Hosted by the International Inequalities Institute
The Evolution of Global Inequalities: the impact on politics and the economy

Professor Branko Milanovic
Senior Scholar, Luxembourg Income Study Centre
Visiting Presidential Professor, Graduate Centre, City University of New York

Professor Mike Savage
Chair, LSE

Hashtag for Twitter users: #LSEBranko
@lsepublicevents lse.ac.uk/events
Inequality in the age of globalization

Branko Milanovic
Spring/Summer 2017
Largely based on:
Brief structure of the talk

- Global inequality: in the past and now
- Technical problems of measurement
- How the world has changed between 1988 and 2013
- [Political implications of the changes]
- [Kuznets waves?]
- Issues of justice, politics and migration
1. Global inequality: key developments
Global and US Gini over two centuries

- Global (BM)
- Lahoti, Jayadev, Reddy
- Global (LM)

Global inequality

US inequality

Branko Milanovic
La longue durée: From Karl Marx to Frantz Fanon and back to Marx?

From Karl Marx to Frantz Fanon and back to Marx?

History../the_past.xls

Branko Milanovic
• In the long-run inequality is determined by the spread of the technological revolutions: the West in the 19th century, Asia today

• In the medium-run global inequality is determined by:

  • What happens to within-country income distributions?
  • Is there a catching up of poor countries?
  • Are mean incomes of populous & large countries (China, India) growing faster or slower that the rich world?

Branko Milanovic
Three concepts of inter-national income inequality, 1952-2015

- Population-weighted inter-country inequality
- Unweighted inter-country inequality
- Global inequality

All in 2011 PPPs
Key developments, 1988-2011

Top 1% share (left axis)

Mean to median ratio (right axis)

Branko Milanovic
Gini and percentage of world population with income less than 1/2 global median, 1988-2011

Summary.xls
Global income distribution in 2011 with 2011 PPPs

10% 73% 91% 50%

Median of WENAO

Absolute poverty

Global median

Global mean

Median of WENAO

log of annual PPP real income

twoway (kdensity loginc_11_11 [w=popu] if loginc_11_11>2 & bin_year==2011, bwidth(0.2)), legend(off) title(Global income distribution in 2011 with 2011 PPPs) xtitle(log of annual PPP real income) ytitle(density) xlabel(2.8"600" 3.3"2100" 3.74"5500" 4.2"14600", labsize(small) angle(90))
Using combine88_11.dta
Large gaps in mean country incomes raise two important issues

• Political philosophy: is the “citizenship rent” morally acceptable? Does global equality of opportunity matter?
• Global and national politics: Migration and national welfare state
• (will address both at the end)
Different countries and income classes in global income distribution in 2008

From calcul808.dta
Different countries and income classes in global income distribution in 2011

USA
Russia
Brazil
India

India with 2011 income data

Final11.dta using michele_graph.do but with India consumption replaced by India income
Why international aid is unlikely to involve regressive transfers?
2. Technical issues in the measurement of global inequality
Three important technical issues in the measurement of global inequality

• The ever-changing PPPs in particular for populous countries like China and India
• The increasing discrepancy between GDP per capita and HS means, or more importantly consumption per capita and HS means
• Inadequate coverage of top 1% (related also to the previous point)
The issue of PPPs

Branko Milanovic
The effect of the new PPPs on countries’ GDP per capita
The effect of new PPPs

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita increase (in %)</th>
<th>GDP per capita increase population-weighted (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>90</td>
<td>---</td>
</tr>
<tr>
<td>Pakistan</td>
<td>66</td>
<td>---</td>
</tr>
<tr>
<td>Russia</td>
<td>35</td>
<td>---</td>
</tr>
<tr>
<td>India</td>
<td>26</td>
<td>---</td>
</tr>
<tr>
<td>China</td>
<td>17</td>
<td>---</td>
</tr>
<tr>
<td>Africa</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>Asia</td>
<td>48</td>
<td>33</td>
</tr>
<tr>
<td>Latin America</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>WENAO</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Use of 2011 PPPs reduces global inequality by about 3 Gini points but leaves the trends the same
The gap between national accounts and household surveys
Global Gini with different definitions of income

