



THE LONDON SCHOOL  
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POLITICAL SCIENCE ■

Department of Economics public lecture

# More Relatively-Poor People in a Less Absolutely-Poor World?

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**LSE events** Suggested hashtag for Twitter users: #LSEpoverty



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# More Relatively-Poor People in a Less Absolutely-Poor World

Martin Ravallion

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Note: This presentation draws on Shaohua Chen and Martin Ravallion, 2012, “More Relatively-Poor People in a Less Absolutely-Poor World,” [Policy Research Working Paper 6114](#), World Bank.

# Two very different views of poverty

*“Our dream is a world free of poverty.”*

(Motto of the World Bank)

*“The poor you will always have with you.”*

(The Bible, Matthew 26:11)

How can we make sense of these differing views?

What implications does the difference hold for  
development policy?

# Outline

1. Alternative approaches to measuring global poverty.
2. The “elephant in the room:” Taking social effects on welfare seriously in global poverty measurement
3. New measures of absolute poverty are interpreted as providing a lower bound, assuming no social effects
4. New measures of relative poverty provide an upper bound, allowing for social effects
5. Implications for analyzing progress against poverty
6. Conclusions

# 1. Alternative approaches to measuring global poverty

*What do we mean by “poverty”?*

Rich and poor countries use very different definitions

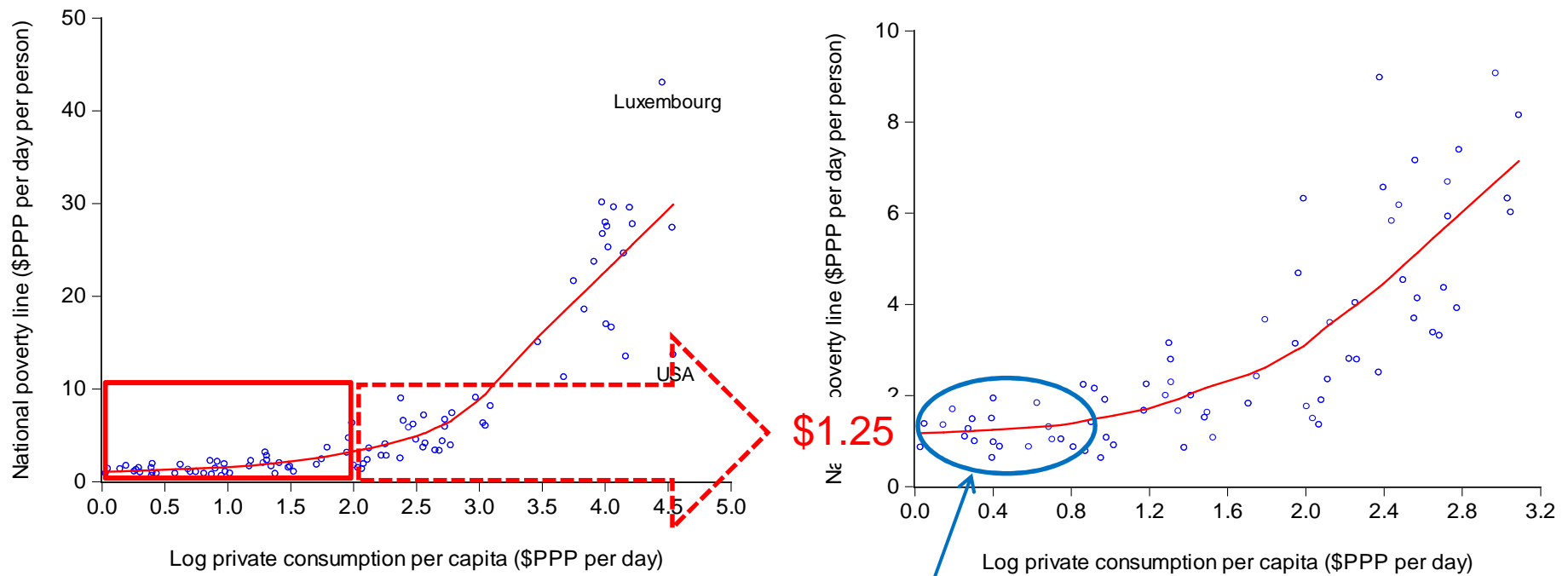
## Definition 1: Absolute poverty in the developing world

- Developing countries have favored poverty lines that aim to have the same real value at different dates and places.
- Typically anchored to nutritional requirements for good health and normal activities.
- However, there are infinitely many commodity bundles that can attain any given set of nutritional requirements.

# “Poor” by whose standard?

- In assessing poverty in a given country, and how best to reduce poverty, one naturally focuses on a poverty line that is considered appropriate for that country.
- The bulk of the World Bank’s poverty analysis is at national level.
- **But how do we talk meaningfully about “global poverty”?**
- Poverty lines across countries have a strong economic gradient, such that richer countries tend to adopt higher standards of living in defining poverty =>

# The “relativist gradient:” Higher lines in richer countries, but with a lower bound



Malawi, Mali, Ethiopia, Sierra Leone, Niger, Uganda, Gambia, Rwanda, Guinea-Bissau, Tanzania, Tajikistan, Mozambique, Chad, Nepal, Ghana



# The “\$1.25 a day” global poverty measures

- To measure poverty in the world as a whole, the “\$1.25 a day” measures apply a common standard, anchored to **what “poverty” means in the world’s poorest countries.**
- Two people with the same purchasing power over commodities are treated the same way—both are either poor or not poor—even if they live in different countries.
- By focusing on the standards of the poorest countries, the \$1.25 a day line gives the global poverty line a **salience in focusing on the world’s poorest.**
- It is a conservative definition; a lower line is hard to accept, but one might easily defend a higher line.

## Definition 2: Relative poverty in the developed world

The more common practice in most OECD countries and Eurostat has been to set the poverty line as a constant proportion—typically around 50%—of the (date and country-specific) mean or median income:

$$Z_i = kM_i \quad (0 < k < 1)$$

Poverty line

Mean

One can call this a strongly relative poverty line

# Do strongly relative measures make sense?

1. Welfarist justification claims that (i) the value people attach to their consumption depends on its level relative to the mean in a given society—**relative deprivation**—and (ii) that the poverty line should be interpreted as a **money metric of utility**.
2. Non-welfarist (“capabilities”) justification: poverty lines should allow for differences in the cost of social inclusion that rise with the mean.
  - This can be defined as the expenditure needed to assure that a person can participate without shame in customary social and economic activities.

Further reading: Martin Ravallion and Shaohua Chen, “Weakly Relative Poverty”, *Review of Economics and Statistics*, 2011, 93(4): 1251-1261.

# Welfarist interpretation: Disutility of relative deprivation

- By this view, a person's welfare evaluation of their own consumption ( $C$ ) depends on its value relative to society's mean consumption ( $M$ ):

$$U = U(C, C/M)$$

- The poverty line is then the level of income ( $Z$ ) at which some fixed reference utility is reached.

$$U(Z, Z/M) = \textit{fixed}$$

- However, this implies strongly relative poverty lines if (and only if) people care only about relative income.
- That is surely implausible except (possibly) in very rich countries.

# Non-welfarist interpretation: Capabilities and the cost of social inclusion

- Amartya Sen: “capabilities” should be seen as absolute;  
*“...an absolute approach in the space of capabilities translates into a relative approach in the space of commodities”.*
- We can think of poverty as having both absolute and relative aspects (Atkinson and Bourguignon):
  - The former is a failure to attain basic survival needs: capabilities of being adequately nourished and clothed for meeting the physical needs of survival and normal activities.
  - On top of this, a person must also satisfy social needs, which depend on prevailing living standards in the place of residence.
- To be non-poor one needs to be neither absolutely poor (“survival” capabilities) nor relatively poor (social inclusion capabilities).

