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# Introduction

An overview of three lectures

# Measurement and policy

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- Familiar link from measurement and evidence to policy
- Politics also affects measurement
  - ▣ Statistics are how a state “sees” and are developed to meet needs of the state
  - ▣ Political struggles behind measurement methods
  - ▣ Politics is often disguised as science: often effectively so
    - Apolitical objectivity is often an effective political strategy
  - ▣ State may delegate political decisions to statistical agencies:
    - Weberian “rationalization”
    - Indexation an important example

# Statistics and politics

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- Often noted that there is no measurement without theory
  - ▣ Though statistical offices must often pretend otherwise
- In addition, there is (usually) no measurement without politics
  - ▣ Indeed the absence of politics can be a problem, as we shall see in the last lecture
- Statistics that are important for who gets what come under especially great pressure
  - ▣ If they are not soundly based, they are likely to be destroyed or at least damaged by political debate

# Politics and measurement

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- This is NOT a counsel of despair: not true that anything goes
  - ▣ But we need to understand the complexity
  - ▣ There is no simple division between advocacy and objectivity
- Politics tends to insert itself into the lacunae of measurement
  - ▣ “Where political and cultural conflict and ambiguity exist the designers of statistics are likely to experience the greatest anxiety and pressure” (Starr)
  - ▣ If statistical measures not solidly founded on defensible theory
  - ▣ Shortcuts unimportant at the outset get exposed over time by political tides so measures are undermined
  - ▣ Goodhart’s Law an example

# Poverty, inequality, prices

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- Poverty and inequality are important policy issues today in most countries
  - ▣ Measures affect who gets what and the broad direction of policy
  - ▣ Many entitlements in the US linked to federal poverty line
  - ▣ Large debate on how much inequality and how and why it matters
- Measures of prices are central
  - ▣ Price index as a technical, economic problem
  - ▣ Price indexes do an enormous amount of work in economics
  - ▣ And also determine who gets what, indexation

# Three cases

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## □ United States

- ▣ Well-funded well-trained statistical services
- ▣ Good oversight of and rules for statistical services
- ▣ Constant flow of information from many sources, private and public
- ▣ Lively public debate in the media and elsewhere

## □ In India

- ▣ Less well-funded, and less systematically trained
- ▣ But still very good, compared with Africa, for example
- ▣ Also strong media and debate: governance weaker than US

# Third case

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## □ Global data

- ▣ World Bank, FAO, UN, etc produce the data by which their success is judged
- ▣ No or very limited oversight: serious conflicts of interest
- ▣ Governance of international data is often weak
- ▣ Not clear the numbers actually *matter*, e.g. transfers do not depend on them
  - Eurostat but not the UN or World Bank statistical offices
  - EC allocates Structural Funds based on PPP-adjusted GDP per capita, about 40 percent of budget

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# Lecture 1

A menagerie of lines: how to decide who is poor?



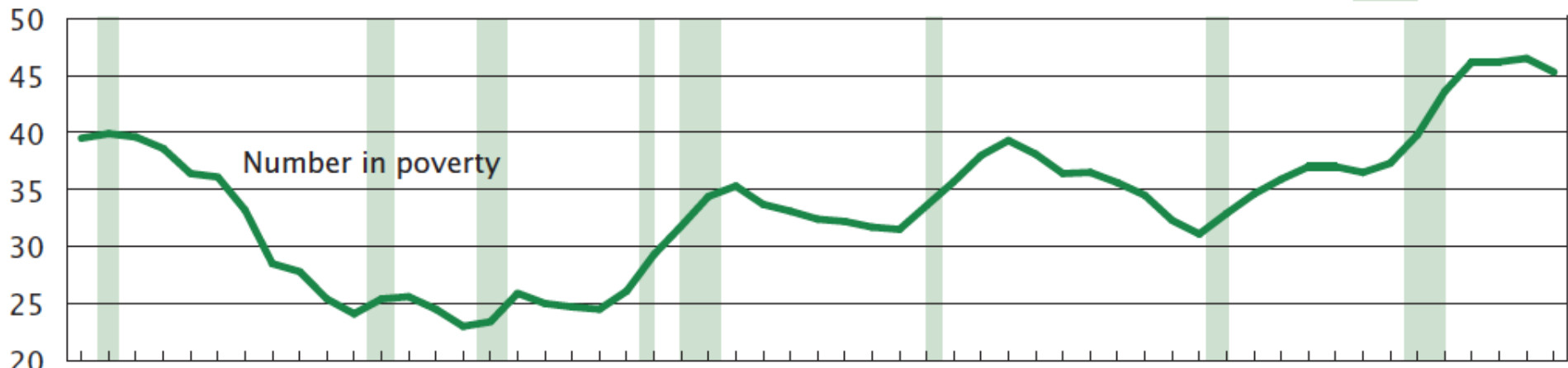
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USA

Growth with little poverty decline

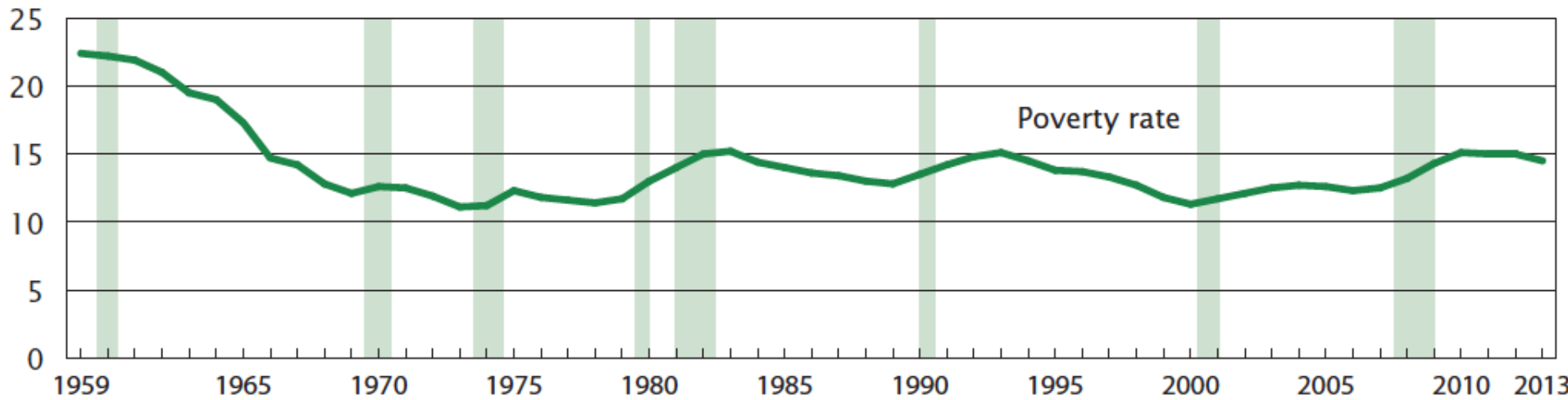
Numbers in millions

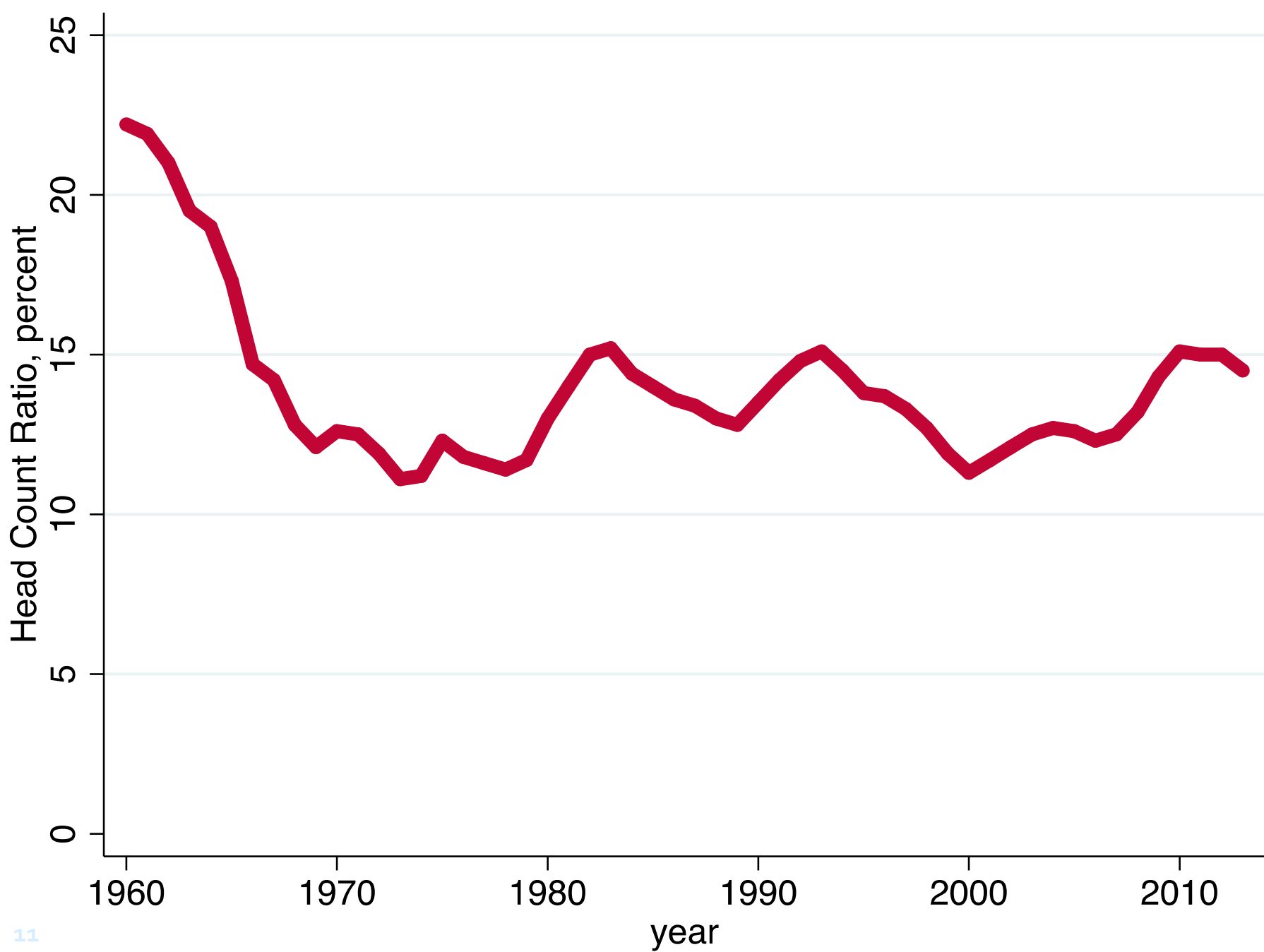
Recession

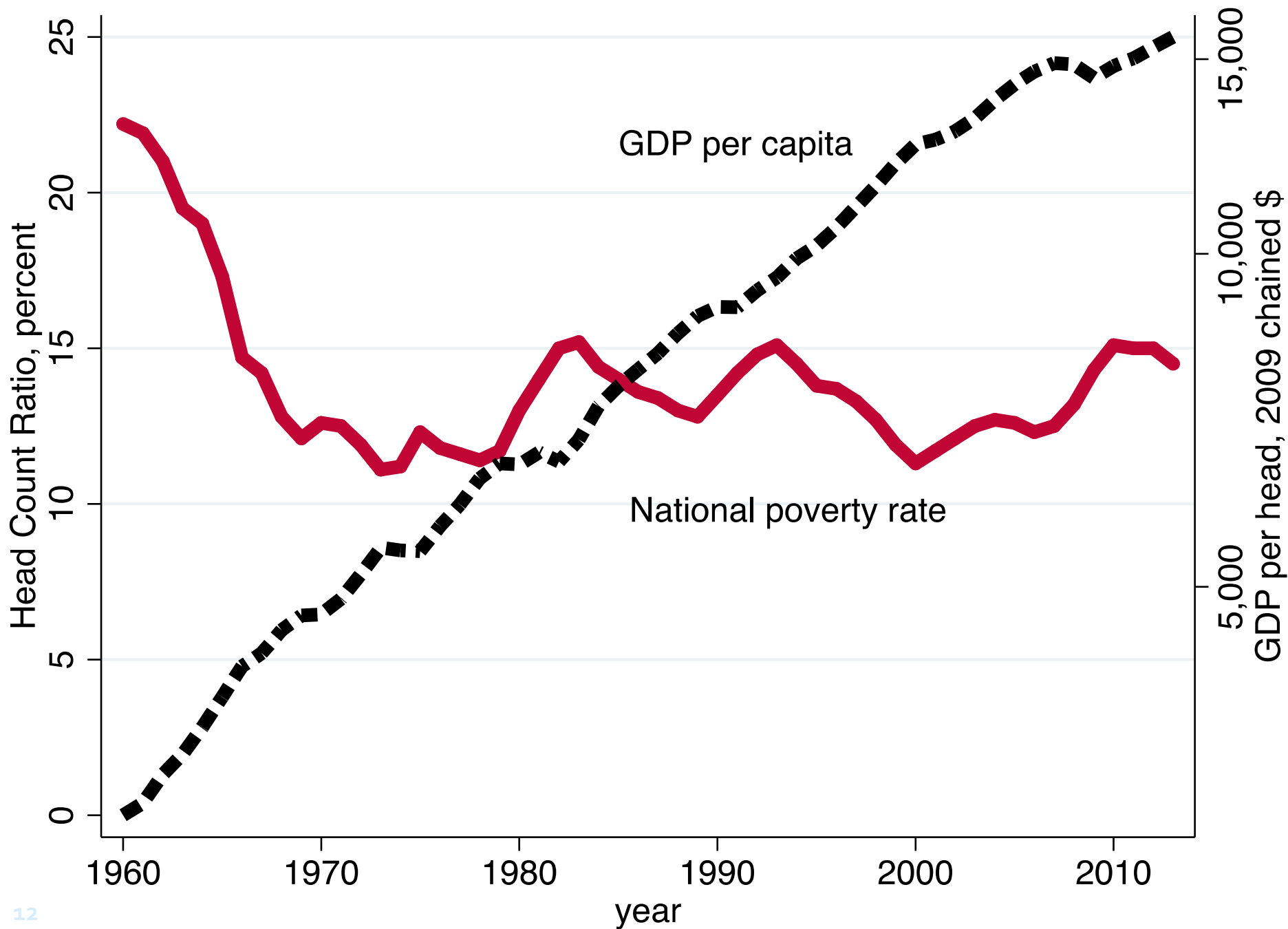


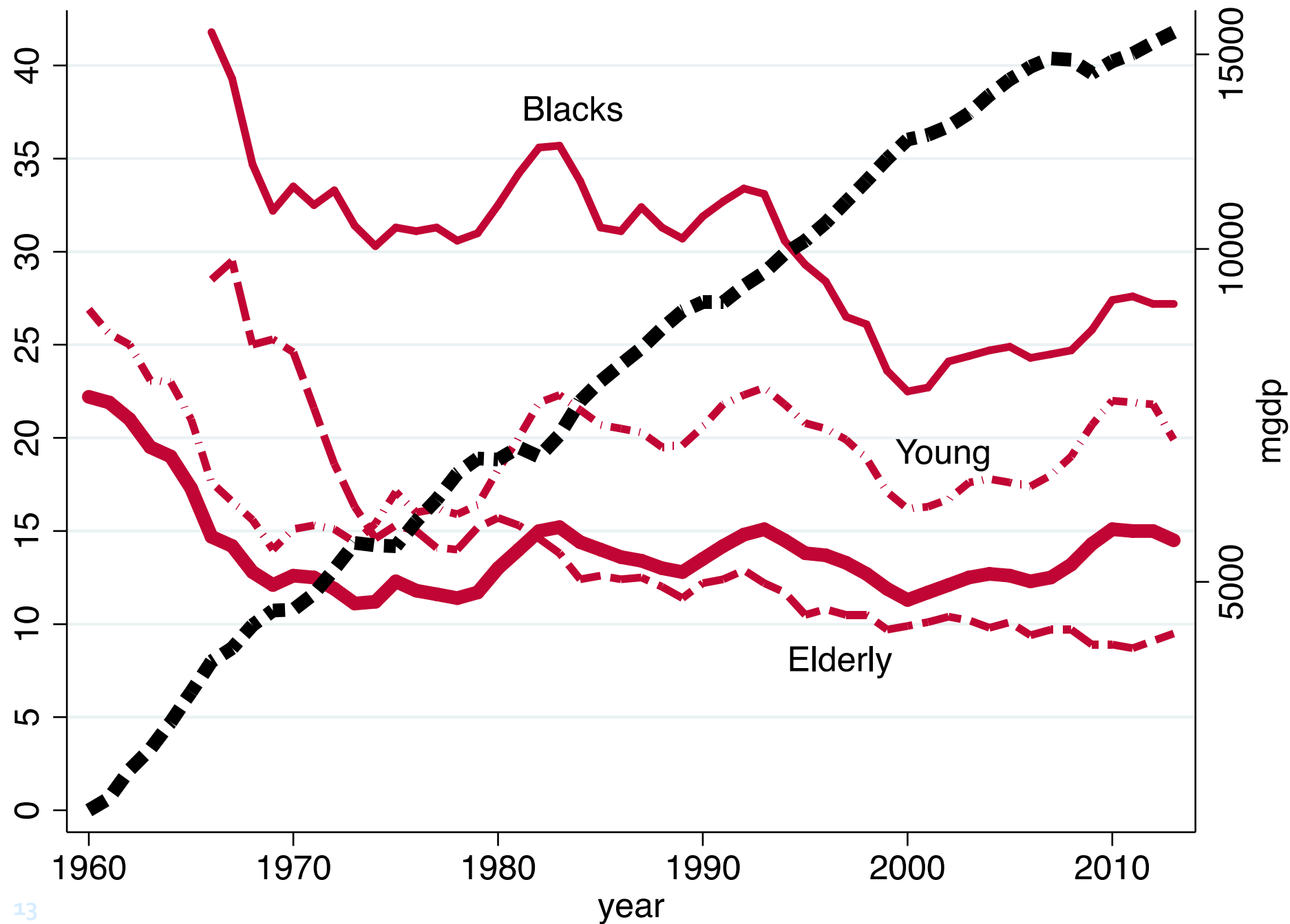
Percent

Poverty rate









# Why the discordance?

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- Inequality widening
  - ▣ Poor are not benefiting from economic growth
  - ▣ Much of which goes to the top of the income distribution
- But not the only thing
- To understand, we need to understand how poverty is measured
  - ▣ And how poverty is connected to per capita GDP
  - ▣ Income that is used to measure poverty is not the same income that goes into GDP
    - Even if we use personal income in national accounts