Summary_data.xls

Branko Milanovic
Step 1 driven by low consumption shares in China and India
(although on an unweighted base C/GDP decreases with GDP)
Step 2. No clear (weighted) relationship between survey capture and NA consumption
The issue of top underestimation

Branko Milanovic
Rising NAC/HS gap and top underestimation

• If these two problems are really just one & the same problem.
• Assign the entire positive (NA consumption – HS mean) gap to national top deciles
• Use Pareto interpolation to “elongate” the distribution
• No *a priori* guarantee that global Gini will increase
Top 1% share in US: Comparison between WTID fiscal data and factor income from LIS (both run across households/fiscal units; K gains excluded)
But the rising gap between fiscal and HS income is not universal

Top 1% share Norway: Comparison between WTID fiscal data and factor income from LIS (both run across households/fiscal units; K gains excluded)
With full adjustment (allocation to the top 10% + Pareto) Gini decline almost vanishes.

Top-heavy allocation of the gap + Pareto adjustment

Survey data only

Branko Milanovic

Summary_data.xls
3. How has the world changed between the fall of the Berlin Wall and the Great Recession
[based on joint work with Christoph Lakner]
## Number of surveys

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>14</td>
<td>30</td>
<td>24</td>
<td>29</td>
<td>32</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Asia</td>
<td>19</td>
<td>26</td>
<td>28</td>
<td>26</td>
<td>23</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>E.Europe</td>
<td>27</td>
<td>22</td>
<td>27</td>
<td>25</td>
<td>27</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>LAC</td>
<td>19</td>
<td>20</td>
<td>22</td>
<td>21</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>WENAO</td>
<td>23</td>
<td>23</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>World</td>
<td>102</td>
<td>121</td>
<td>122</td>
<td>122</td>
<td>122</td>
<td>118</td>
<td>115</td>
</tr>
</tbody>
</table>

Branko Milanovic
### Population coverage

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>48</td>
<td>76</td>
<td>67</td>
<td>77</td>
<td>78</td>
<td>78</td>
<td>70</td>
</tr>
<tr>
<td>Asia</td>
<td>93</td>
<td>95</td>
<td>94</td>
<td>96</td>
<td>94</td>
<td>98</td>
<td>96</td>
</tr>
<tr>
<td>E.Europe</td>
<td>99</td>
<td>95</td>
<td>100</td>
<td>97</td>
<td>93</td>
<td>92</td>
<td>87</td>
</tr>
<tr>
<td>LAC</td>
<td>87</td>
<td>92</td>
<td>93</td>
<td>96</td>
<td>96</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>WENAO</td>
<td>92</td>
<td>95</td>
<td>97</td>
<td>99</td>
<td>99</td>
<td>97</td>
<td>96</td>
</tr>
<tr>
<td>World</td>
<td>87</td>
<td>92</td>
<td>92</td>
<td>94</td>
<td>93</td>
<td>94</td>
<td>92</td>
</tr>
</tbody>
</table>

Non-triviality of the omitted countries
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>49</td>
<td>85</td>
<td>71</td>
<td>71</td>
<td>70</td>
<td>71</td>
<td>63</td>
</tr>
<tr>
<td>Asia</td>
<td>94</td>
<td>93</td>
<td>96</td>
<td>95</td>
<td>90</td>
<td>93</td>
<td>83</td>
</tr>
<tr>
<td>E. Europe</td>
<td>99</td>
<td>96</td>
<td>100</td>
<td>99</td>
<td>99</td>
<td>98</td>
<td>94</td>
</tr>
<tr>
<td>LAC</td>
<td>90</td>
<td>93</td>
<td>95</td>
<td>95</td>
<td>98</td>
<td>98</td>
<td>94</td>
</tr>
<tr>
<td>WENAO</td>
<td>99</td>
<td>96</td>
<td>96</td>
<td>100</td>
<td>100</td>
<td>97</td>
<td>95</td>
</tr>
<tr>
<td>World</td>
<td>96</td>
<td>95</td>
<td>96</td>
<td>98</td>
<td>97</td>
<td>95</td>
<td>90</td>
</tr>
</tbody>
</table>
Real income growth at various percentiles of global income distribution, 1988-2008 (in 2005 PPPs)

From twenty_years\final\summary_data

Estimated at mean-over-mean

---

Percentile of global income distribution

Real PPP income change (in percent)
Parts of the distribution that gained the most are dominantly from Asia, parts that stagnated are mostly from mature economies.