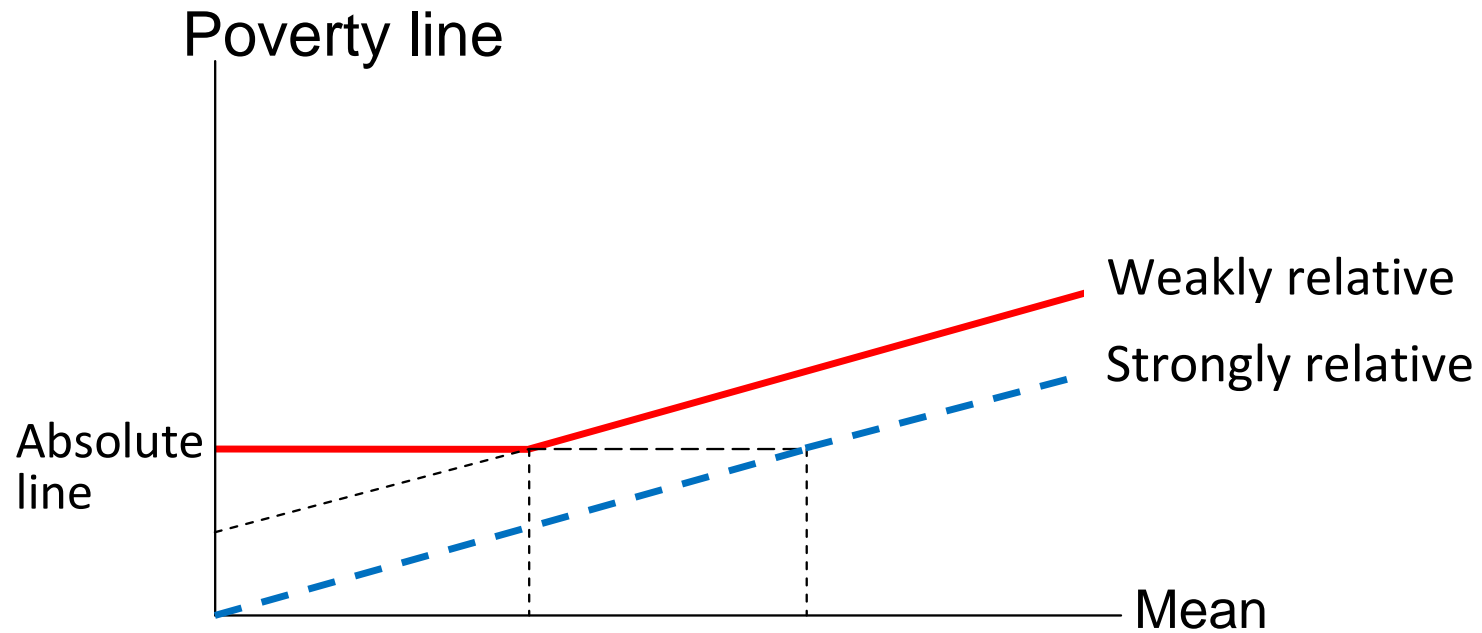
## It can be agreed that certain forms of consumption serve an important social role

- Famously, Adam Smith pointed to the social-inclusion role of a linen shirt in eighteenth century Europe:  
*“..a creditable day-labourer would be ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty which, it is presumed, nobody can well fall into without extreme bad conduct.”*
- Anthropologists have often noted the social roles played by festivals, celebrations, communal feasts, clothing:
  - High spending on celebrations and festivals by very poor people in survey data for a number of countries (Rao, Banerjee-Duflo).
  - Clothing can also serve a social role; conspicuous “designer label,” which he interpreted as status-seeking behavior.
  - Qat in Yemen *“refusing to take qat is tantamount to accepting ostracisation”* (Milanovic, 2008, p.684)

However, the social role of consumption does not imply strongly relative poverty lines

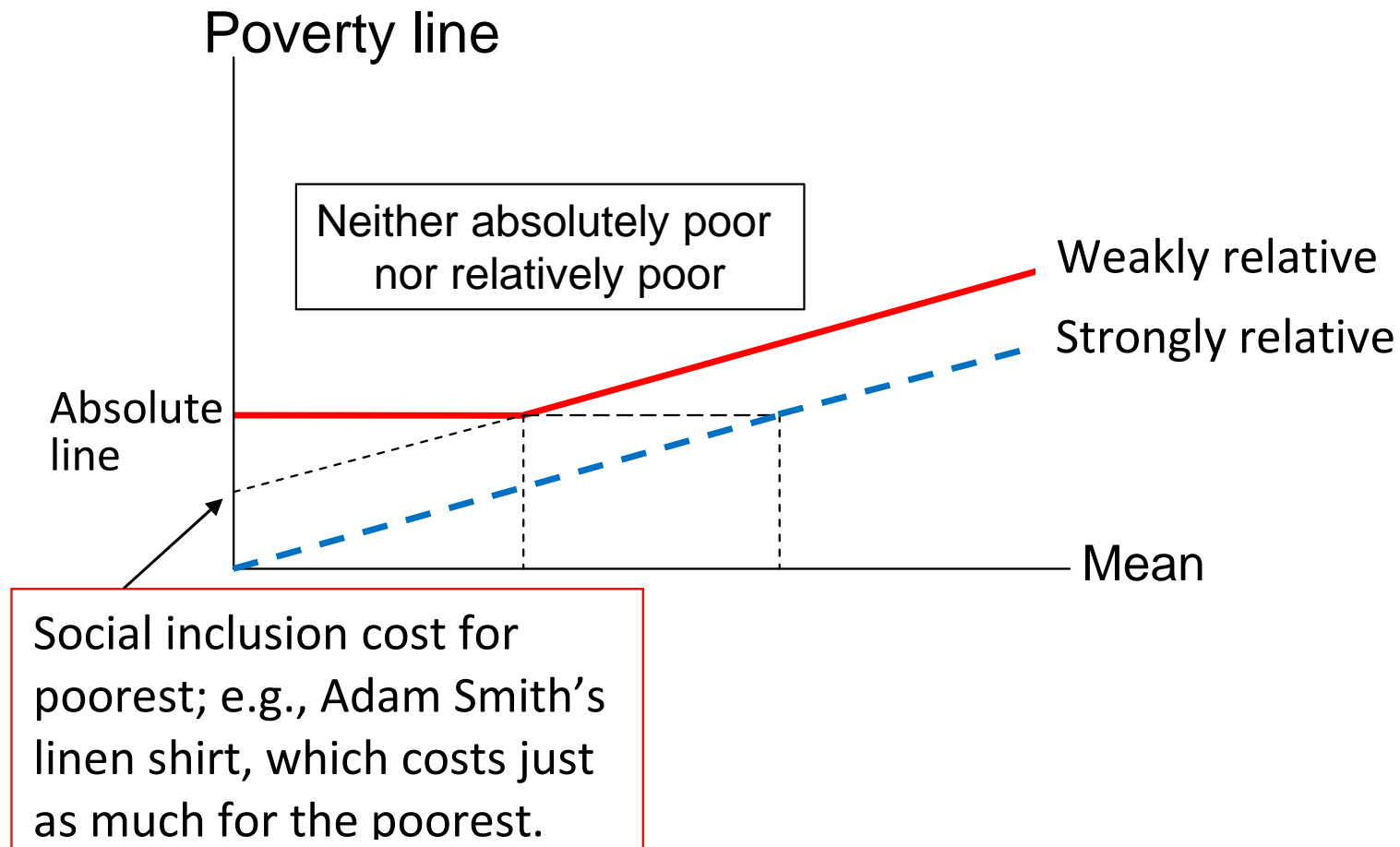
- The key assumption of strongly relative measures: the cost of inclusion is a constant proportion of the mean.
- That is hardly plausible. The social-inclusion needs of very poor people may well be low, but it is difficult to see why they would go to zero in the limit.
  - A socially acceptable linen shirt would not have cost any less for the poorest person as for someone living at the poverty line.
  - Very poor people are highly constrained in spending on things that facilitate their social inclusion, but that does not mean that their inclusion needs are negligible!
- Generalized Atkinson-Bourguignon lines allow for a positive lower bound to the costs of social inclusion  
=> “**weakly relative lines**” (Ravallion-Chen).

