An Elephant shaped Global Growth Incidence Curve

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Countries comprise the elephant

GLOBAL INCOME GROWTH, 1988-2008

RISING INCOMES IN EMERGING ECONOMIES, MAINLY CHINA

BOOMING GLOBAL ELITE

DECLINE OF DEVELOPED-WORLD MIDDLE CLASS

TRUMP/BREXIT VOTERS
Share of the World Population living in Absolute Poverty, 1820-2015

All data are adjusted for inflation over time and for price differences between countries (PPP adjustment).


The interactive data visualisation is available at OurWorldInData.org. There you find the raw data and more visualisations on this topic.
See its now, click to see FT video...

Replication of the ‘elephant curve’
Growth in average per capita household income, 1988-2008 (%)
Best revised elephant diagram, mastodon shape, and no one lost: What changed?

**A mammoth undertaking**
Increase in real income*, 1988-2008, %
By percentile of global income distribution

![Graph showing income distribution](image)

Original
Alternative

Source: Christoph Lakner & Branko Milanovic, World Bank
*At purchasing-power parity
Original diagram used 2005 $PPP

REAL INCOME GAINS IN PERCENTAGE, 1988 TO 2008
100% -

Asian middle class

U.S. and Western lower middle class

Top 1%

Top 2-5%

Poorer — GLOBAL POPULATION BY INCOME DISTRIBUTION PERCENTILE — Wealthier

NOTE INCOMES ARE REAL, PPP-ADJUSTED, IN 2005 DOLLARS.
SOURCE BRANKO MILANOVIC
2011 PPP shows no one loses

**Figure A.1. Global Growth Incidence Curve 1988–2008 (2011 PPP)**

*Notes: Y-axis displays the growth rate in average income of the fractile group (in 2011 PPP USD). Population-weighted. Growth incidence evaluated at ventile groups (e.g., bottom 5%); top ventile is split into top 1% and 4% between P95 and P99. The horizontal line shows the growth rate in the mean of 26.74% (1.19% p.a.).

*Source: Authors' analysis based on data described in the text.*
2011 PPP prices eliminate the fall in OECD middle class incomes, why?

**Figure A.1. Global Growth Incidence Curve 1988–2008 (2011 PPP)**

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Source: Authors’ analysis based on data described in the text.
Fig 4: Globalization benefits everyone but OECD middle class:

Washington Post & B. Milanovic see more slides like this.
Falling Global Poverty and Inequality + slower growth in OECD nations + the rising share of the top 1% generate the Elephant curve

- Inequality is some nations has increased (USA and China) but inequality among people and nations has decreased since 2000, absolute convergence...
- Many nations closing gap with OECD see chapter 4 of Eclipse and DESA’s Inequality Matters
- Openness has played a role.... China, Asia, RER
- Convergence in health, education and longevity faster than incomes see HDR 2010
Falling Global inequality: Absolute convergence…

**global growth incidence curve** from
Porter & Bruno Milanovic

Figure PB-1 World Growth Incidence curve

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Inequality at Home and Abroad

Fast growth in China, India and other Asian countries has risen the income of the global middle class, reducing income inequality on a global scale over the last two decades.

**Income growth across the income distribution**

<table>
<thead>
<tr>
<th>1988 to 2008</th>
<th>Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th</td>
<td>10th</td>
</tr>
<tr>
<td>$0.7</td>
<td>$1.1</td>
</tr>
</tbody>
</table>

Average income per day in each decile

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Falling Global inequality: Absolute convergence finally SS growth models start to work... at a cost...

global growth incidence curve from Eduardo Porter & Branko Milanovic (read NY Times) see web page

The global dynamics bolstering incomes in China are also contributing to widening inequality in the United States and other countries.

1986 to 2008

United States

<table>
<thead>
<tr>
<th>5th</th>
<th>10th</th>
<th>15th</th>
<th>20th</th>
<th>25th</th>
<th>30th</th>
<th>35th</th>
<th>40th</th>
<th>45th</th>
<th>50th</th>
<th>55th</th>
<th>60th</th>
<th>65th</th>
<th>70th</th>
<th>75th</th>
<th>80th</th>
<th>85th</th>
<th>90th</th>
<th>95th/99th/100th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$9</td>
<td>$19</td>
<td>$27</td>
<td>$35</td>
<td>$43</td>
<td>$53</td>
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</tr>
</tbody>
</table>

Notes: Average incomes are for 2008, measured in constant 2005 dollars. Global incomes are measured at 2005 purchasing power parities.