Solid line shows predicted value from kernel-weighted local polynomial regression (bw=0.05, epanechnikov, cube polynomial). Only countries observed in 1988 & 2008 (N=63) included.

From analysis horizontal quasinonanon gic pop 260
Quasi non-anonymous growth between 1988 and 2008: real absolute per capita gains at different fractiles of the 1988 distribution

Branko Milanovic
Real income growth over 1988-2008 and 1988-2011 (based on 2011 PPPs)

Cumulative real per capita growth in % between 1988 and 2008

Percentile of global income distribution

Branko Milanovic
Global income distributions in 1988 and 2011

Figure 3. Global income distribution in 1988 and 2011

Emerging global “middle class” between $3 and $16

Branko Milanovic

Using Branko\Income_inequality\final11\combine88_08_11_new.dta
The global distribution of consumption expenditure over time

logarithmic scale, population-weighted, 2011 PPP

From Christoph Lakner
4. Political implications
The contradiction of inequality changes during Globalization II

- Most countries displayed an upward sloping GIC (US, China, India urban, Indonesia...)
- Perception that the rich are doing better than anybody else (true)
- But growth rates of countries are uneven; those that grew the fastest were in the lower middle of global income distribution, and they were also most populous
- This led to the “elephant-shaped” global GIC and decreasing global inequality

Branko Milanovic
The issues

• Are growth (1) along the entire Chinese income distribution and (2) stagnation around the median in the rich world as well as stagnation across most of income distribution in E. Europe and LAC, related?

• In other words, is the hump in middle related to the dip around the 70-80th percentile?

• Marching of China and India through the ranks reduces global inequality and the importance of the between-country component in global inequality

• But it might “cause” increases in within-national inequalities (thus offsetting global inequality decline)

• Can democracy survive if rich countries’ middle classes are hollowed out?

Branko Milanovic
• Can something that is bad nationally (increased inequality) be good globally (decreased inequality) ?

• Can national vices produce global virtue?
Political implications

- Possible crowding out of national middle classes, and the creation of a global one
- But the middle class is presumably a force for stability when there is a political community. There is no political community at the global level. What does global middle class mean?
- Would global middle class create a global polity?
- Or, global plutocracy: in the longer-term, reversal to the pre World War I situation

Branko Milanovic
Are we at the end of capitalism’s long “el periodo especial” or going upward the second modern era Kuznets curve?

• Three challengers to global capitalism were beaten off in the 20th century: depression (by reinventing gov’t), war (by marshalling resources), Communism (through Welfare State)
• Neither of these threats is any longer present; so is this the reason capitalism is becoming more unequal?
• Or is the period after 1980, the second modern era Kuznets curve driven by the technological revolution and globalization?
Focus on point B of the “elephant graph” (income stagnation and erosion of the middle class in advanced economies)
Income share of the middle four deciles 1980-2013
in percent

USA

UK

Germany

Canada

C:\branko\voter\do\files\define_variables using data_voter_checked.dta
The middle class defined as population with income between +/-25% of national median income (all in per capita basis; disposable income; LIS data)
US real median after-tax household per capita income 1979-2013

Average annual growth rate over the entire period:
0.5%
Since 2000, zero.
5. How to think of within-national inequalities: Introducing the Kuznets waves
Kuznets waves defined

• Kuznets saw just one curve. We now know there may be many more.
• Distinguish the waves in pre-industrial and modern societies (those with sustained increase in mean income)
• Kuznets waves in pre-industrial societies are visible when plotted against time only (because mean income is stagnant)
• Kuznets cycles in industrial societies are visible when plotted against income per capita=> proxy for structural changes
• Inequality waves are too complex for formal modelling => need to use inductive reasoning and analytic narrative
• The waves in modern era reflect economic forces of technological innovation and structural transformation. But also wars and policy changes.
Malign and benign forces reducing inequality (downward portion of the Kuznets wave)