# Weakly vs. strongly relative lines



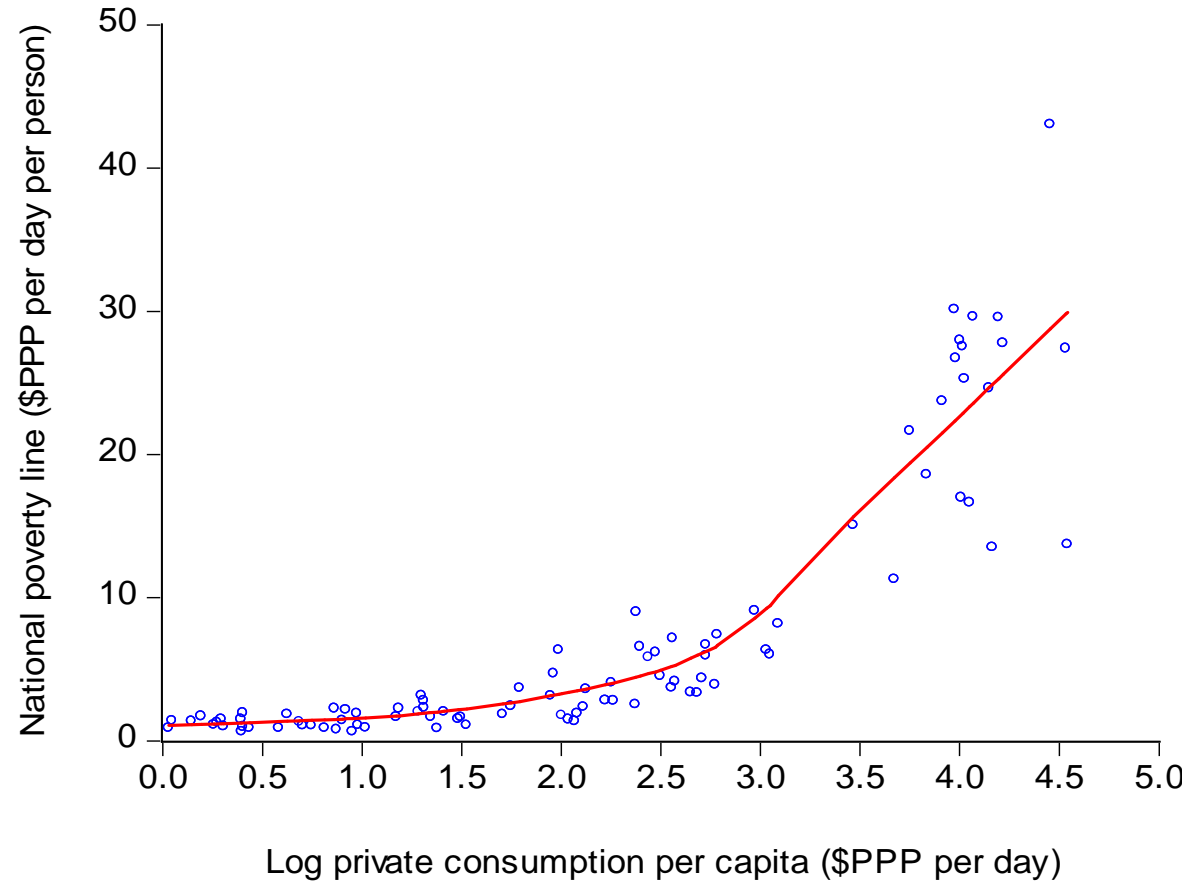


# Weakly vs. strongly relative lines



## 2. The “elephant in the room:” Social effects on welfare

# Stepping back: Why do we see higher (real) poverty lines in richer countries?



# Two possible reasons for the relativist gradient

1. **Social norms:** Richer countries implicitly use a higher reference level of welfare for defining poverty. Then we would want to use a **common social norm** → an absolute line in terms of real income.
2. **Social effects:** Relative deprivation or rising costs of social inclusion (avoiding shame). Then a relative line is called for if we are to be absolute in terms of welfare.

Can we say which is right?

# The big uncertainty about global poverty!

- The problem is that we do not know which of these two interpretations—differing social norms or social effects—is right.
- And we may never resolve the matter from conventional empirical evidence.
  - There have been many claims about the existence of various social effects on subjective welfare responses, though problems remain in credibly identifying such effects.\*
- **This uncertainty makes it compelling to consider both approaches when measuring global poverty.**

\* Martin Ravallion, 2012, “Poor or Just Feeling Poor?” Policy Research Working Paper 5968.

# Proposed bounds to global poverty

- Absolute poverty measures can be interpreted as the **lower bound** to the true welfare-consistent measure.
  - The lower bound assumes that the relativist gradient only reflects differing social norms.
- A weakly relative measure of poverty provides its **upper bound**, allowing for social effects on welfare.
  - The upper bound assumes that the relativist gradient stems solely from social effects on welfare—extra spending needed to attain the same level of welfare in richer countries.

### 3. The lower bound: New global absolute poverty measures

# Steps in measuring global absolute poverty

1. The international line is converted to local currencies at Purchasing Power Parity in 2005—the latest International Comparison Program benchmark year
2. It is then converted to the prices prevailing at the time of the relevant household survey using the best available price index for that country.
3. Then the poverty rate is calculated from that survey using the micro data or specially commissioned tabulations.
4. Interpolation/extrapolation methods using national accounts data are used to line up the survey-based estimates with these reference years, including 2008.

Further reading: Shaohua Chen and Martin Ravallion, 2010, “The Developing World is Poorer than we Thought, but no Less Successful in the Fight Against Poverty”, *Quarterly Journal of Economics*, 125(4): 1577-1625.



# Huge expansion in survey coverage since 1980s

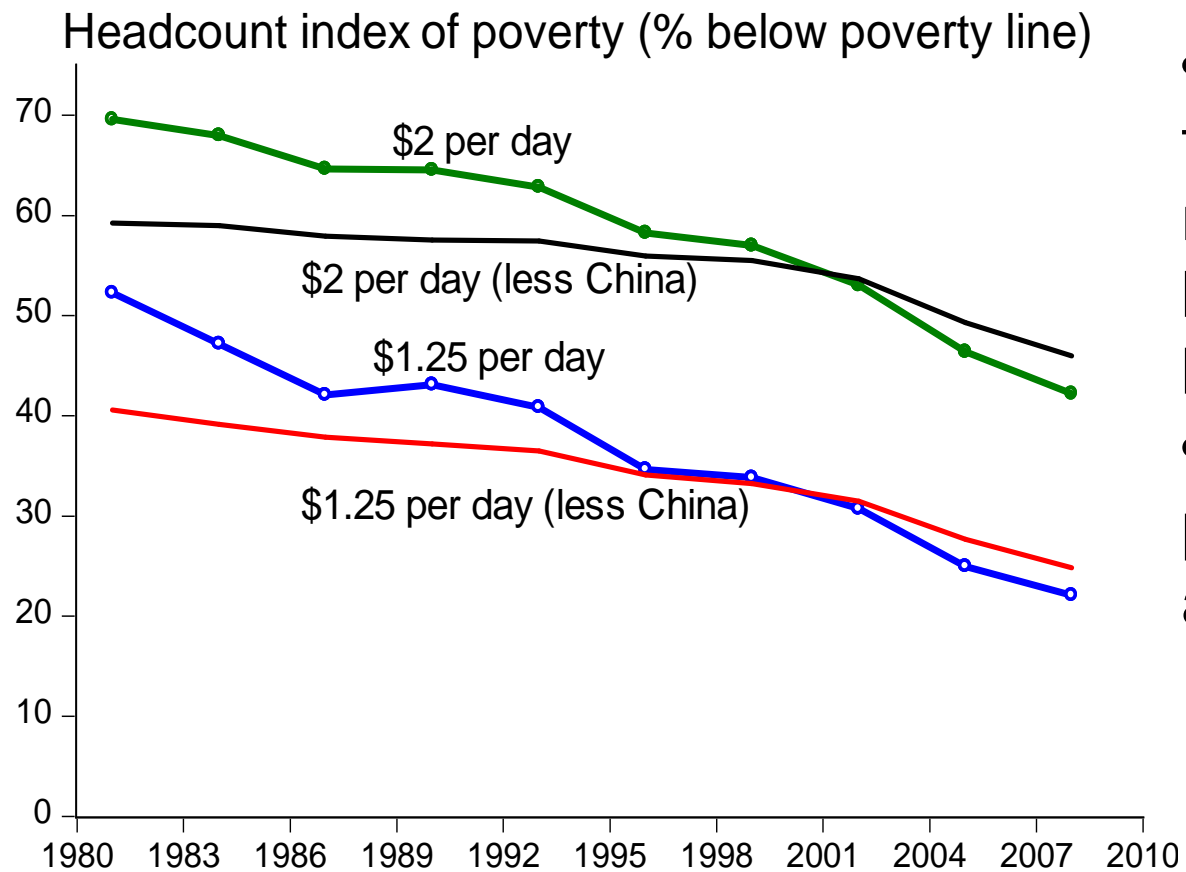
- 22 countries in the original “\$1 a day” measures for 1985 with one survey per country
- Today: 125 countries; over 850 surveys; 6+ per country
- Latest surveys: Sample of 2.1 million households
- Consumption preferred to income
- Comprehensive consumption aggregate
- But not complete welfare metric: Need to supplement with other measures to capture non-market goods and intra-household inequality.

# But many data challenges remain

- Lags and uneven coverage
  - 90% for developing world as a whole (94% East Asia)
  - But only 50% for Middle-East and North Africa
  - Declining coverage back in time
- Comparability over time and across countries
  - Differences in questionnaire design and definitions (consumption or income aggregates)
- Under-reporting and selective compliance
  - But not valid to replace survey means by national accounts aggregates, holding inequality (Lorenz curve) constant
  - The problems are unlikely to be distribution neutral

# Progress for the poorest in the aggregate

Over 1981-2008, the % of the developing world's population living below \$1.25 a day was halved, from 52% to 22%.

