Global inequality: A new approach for the age of globalization
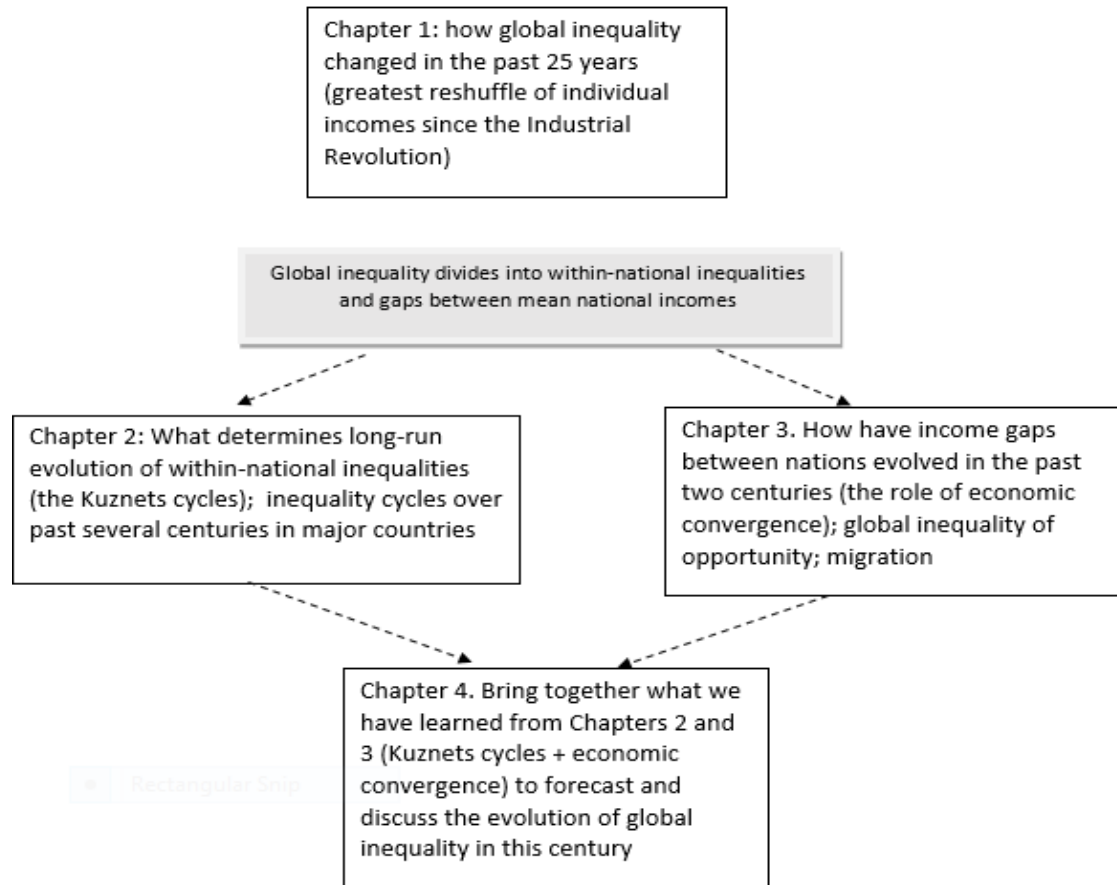
A book talk

Branko Milanovic

May 1, 2016

The structure of the book

Chapter 1: how global inequality changed in the past 25 years (greatest reshuffle of individual incomes since the Industrial Revolution)

Global inequality divides into within-national inequalities and gaps between mean national incomes

Chapter 2: What determines long-run evolution of within-national inequalities (the Kuznets cycles); inequality cycles over past several centuries in major countries

Chapter 3. How have income gaps between nations evolved in the past two centuries (the role of economic convergence); global inequality of opportunity; migration

Chapter 4. Bring together what we have learned from Chapters 2 and 3 (Kuznets cycles + economic convergence) to forecast and discuss the evolution of global inequality in this century

Chapter 1. Current globalization, mid-1980s to today: The rise of the global middle class and global plutocrats

Real income growth at various percentiles of global income distribution, 1988-2008 (in 2005 PPPs)
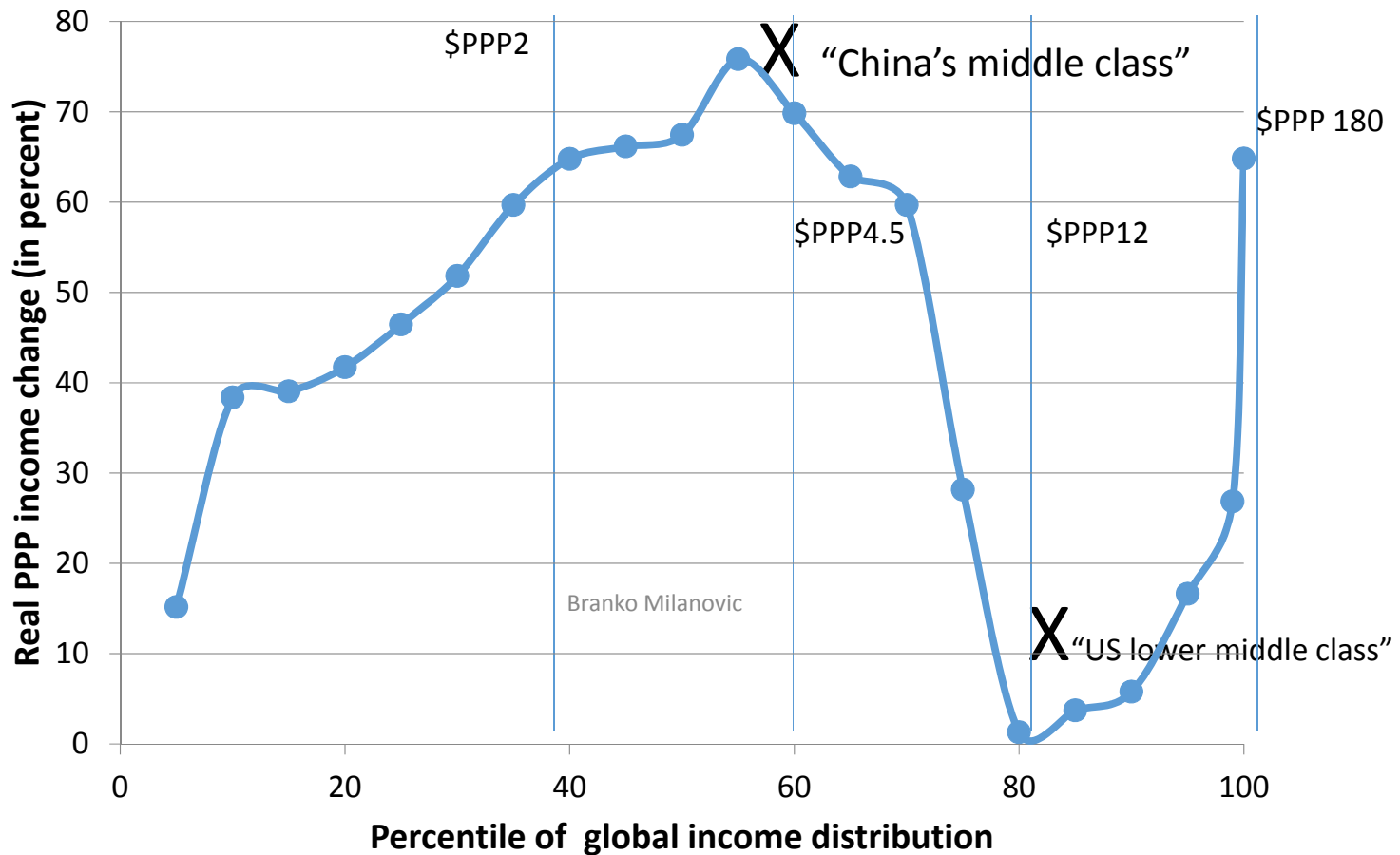
Why we do it? Political implications