# US Poverty lines

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- Set in 1963 as the cost of a basic/subsistence food bundle:
  - ▣ Economy Food Plan by USDA in 1961 based on a 1955 survey
- Multiplied by 3 to cover other goods: typical household spent a third of its income on food
- Different poverty lines for different household compositions
- Since then, the line has been updated by the consumer price index
  - ▣ Indexation again, and delegation of political authority
  - ▣ Not the case for the minimum wage, or in other countries for line
- Real PL unchanged in 50 year: was 50 percent of median income in 1963, now around 20<sup>th</sup> percentile
  - ▣ Line is compared with pre-tax income as the resource measure

# Science and nonsense

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- Construction is weird
  - ▣ Factor of 3 is for a typical, not poor household
  - ▣ To use relevant factor, would need to know PL, circular
  - ▣ CPI updating does not preserve original method: if method was right in 1963, wrong now, if wrong then, why are we using it now? even rhetorically?
- In fact, the method was cooked up to produce a predetermined poverty line
  - ▣ That line was “sensible” and corresponded well to opinion polls at the time about what was needed to “just get by”
- “Science” in the service of providing cover for a sensible, but not easily defended, number
  - ▣ Long term costs in terms of confusion and a muddled debate



# Flaws and fixes

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- Taxes and transfers not important in 1963, excluded from resources
  - ▣ Time bomb laid for the future
- No amount of anti-poverty policy using taxes and transfers can affect poverty: EITC, food stamps, etc.
  - ▣ Much of safety net is non-cash benefits: much harder to handle
- Ronald Reagan (1988) “my friends, some years ago, the Federal Government declared war on poverty and poverty won”
  - ▣ Similar remarks today on 50<sup>th</sup> anniversary of “war on poverty”
  - ▣ “Our poverty statistics failed us and made it easy to claim that public spending on the poor had no effect” (Blank)

# Who can change it?

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- OMB issued a directive to Census Bureau in 1963
  - ▣ To calculate poverty in exactly this way
  - ▣ Not the usual statistical procedure: no discretion
- OMB responsibility: White House would have to change line
  - ▣ Close to impossible: compared with statistical office doing it itself
  - ▣ More poor of some kinds, or some previously poor no longer poor: both have political risks
- UK price index could not be rebased from 1914 to 1947 (Rebecca Searle)
  - ▣ War cabinet meetings to discuss the price of hake
  - ▣ Stop the war, and bring on the fish
  - ▣ Costing government millions to stabilize a price index that no one believed

# *Daily Mirror, July 1946*

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- The Edwardian working man, with his billy-cock hat, clay pipe and choker; the Edwardian working-class housewife, badly dressed, badly educated—these people are still supposed to be representative of at least 2,500,000 wage-earners in this country today.
- You may earn £500 a year, own a small car, cut quite a social figure in the neighbourhood, but if your wages are controlled by the Cost of Living Index then your needs, tastes, ambitions, hobbies are roughly classed as those of a coal-heaver of 1904.

# Possible reforms

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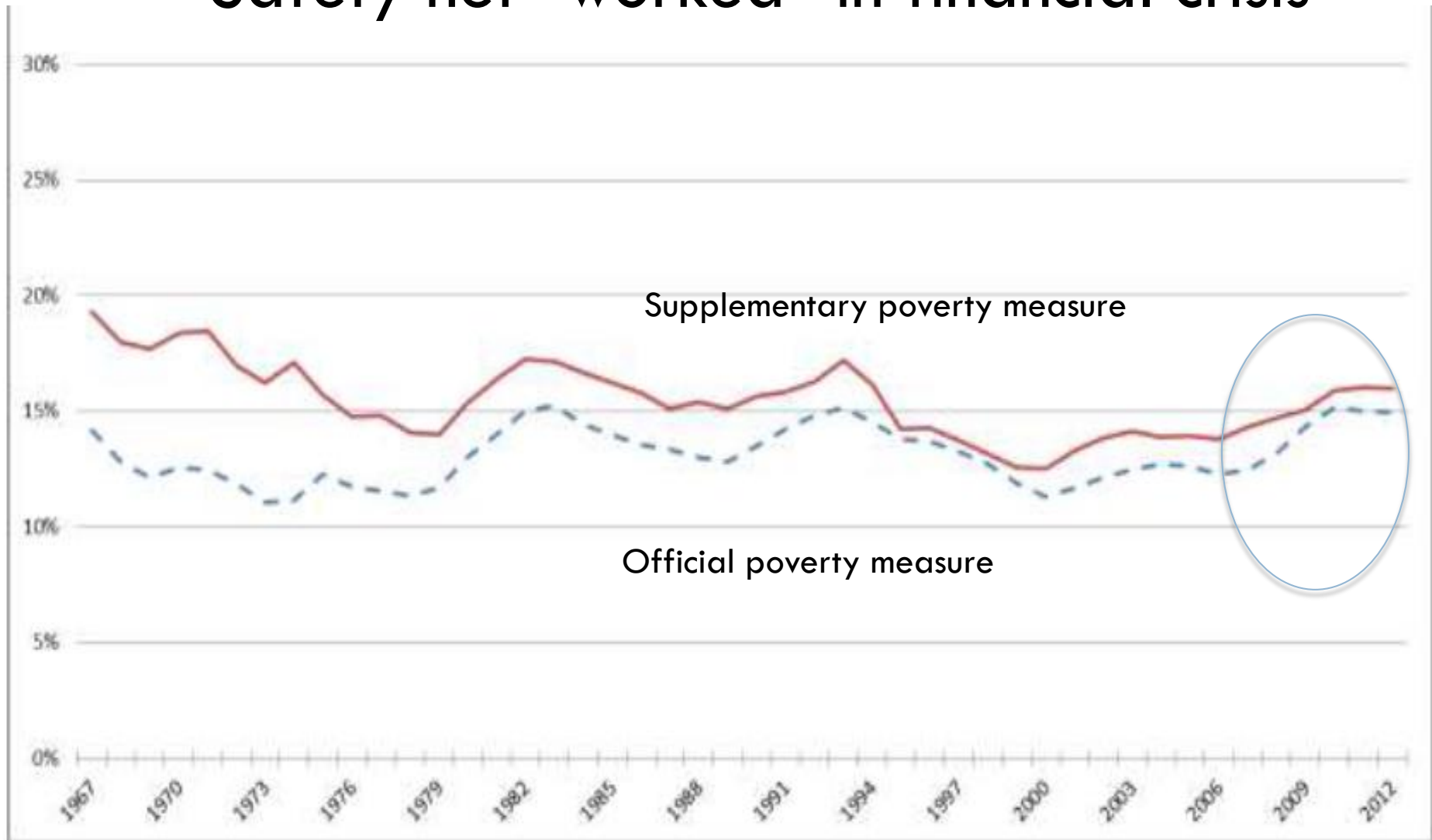
- National Academy panel (“Expert group”) reported in 1995
  - ▣ Financed by Congress to recommend improvements
  - ▣ Many improvements, some straightforward and non-controversial, some controversial, like treatment of medical expenses, geographical price adjustment
  - ▣ In spite of many attempts, no reform today
- Becky Blank one of those who tried
  - ▣ She was on the panel, and Assistant Secretary of Commerce, in charge of Census Bureau
  - ▣ Claims that was more effective to fund reforms as a statistic, without trying to make it the official poverty line
  - ▣ Political neutralization allows it to function statistically

# Census' supplementary measure

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- Supplementary poverty measure is now regularly produced by Census and is widely used across the political spectrum
  - ▣ Official lines used as benefit tests
  - ▣ Workarounds: eligibility is typically defined in relation to federal line, e.g. 133 percent for Medicaid, 4x for Obamacare, SNAP 130 percent
  - ▣ Can be adjusted and states can set their own for some benefits.
  - ▣ Loose connection between entitlements and lines.
- Official count gives some sense of what poverty would be without government assistance
- Supplementary measure is widely used to discuss what happened during the Great Recession

# Safety net “worked” in financial crisis



From Fox, Garfinkel et al, 2013

# Why has poverty declined so little?

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- Income used in calculating poverty has risen much less rapidly than GDP per capita
- Increasing income inequality in part
- Definitional differences: many things in national income that are not in household incomes
  - ▣ One important item is government expenditure on healthcare
  - ▣ Assigned to personal income and consumption
  - ▣ Major source of growth in GDP per capita
- Poor people benefit from improving healthcare and it is has become relatively more expensive over time
  - ▣ Medicaid for the poor, cross-subsidization of those who cannot pay
- Should it be included in the measure of resources?

# Including healthcare costs

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- Including in kind transfers, and especially health, makes poverty decline much sharper, and moderates rise in inequality
  - ▣ Increases rate of increase in median wages
  - ▣ Burkhauser: for 1979 to 2007, including all transfers and value of health insurance changes a pre-tax, pre-transfer decrease in real income for bottom quintile of 33 percent to a 26.4 percent increase
- But these are not “near-cash”
  - ▣ Inexorable increase in healthcare costs contributing to the slow or negative wage growth for many people
  - ▣ Only *some* would have been freely chosen
  - ▣ But we can’t force people to buy something that they don’t want and that is sending them into poverty and simultaneously credit them with the costs
- Sharply divisive political issue
  - ▣ Choosing different *definitions* of income will suit different interests



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# India

Rapid growth, but slower than warranted  
poverty decline

# India

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- Historically unprecedented economic growth over last 30 years
  - ▣ Now a (lower) middle-income country
- Household final consumption has grown at 3.5 percent a year from 1980 to 2014
  - ▣ At 5.0 percent a year since 2000
  - ▣ Some reduction of growth in last two years
- Rapidly expanding middle class who see themselves as successful global consumers
- Successful and politically powerful business interests

# India is poor, too

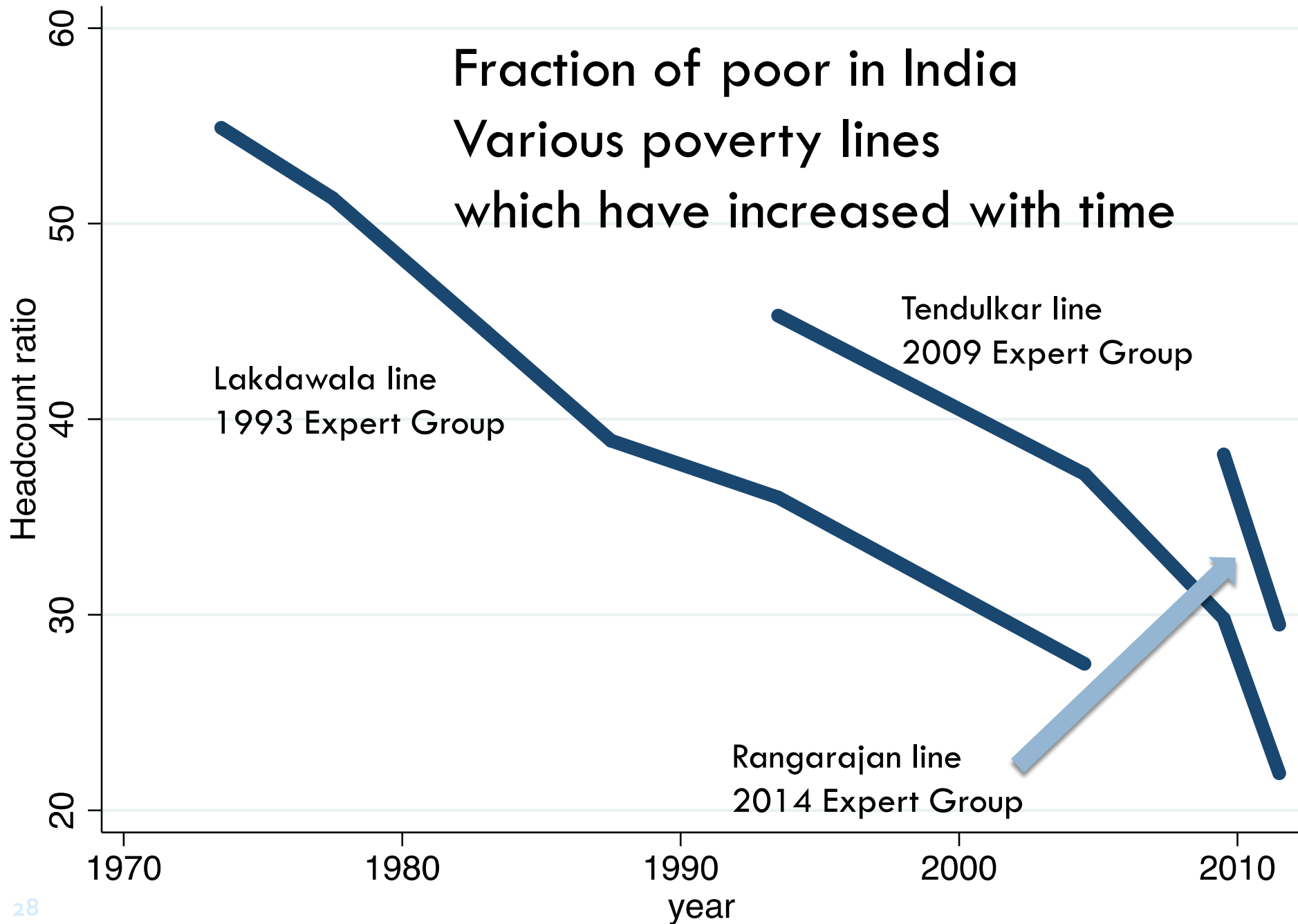
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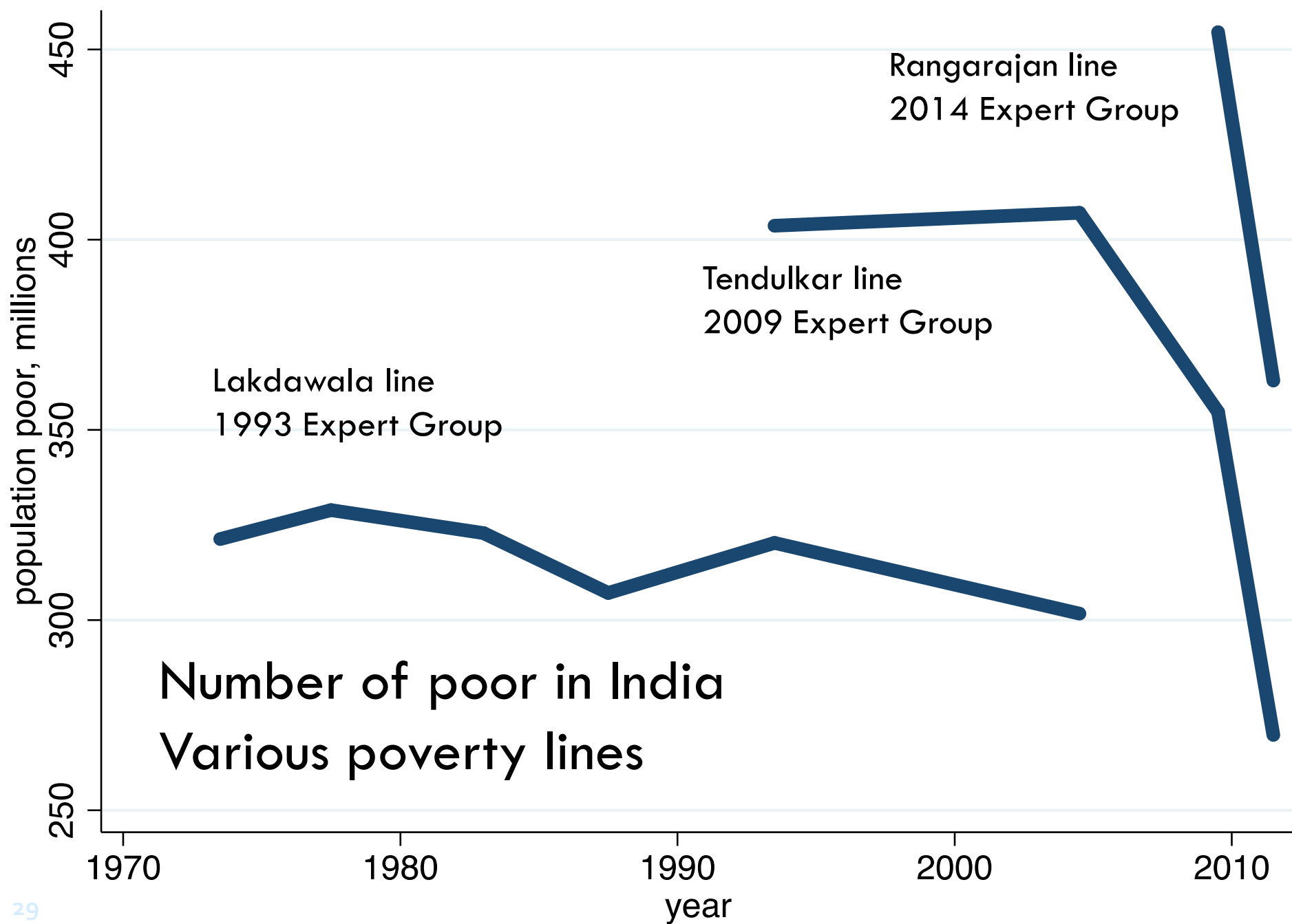
- Yet India has around 300 million poor living at or below destitution standards, about a quarter of the population
  - ▣ Half of India's children are severely malnourished
  - ▣ Indian men and women are among the shortest on the planet: at current rates of change it will take 250 years for Indian women to grow as tall as British women