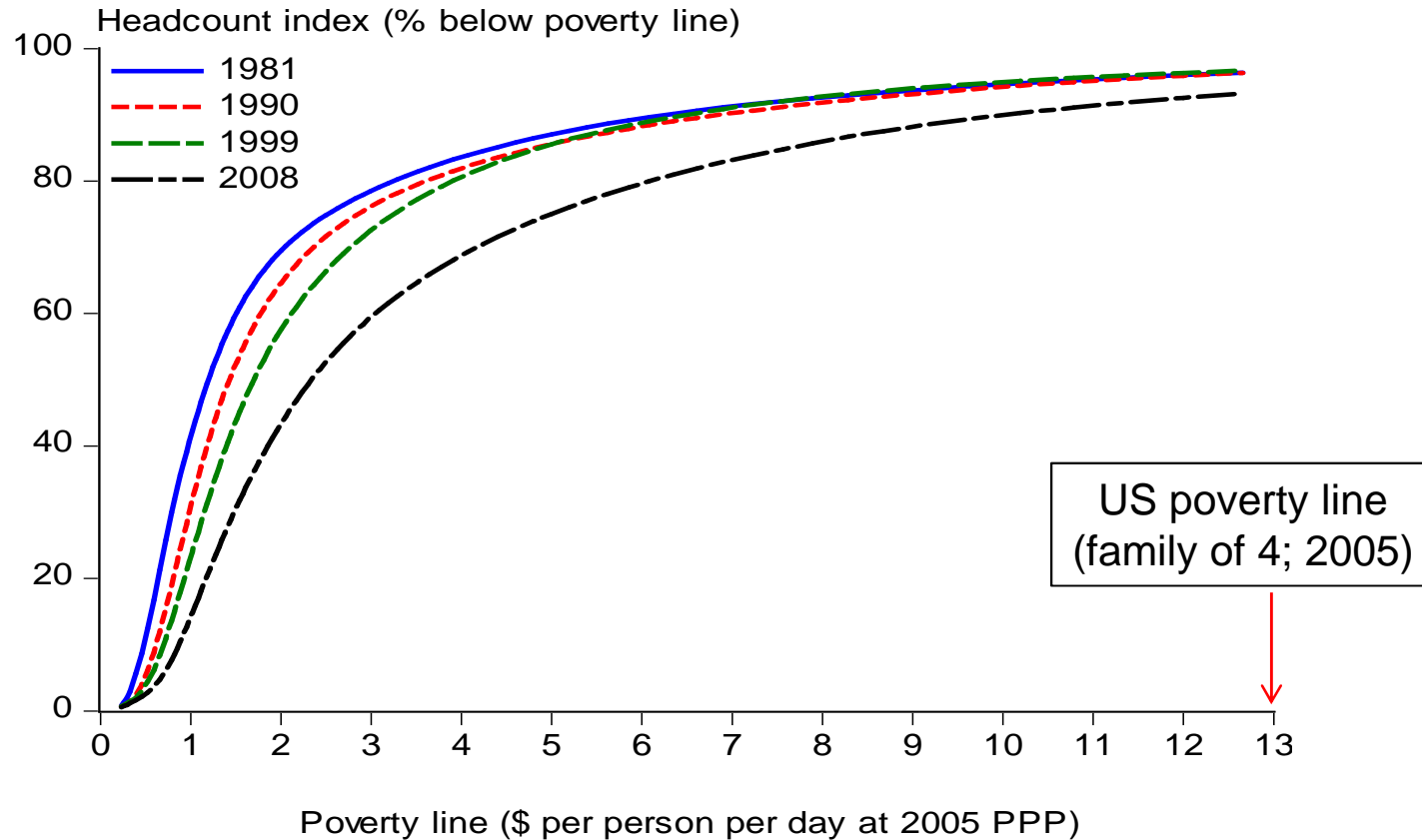


- Number of poor fell by nearly 700 million, from 1.9 billion to 1.3 billion.
- Aggregate poverty rate fell in all years.

# Millennium Development Goal 1?

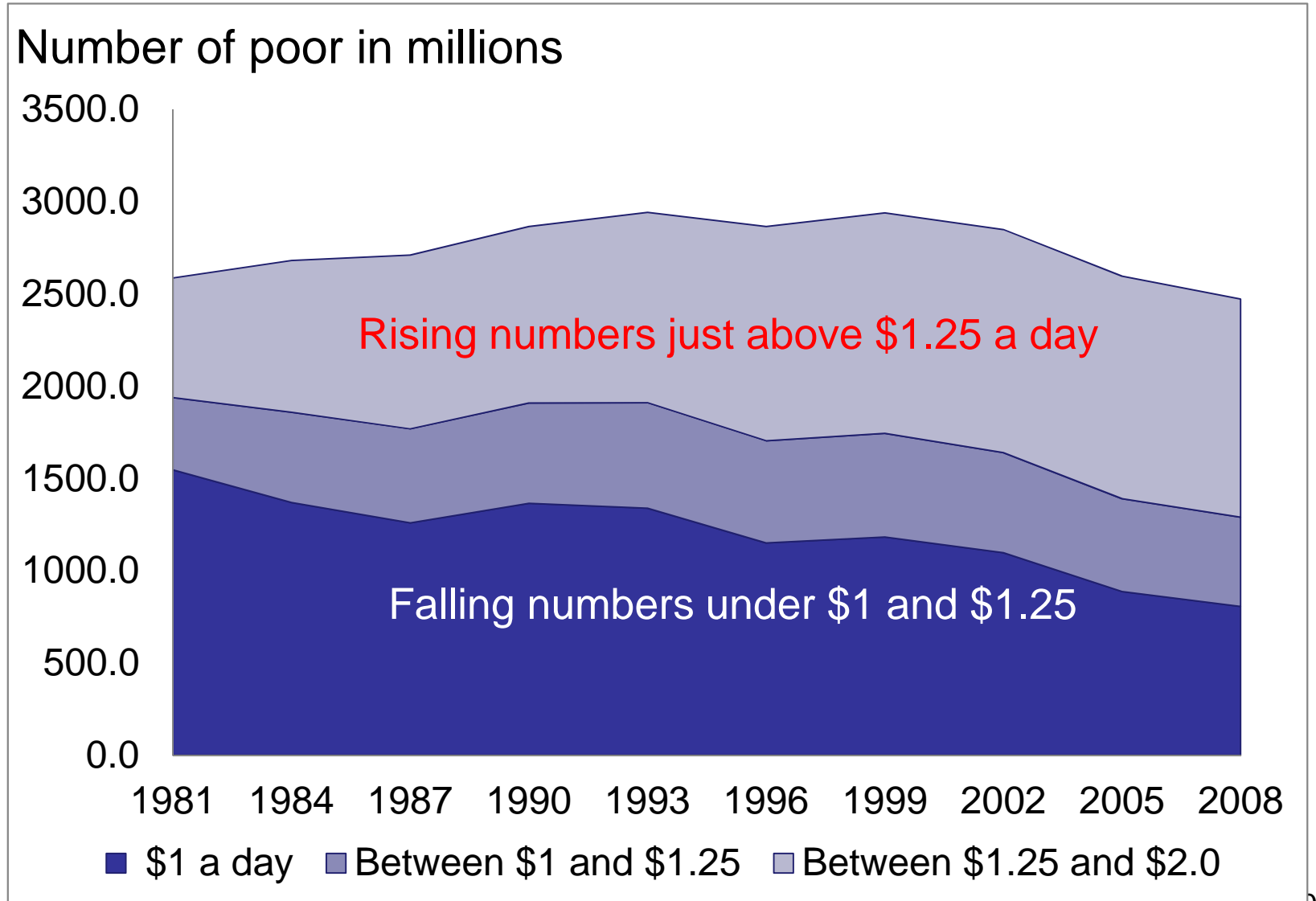
- MDG1: To halve the 1990 “extreme poverty” rate by 2015.
- Using \$1.25 a day as the line, the 1990 rate was 43.1%.
- Estimates for 2010 (representing 80% of population): 21% living below \$1.25.
- So MDG1 was attained by 2010—5 years ahead of the target date—despite the crises.
- But we did not attain MDG1 for developing world outside China.