- The objective of the work on global inequality is not just a description of the changes but drawing lessons on their political implications
- Point A raises the issue of future political inclusion of the Chinese middle class
- Point B, of rich countries' democracy in condition of income stagnation among many relatively poorer groups
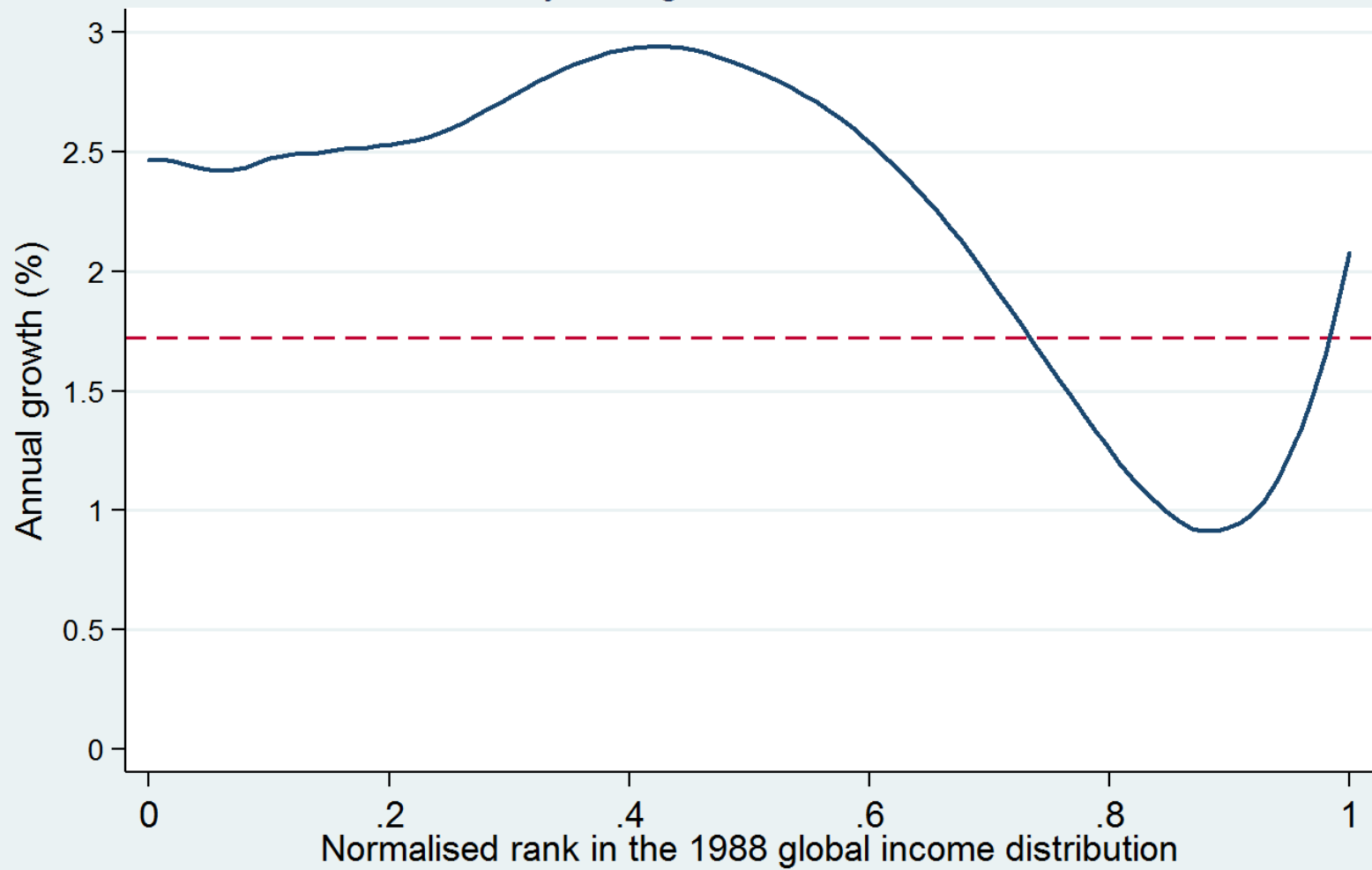- Point C, of global plutocracy

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Global growth incidence curve, 1988-2008 (by percentile)