# Fraction of poor in India

## Various poverty lines

which have increased with time





# Poverty decline and growth

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- Poverty rate has declined no matter what measure we use, though much more slowly than GDP or aggregate consumption growth would seem to warrant
- Growth comes from National Accounts, poverty from household surveys
- In 1972-3 survey consumption 5% less than NAS consumption
- In 1983-4, 25% less, currently 50% less
- Which is why poverty decline is less than we would expect from the growth of GDP
- Inconsistency is at the heart of the political and statistical debates about poverty in India
- Some increase in inequality too, but less important than gross and increasing inconsistency between NAS and surveys

# Background politics

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- Political problem of how to run an economy that is doing so well for some, while continuing to hold so many poor, malnourished people
- BJP is a religious and business oriented party, Congress is business oriented party with a pro-poor rhetoric that sometimes delivered pro-poor policies
- Both are dependent on rapid economic growth for legitimacy
  - ▣ Important, politically, that growth not only take place, but be seen to help the poor
  - ▣ Either through direct schemes (left) or rising tide and boats (right)
- Political divide, as elsewhere, whether growth should have priority
  - ▣ One extreme that growth is sufficient as well as necessary
  - ▣ Other extreme growth causes poverty, by redistributing upward
  - ▣ Middle worries about ineffectiveness of pro-poor policies

# Poverty and politics

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- For many, the existence of so much poverty is an embarrassment
  - ▣ The poor are globally destitute, financially and physically
  - ▣ Surely this cannot be true?
- Within this framework, how does poverty get measured?
- Note that the results are used to allocate the food distribution system by states, so that they do matter
  - ▣ They are NOT used to identify individuals for access to subsidies (BPL cards)

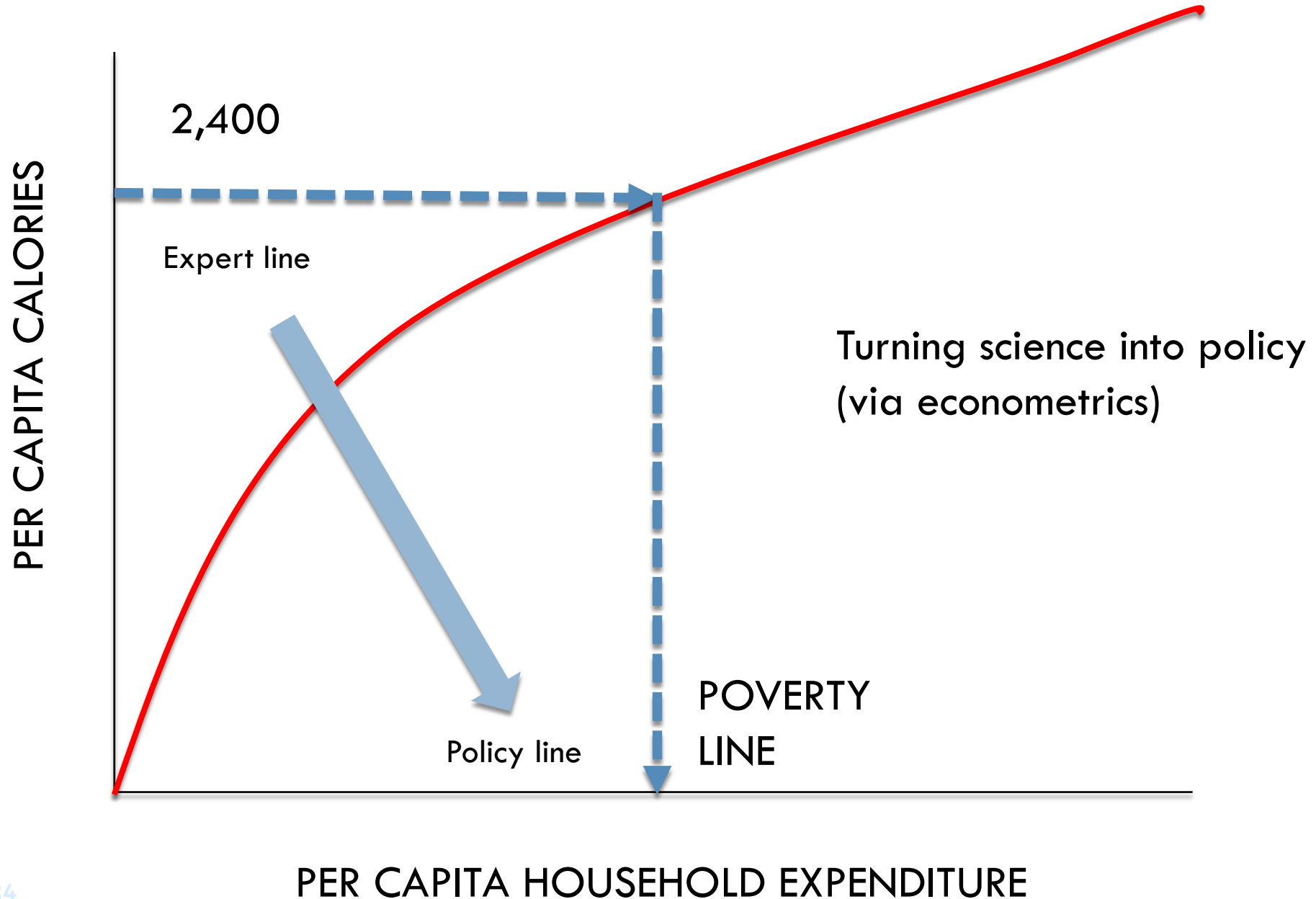


# History of measurement

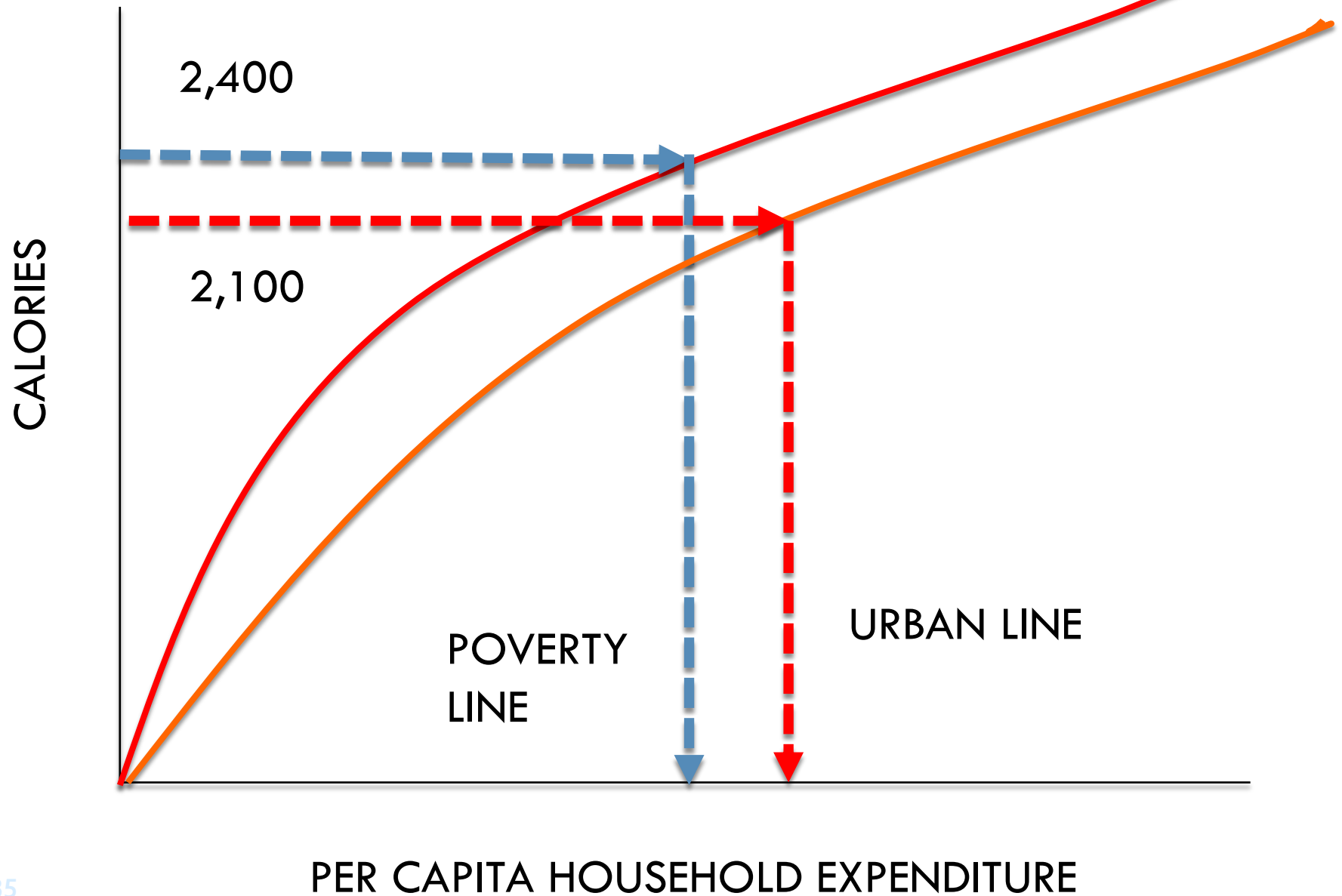
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- Planning Commission has been creator and keeper of poverty statistics:
  - ▣ PC an important agency, even as planning faded
  - ▣ PM is chair, Deputy Chair status similar to Finance Minister
  - ▣ Its abolition was announced by PM Modi in August
  - ▣ Future of poverty measurement is unclear
- In 60s and 70s, PC used two lines, one urban one rural. Probably with some reference to calories
  - ▣ Parallel with the US
- Task force in 1977 formalized with reference to calories required for various activities: 2,400 rural and 2,100 urban
  - ▣ PL is household per capita expenditure level at which, on average, those calories are met

# SETTING THE LINE FROM A CALORIE NORM



# URBAN AND RURAL LINES



# Plausibility?

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- Food basis of these lines enhances their political acceptance
- But many problems
  - ▣ Calorie needs vary greatly over individuals
  - ▣ Minimum calorie norms can be met at *much* lower cost through unpalatable diets, as fed to animals
    - Original linear programming problem
    - Offensive, but so is the original formulation of the problem
    - People are not work animals or machines

# Urban versus rural

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- Urban line justified by higher cost of living in urban areas
  - ▣ But this is nowhere explicitly incorporated
  - ▣ Perhaps the lower curve is because of higher costs, or needs for expensive housing or transport, but it is nowhere formalized
- If separate lines for urban and rural, why not for different states?
  - ▣ India is a big country, and (say) Kerala, Punjab, and West Bengal are very different
  - ▣ Because the method gives silly results for some states

# Statistical errors and politics

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- Serious conflict between NAS and NSS consumption figures
- Original practice had been to inflate NSS to NAS totals:
  - ▣ Poverty was previously guaranteed to fall at the rate warranted by GDP growth, at least if no inequality increase in NSS, which was slight if at all
  - ▣ Now the NSS growth was definitive, rate of poverty decline slower
  - ▣ Growth in GDP no longer shows up fully in poverty reduction
- Left says NSS is obviously right, and only complete source of what people actually spend, and poverty is declining slowly
- Right says NAS is obviously right, that surveys are useless, that enumerators sit under trees or in tea-shops filling out questionnaires from nothing
- So in late 90s a campaign to discredit the surveys by the rightists, and, more constructively, to suggest why they might be wrong

# Reporting periods

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- The following illustrates a perfect example of how politics penetrates deeply into measurement
- How much rice did you buy over the last XX days?
  - ▣ Indian tradition, from Mahalanobis, was  $XX=30$ , based on an experiment
  - ▣ In the debate, right argued this was too long, other statistical offices use 7 days, and that people would forget over 30
  - ▣ This might explain some of the gap between NAS and NSS
    - Though not clear that it can say anything about why that gap increases over time, which is the key issue
- One side wanted 7 days, other 30 days, unresolvable
- How to decide? Do a randomized controlled trial, of course!

# The reporting period debacle

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- Surveyors did a nationwide RCT, randomizing 7 and 30 over villages
- RCT showed, indeed, that flow of reported consumption at 7 days was higher than flow at 30 days
  - ▣ Triumph for the right, or was it?
- The effect is HUGE: 175 million Indians were removed from poverty in 1998, close to a half
  - ▣ This is more than ten percent of WORLD poverty
- But this didn't resolve anything: as always RCTs do not tell us WHY the difference occurred, or which was correct
  - ▣ But they did raise the stakes in the debate, because there was a lot to fight over



# Disastrous resolution

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- Again, the debate was unresolvable, neither side would concede, so a compromise: do both at once!
  - ▣ This was a disaster, because they cross-contaminated, and the poverty measurement process in India was compromised for a decade, because the major poverty surveys are only done every five years or so
- In the end, yet another Expert Group, which complicated things even more, and has, until recently, been the basis for counts

# Things fall apart: exposing cracks

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- Remarkable decline in per capita calorie (& protein) consumption in India
  - ▣ In spite of mass malnutrition in anthropometrics
  - ▣ In spite of real income & consumption growth, even among the poor, and even according to the surveys
- Happening at *all* levels of consumption, though more among the rich than the poor

# Calorie puzzles

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- Why this is happening remains unclear and deeply controversial
  - ▣ People are being impoverished by neoliberal globalization, CPI(M)
  - ▣ More likely is a sign of progress. Rising real incomes reduce hard labor, as well as better sanitation
- NB Across areas of India, it is the healthier, richer places, in the South that have lower calorie consumption per capita than do the less healthy poorer places in the north

# Calorie decline and poverty counts

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- For the moment, suppose it is a good thing, that hard work is a bad, and will decrease as times get better
- So what does this do to the poverty counts?
- Real income is increasing, so poverty declines
  - ▣ Correct if the decline is being driven by a better world
- Calorie consumption is falling, and number below calorie lines is rising
- Sowing even more confusion and political controversy

# Planning Commission and the line

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- Poverty line itself has lost public credibility
  - ▣ PC sent an infamous affidavit to the Supreme Court saying that 26 Rs per person per day was enough to remove someone being poor
  - ▣ The media widely condemned such an absurdly low number,
  - ▣ As did their (relatively well-heeled) readers
  - ▣ Neglecting that more than 250 million Indians lived below it

# From baroque to rococo

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- Indian and Western press converted rate at market exchange rate to get 30 cents and then claiming that the rate was much lower even than the line used by the (wicked) World Bank
  - ▣ Forgetting that WB line is denominated in PPP terms and is very similar to the Indian line
- What do do? Set up yet another Expert Group, whose report sets new standards of rococo statistical architecture
- Then the Planning Commission got abolished!