# Robust to poverty line?



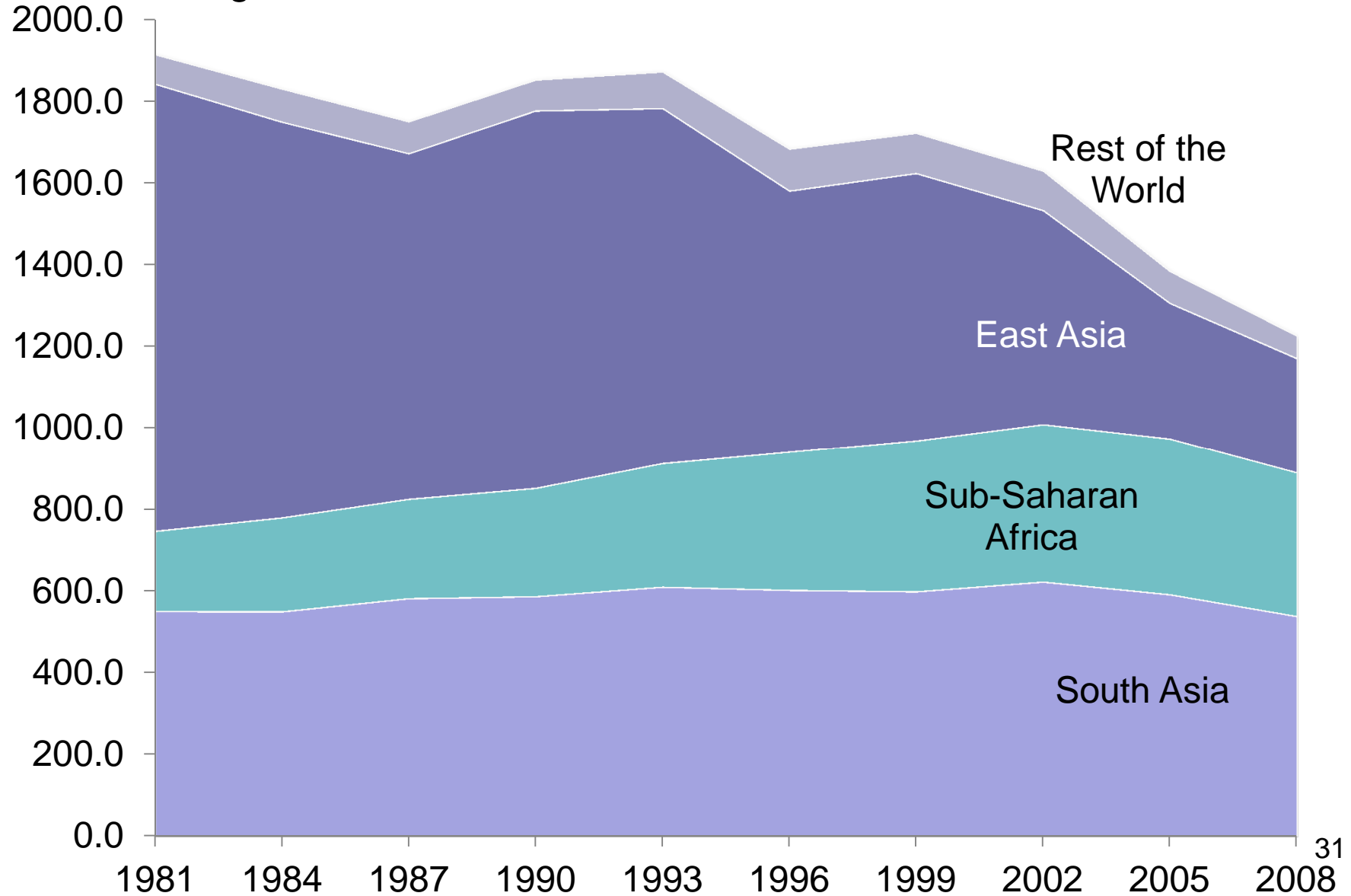
- The claim that poverty fell between either 1981, 1990 or 1999 and 2008 is robust. The claim that poverty fell over time from 1981 to 1990 to 1999 is only robust up to about \$5 a day.

# Less progress in getting over \$2 a day



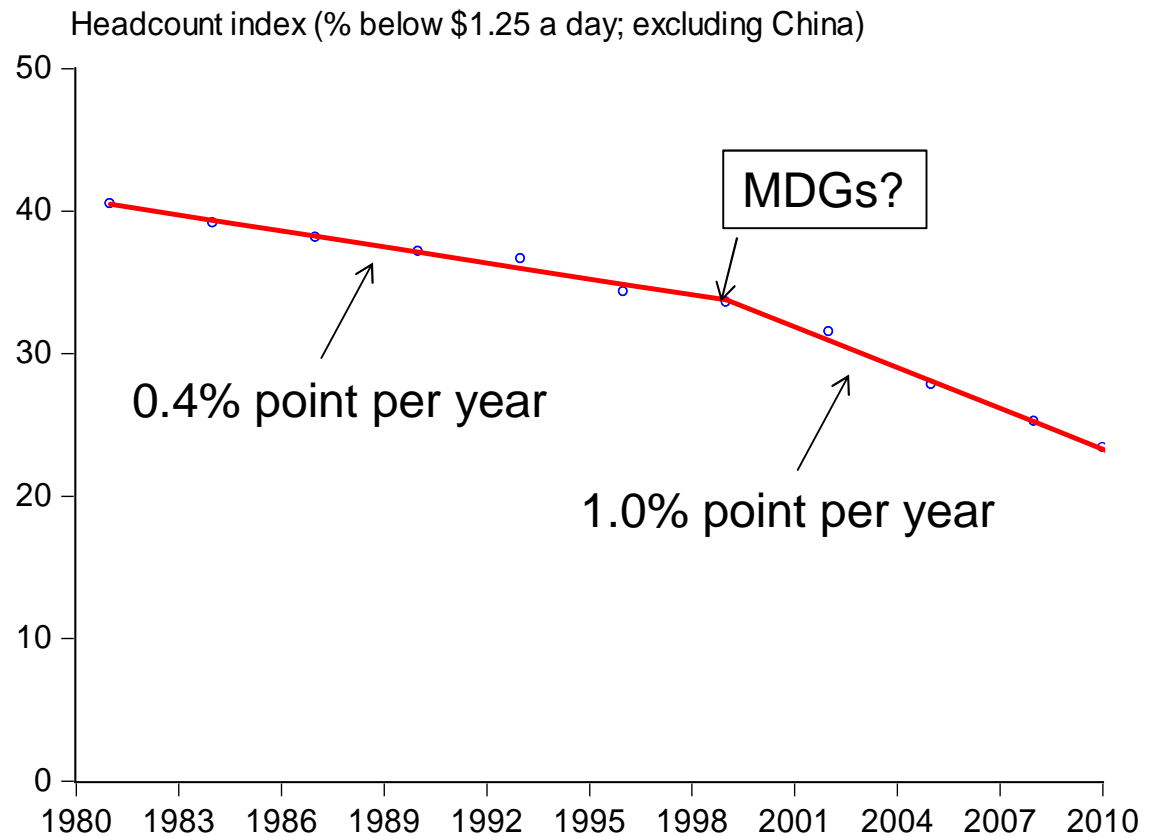
# And uneven progress across regions

Millions living < \$1.25



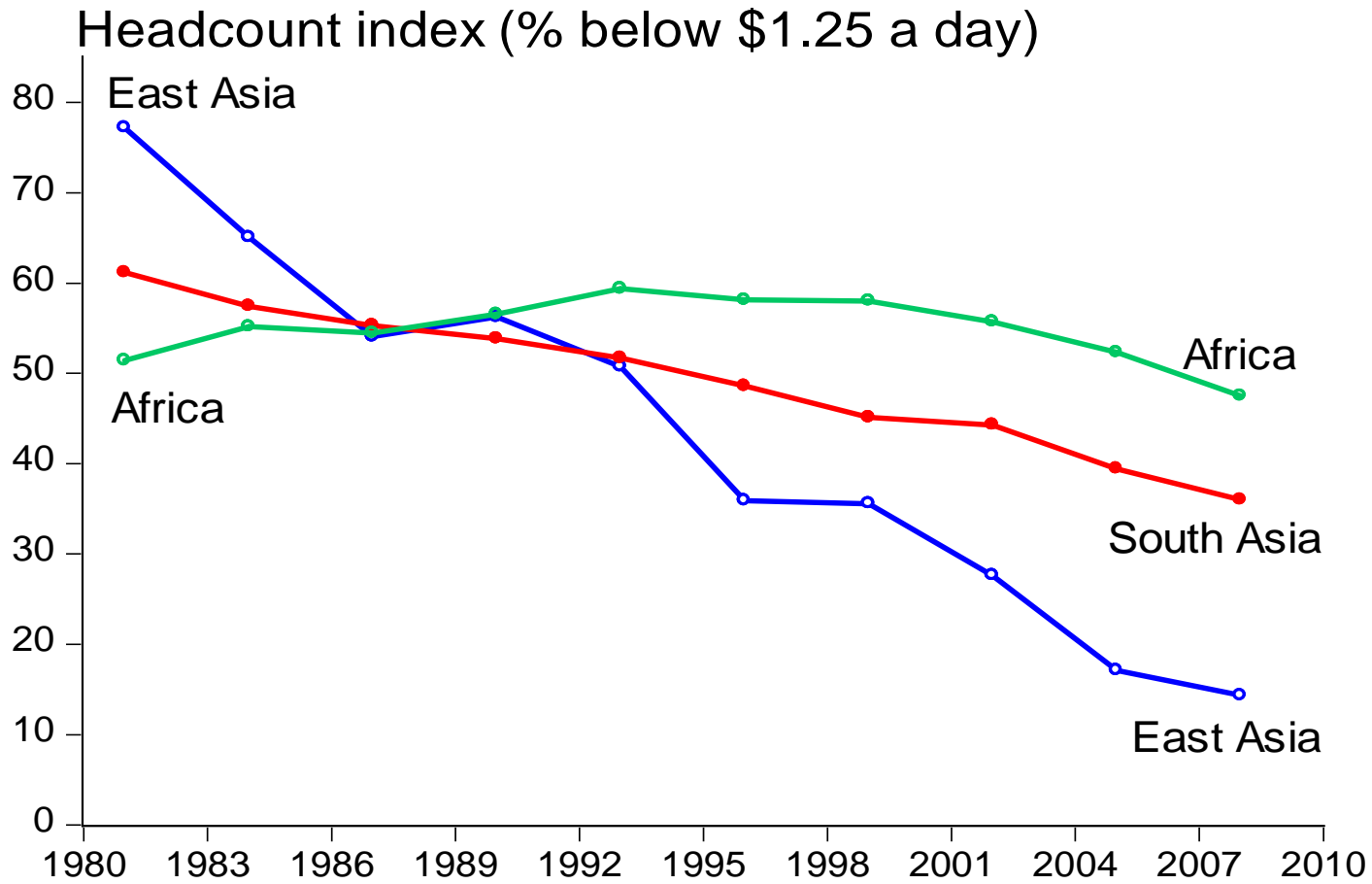
# Not just about success in China!