<table>
<thead>
<tr>
<th></th>
<th>Malign</th>
<th>Benign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Societies with stagnant mean income</td>
<td>Idiosyncratic events: wars (though destruction), epidemics, civil conflict</td>
<td>Cultural and ideological (e.g. Christianity?)</td>
</tr>
<tr>
<td>Societies with a rising mean income</td>
<td>Wars (through destruction and higher taxation: <em>War and Welfare</em>), civil conflict</td>
<td>• Widespread education (reflecting changing returns)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Social pressure through politics (socialism, trade unions)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Aging (demand for social protection)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low-skill biased TC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cultural and ideological (pay norms?)</td>
</tr>
</tbody>
</table>
From Prados de la Escosura & Alvarez-Nogal, “The rise and fall of Spain 800-1850”
Kuznets curve here? No.

GDP per capita and rent-wage ratio: Spain 1325-1840

From Prados de la Escosura & Alvarez-Nogal, “The rise and fall of Spain 800-1850”
Kuznets relationship for the UK, 1688-2014

Gini of disposable per capita income

GDP per capita (in 1990 international dollars; Maddison)
Kuznets relationship for the United States, 1774-2013

Gini of disposable per capita income vs. GDP per capita (in 1990 international dollars; Maddison)
The Kuznets relationship for the Netherlands, 1561-2010

GDP per capita (in 1990 international dollars)

Gini
### Downswing of Kuznets first wave and upswing of the second Kuznets wave in advanced economies

<table>
<thead>
<tr>
<th>Country</th>
<th>Level of maximum inequality (peak of Wave 1) Gini points (year)</th>
<th>Level of minimum inequality (trough of Wave 1) (year)</th>
<th>Approximate number of years of downswing of the Kuznets wave</th>
<th>Reduction in inequality (Gini points)</th>
<th>GDP increased (how many times) during the downswing</th>
<th>The second Kuznets wave (increase in Gini points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>51 (1933)</td>
<td>35 (1979)</td>
<td>50</td>
<td>16</td>
<td>4</td>
<td>Strong (+8)</td>
</tr>
<tr>
<td>UK</td>
<td>57 (1867)</td>
<td>27 (1978)</td>
<td>110</td>
<td>30</td>
<td>&gt;4</td>
<td>Strong (+11)</td>
</tr>
<tr>
<td>Spain</td>
<td>53 (1918)</td>
<td>31 (1985)</td>
<td>70</td>
<td>22</td>
<td>&lt;5</td>
<td>Modest (+3)</td>
</tr>
<tr>
<td>Italy</td>
<td>51 (1851)</td>
<td>30 (1983)</td>
<td>120</td>
<td>21</td>
<td>&lt;9</td>
<td>Strong (+5)</td>
</tr>
<tr>
<td>Japan</td>
<td>55 (1937)</td>
<td>31 (1981)</td>
<td>45</td>
<td>24</td>
<td>6</td>
<td>Modest (+1)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>61 (1732)</td>
<td>28 (1982)</td>
<td>250</td>
<td>33</td>
<td>7</td>
<td>Modest (+2)</td>
</tr>
</tbody>
</table>
Urban Gini in China: 1981-2014 (based on official household surveys)
Where are now China and the US?

First Kuznets wave

Second Kuznets wave

Gini

GDP per capita
What might drive the 2\textsuperscript{nd} Kuznets cycle down?

- Progressive political change (endogenous: political demand)
- Dissipation of innovation rents
- Low-skilled biased technological progress (endogenous)
- Reduced gap in education (but it is not a silver bullet)
- Global income convergence: Chinese wages catch up with American wages: the hollowing-out process stops
- Note that all are all endogenous
6. Issues of justice and politics

1. Citizenship rent
2. Migration and national welfare state
3. Hollowing out of the rich countries’ middle classes
Global inequality of opportunity

• Regressing (log) average incomes of 118 countries’ percentiles (11,800 data points) against country dummies “explains” 77% of variability of income percentiles

• Where you live is the most important determinant of your income; for 97% of people in the world: birth=citizenship.