# The end of the line?

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- The standard poverty line based measures in India are now discredited
  - ▣ In part because events discredited its rhetoric
- So that political squabbling over the measure of success was bound to destroy it
- Leaving one side to proclaim success based on GDP growth, there is little poverty left
- And the other to claim destitution through neoliberal globalization

# Social constructs

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- Similar pressures in US in both directions, but worked differently because of the unchangeability of the line
  - ▣ Been there a long time, people are used to it, and can work around it in setting benefits and policy
  - ▣ Functions as a socially agreed tool: not really *the* line, but
- Attempts by last but one EG in India to abandon normative calorie basis were not well received by commentators including academics, and were reversed in latest EG
  - ▣ Yet, they were undoubtedly right that any poverty line is a social construct, not a scientific one
  - ▣ Though perhaps the scientific disguise is needed for it to work as a social construct?
- Both countries like Expert Groups!!



# Coda

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- What about the data on malnourishment?
  - ▣ Half of children are severely malnourished
  - ▣ Indian men and women are among the world's smallest
- Numbers from a 98/99 survey caused consternation
  - ▣ PM Manmohan Singh said they were a national shame
- In recent years, senior officials note that the figures are out of date
  - ▣ While doing nothing to update them, and new survey has been long delayed

# There is no poverty!

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- In the meantime, some eminent economists have pressed the argument that, like the poverty numbers, these numbers are not a problem
  - ▣ Because Indians are genetically short
  - ▣ To my way of thinking, and understanding of the literature, this is very much an argument of last resort
- Why Indians are so malnourished is a key area on which to focus,
  - ▣ new work on open defecation (Dean Spears et al)
- If poverty is such an embarrassment, or shame
  - ▣ Deny it!
  - ▣ Growth triumphalism and poverty denialism

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## Lecture 2

Getting prices right. *Mysteries of the index*

# Prices and poverty

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- We have seen how in US and India, poverty lines were set
  - ▣ Originally with respect to some (unsatisfactory) relationship to food and hunger
  - ▣ And then held constant in real terms
  - ▣ To calculate poverty using current incomes or consumption, the line must be scaled up by some consumer price index
  - ▣ Poverty lines as fractions of mean or median income no need
- Consumer price indexes play an enormous role in measurement beyond poverty
  - ▣ GDP growth for example
  - ▣ Without them, we cannot compare living standards over time or space, within or between countries
  - ▣ Yet they are controversial, politically and technically

# A challenge to US CPI

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- Senate Finance Committee (under Republican control) set up an Advisory Committee to Study the Consumer Price Index in June 1995
  - ▣ The Boskin Commission: Chaired Michael Boskin, ex-chair of Council of Economic Advisors for President George H. W. Bush
  - ▣ Work by Lebow et al at Federal Reserve argued that the CPI was overstating inflation by 1 percentage point per year
    - Substitution bias, new goods bias, and unmeasured quality change
  - ▣ Alan Greenspan noted this during Congressional Testimony
  - ▣ Firestorm: Newt Gingrich threatened to “zero out” the Bureau of Labor Statistics
- Lower inflation would reduce indexation: Social Security, income tax brackets, food stamps et al and reduce budget deficit

# More claims

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- Hausman claimed that introduction of apple-cinnamon cheerios *alone* added \$78 million to consumer welfare (about double today)
  - ▣ Cellphones were not in the index
- Nordhaus on light, and that the huge benefits of technical improvements are nowhere included in our accounts
  - ▣ Is the CPI the place to fix this?
- Boskin Commission claimed 1.1 percentage point a year overstatement of inflation, 0.6 percent of which was new goods and/or quality change
  - ▣ Fixing reduces Federal budget deficit by \$691 billion over a decade
  - ▣ If not, “bias” would be fourth largest federal outlay program
  - ▣ Heavily criticized for making up numbers on quality change
- Still used: Commission found “errors” in what BLS was doing
  - ▣ Still in the mix for deficit-reduction plans

# On (not) measuring quality

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- Neutral committee of National Academy of Sciences noted the importance of quality change, but found no credible way of dealing with it
- The problem is real, and intractable
  - ▣ Easy to accept that there is unmeasured quality change in the US
  - ▣ Not easy to measure it given knowledge
  - ▣ Agencies can't do Hausman-type imputations!
- Healthcare: rapid increase in price, perhaps all quality?
  - ▣ We could measure healthcare by output, e.g. mortality rates
  - ▣ Nordhaus estimates that health improvements would have doubled GDP growth in 20<sup>th</sup> century
  - ▣ Extra life is worth a lot

# Mortality and the COLA

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- BUT: how much of mortality rate decline is due to behavior change, especially smoking, how much to better nutrition, and how much to better healthcare?
  - ▣ Only the last should be in the accounts
  - ▣ US spends more but has higher mortality and morbidity rates
  - ▣ Women's LE has increased MUCH less than men's. Healthcare only worth it for men? Difference is mostly smoking, not healthcare
- Politics: pharma companies finance work that shows pharmaceuticals are effective in prolonging life
- Generally: should a price index be a COLI, approximating a "true", utility constant (Konüs) price index?
  - ▣ Does mortality decline reduce the price level?
  - ▣ How about cold weather?
  - ▣ How about the contraceptive pill? Viagra?



# Consequences of CPI bias

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- A wide range of indicators
  - ▣ Argument that growth used to be in quantity, now in quality, especially new goods, and that we are missing a lot of it
- Stagnant median wages and incomes could be actually increasing
- Inequality would be growing less rapidly
  - ▣ Because a lot of healthcare is redistributed to the poor and paid for by the rich
  - ▣ Though we don't know how to do the accounting

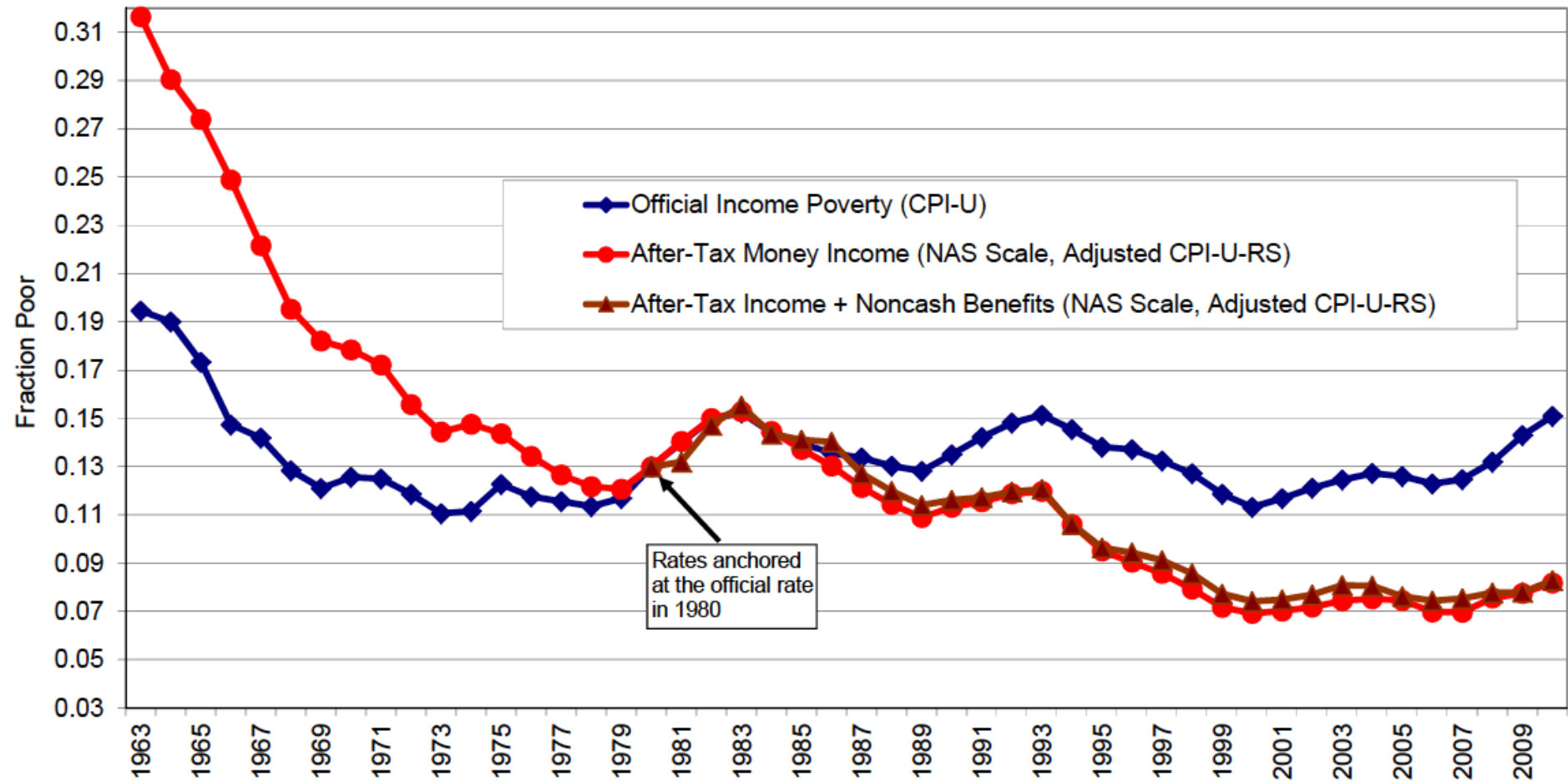
# Effects of CPI “bias”

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- Wide range of policy implications in public and private contracts
  - ▣ Social Security Indexation, Income tax brackets, ties to poverty line
  - ▣ “How and why did we come to this strange place, where extraordinary sums of money change hands based on small movements in a controversial and admittedly ambiguous statistic such as the CPI?” Thomas Stapleford
- Underlying failure here, if there is one, is in economic theory
- If we “fix” the CPI as Boskin suggests, we are winning the war on poverty
  - ▣ Graph from paper by Meyer and Sullivan

# Meyer and Sullivan's recalculation of US poverty

Figure 1: Official and Alternative Income Poverty Rates, 1963-2010



# Prices over space

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- Perhaps surprisingly, US makes no allowance for different price levels in different places
- Recent indexes from BEA show substantial differences across MSAs
  - ▣ NY about 50 percent higher than Rome, GA
- These could be incorporated into poverty statistics
  - ▣ But perhaps prices reflect amenities? Already counted.
  - ▣ At least if people are freely mobile
  - ▣ Maybe the poor don't get the amenities: can't eat the scenery
- Life evaluation on log income and log price yields equal and opposite signs
  - ▣ So can't be all amenity

# Geography and prices

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- Have little effect on measured inequality, because income inequality is mostly within geographical areas
- In India, taken as axiomatic that spatial price indexes be used
  - ▣ World Bank adjusts global poverty counts for price differences within large countries
- But major issues for spatial price indexes are international, between countries
  - ▣ Where mobility is extremely limited

# Global questions

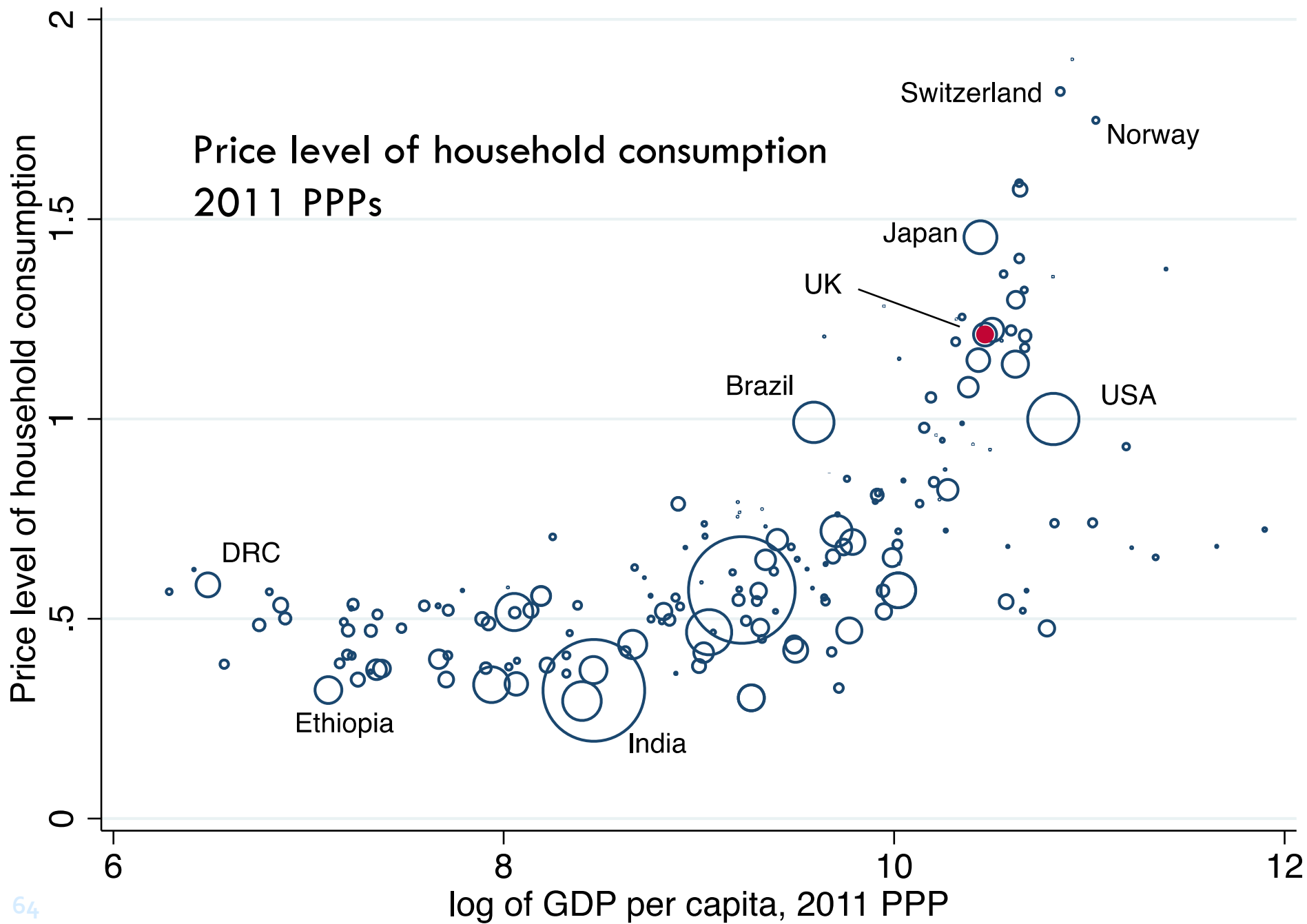
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- Who is poor and who is rich?
  - ▣ How many poor people are there in the world?
  - ▣ How can we measure progress on income poverty?
  - ▣ How do the poor live? What is life *really* like in the poorest places in the world?
- How big are the differences?
  - ▣ What is the ratio of American to Indian income? To Chinese incomes?
  - ▣ Is China's economy bigger or smaller than America's?
  - ▣ Are Africans better off or worse off than South Asians?
- The global distribution of income?
  - ▣ Over countries, in per capita income?
  - ▣ Over all the citizens of the world?
  - ▣ Is global inequality narrowing or widening?