- Since 2000 we have seen a marked acceleration in poverty reduction outside China.
- Ratification of MDGs at *Millennium Summit* of 2000? Maybe, but very hard to say.





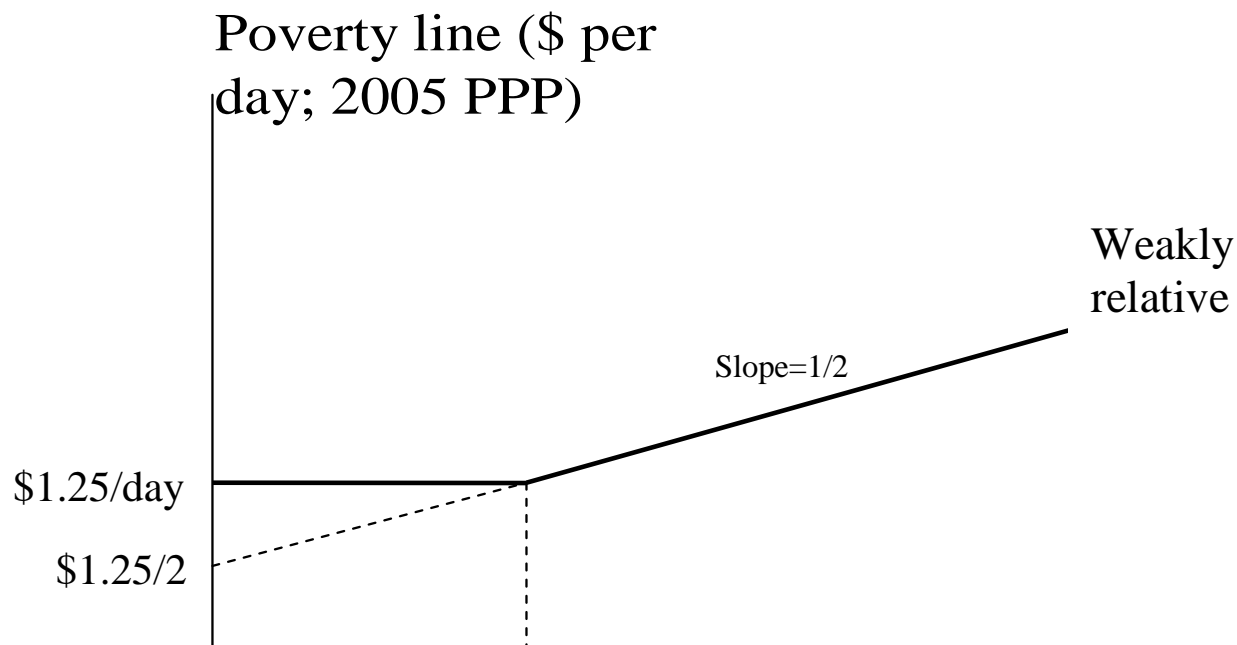
# A tale of three regions



## 4. The upper bound: New global relative poverty measures

# Global (weakly) relative poverty lines

$$Z(M_{it}) \equiv \$1.25 + \max[M_{it} - \$1.25, 0] / 2$$

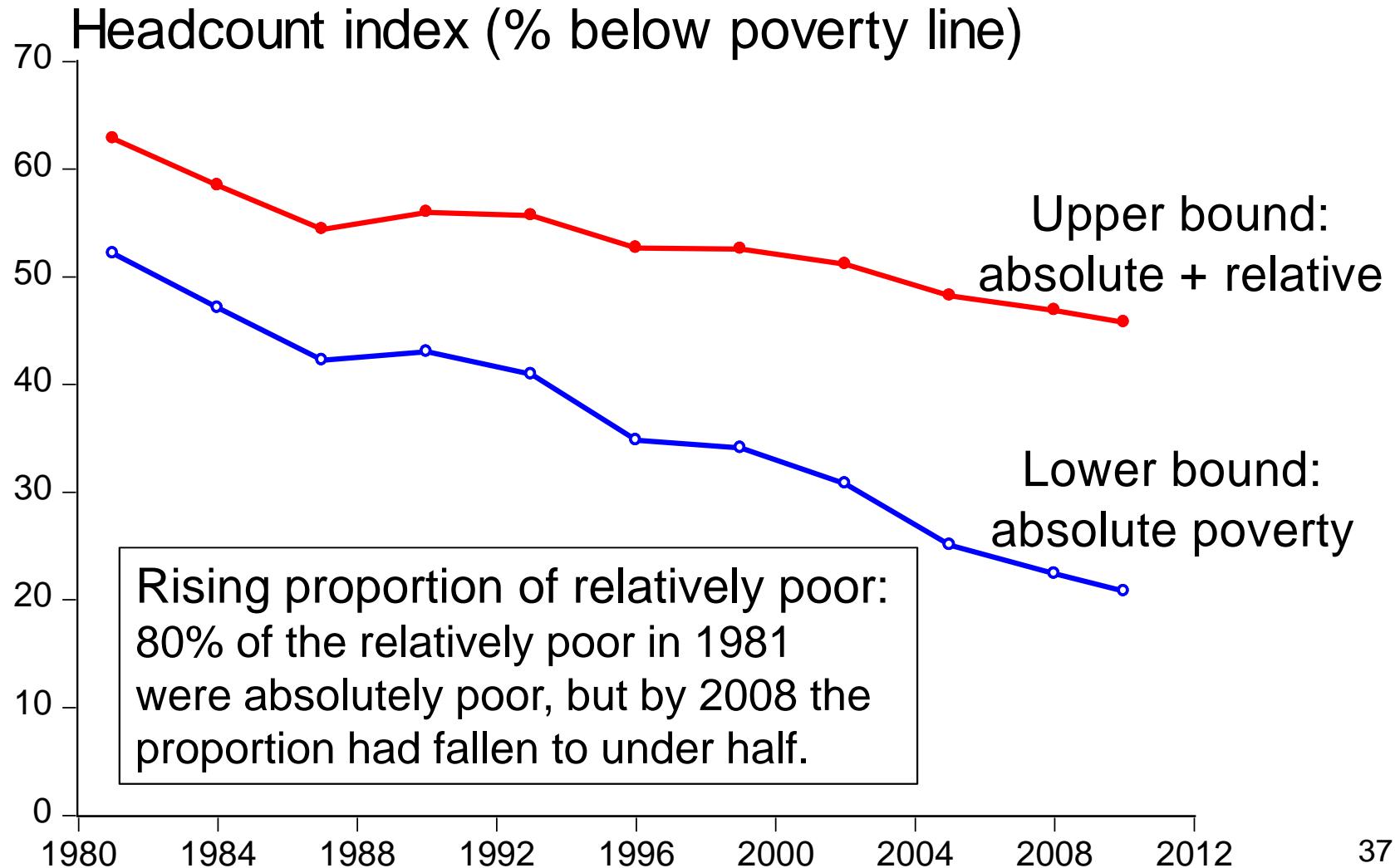


Excellent fit with data on national lines

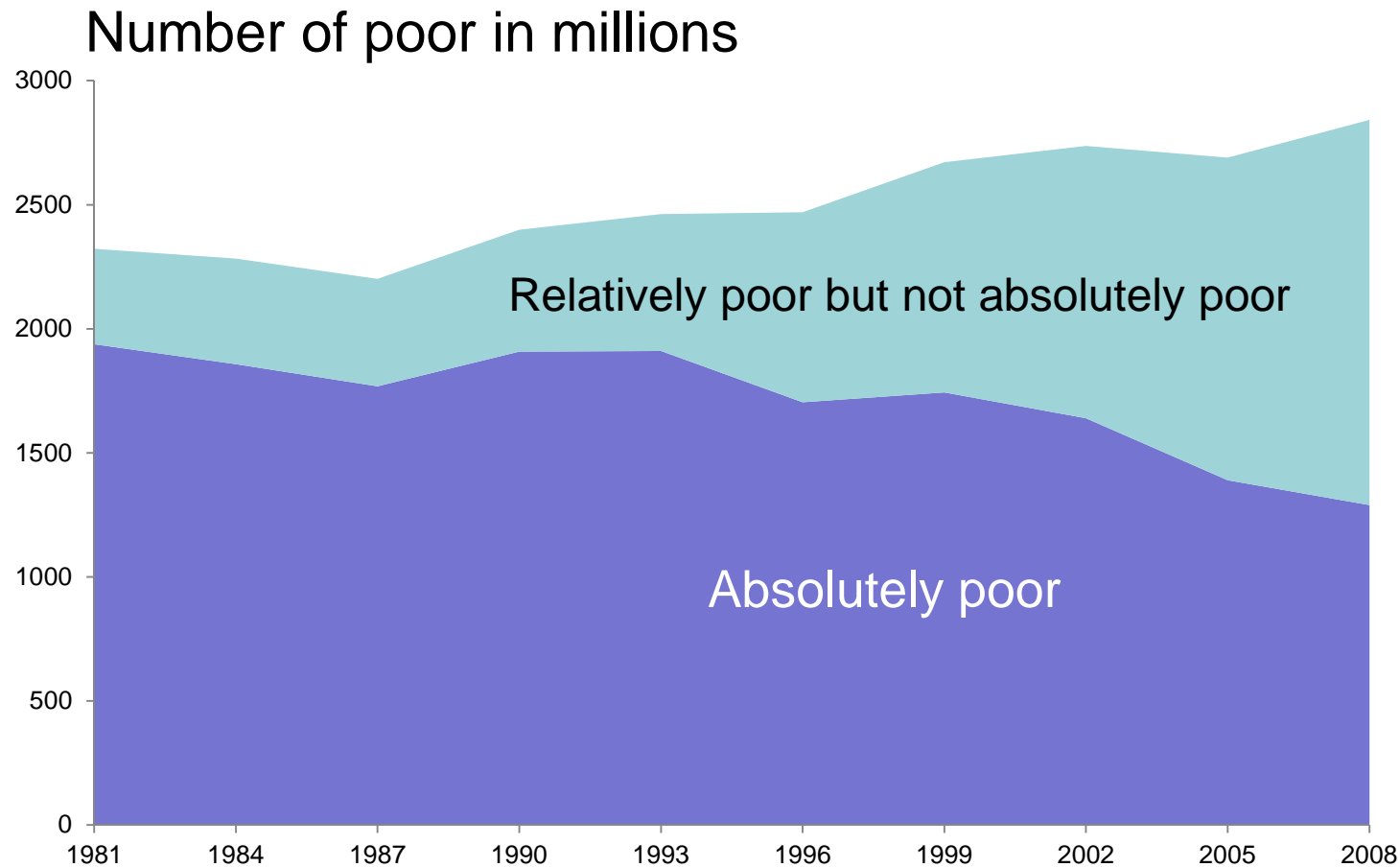
## Average relative poverty lines (\$/day)