Usincg c...\twenty_years\dofiles\mygraphs

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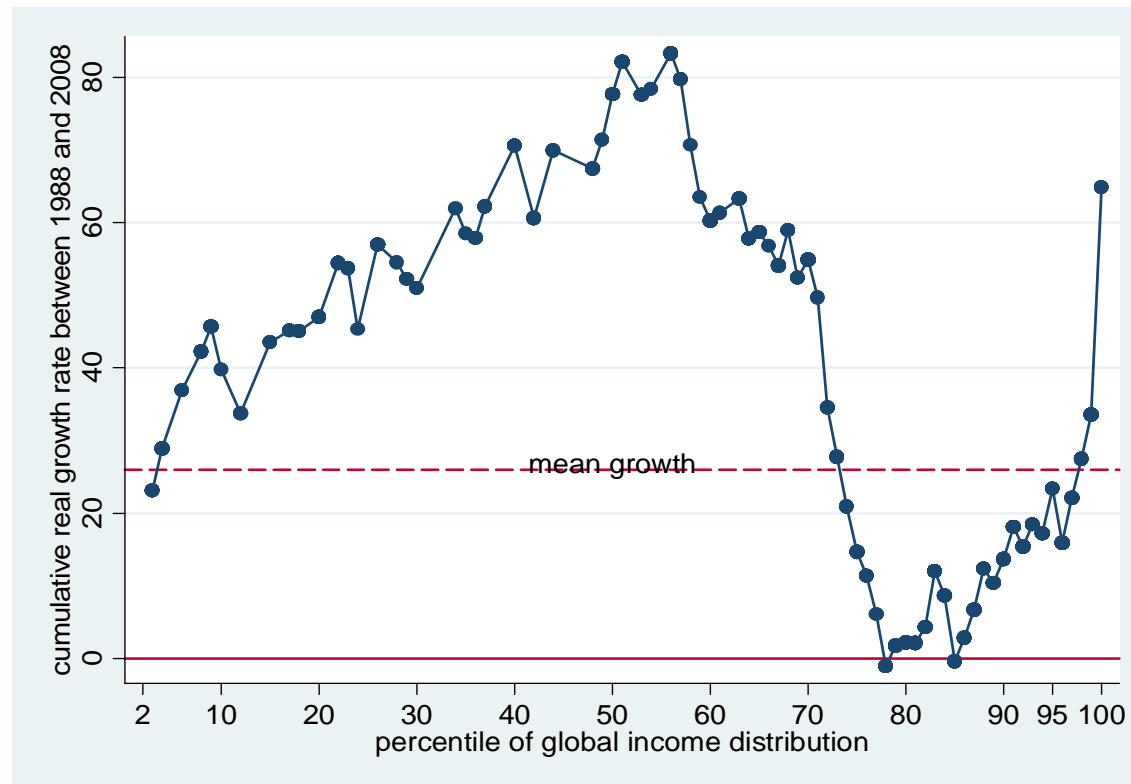
Real income growth over 1988-2008 and 1988-2011 (based on 2011 PPPs)
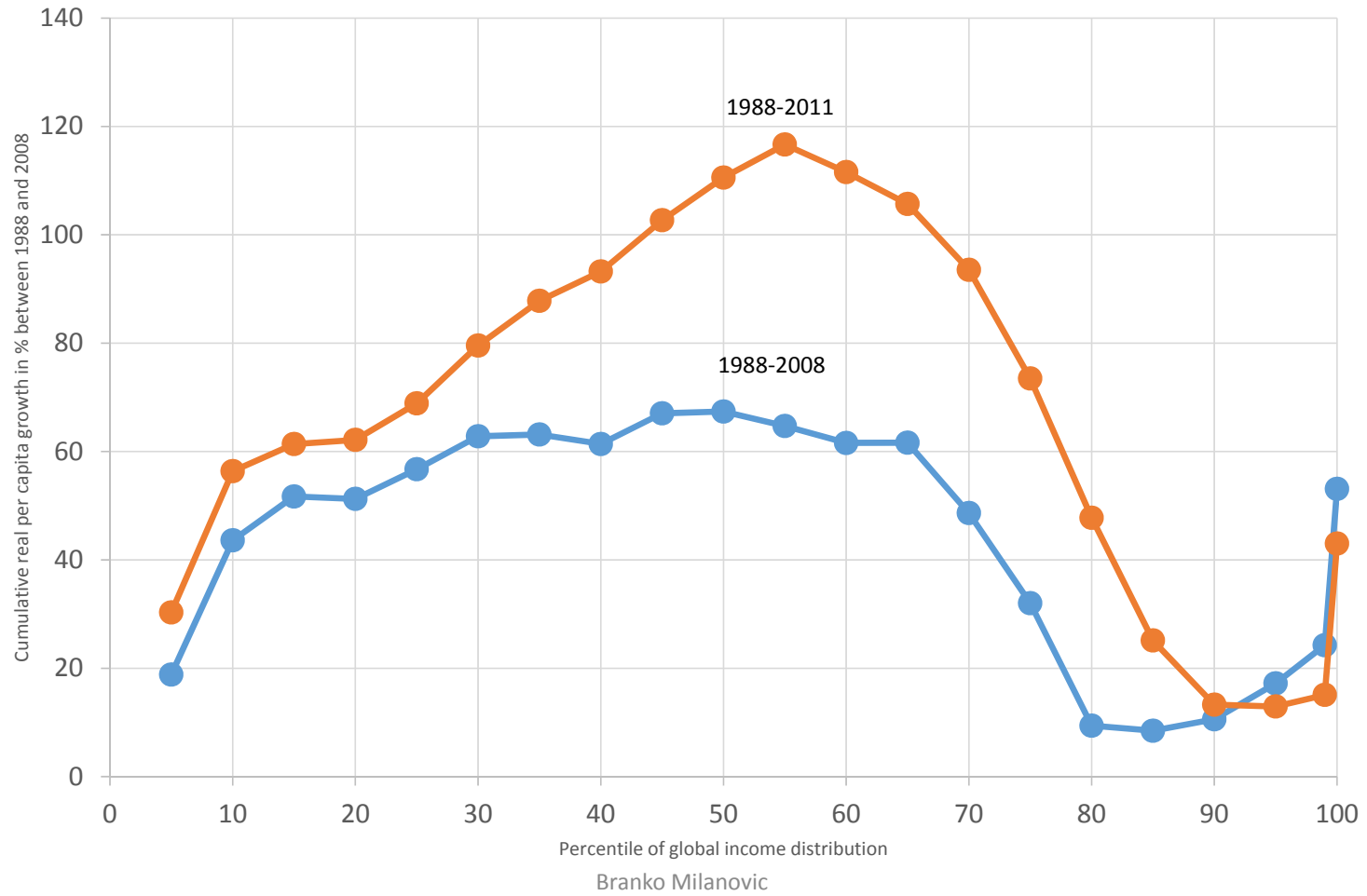
Quasi-non-anonymous growth incidence curve 1988-2008

Annual growth (%)

Normalised rank in the 1988 global income distribution

Solid line: kernel-weighted local polynomial regression (default bw, epanechnikov, cube polynomial).
Dashed line shows growth rate in mean of 1.72% p.a.. Lakner-Milanovic data, population-weighted

Global income distributions in 1988 and 2011
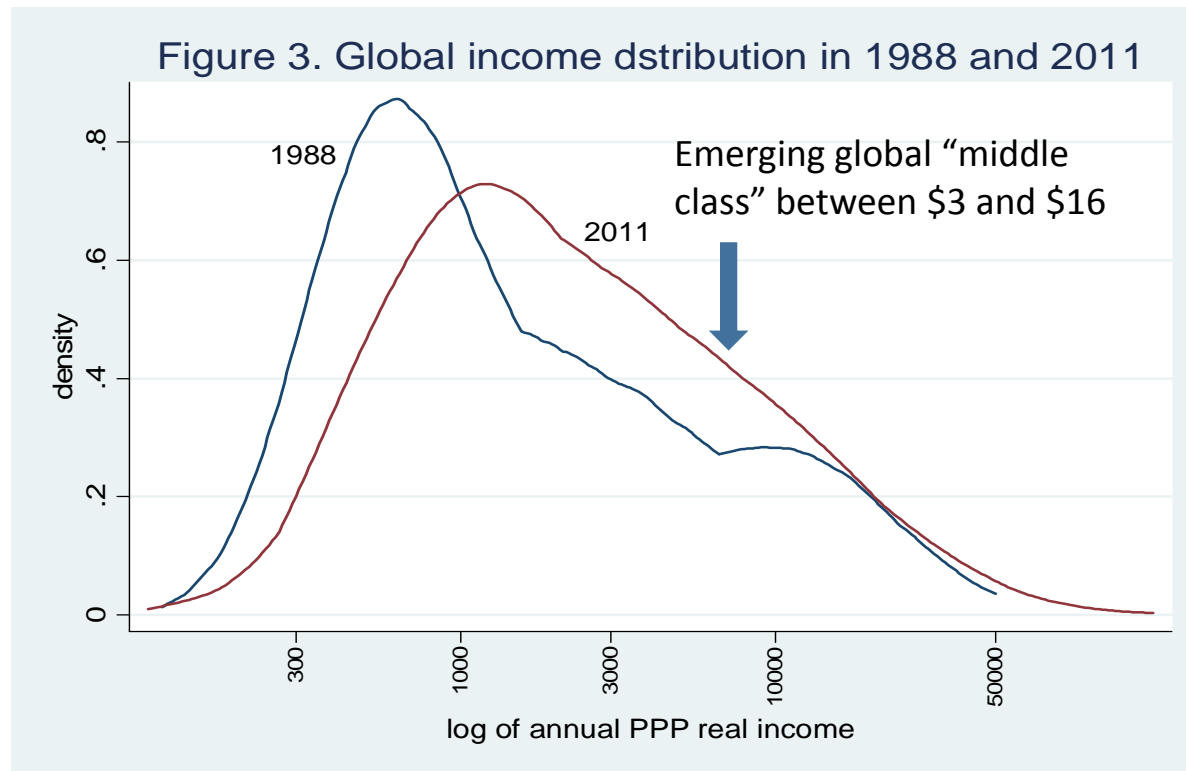
Figure 3. Global income dstribution in 1988 and 2011