# All require spatial price indexes

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- How much does it cost to live in India compared with the US?
- Exchange rates as an approximation? How bad?
- Very bad when we compare rich and poor countries
  - ▣ Price levels in India are low relative to what the exchange rates suggest
  - ▣ About  $2/3$  lower, so effect is substantial
- Ultimately, Balassa-Samuelson theorem says that countries with low productivity in traded goods will have low price levels





# Purchasing power parities

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- Deal with this, we need PPP exchange rates for consumption in each country
- Price level is then ratio of PPP exchange rate to market exchange rate
  - ▣ For India, exchange rate was 58.6 Rupees per USD in 2013
  - ▣ PPP for consumption was 17.5: ratio is about 0.3
- PPP is a price index that compares cost of consumption in India relative to the US
  - ▣ It has units, rupees to USD, and more stable than exchange rates

# These numbers come from ICP

66

- ICP is like the Olympic Games, though somewhat less regular
  - ▣ Brings the whole world together giant price collection enterprise
  - ▣ First a few amateurs, farsighted visionaries
  - ▣ Over time, professionalized, lots of training
  - ▣ Huge improvement in technique
  - ▣ Increase in number of countries participating
- GDP in PPP terms also comes from ICP, money GDP divided by PPP
  - ▣ Such numbers are widely used by journalists, academics, and policymakers

# International Comparison Program

67

- 1960s & 1970s, U. Penn plus UN
  - ▣ Six countries in 1967, Four more added in 1970
  - ▣ Prices for relatively small number of goods and services
  - ▣ Extended to other countries using interpolation, 100 countries real or interpolated by 1978
- 2005 ICP had 146 countries, 2011 ICP had 199
  - ▣ 2005 and 2011 housed in World Bank Global Office
  - ▣ With regional offices around the world
  - ▣ Price collection regionally organized
- Publication about 3 years after target year

# Governance

68

- Governed by an Executive Board
  - ▣ Mostly chief statisticians: chaired by Martine Durand, chief statistician of OECD
- Guided by Technical Advisory Group
  - ▣ National accounts statisticians, academics, technical experts
  - ▣ Regional coordinators, who collect regional data
- Housed, under contract, in World Bank who appoints a Global Manager, technical, and support staff
- Owned collectively, not personally or by small group, contrast \$-a-day poverty
- Huge progress should not disguise fundamental difficulties

# Why is it so hard?

69

- International price comparisons are inherently difficult
- Goods that are representative are rarely comparable, and vice versa
  - ▣ Brooks' Brothers Oxford Cotton Button-down shirt
    - Or a shirt
  - ▣ Bottle of Bordeaux, producer's name on label vintage 2001
    - Or a bottle of alcoholic drink
  - ▣ This is really a quality issue, as in domestic price indexes
- Scylla of precision, overstating poor country prices
- Charybdis of breadth, understating poor country prices
- Non overlapping consumption patterns
  - ▣ You consume beans, I consume wheat, or teff, or grits
- Measuring prices of housing, education, construction, government services, healthcare, all difficult
  - ▣ Same as domestic accounting, but sharper and more severe

# Coverage of the ICP

70

- Earlier rounds, up to 1993, of lower quality with lots of imputations
  - ▣ Many countries had never participated, including China
  - ▣ Or very irregularly, India
- 2005 and 2011 much higher quality
  - ▣ Include China, never previously, and India, not since 1978
  - ▣ Large numbers of “new” countries, many in Africa
- Improvements in methods can make comparability difficult

# Geopolitical issues

71

- China takes strong political interest in outcomes, and acts to exaggerate its price level
  - ▣ Which delays the date when it exceeds the US in size
  - ▣ But this exaggerates Chinese poverty, which they don't want
  - ▣ Reduces US pressure to allow appreciation of the yuan
  - ▣ Less than transparent about how it collects prices: most data are classified
- Eurostat has its own program which is carefully regulated by law, and ICP not allowed to question within-Eurostat PPPs
  - ▣ These price indexes are actually *used* to allocate EC funds
  - ▣ So they are carefully regulated
- Otherwise, politics do not seem to be central
  - ▣ World Bank and MDGs use PPP-dependent poverty counts

# Uncertainty in PPPs

72

- Comparisons across widely different regions are very difficult
- Relative prices are *not* the same in different countries
  - ▣ Goods that are relatively cheap locally are relatively heavily consumed
  - ▣ Though causality runs in both directions: Marmite is 4 GBP per lb in Sainsbury's and 20 USD per lb in (my local) Wegman's
- Air travel in Africa is VERY expensive
  - ▣ But little consumed
  - ▣ In UK, cheap and heavily consumed
  - ▣ For UK v Kenya, say, price relative for air travel makes Kenya v expensive
  - ▣ If we use Kenya weight, Kenya price level is low & Kenya rich
  - ▣ If we use UK weight, Kenya price level is high, & Kenya poor
- PPP “solves” this by averaging weights
  - ▣ But this is no solution at all: there isn't one



# Paasche and Laspeyres

73

- This shows up in Laspeyres (home country-weighted) price indexes being VERY different from Paasche (comparison country weighted)
  - ▣ With US as base, in 2011, Liberia and Belize have Laspeyres more than double Paasche
  - ▣ China and India 15 percent and 41 percent higher: France, Netherlands about 1 percent
  - ▣ PPPs take (geometric) averages, and then impose transitivity
  - ▣ Average buries the problem
- We can use these ideas to develop a way of calculating standard errors for PPPs
  - ▣ Depend on the variance of the ratios for different commodities
  - ▣ Closely related to the ratio of the Laspeyres to the Paasche

# PPPs by commodities and overall: 2011

	India	China	Kenya	UK
Rice	12.4	2.6	42.3	0.65
Poultry	35.9	6.3	99.0	0.99
Milk	25.4	7.1	86.0	0.66
Edible oils	38.3	8.4	101.2	0.80
Sugar	23.3	4.9	52.1	0.68
Tobacco	8.6	2.8	19.0	1.05
Garments	13.7	4.7	34.2	0.55
Petrol	58.7	9.0	116.3	1.45
Air travel	63.6	10.8	96.2	0.79
Xrate	46.7	6.46	88.8	0.62
All PPP	15.0	3.7	35.4	0.76
S.D. logs	0.75	0.67	0.70	0.26

# PPP and poverty uncertainty

75

- Standard errors are small for closely related countries, e.g. US and Canada, Ireland, or in Western Europe
  - ▣ Around 5 percent
- Standard errors are large for very different countries
  - ▣ Perhaps 15-20 percent for India and China relative to the US
  - ▣ Very large for, e.g. Mali versus Indonesia, or Ethiopia versus China
- We just don't know very clearly what are relative living standards in countries with widely different structures

# PPP uncertainty and poverty

76

- This poses a problem for measuring world poverty
  - ▣ Where small changes in lines can have large effects on counts
  - ▣ E.g. reporting periods in India and 175 million people taken out of poverty
- World Bank says 33% of India's population live on less than \$1.25 a day
  - ▣ If PPP is +/- 20%, numbers poor are +/- 180 million.
  - ▣ High low diff 36% of total of global poverty.
  - ▣ That's only India!

# ICP revisions

77

- Each round of the ICP reshapes the world, changing price levels and living standards between rich and poor countries, and between poor countries
- 1985 to 1993, published in 1997?
- 1993 to 2005, published in 2008
- 2005 to 2011, published in 2014
- This is what we might expect given the large standard errors
  - ▣ Plus substantial methodological changes

# Using CPIs instead?

78

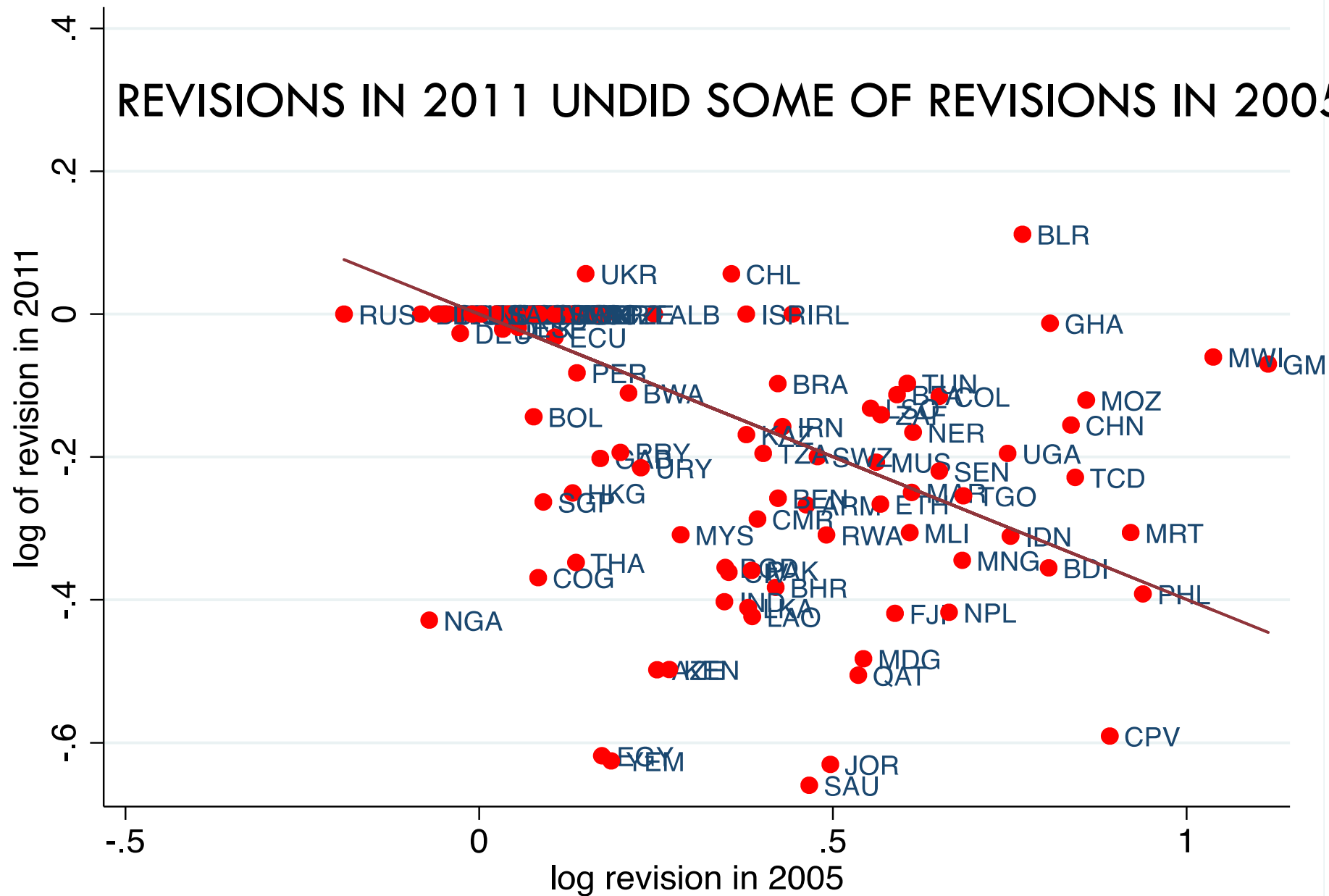
- Might think that PPP of country A relative to country B should change as the relative inflation rates of A and B
  - ▣ This is how World Bank and others update between rounds and extrapolate: NB we are in 2014 now and 2011 only just released
  - ▣ But it doesn't work in general, for many reasons, some technical, but some substantive:
    - CPIs use country weights, while PPPs use averaged weights over many countries
- Multilateral index numbers are different, and if we want them, we have to have an ICP from time to time







# REVISIONS IN 2011 UNNED SOME OF REVISIONS IN 2005



## Regional revisions to PPPs in 2005 and in 2011

Region	Mean log ratio 2005	Mean log ratio 2011
Africa	0.57	-0.24
Asia & Pacific	0.46	-0.34
CIS	0.40	-0.15
Eurostat/OECD	0.08	-0.00
Latin America	0.26	-0.13
Western Asia	0.38	-0.57

# What happened?

83

- Bettina Aten and I have argued that the problem lies with 2005 ICP, not 2011 ICP
- Estimates within each region are broadly OK
  - ▣ Subject to standard errors
- Joining up the regions is hard: tectonic plates move continents
  - ▣ 2005 used a “ring” of 18 countries and about 1,100 items to be priced
  - ▣ Those used to join up the regions with four “tectonic” price indexes
  - ▣ Evidence is that the ring goods were overpriced in Africa and South Asia, making those countries price levels too high
  - ▣ Which made them poorer than they should have been
- This was not repeated in 2011, where there was a common core list
  - ▣ Goods priced in all countries
  - ▣ To which countries added their own regional prices

# And the consequences?

84

- Poor countries got poorer **relative to rich countries** in 2005 revision
  - ▣ Or rich countries got richer relative to poor countries
- Poor countries got richer **relative to rich countries** in 2011 revision
  - ▣ Or rich countries got poorer relative to poor countries
- China became almost as large as the US in 2011
  - ▣ Much to their discomfort!
- So measured inequality went up and then down
- What happened to poverty is much more difficult
- Both poverty and inequality will be my topics tomorrow

# Summary thoughts on ICP

85

- Though PPPs and GDP in PPP are widely used by economists, through Penn World Table
  - ▣ Much shakier than one might think or hope
  - ▣ Methodological changes over time, so linking “rounds” is hazardous
  - ▣ Conceptual difficulties of such price indexes
  - ▣ Specific problems with particular rounds
- No one should be using PWT between rounds
  - ▣ Repeatedly said and repeatedly ignored

# ICP jumping around

86

- Combines with hypersensitivity of poverty rates to small changes in lines
  - ▣ Which changes in PPPs bring about
- As much a problem of using HCR near a well-populated line as it is of measuring prices
  - ▣ Perfect storm of measurement difficulties
  - ▣ Some politics, but less severe if only because we do not live in a cosmopolitan world: no one is ultimately responsible for global poverty
  - ▣ No one gets money depending on the numbers
- Which I shall talk about tomorrow

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## Lecture 3

Papal infallibility, global poverty, and the mystery of global inequality



## APOSTOLIC EXHORTATION



APOSTOLIC EXHORTATION  
*EVANGELII GAUDIUM*  
OF THE HOLY FATHER  
FRANCIS  
TO THE BISHOPS, CLERGY,  
CONSECRATED PERSONS  
AND THE LAY FAITHFUL  
ON THE PROCLAMATION OF THE GOSPEL  
IN TODAY'S WORLD

Given in Rome, at Saint Peter's, on 24 November, the solemnity of Our Lord Jesus Christ, King of the Universe, and the conclusion of the Year of Faith, in the year 2013, the first of my Pontificate.