Region	1981	2008
East Asia and Pacific	1.36	2.72
China	1.26	2.81
Eastern Europe and Central Asia	4.19	6.71
Latin America and Caribbean	4.51	5.93
Middle East and North Africa	2.84	3.24
South Asia	1.30	1.58
Sub-Saharan Africa	1.71	1.78
<b>Total</b>	<b>2.09</b>	<b>2.94</b>

# Absolute and relative poverty in the developing world



# Numbers of absolutely and relatively poor



Two-thirds of the increase in the number of people who are relatively poor but not absolutely poor is accountable to the decrease in the number of absolutely poor.

## Poor by region in 2008

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Poverty rate (% of population deemed to be poor)	Relatively + absolutely poor	Of whom absolute poor
East Asia and Pacific	42.4	14.3
Europe and Central Asia	28.2	0.5
Latin America and Caribbean	45.9	6.5
Middle East and North Africa	35.0	2.7
South Asia	53.5	36
Sub-Saharan Africa	61.1	47.5
<b>Total</b>	<b>46.9</b>	<b>22.4</b>

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# Expected trajectories going forward

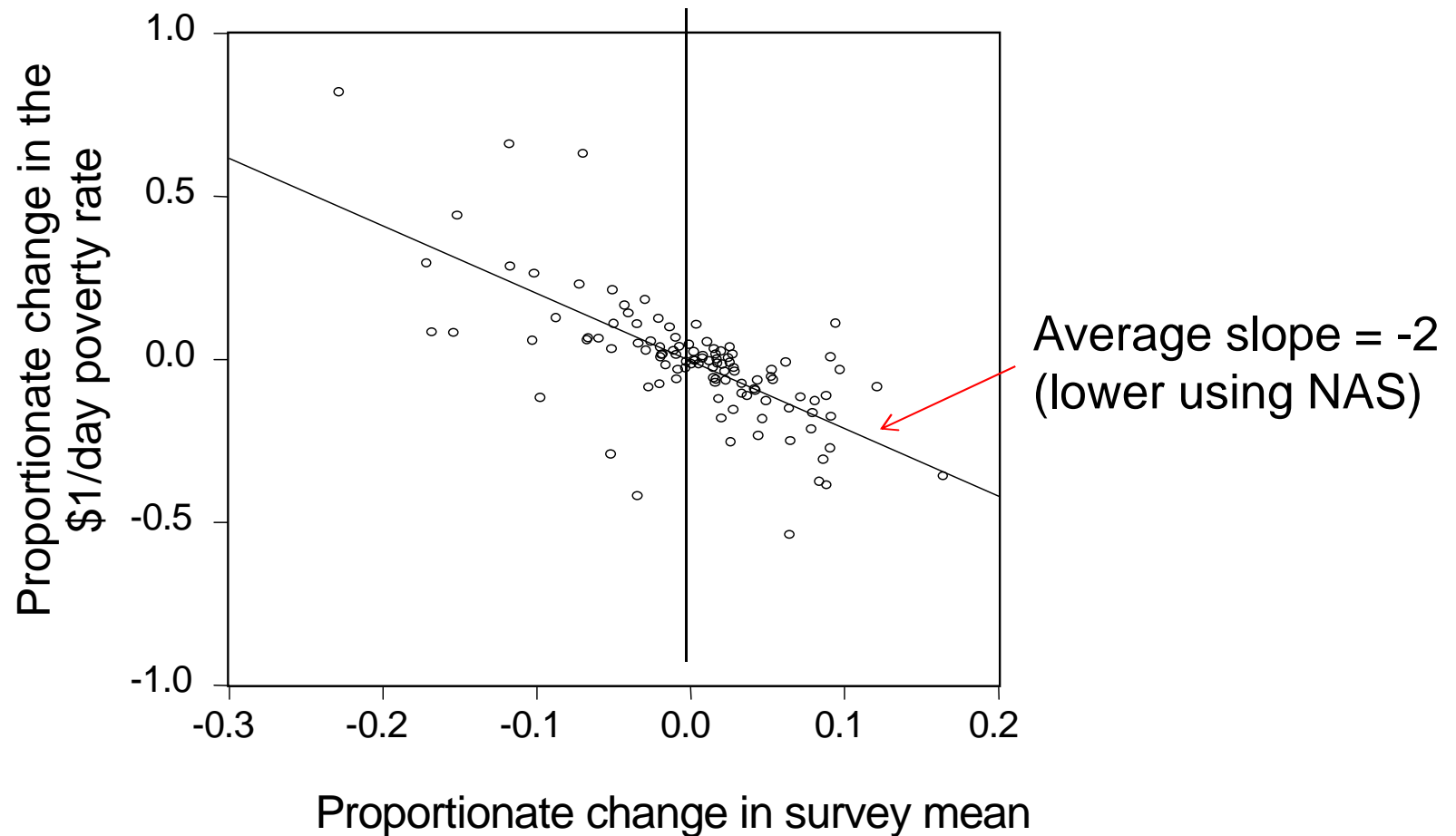
- Lower bound (absolute poverty):
  - 19% this year (1.1 billion)
  - 14% in five years (0.9 billion)
  - 9% in 10 years (0.6 billion)
- Upper bound (absolute + relative):
  - 46% this year (2.7 billion)
  - 44% in five years (2.7 billion)
  - 42% in 10 years (2.7 billion)
- The increase in numbers of relatively poor is expected to stabilize.



## 5. Implications for analyzing progress against poverty

## 5.1 A recap of what we know about how growth and redistribution matter to absolute poverty reduction

# Growth is typically absolute poverty reducing



**But:** Sizeable variance in impact of growth on poverty: A **1%** rate of growth will bring anything from a modest drop in the poverty rate of **0.6%** to a more dramatic **3.5%** annual decline (95% CI). 43

There are marked differences in the pace of poverty reduction at a given rate of growth