1988

2011

Emerging global "middle class" between $3 and $16

density

log of annual PPP real income

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Chapter 2. Inequality within countries: introducing Kuznets waves (cycles) to explain long-term trends in income inequality

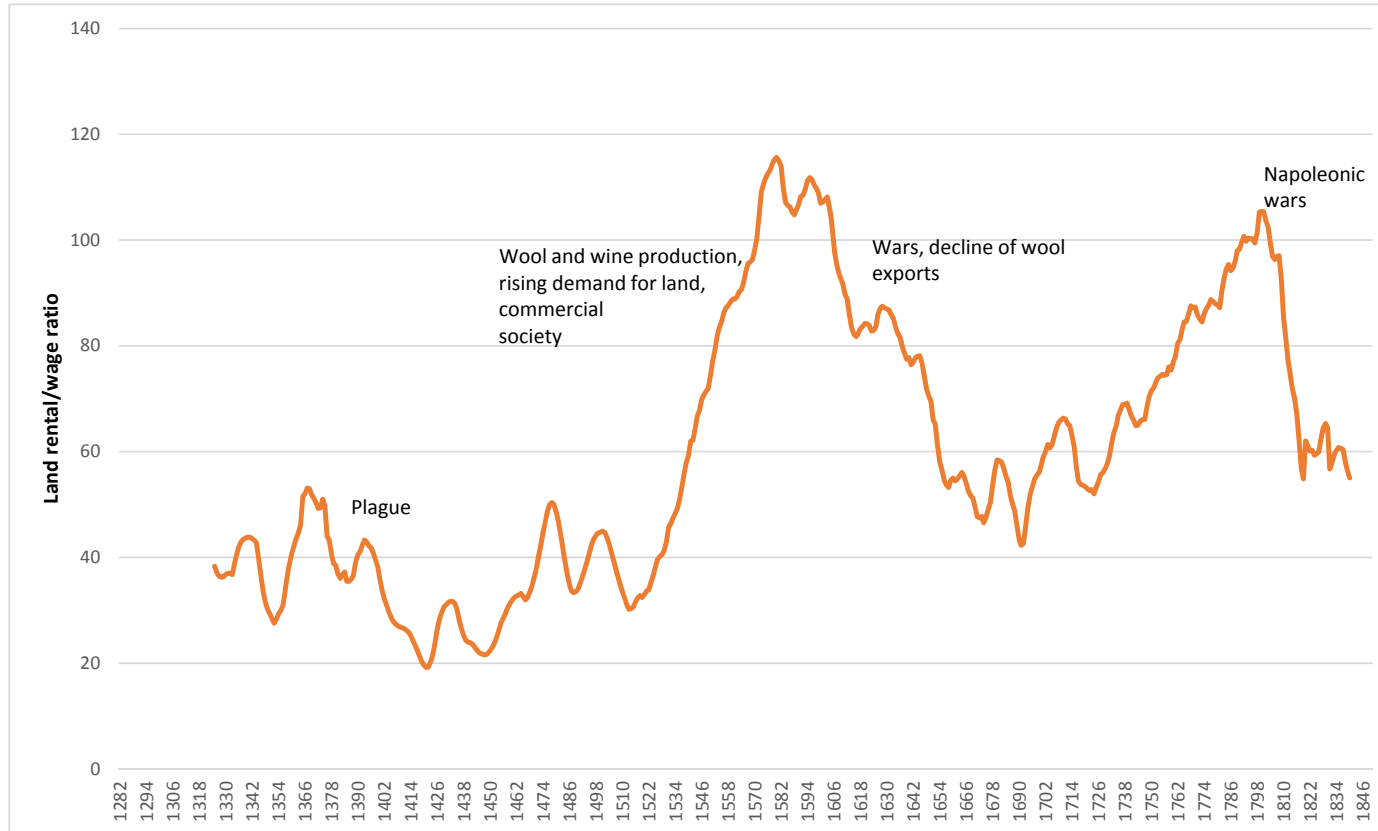# A1. Kuznets' cycles in societies with a stagnant mean income

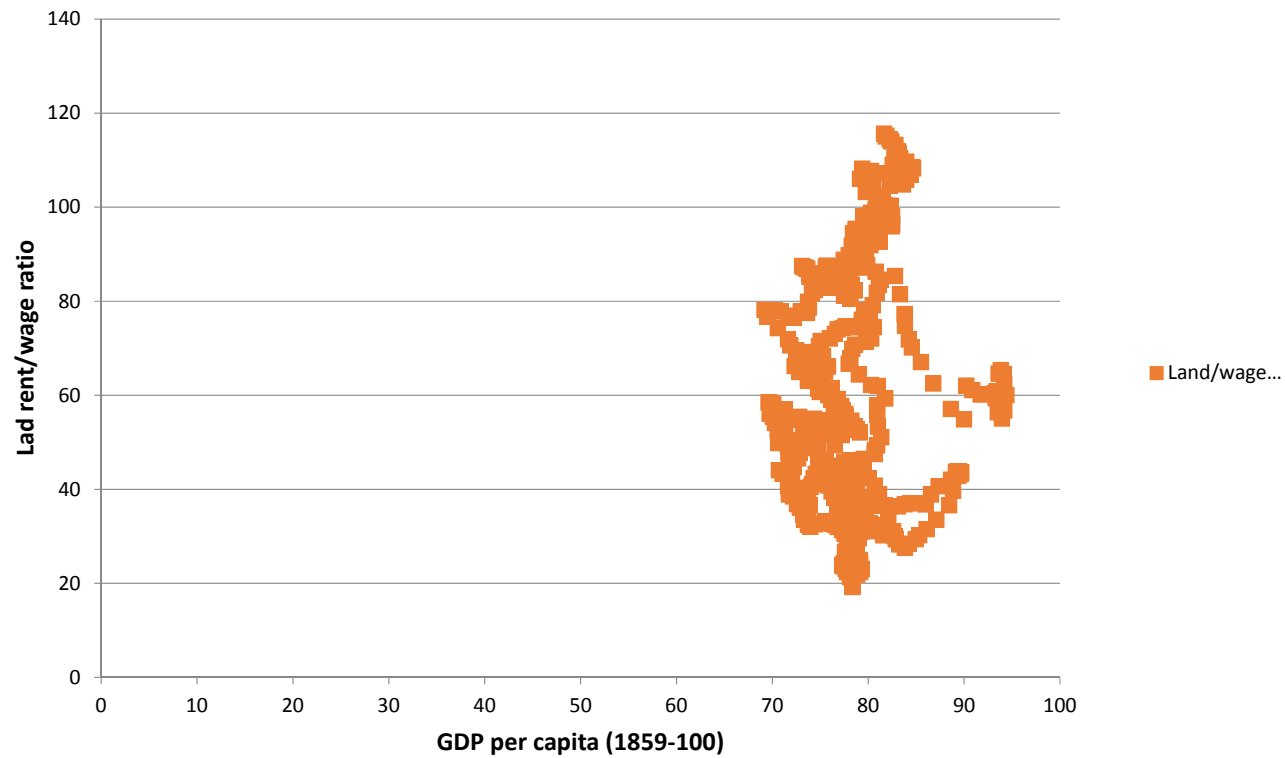# How do societies with stagnant mean income look like?