*Franciscus*

# From “The Joy of the Gospel”

91

- While the earnings of a minority are growing exponentially, so too is the gap separating the majority from the prosperity enjoyed by those happy few.
- This imbalance is the result of ideologies which defend the absolute autonomy of the marketplace and financial speculation. Consequently, they reject the right of states, charged with vigilance for the common good, to exercise any form of control. A new tyranny is thus born, invisible and often virtual, which unilaterally and relentlessly imposes its own laws and rules. Debt and the accumulation of interest also make it difficult for countries to realize the potential of their own economies and keep citizens from enjoying their real purchasing power. To all this we can add widespread corruption and self-serving tax evasion, which have taken on worldwide dimensions. The thirst for power and possessions knows no limits. In this system, which tends to devour everything which stands in the way of increased profits, whatever is fragile, like the environment, is defenseless before the interests of a deified market, which become the only rule.
- *No to a financial system which rules rather than serves*

# From “The Joy of the Gospel”

92

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# From “The Joy of the Gospel”

93

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- *No to a financial system which rules rather than serves*

# Summary of the exhortation

94

1. Global inequality is rising
2. Prosperity is only enjoyed by a few: poverty stagnant?
3. Inequality undermines democracy in the interests of the very rich
4. Unpleasant arithmetic of debt dynamics can undermine living standards
  1. Note reference to “real purchasing power”=PPPs?
5. Unregulated financial systems cause rising inequality
  1. Perhaps a reference to Piketty’s patrimonial society?
6. The market takes no account of externalities, of which climate change is the most important
7. I shall focus on 1 and 2, leaving the other issues for another day

# Start with global poverty

95

- Global poverty was first measured by Ahluwalia, Carter and Chenery in 1979
- Took an Indian poverty line using 45<sup>th</sup> percentile in India
  - ▣ Consistent with official and academic Indian lines of the time
  - ▣ Converted it to other currencies using PPPs from Penn published in 1978 (most of which interpolated): similar results with exchange rates
  - ▣ \$200 PPP in 1970 prices (\$1.40 per person per day at 1985 prices)
- Calculated number of people in the world below that line by applying gini coefficients to GDP per capita in each country
  - ▣ If you have the mean from the national accounts, and a measure of spread, then with assumptions you can calculate the number below a line
  - ▣ More than a half of people in LDCs were poor
- Like the Pope today, in spite of rapid growth in developing countries, poor benefited “to a very limited degree”

# Later lines

96

- Later measures updated and improved this method, starting with World Development Report 1990
- Used only household survey data, with expanding number of surveys over time
- Moved away from India and took poverty lines from a range of countries
- PLs in PPP terms are lower in poorer countries: take average of poorest countries as a measure of total destitution
- Started out as \$1 a day in PPP terms in 1985 dollars, became \$1.08 in 2000, and then \$1.25 in 2005.
  - ▣ Revisions because PPPs change, because of inflation
  - ▣ The group of poverty line countries changed for 2005 numbers



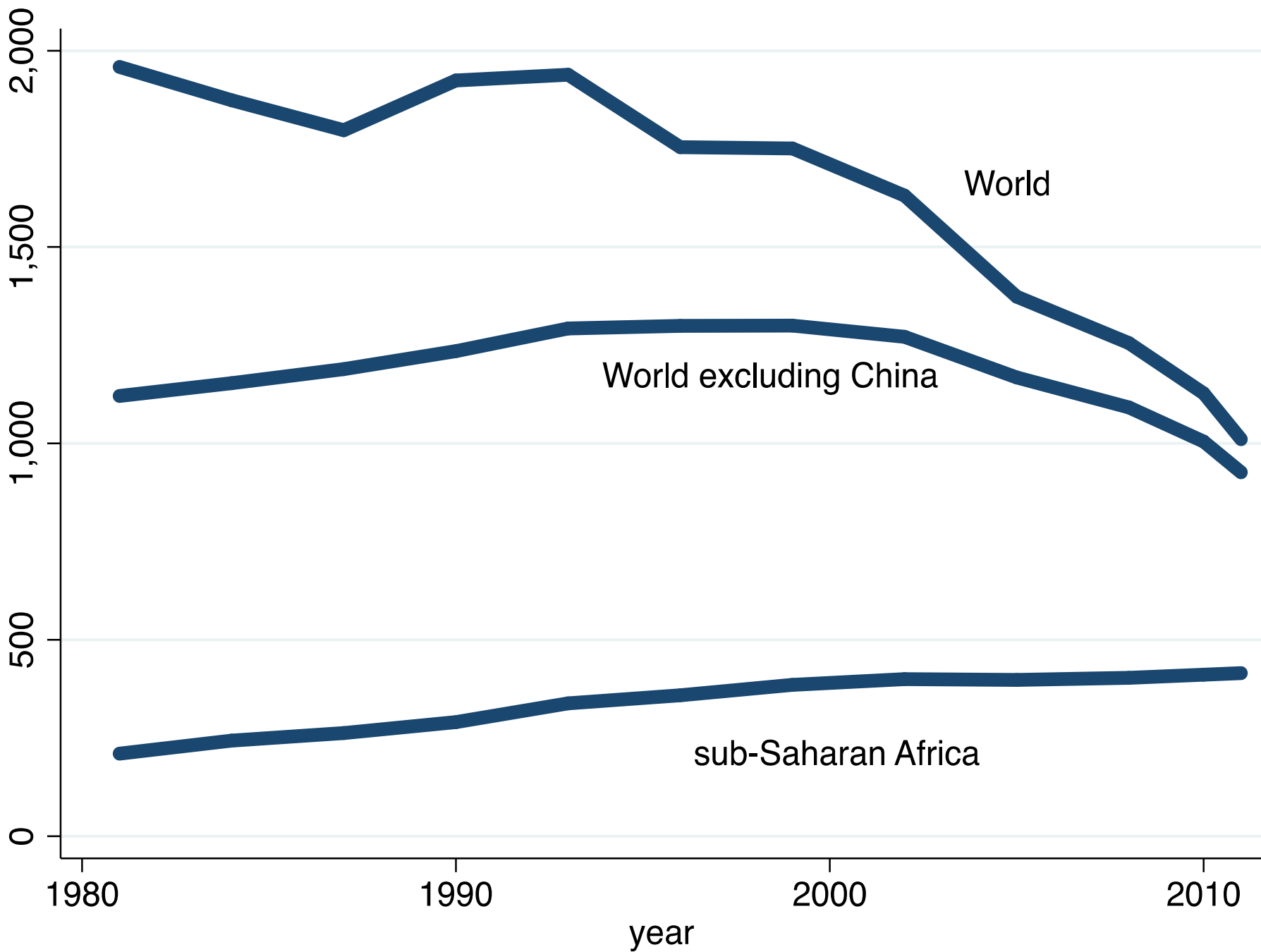
# Current World Bank counts

97

- \$1.25 numbers are shown in the next slide.
- Rapid decline, much of it driven by China, then India, then some SSA recently
  - ▣ Though at least some of SSA decline is projected from GDP growth
- ICP and procedural uncertainties certainly affect the level
  - ▣ Direction of change is robust
  - ▣ In China, all data are suspect, subject to political manipulation
  - ▣ In India, national accounts are weak, and given the political importance of high growth, little attempt to “improve”
    - My guess is that Indian growth rates are too high
    - But the Bank doesn’t use them anyway, only household survey data

number of poor, millions

98



# Effects of revisions

99

- The revision from 1985 to 1993 PPPs made sub-Saharan Africa much poorer relative to LAC and South Asia
  - ▣ LAC fell from 23.5 to 15.3 percent HCR in 1993
  - ▣ SSA rose from 39.1 to 49.7 percent HCR in 1993
- The idea of SSA as the home of poverty comes from this period
  - ▣ Though there are certainly other reasons

# ICP 2005 revision

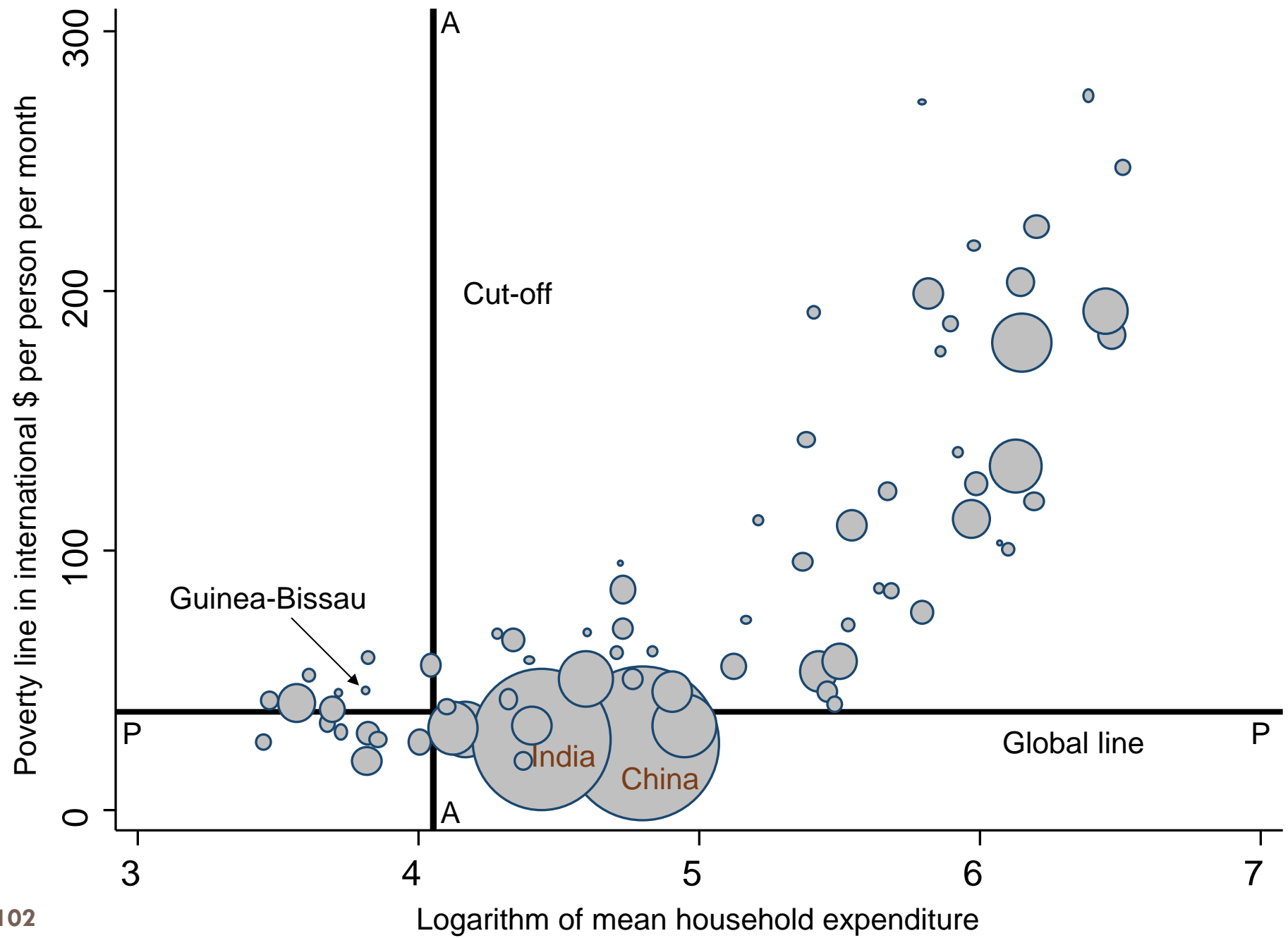
100

- The revision from 1993 to 2005 together with the Bank's change in the poverty line had much larger effects. Again for the year 1993
  - ▣ EAP from 25.2 to 50.8 percent
  - ▣ SSA from 49.7 to 56.9 percent
  - ▣ World poverty increased by a third
- Overall trends are robust, regional distribution of poverty less so, country distribution even less so
  - ▣ Numbers not used in Bank or other agency work
  - ▣ Public discussion of global poverty is shaped by numbers

# The 2005 ICP and poverty

101

- ICP 2005 made poor countries poorer relative to the US, or rich countries richer relative to India or SSA
- This would not in itself change global poverty count which is defined in terms of a poor country poverty line
  - ▣ PPPs for poor countries relative to rich countries are irrelevant
  - ▣ If India was whole poor world, global line would be Indian line, and number poor would be Indian poor, which does not change
  - ▣ Value of Indian poverty line is now less in USD
- However, Bank changed the list of countries defining the global line
  - ▣ New set had relatively higher poverty lines
  - ▣ So line was increased in poor country terms
  - ▣ Which increased global poverty by about 30 percent



# Interpretation

103

- Bank attributed increase to ICP rather than to change in poverty lines
- Bank has accusers who claim that it does such things to increase its relevance by inflating poverty numbers
  - ▣ Not true, certainly not consciously
  - ▣ Yet chief economist noted “the sobering news—that poverty is more pervasive than we thought—means that we should redouble our efforts, especially in sub-Saharan Africa”
  - ▣ Just as true to say, “richness is more pervasive than we thought”
  - ▣ Other international organizations have done much worse using even weaker data
    - FAO and hunger and pushed by UN
- What were the effects?

# Global politics and 2005 revision

104

- Reducing global poverty (by World Bank count) is MDG 1
- The Bank increased poverty line and poverty count in the middle of this process
- Deafening silence from development community
- Compare this with Newt Gingrich and the US CPI
- These are NOT important numbers
  - ▣ Except for Angelina Jolie, Bono, and the Pope
  - ▣ Nothing hinges on them, neither Bank nor countries use them
  - ▣ We do not have a world government with transfers
- If they were more important, there would be more international supervision of their production
  - ▣ As there is in national statistical agencies
  - ▣ Collective, not individual, responsibility



# The 2011 revision

105

- Recall that 2011 ICP undid much of the revision in 2005, so that poor world became richer relative to rich world
- If we hold the \$1.25 poverty line, global poverty will fall by more than a half
  - ▣ The corresponding response would today be “the inebriating news—that poverty is less pervasive than we thought—means that we should halve our efforts, especially in sub-Saharan Africa”
  - ▣ The World Bank will certainly NOT say this. Why the asymmetry?

# Options for the future

106

- If we hold global poverty constant, line will have to be increased to more than \$2.
  - ▣ Even with this, there will be major changes across countries and perhaps regions
- World Bank has not decided what to do and is unlikely to issue new poverty numbers for some time
  - ▣ They may even just denounce the new ICP and ignore it
- No indication that those designing SDGs understand that the poverty measures are in such turmoil
  - ▣ Or that they would care if they did
  - ▣ Nothing is tied to achievement of these goals, and no one is held responsible if they do not happen

# Politics of 2011 revision

107

- More reaction this time
  - ▣ CGD was active in noting the changes and their consequences
  - ▣ Both USAID and DFID are concerned about the process
  - ▣ USAID is now committed to a poverty reduction target after Obama's 2013 SOTU speech committing to eradicate extreme poverty in the next two decades
- So perhaps if it matters more, the production of the numbers will be taken more seriously
- A global line that is the average of poorest country lines is broken and needs to be replaced
  - ▣ Recall the arbitrariness of the Indian lines and the political (I mean expert) fixes
  - ▣ Do we really think line for Guinea-Bissau is better?

# What about global inequality?

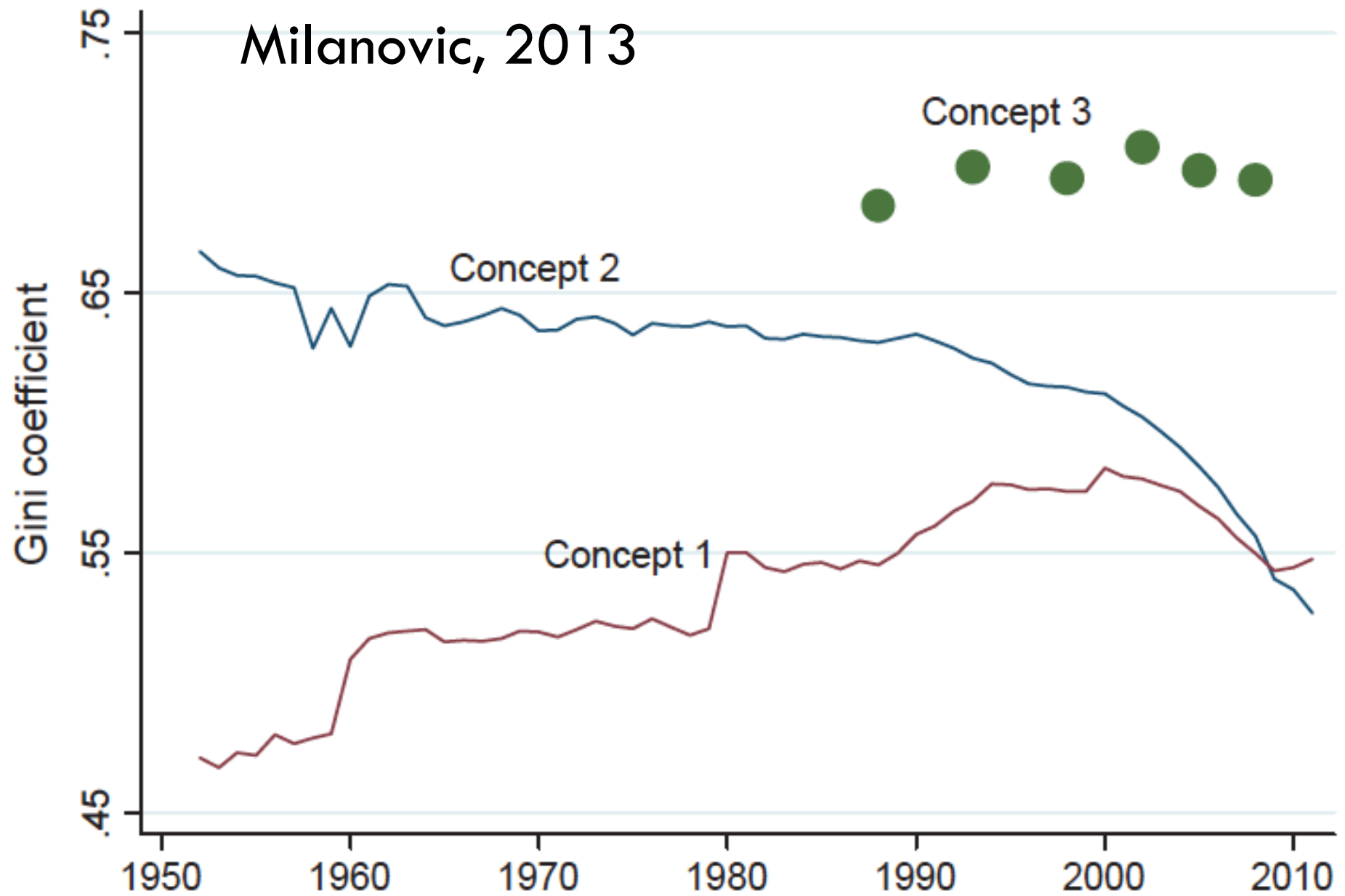
Compared to this, measuring global poverty is easy!