• Citizenship rent.
Is citizenship a rent?

• If most of our income is determined by citizenship, then there is little equality of opportunity globally and citizenship is a rent (unrelated to individual desert, effort)

• **Key issue:** Is global equality of opportunity something that we ought to be concerned or not?

• Does national self-determination dispenses with the need to worry about GEO?
The logic of the argument

• Citizenship is a morally-arbitrary circumstance, independent of individual effort

• It can be regarded as a rent (shared by all members of a community)

• Are citizenship rents globally acceptable or not?

• Political philosophy arguments *pro* (social contract; statist theory; self-determination) and *contra* (cosmopolitan approach)
## Rawls’ views on inter-generational transmission of wealth

<table>
<thead>
<tr>
<th>Group</th>
<th>Inter-generational transmission of collectively acquired wealth</th>
<th>Argument</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Not acceptable Or at least to be limited</td>
<td>Threatens equality of citizens</td>
<td>Moderate to very high inheritance tax</td>
</tr>
<tr>
<td>Nation</td>
<td>Acceptable</td>
<td>Affirms national self-determination (moral hazard)</td>
<td>International aid</td>
</tr>
</tbody>
</table>

**Policy**

- Moderate to very high inheritance tax
- International aid

---

**Argument**

- Threatens equality of citizens

---

**Group**

- Family
- Nation

---

**Inter-generational transmission of collectively acquired wealth**

- Not acceptable Or at least to be limited
- Acceptable

---

**Branko Milanovic**
The Rawlsian world

• For Rawls, global optimum distribution of income is simply a sum of national optimal income distributions

• Why Rawlsian world will remain unequal?
Global inequality in Real World, Rawlsian World, Convergence World...and Shangri-La World (Theil 0; year 2011)

<table>
<thead>
<tr>
<th>Mean country incomes</th>
<th>All equal</th>
<th>Different (as now)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual incomes within country</td>
<td>0</td>
<td>54 (all country Theils=0; all mean incomes as now)</td>
</tr>
<tr>
<td>All equal</td>
<td>23 (all mean incomes equalized; all country Ginis as now)</td>
<td>77</td>
</tr>
</tbody>
</table>
Conclusion

• Working on equalization of within-national inequalities will not be sufficient to significantly reduce global inequality

• Faster growth of poorer countries is key and also...
Migration....
Migration: a different way to reduce global inequality and citizenship rent

- How to view development: Development is increased income for poor people regardless of where they live, in their countries of birth or elsewhere
- Migration and LDC growth thus become two equivalent instruments for development
Growing inter-country income differences and migration: Key seven borders today
The logic of the migration argument

• Population in rich countries enjoys the citizenship premium
• They are unwilling to share, and thus possibly reduce (at least “locally”) this premium with migrants
• Currently, the premium is full or 0 because citizenship is (in terms of rights as well as financially) a binary variable
• Introduce various levels of citizenship (tax discrimination of migrants; obligation to return; no family etc.) to reduce the premium
• Temporary work
• Doing this should make native population more acceptant of migrants
Trade-off between citizenship rights and extent of migration

* People who would like to migrate according to a world-wide Gallup poll

Branko Milanovic
Political issue: Global vs. national level

- Our income and employment is increasingly determined by global forces
- But political decision-making still takes place at the level of the nation-state
- If stagnation of income of rich countries’ middle classes continues, will they continue to support globalization?
- Two dangers: populism and plutocracy
- To avert both, need for within-national redistributions: those who lose have to be helped
Final conclusion

• To reduce global inequality: fast growth of poor countries + migration
• To have migration, discriminate the migrants
• To preserve good aspects of globalization: reduced inequality within rich countries via equalization of human and financial assets (i.e. focus on pre-redistribution)

Branko Milanovic
Hosted by the International Inequalities Institute
The Evolution of Global Inequalities: the impact on politics and the economy

Professor Branko Milanovic
Senior Scholar, Luxembourg Income Study Centre
Visiting Presidential Professor, Graduate Centre, City University of New York

Professor Mike Savage
Chair, LSE

Hashtag for Twitter users: #LSEBranko