Seven centuries of GDP per capita in Italy, 1300-2011

Cyclical nature of the Kuznets curve:
Land rental/wage ratio over the long-term in Spain, 1282-1842

Plague

Wool and wine production, rising demand for land, commercial society

Wars, decline of wool exports

Napoleonic wars

Land rental/wage ratio

From Prados de la Escosura & Alvarez-Nogal, "The rise and fall of Spain 800-1850"

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Kuznets curve here? No.

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

Legend: ■ Land/wage…

X-axis: **GDP per capita (1859-100)**

Y-axis: **Lad rent/wage ratio**

Key idea & key difference between pre-industrial and industrial societies

- Kuznets cycles in pre-industrial societies are visible only over time (since income is quasi fixed). They are mostly ***driven by non-economic changes***: conquests, wars, epidemics.

- Link between ***Kuznets and Malthusian*** cycles in pre-industrial societies; but Kuznets cycles are broader because they are not necessarily driven by demographic changes

- ***Little room for large increases in inequality*** because the average income level was very low (recall the inequality extraction ratio: inequality is limited by the level of average income)

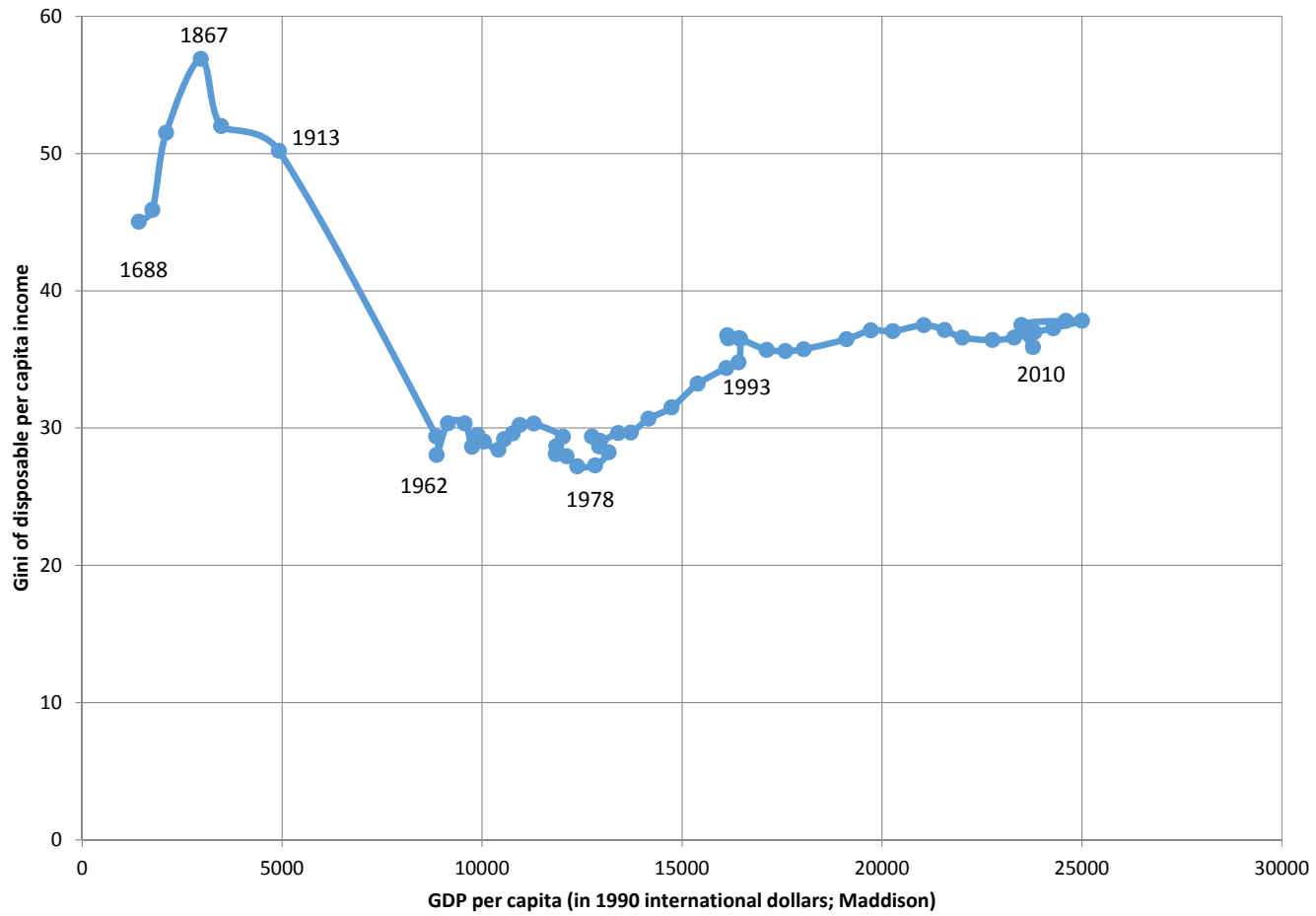# A2. Kuznets' cycles in societies with a rising mean income

Kuznets waves defined

- Kuznets waves in modern societies are visible when plotted against income per capita. Inequality driven by technological innovation and structural transformation (two technological revolutions), globalization and politics and policies. But also wars.

- Cyclical movement of inequality: long Kuznets waves, often over fifty years

- Kuznets saw just one curve. We now know there may be many more.

Malign and benign forces reducing inequality (downward portion of the Kuznets wave)

	Malign	Benign
Societies with stagnant mean income	Idiosyncratic events: wars (though destruction), epidemics, civil conflict	Cultural and ideological (e.g. Christianity?)
Societies with a rising mean income	Wars (through destruction and higher taxation: *War and Welfare*), civil conflict	•Widespread education (reflecting changing returns) •Social pressure through politics (socialism, trade unions) •Aging (demand for social protection) •Low-skill biased TC •Cultural and ideological (pay norms?)