# Three measures of inequality

109

- Classification by Branko Milanovic
- Concept 1
  - ▣ Inequality between countries as units
- Concept 2
  - ▣ Inequality between countries weighted by population
  - ▣ Hypothetical world income distribution if no income inequality in countries
- Concept 3 (cosmopolitan inequality)
  - ▣ Inequality between all of the “citizens” of the world
  - ▣ Milanovic has pulled together surveys to make this possible
- NB All of these involve income per capita
- Other possibilities, e.g. inequality between *total* GDP
  - ▣ particularly of interest to US and China
  - ▣ Relevant for international relations, power, CIA, and so on

Milanovic, 2013



# Modifications

111

- Milanovic has recently calculated what would happen if gap between surveys and NAS is attributed to top incomes
- Gini goes up to close to 75 percent (Type III)
- Not clear, again, that there is any decline in Type III
  - ▣ Increasing inequality at the top offsets the effects of India and China joining the middle class
- This is entirely speculative
- These graphs use ICP 2005 and ICP 2011 changes things
  - ▣ Yet again

s.d. of log income per capita

1.3  
1.2  
1.1  
1

WDI, ICP 2005

WDI, ICP 2011

WDI, ICP 1993

Concept 1 inequality  
Each country as a  
unit

COUNTRIES PULLING APART, UNTIL V RECENTLY

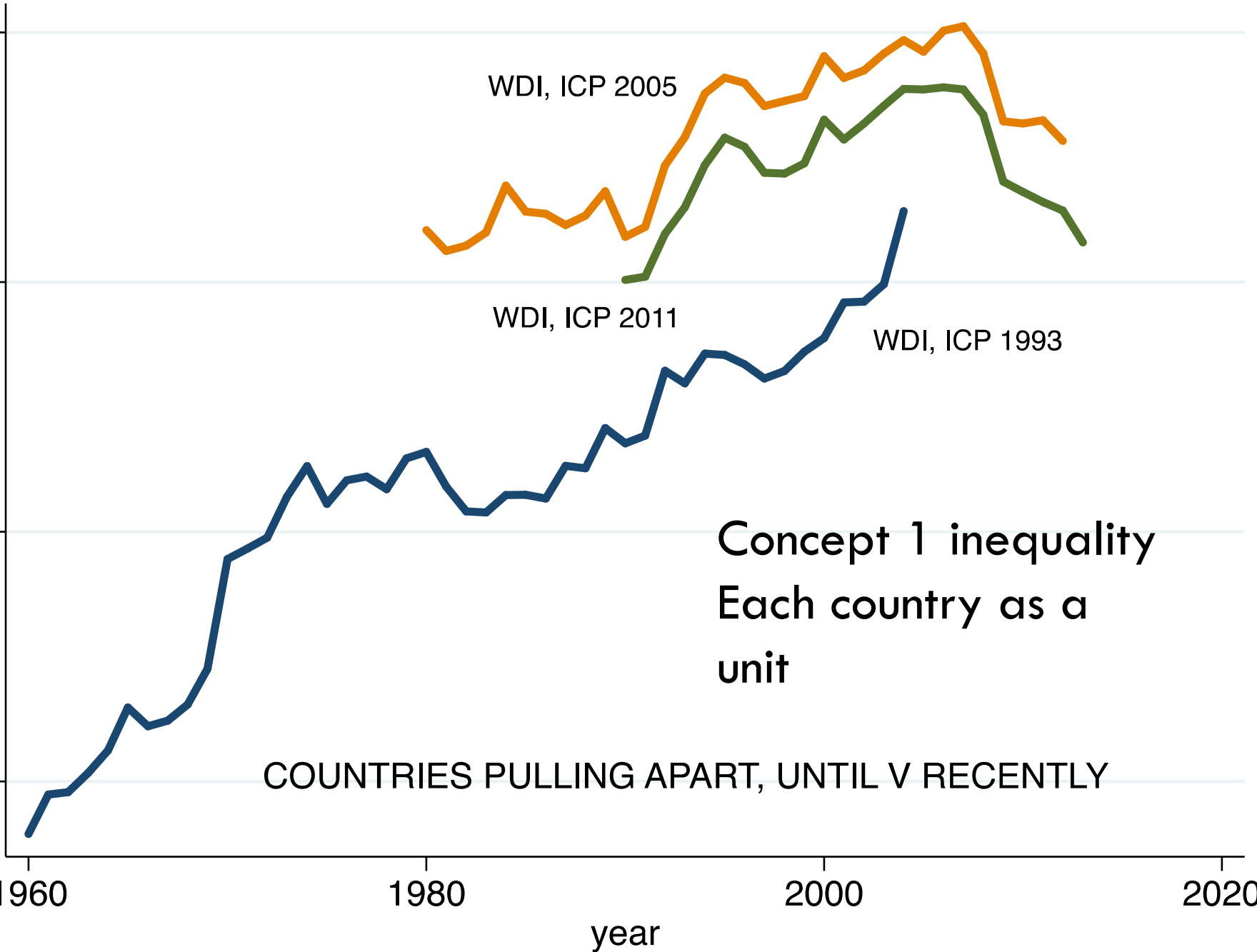
1960

1980

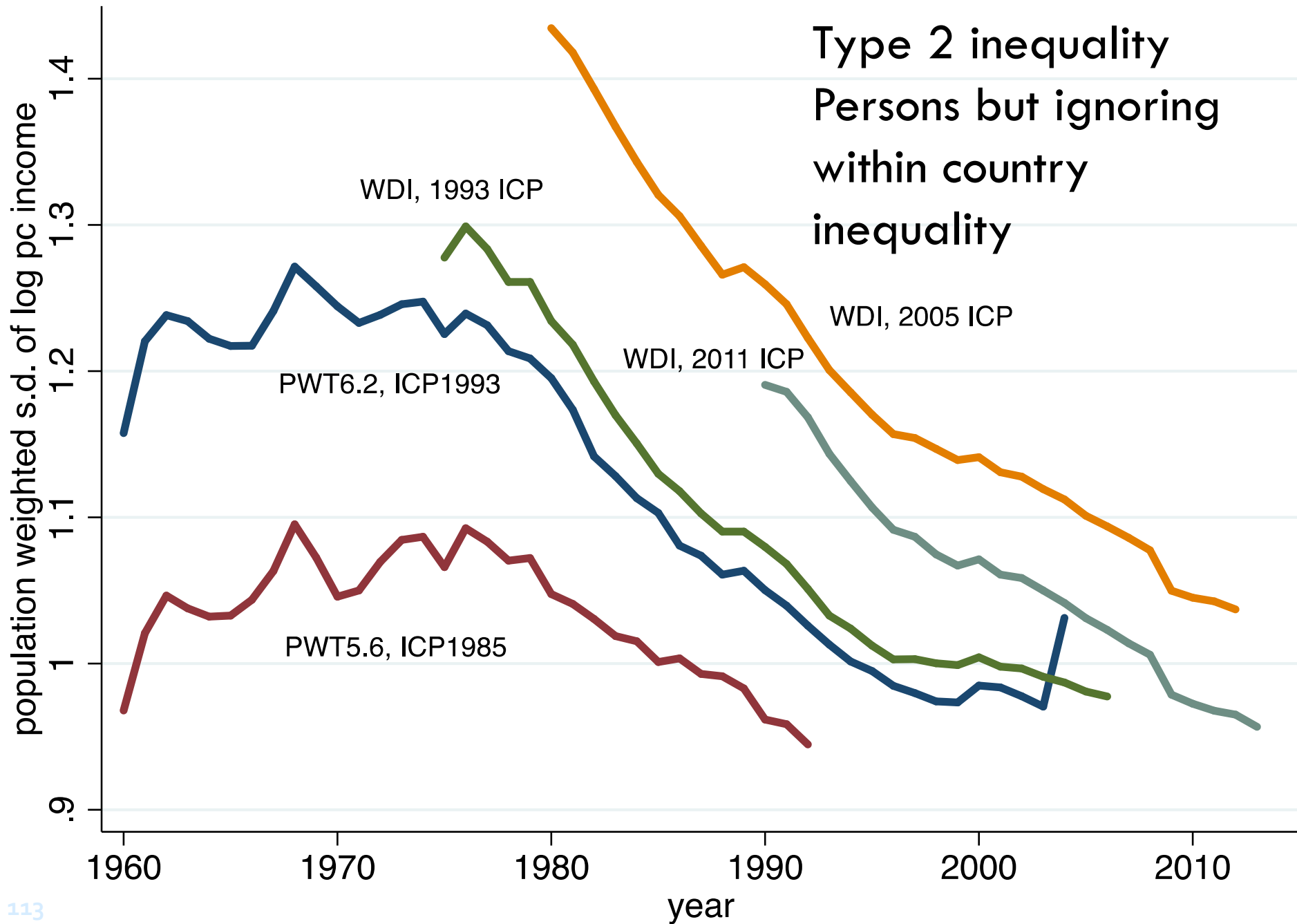
2000

2020

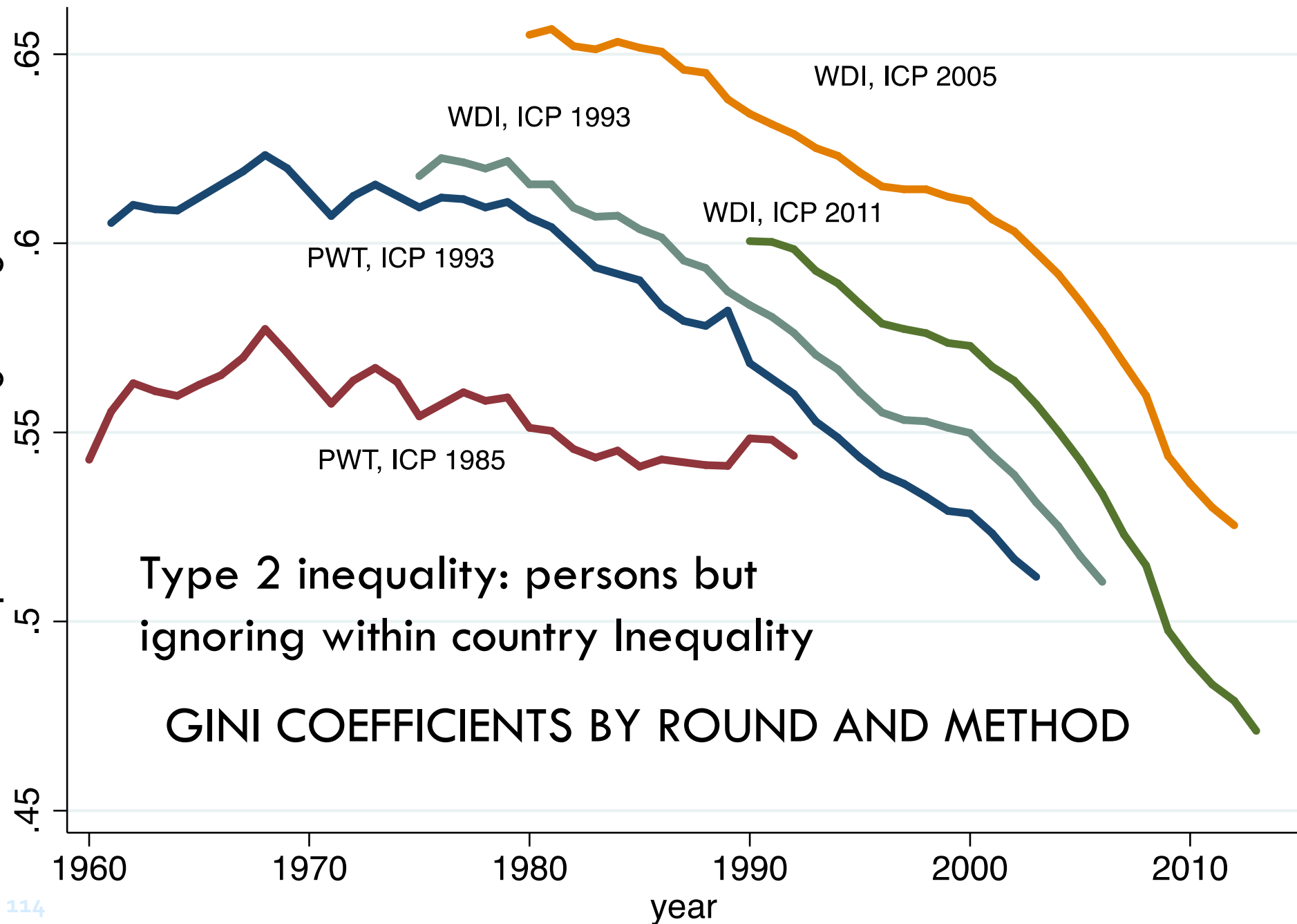
year

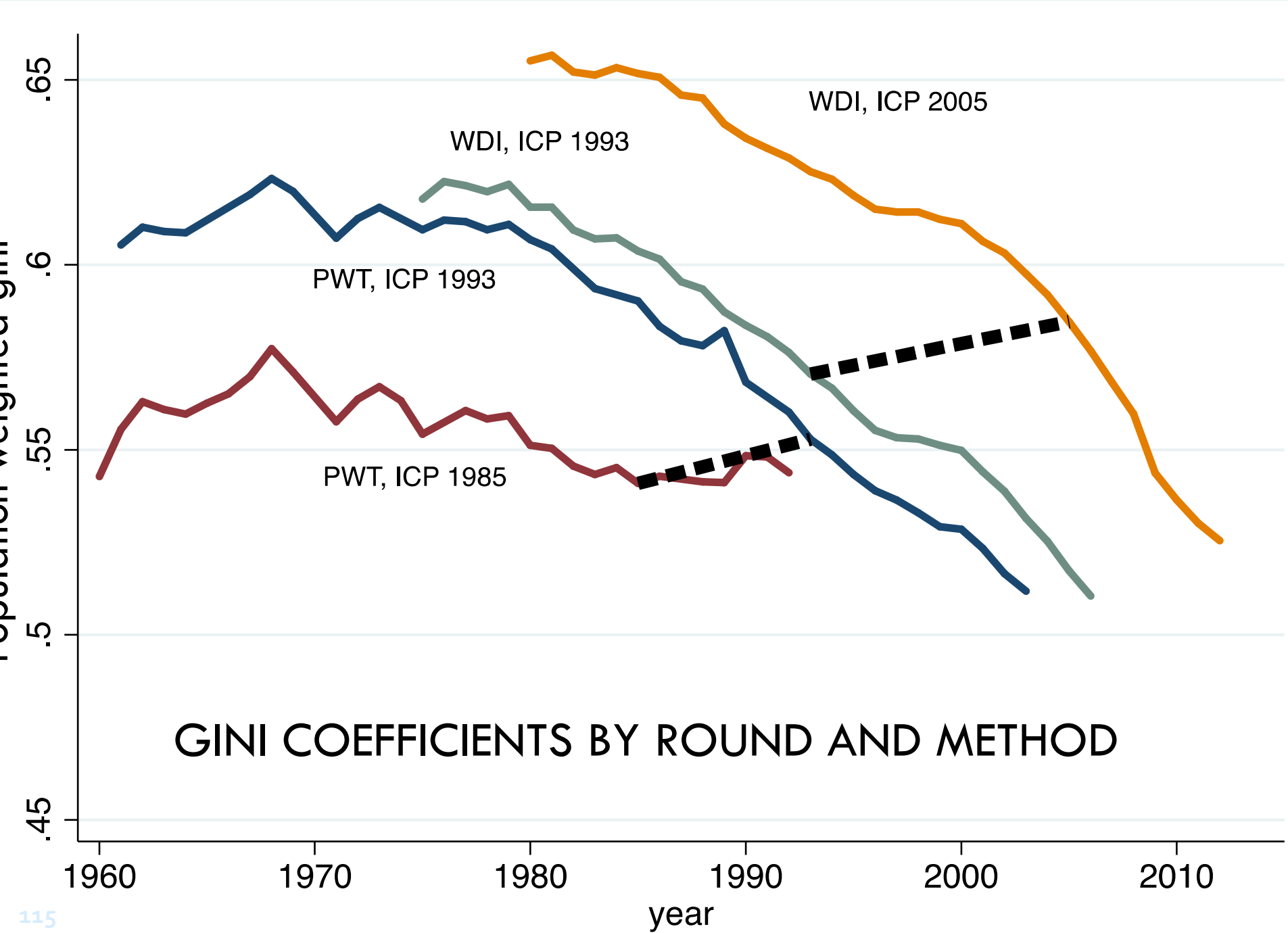


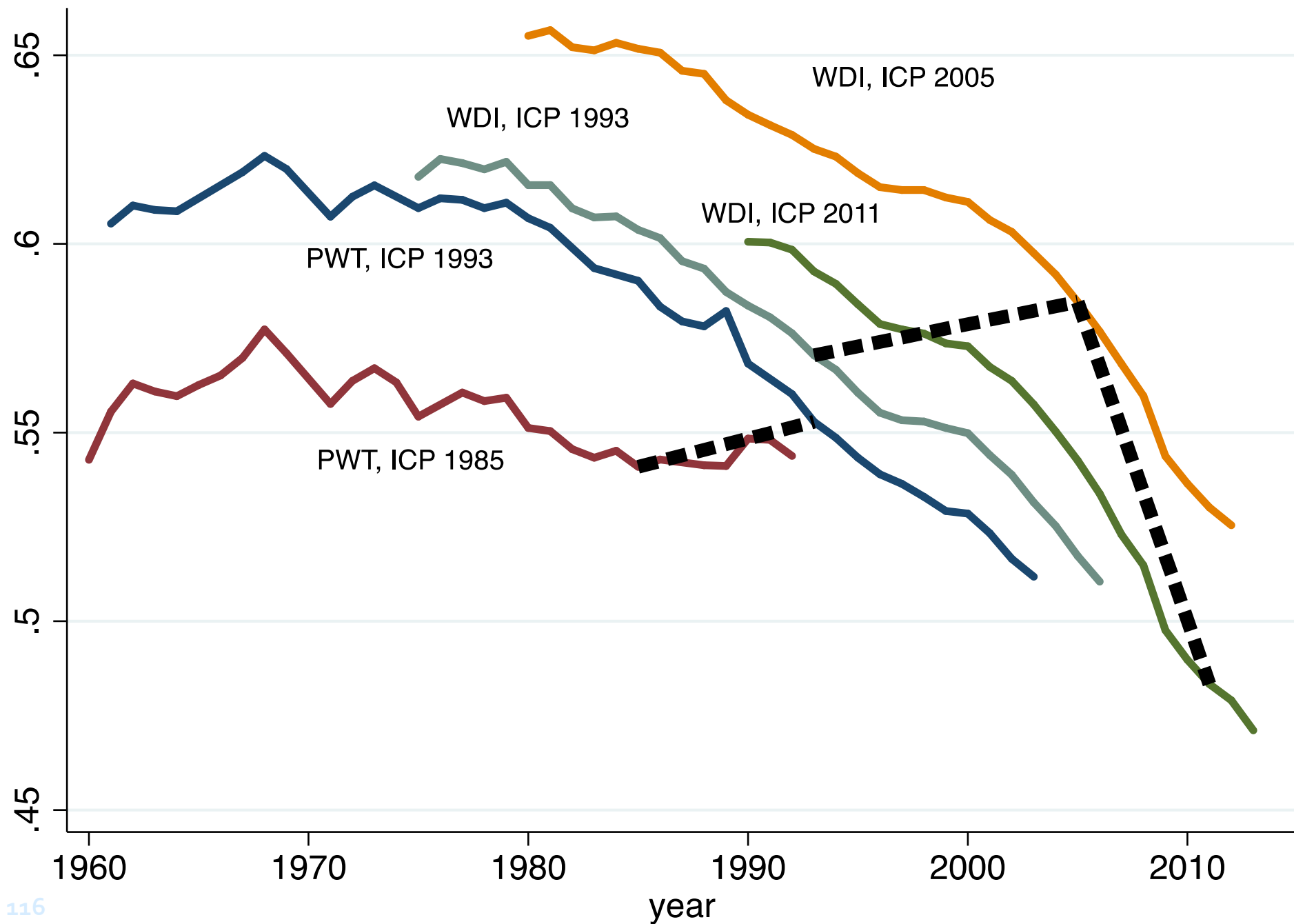




Population weighted gini







# Concept 3, global inequality?

117

- Given the sensitivity in the Milanovic slide
- And the crucial role played by growth in India and China
- Can we really make sensible statements about global inequality when the standard errors of the China and India PPPs are 15 percent?
- Looks better with 2011 numbers, than before
- And the value of domestic growth in India and China is uncertain in any case
  - ▣ Deliberate upward bias in the case of China
  - ▣ Inattention and poor data in the case of India, and political economy
- And household surveys do not show as much growth as NAS

# Inequality v poverty

118

- MUCH more sensitive for calculations of global poverty
  - ▣ Because hundreds of millions of people live near the global lines of \$1.25 or \$1.00, small changes in PPPs take them in and out of poverty
- Not sure that this, either, is a feasible task to acceptable precision

# Richard Stone's view

119

- Reminiscent of Richard Stone (1949)
  - ▣ “I do not expect a very rapid resolution of the intellectual problems of making welfare comparisons between widely different communities”
  - ▣ “Why do we need to compare the U.S. with, say, India or China? Everybody knows that one country is very rich and another country very poor, does it matter whether the factor is thirty or fifty or what?”
- Why indeed? What is the purpose here?
  - ▣ Except for the Pope, perhaps?

# Why do we need PPPs anyway?

120

- No domestic relevance within countries
- Not used by World Bank for concessional aid
  - ▣ Though their use stopped UNDP exaggerating depth of world poverty
- Minor role in determining IMF quotas
- Global poverty counts and inequality measures
  - ▣ Do these have policy relevance?
  - ▣ Used by activists and IFIs to argue for more money for aid
  - ▣ Part of MDGs or new SDGs
    - If we think that those do have any effect, or at least poverty goal
  - ▣ Seems like a bad idea for the WB to monitor its own success via its own poverty and inequality measures
    - It is easy to make mistakes and get this wrong
- Pope Francis in *Evangelii Gaudium* seems to have got his information from somewhere else anyway



# Political economy

121

- Does it matter if we are out by 50 percent in measuring relative income of US and China, or France and Mali?
  - ▣ It matters within Europe, because of the EC that makes transfers
- There is no international government
  - ▣ “Cosmopolitan” philosophers argue that the WB or other IFIs should somehow assume that role
  - ▣ Hard to believe this is feasible
  - ▣ Others (Rawls, Nagel, etc.) argue that this is concept of justice is wrong & that an international government would be tyrannical
- Why do we need to know?
  - ▣ CIA? Pentagon?

# Conclusions

122

- Maybe Stone was right
  - ▣ We have made less progress than we might think
- Maybe Pope Francis is right
  - ▣ Or as good a guess as any
- Accurate estimation of global inequality is possibly out of reach