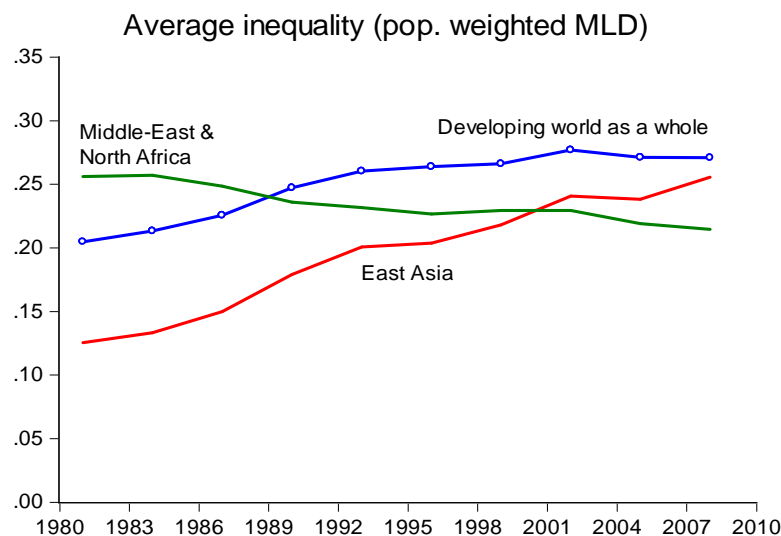
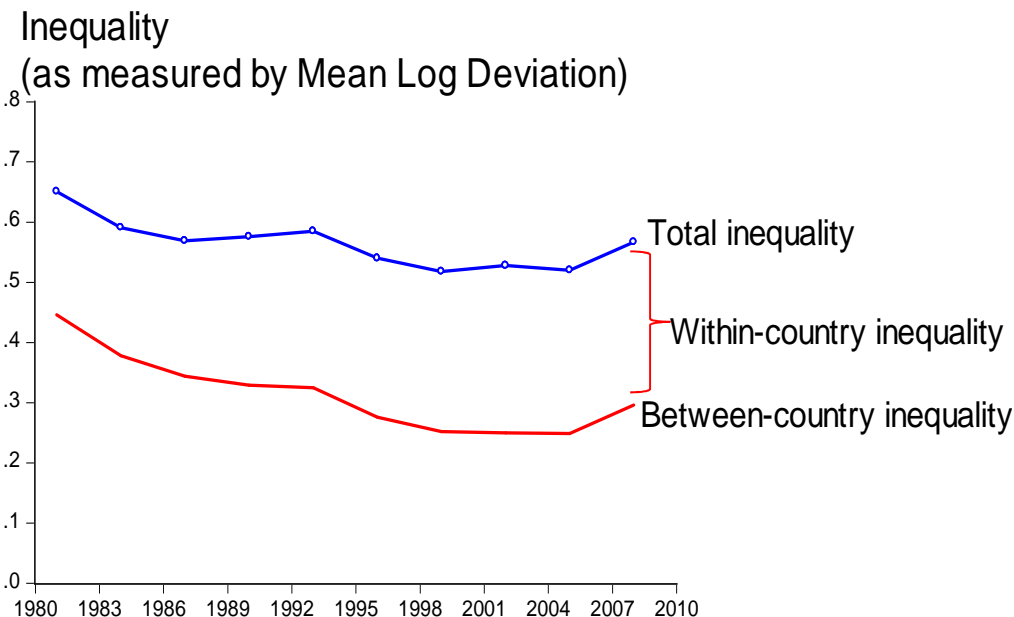
- **Initial inequality** is a strong correlate of uneven progress. In high inequality countries the poor share less in the pie, and share less in the expansions in the size of the pie.

$$\text{Rate of poverty reduction} = [\text{constant} \times (1 - \text{inequality})] \times \text{growth rate}$$

- Though poor people also better protected from crises in high inequality countries!

# Rising inequality in many developing countries

- Overall decline in inequality in the developing world, but not within countries
- Inequality increases about half the time during spells of growth.
- Rising inequality on average (more so in some regions than others).
- This is attenuating gains to the poor from growth.



# High inequality impedes economic growth and (hence) poverty reduction

- Development thinking has long focused on how economic growth impacts on poverty and inequality.
- New theories and evidence suggest that growth and poverty reduction are determined in part by the initial distribution.
  - This is consistent with theoretical models of economic growth incorporating borrowing constraints.
  - Although, there are alternative explanations (e.g., nutrition and productivity; cooperation in providing public goods)
- **Inequality of opportunity constrains economic growth.**

Further reading: World Bank, World Development Report 2005/06: *Equity and Development*.

# New evidence: Poverty is the most relevant aspect of distribution for explaining growth

- There is an adverse effect on economic growth of high initial poverty at a given mean.
- A high initial incidence of poverty also entails a lower subsequent rate of progress against poverty at a given growth rate.
- Thus we do not see poverty convergence, despite the fact that growth reduces poverty and mean living standards are converging amongst developing countries.
- **Poverty can self-perpetuate despite sound economic policies.**

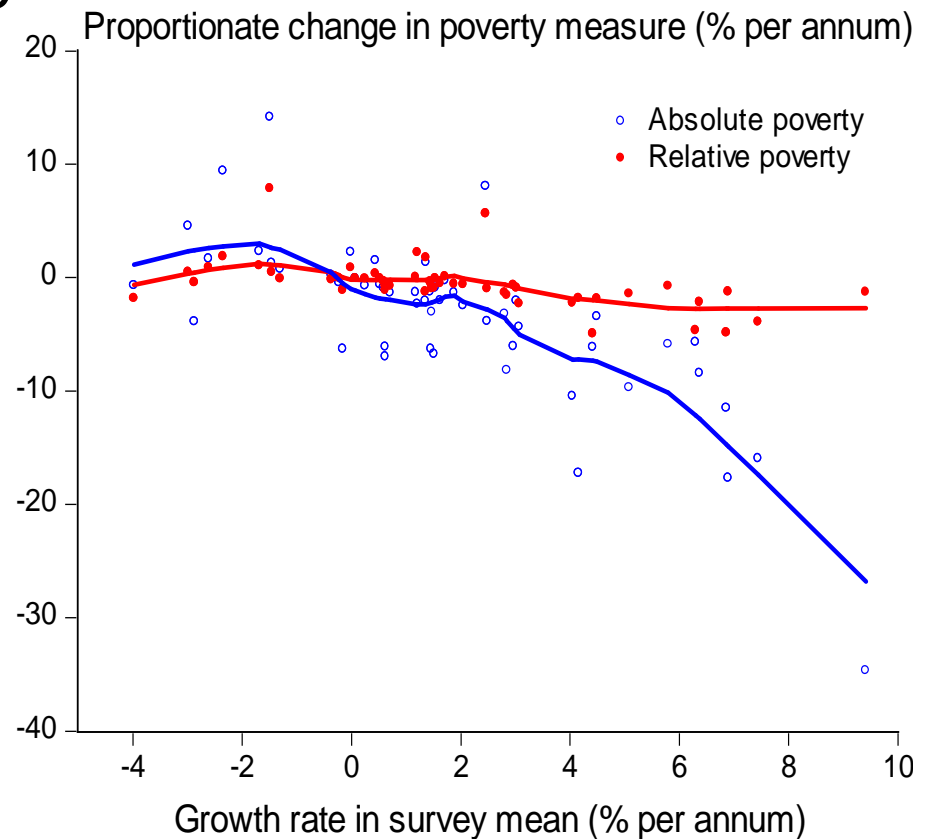
Ref: Martin Ravallion, 2012, “Why don’t we see poverty convergence?” *American Economic Review* 102(1): 504-523

## 5.2 Some implications of a greater focus on relative poverty



# Growth is a less important proximate cause of uneven progress against poverty

- Average elasticity of absolute poverty reduction to growth in the mean of around -2.
- Weakly relative poverty is also responsive to economic growth, but less so.
- Elasticity of -0.4 for the relative poverty measure— one fifth of the value for absolute poverty.
- And the elasticity will decline with growth.



## How much does the measure matter to the relative importance of growth vs. redistribution?

- Suppose that from the perspective of fighting absolute poverty the government is indifferent between letting inequality increase by  $dL^*$  and a gain  $dM^*$  in the mean.
- How would the trade-off change if weakly relative poverty is the measure rather than absolute poverty?
- The answer is given by the ratio of the marginal rate of substitution (MRS) for relative poverty between the mean and inequality ( $(1 - MZ_M / Z)P_{M/Z} / (ZP_L)$ ) to the MRS for absolute poverty ( $P_{M/Z} / (ZP_L)$ ).
- And (ceteris paribus) that ratio is simply one minus the elasticity of the poverty line to the mean.

# Inequality will be less acceptable if we turn to fighting relative poverty

- At the mean, the ratio of MRS's is about one third.
- So about **two-thirds** of the acceptable increase in inequality when fighting absolute poverty through economic growth will become unacceptable if the focus switches to weakly relative poverty.

# 6. Conclusions

# Falling absolute poverty

- Socio-economic data from the developing world are improving over time, but still much work to do.
- The “\$1.25 a day” poverty line aims to assess poverty in the world as a whole by the standards of what poverty means in the poorest countries.
- Robust evidence of declining overall absolute poverty across all regions. But uneven progress.
- MDG1 was reached in 2010, despite the crisis.
- But uneven progress across regions; MDG1 not met in developing world as a whole outside East Asia.

# Rising numbers of relatively poor

- Less progress against relative poverty.
- Rising numbers of relatively poor, though current trajectories imply stabilization of total in next decade.
- With economic growth, the relative poverty line tends to rise, and proportionately more as mean income rises.
- Deceleration in progress against relative poverty due to both the direct impact on the poverty line and the effect on the responsiveness of poverty to economic growth.
- Slower progress against relative poverty can be seen as the “other side of the coin” to success against absolute poverty.

# Implications for development-policy debates

## *Absolute versus relative?*

- Policy makers should not frame the problem of measuring poverty as a choice between “absolute” and “relative” measures.
- Rather they should be thought of as lower and upper bounds to the (unknown) absolute measure in the space of welfare. **Both measures are needed.**

## *Growth versus redistribution?*

- There has been a shift in emphasis in development thinking toward the role played by inequality in stalling growth and absolute poverty reduction.
- **Greater attention to relative poverty will further strengthen this shift.**

*Thank you for your attention!*





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