Kuznets relationship for the UK, 1688-2010

(Y-axis: Gini of disposable per capita income; X-axis: GDP per capita (in 1990 international dollars; Maddison))

Data point labels: 1688, 1867, 1913, 1962, 1978, 1993, 2010

Source: Ginis: for 1688, 1759, 1801, and 1867 from social tables for England/UK (as reported in Milanovic, Lindert and Williamson); for 1880 and 1913, from Lindert and Williamson (1983, Table 2); from 1961 to 2010, official UK data (disposable income per capita) kindly calculated by Jonathan Cribb, Institute for Fiscal Studies. GDP per capita from Maddison project 2014 version. US_and_uk.xls

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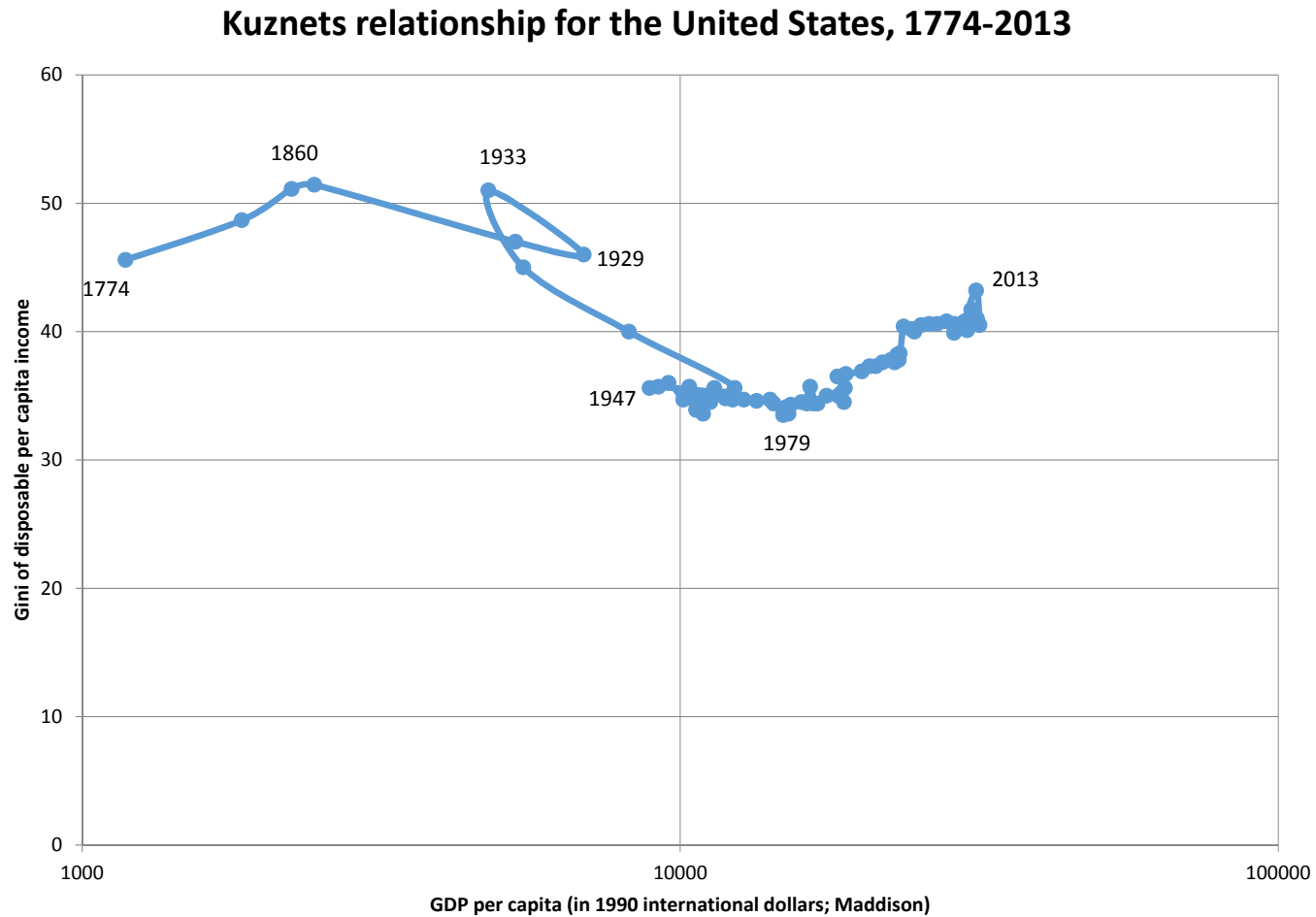# Kuznets relationship for the United States, 1774-2013