  - ▣ PPPs are subject to substantial error
  - ▣ Much of which is conceptual and not resolvable
  - ▣ Even so, market exchange rates are much worse for living standards & greatly exaggerate global inequality in living standards

# More conclusions

123

- Do not automatically reach for PWT if you don't need it
  - ▣ Better to use real lcu magnitudes when possible, e.g. growth analysis
  - ▣ Why are US weights relevant to Kenyan or German growth rates?
- Customize PPPs to purpose
  - ▣ Don't mess up Canada v US through Tajikistan, or even Kenya
  - ▣ Use regional estimates when at all possible
  - ▣ Parities and weights are readily available and coding is trivial

# Better measures of global poverty?

124

- ICP cannot be avoided though we could minimize effects of its instability
  - ▣ The ICP needs to be on some sort of rolling basis, like Eurostat
  - ▣ But cost and relevance
  - ▣ We cannot make comparisons of living standards without prices of comparable items of some sort
- For poverty consider Bob Allen's work
- Allen has collected data on wages of various occupations back to 14<sup>th</sup> century, as well as across space
  - ▣ London, Amsterdam, Vienna, Florence, Delhi, Beijing, and other cities
- Needs a price index, or better, a reference basket

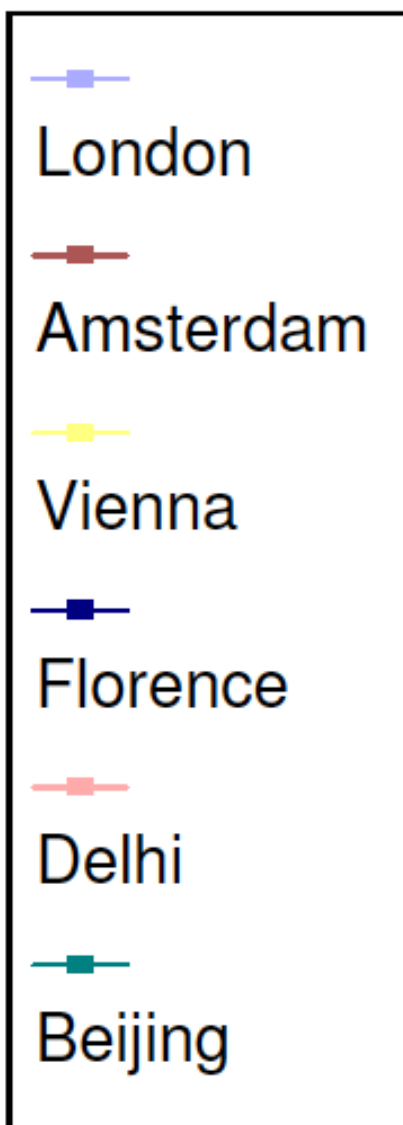
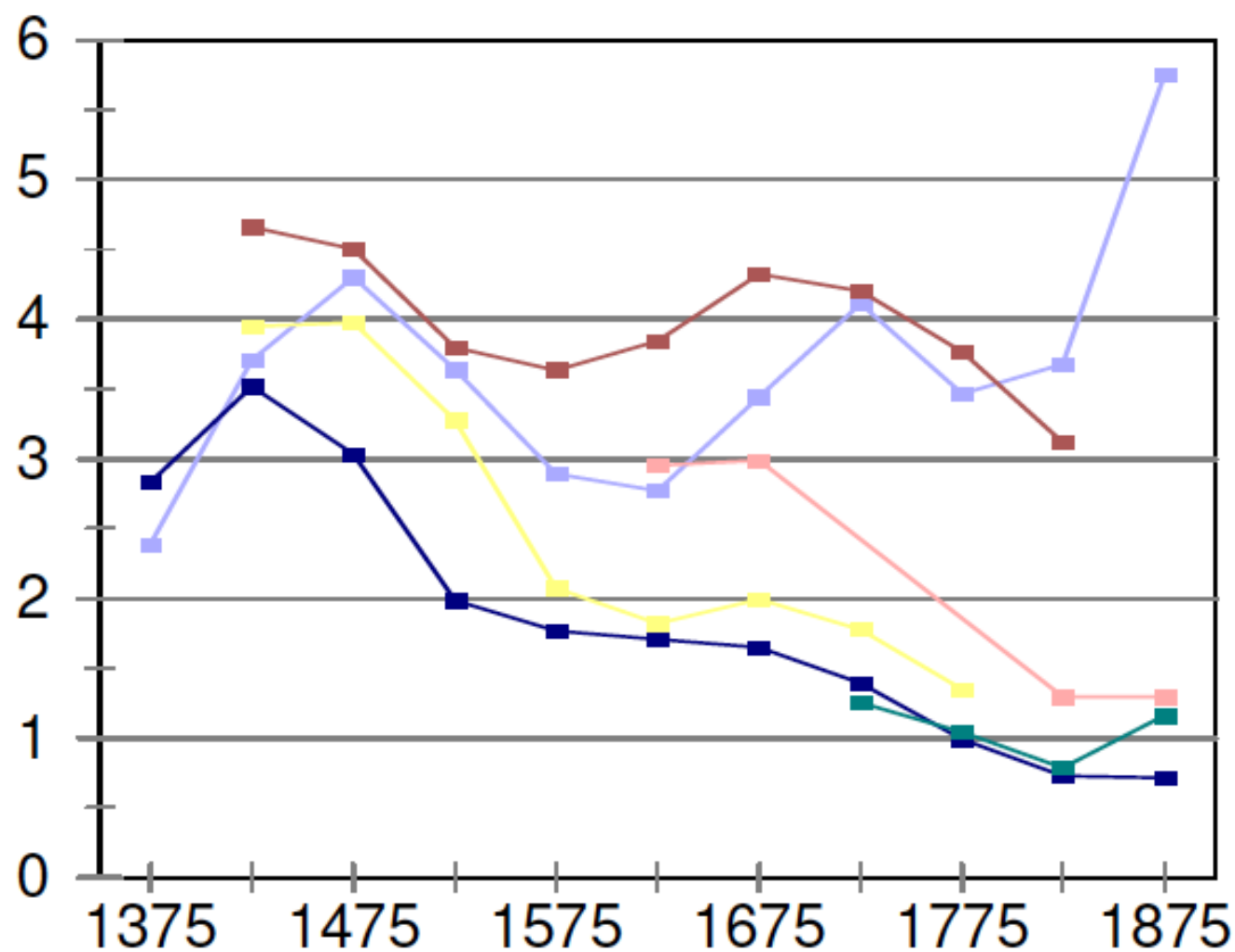
# Allen's lines

125

- Using the budget studies of Davies and Eden in 1790s, constructed various baskets
  - ▣ Including a “respectability” basket and a “subsistence” basket
- Baskets work across space and time with obvious substitutions for local staple, wine for beer, olive oil for butter, and so on
- Calculates “welfare ratios” = numbers of baskets can be bought with earnings
- “Great divergence”: Holland and Britain won the age of empire: higher wages
  - ▣ Accounted for Industrial Revolution
  - ▣ Accounted for different settlement patterns in N and S America
  - ▣ Not institutions, not culture, but relative prices

## Subsistence Ratio for Labourers

income/cost of subsistence basket



# Bringing history to today?

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- Allen has recently suggested these be used today to document global poverty
- NB we still need prices of each of the goods in the bundle
- But that is all: no education, health, government services, or other difficult
  - ▣ Because the basket is so stripped-down: drawbacks too
- No need to use poverty lines whose derivation is obscure
- Very clearly transparent, unlike ICP or current poverty line setting, which confuses even their creators
- Still got quality problems, but relatively contained and trying to price something like a “customary” bundle for a poor person
- One test is whether this would work even in US today
  - ▣ Allen suggests so

## Allen's subsistence bundle at US 2011 average prices from ICP

Item	Annual amt	Price unit	Total
Rice	185kg	\$1.96	\$610.50
Dried Beans	20kg	\$3.40	\$68.00
Beef	5kg	\$8.00	\$40.00
Butter	3kg	\$10.80	\$32.40
Veg oil	3 liters	\$4.40	\$13.20
Soap	1.3 kg	\$5.48	\$7.12
Candles	1.3 kg	\$2.40	\$3.12
Lighting oil	1.3 liters	\$8.80	\$11.40
Cotton cloth	3 sq m	\$9.40	\$28.20
Propane	2 m BTU	\$78.00	\$156.00*
Total incl 5% rent allowance			\$1018.44
Per person per day			\$2.79*

\*If hooked up, mains gas would be \$24, reducing total to \$2.41 a day



# Does this make sense?

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- Latest Indian line for 2011 by latest Expert Group
  - ▣ \$2.67 per person per day urban and \$1.78 per person per day rural
  - ▣ Cf \$2.79 to \$2.41 for the US on previous slide
    - Rough but fairly robust on the main items
    - Does not depend on very doubtful poverty lines from around the world
- Gains in transparency from what it lacks in sophistication
  - ▣ And bypasses many of the thorniest problems of the ICP
- A real possible way forward that might resolve the mess that we are currently in
- Or we could focus much less on income poverty, period.

# Finally. . .

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- It is important to think about the “political lives of numbers”
  - ▣ Data choices, even in details, reflect interests
  - ▣ But science too: not true that anything goes
  - ▣ Better science and cleaner measurement limits the role for political manipulation
- Lots of other examples other than poverty and inequality
  - ▣ Census counts of population
  - ▣ Estimates of life expectancy
- So the examples here are just that, not the final word