
</tr>
</tbody>
</table>

### Monitoring

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PME</strong></td>
<td>(36 mil dwellings month) 1980-2014, IBGE</td>
</tr>
<tr>
<td></td>
<td>Monthly Labor with a two month lag, 6 Metrocities,</td>
</tr>
</tbody>
</table>

### Subjective Surveys National

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PPPP</strong></td>
<td>(3800 Interviews, 215 cities), Ipea</td>
</tr>
<tr>
<td></td>
<td>Population Perceptions on Public Policies, Individuals 15 years or older</td>
</tr>
</tbody>
</table>

### Subjective Surveys International

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gallup World Poll</strong></td>
<td>(more than 150 countries &amp; 200,000 Interviews) 2006 to 2014 Subjective and Objective Data, Individuals 15 years or older</td>
</tr>
</tbody>
</table>
Brazil Social: References & Links  (Marcelo Neri)

Shared Prosperity:

Middle Class:
http://www.compaso.com.br/docs/NCM_Neri_Sae_ClasseMedia_InglEsFinal.pdf;
http://www.cps.fgv.br/cps/livroncm/ &
http://www.sae.gov.br/site/?p=22297

Social Tensions:

Pro Poor Growth:

Income Policies:
http://www.fgv.br/cps/docs/acad/BF_Livro_Scanner.pdf

Deprivation:
http://www.compaso.com.br/docs/PP_inequality_relative_deprivation_and_social_class_Final.pdf

Social Transformations (portuguese – recent study)

Bolsa Família Book Summary

http://www.sae.gov.br/site/?p=22181

World Without Poverty
https://www.wwp.org.br/en

Human Development Map = Data Brazilian Cities

Report on MDGs
http://www.sae.gov.br/site/?p=23274

Social Targets:

BRICS:

Brazilian Microdata & Data
http://www.econ.puc-rio.br/datazoom/
www.ibge.gov.br
http://www.ipeadata.gov.br

Thanks!