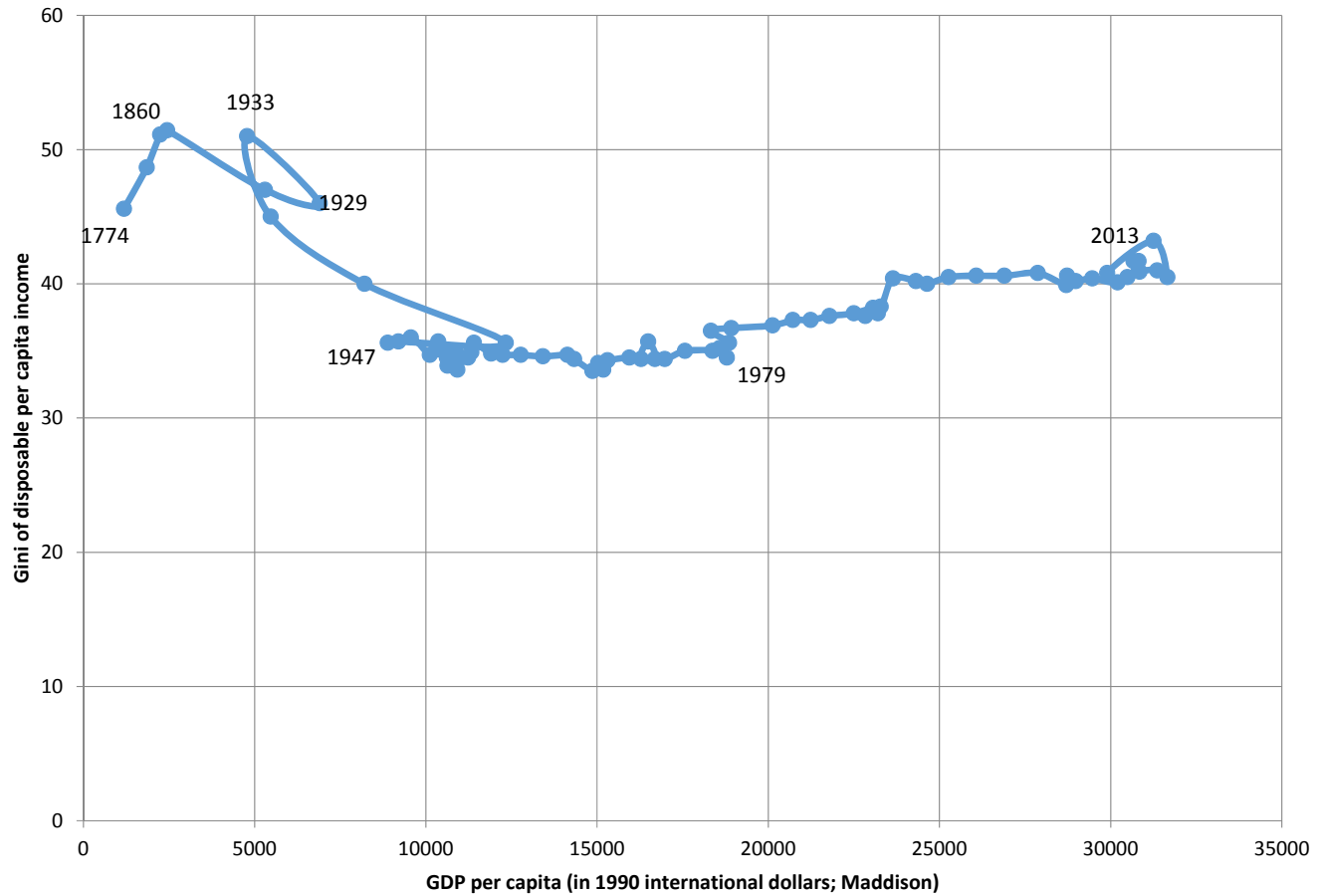
Source: Ginis: 1774 and 1860 from social tables created by Lindert and Williamson (2013). 1929. Radner and Hinricks (1974); 1931 and 1933: Smolemsky amnd Plotnick (1992). GDP per capita from Maddison project 2014 version. From 1935 to 1950 from Goldsmith et al (1954); from US Census Bureau, Income, poverty and health insurance coverage in the United States (various issues); gross income data adjusted to reflect disposable income.
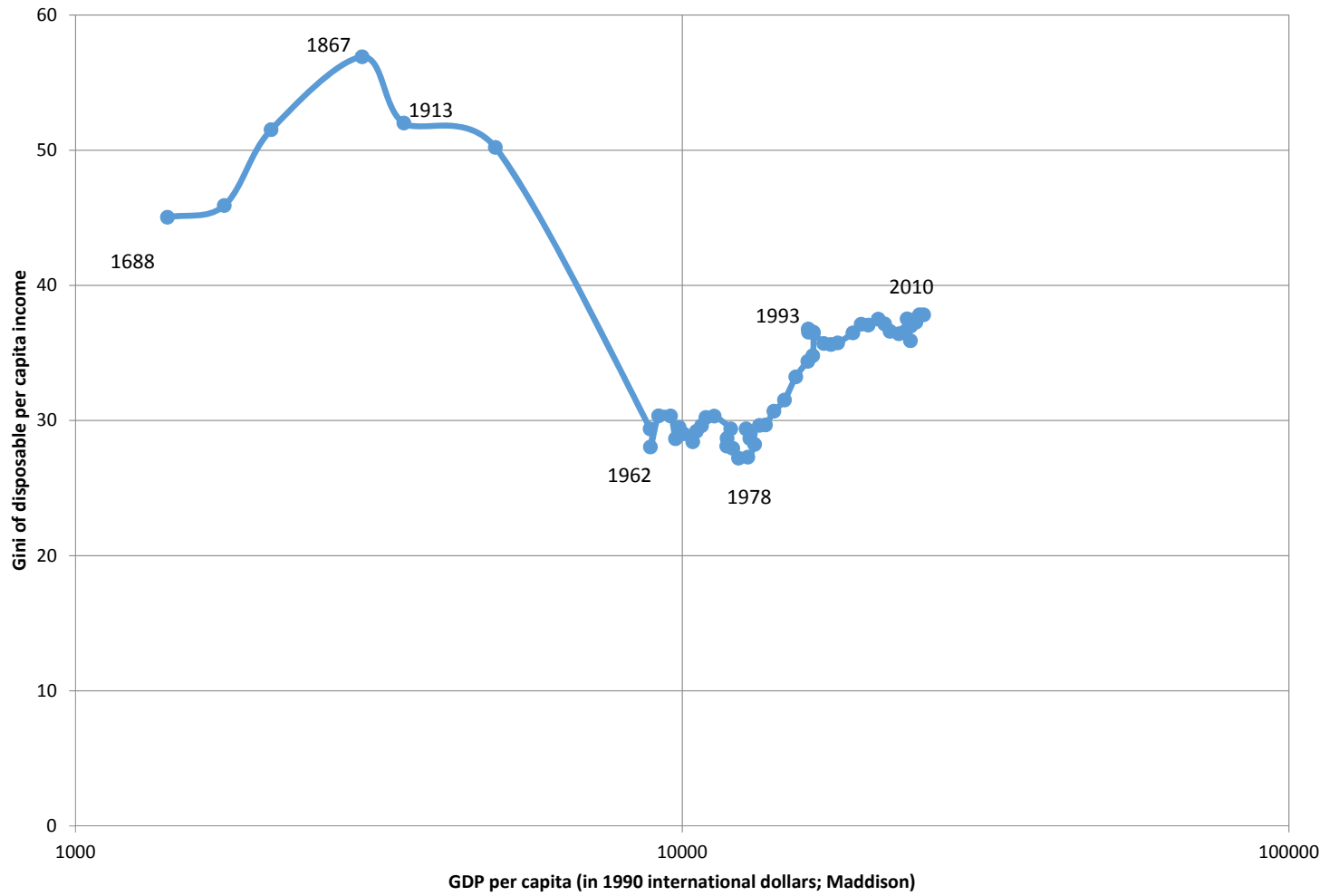
Kuznets relationship for Italy, 1861-2010
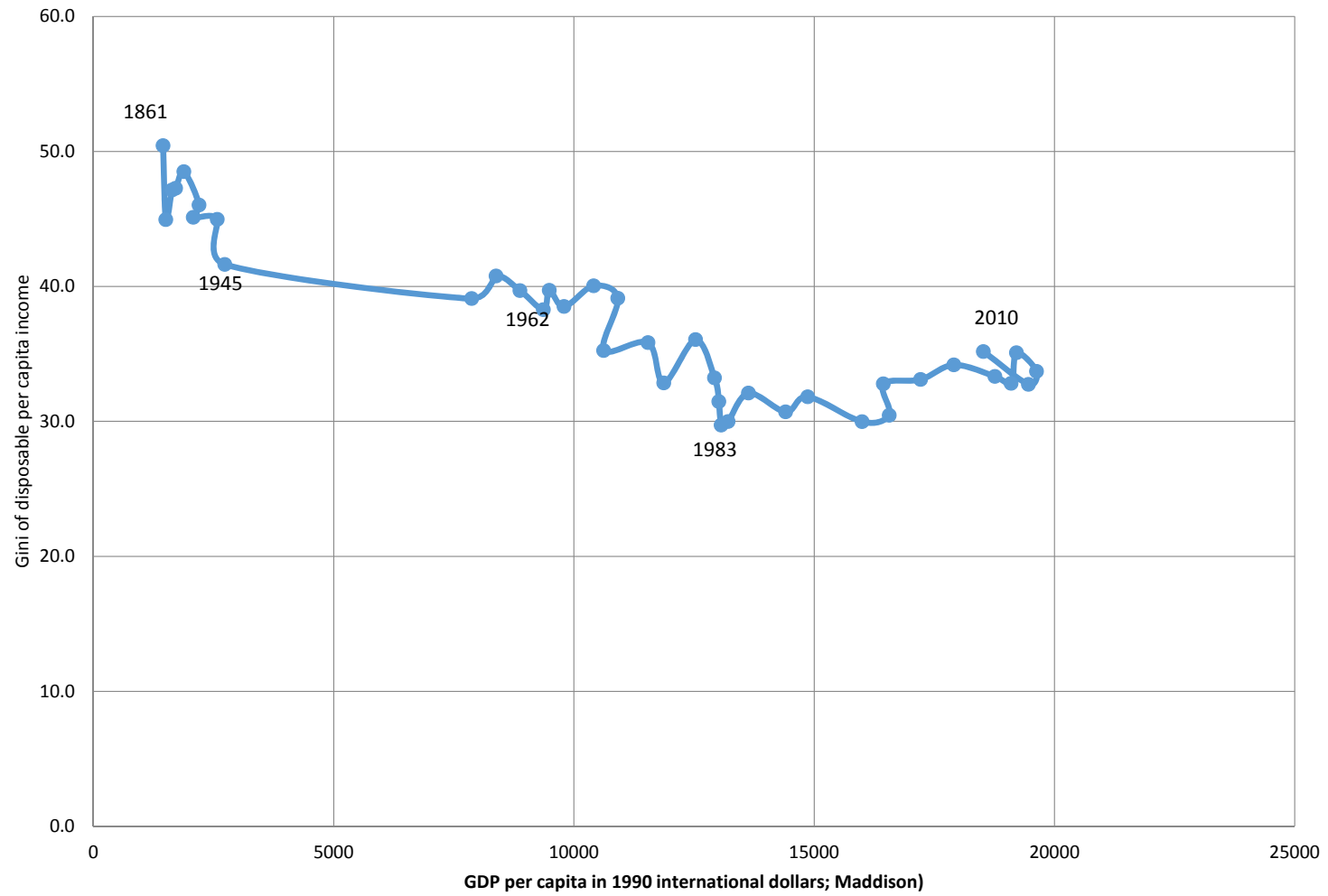
Source: Ginis: from 1861 to 2008 from Brandolini and Vecchi (2011) and personalu communication; for 2010 from LIS. GDP per capita from Maddison project 2014 version