Source: Branko Milanovic

This is astonishing progress. And although incomes of workers in the developed world didn’t rise much as the Asian poor moved up the ladder, they didn’t fall either: Globalization lifted all boats.
Fig 4: Globalization benefits everyone but OECD middle class:

Washington Post & B. Milanovic see more slides like this.
Most popular version shows OECD middle class incomes decline, but in fact they did not (despite 2008 crisis)

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**Global income growth from 1988 to 2008**

- **Booming global elite**
- **Rising incomes in emerging economies, mainly China**
- **Decline of developed world middle-class**
- **Very poorest locked out of growth**

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Populist backlash blamed on falling incomes a base of elephant’s trunk... as this Danish version suggest...
A mammoth undertaking

Increase in real income*, 1988-2008, %
By percentile of global income distribution

Source: Christoph Lakner & Branko Milanovic, World Bank

*At purchasing-power parity
Replication of the ‘elephant curve’
Growth in average per capita household income, 1988-2008 (%)

- Peak income growth largely a China phenomenon
- Constant population excluding Japan, ex Soviet and China
- Low income growth largely reflects disasters in average incomes in former Soviet states and Japan
- The poorest US families rank higher globally in 2008 than in 1988

Source: Resolution Foundation
Globalization ‘not to blame’ for income woes: FT World

Giles & Dannon, 2016, video on YouTube
The reality of convergence is important for people and nations (and sustainable development)

- Inequality among nations has increased, but inequality among people has decreased.
- Many nations are catching up with the U.S. see chapter 4 of Eclipse and see Milanovic, 2016.
- Openness has played a role.... China, Asia, RER
- Convergence in health, education and longevity faster than incomes (or is happening despite diverging incomes) see HDR 2010
Percentile distribution of global real income growth, 1988-2008

The global middle class, mostly people in China, saw the largest jumps. Incomes surge for super-rich.

Middle class in rich nations, such as the US, have seen incomes flatline.

See Milanovic on Hidden economics of Populism

Milanovic: This is about right. You have large increases in real income, which is really the middle class in Asia, essentially. (China, but not only China, it’s also India, Indonesia, Vietnam and so forth.) And the global top 1%.
Composition of global inequality changed: from being mostly due to “class” (within-national), today it is mostly due to “location” (where people live; between-national)

Increasing gains for the rich with a widening urban-rural gap

Urban and rural China

Urban and rural Indonesia

Branko Milanovic
The reality of convergence is important everyone but backlash in North is reality… a “huge” problem

How to address U.S. backlash

• Expand EITC to all workers, create wage insurance for all displaced by trade (Schiller, 2016)
• Subsidize higher education for low income HHs…
• Carbon tax, lower wage tax (Stiglitz)

How not to address trade adjustment

• Raise minimum wage to $15
• Return to more protectionist regimes
• Close borders to immigration
Figure D-1: International income inequality, 1980-2010

Figure D-2: Gini coefficient and GNI per capita by country: aka the Kuznets Curve

Figure D-1: International income inequality, 1980-2010

THE POVERTY CURVE: FROM TWO HUMPS TO ONE

A half-century ago, the distribution of income in the world looked like a camel with two humps. The first hump represented the so-called developing world. The second hump represented people in wealthier countries (mostly in the West). But the world is no longer separated into the West and the rest. More than a billion people have risen out of extreme poverty, and most of humanity is now in the large dromedary-like hump in the middle.

Figure G-5: World income distribution now and fifty years ago

Source: Gates Foundation Letter 2015:3 myths that block progress for the poor
Figure P-1.1  
Reversal of Fortune reverses post 1950  

Source: Chapter 1 Piketty 2014
Figure D-4: Gini Coefficient for education

U.S. growth has been remarkably constant for the last 16 years at just under 2%, using the rule of 70, this income per person doubles every 35 years. Since 1950, other nations have begun to catch up....

Figure: Evolution of income per capita in various countries.
References

- Economist (2016) Global inequality: Shooting an elephant via@TheEconomist
- Lakner, Christoph, and Branko Milanovic (2016). "Response to Adam Corlett’s “Examining an elephant: globalisation and the lower middle class of the rich world”.
- Giles and Dannon (2016) Globalisation ‘not to blame’ for income woes, study says Financial Times, Sept 13th 2016 Video version