Kuznets waves look more dramatic in logs…

Kuznets relationship for the United States, 1774-2013

Kuznets relationship for the UK, 1688-2010

Chart plotting Gini of disposable per capita income (y-axis, 0 to 60) against GDP per capita (in 1990 international dollars; Maddison) (x-axis, logarithmic scale from 1000 to 100000). Data points are labelled: 1688, 1867, 1913, 1962, 1978, 1993, 2010.

Downswing of Kuznets first cycle and upswing of the second Kuznets cycle in advanced economies

|	Level of maximum inequality (peak of Wave 1) Gini points (year)	Level of minimum inequality (trough of Wave 1) (year)	Approximate number of years of downswing of the Kuznets wave	Reduction in inequality (Gini points)	GDP increased (how many times) during the downswing	The second Kuznets wave (increase in Gini points)
United States	51 (1933)	35 (1979)	50	16	4	Strong (+8)
UK	57 (1867)	27 (1978)	110	30	>4	Strong (+11)
Spain	53 (1918)	31 (1985)	70	22	<5	Modest (+3)
Italy	51 (1851)	30 (1983)	120	21	<9	Strong (+5)
Japan	55 (1937)	31 (1981)	45	24	6	Modest (+1)
Netherlands	61 (1732)	21 (1982)	250	35	7	Modest(+2)

Average per decade real per capita growth and Gini change during the downward portion of the first Kuznets wave (the Great Levelling)
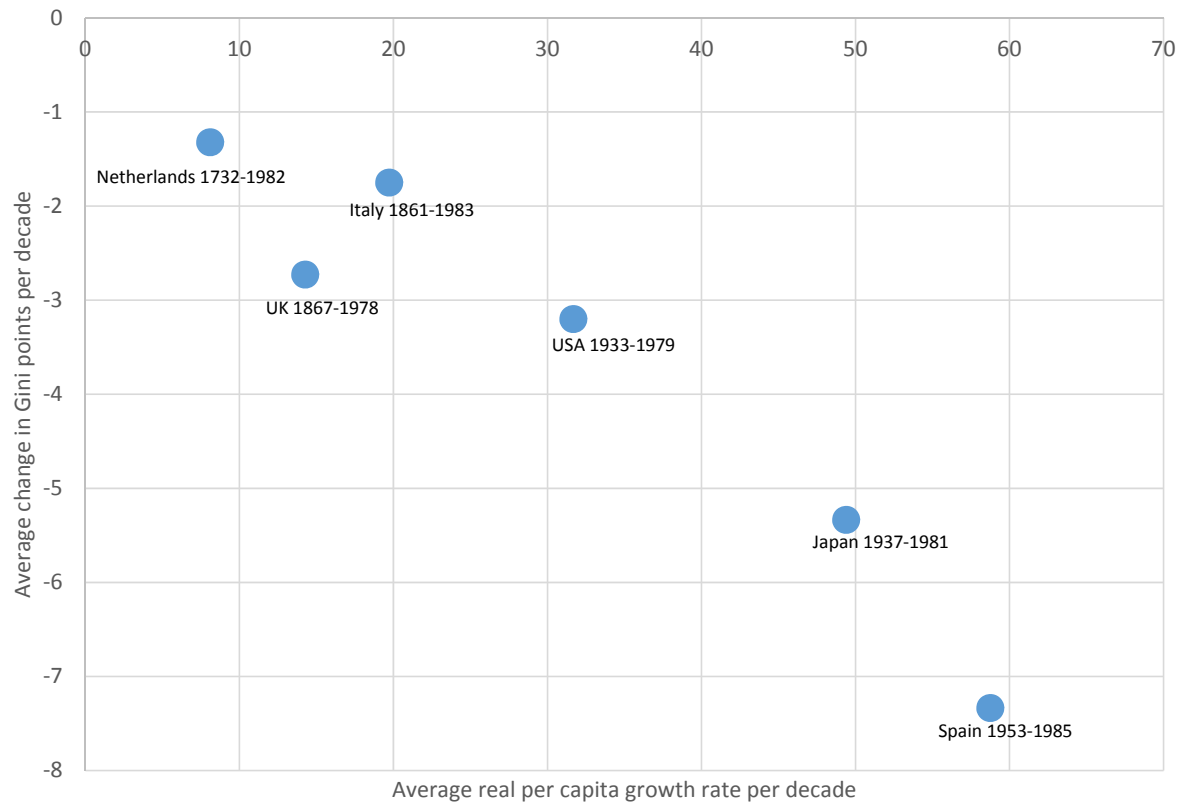
What drives 1ˢᵗ Kuznets cycle down and 2ⁿᵈ Kuznets cycle up?

	Downward portion of Kuznets 1 ~1900 to 1980	Upward portion of Kuznets 2 1980-?
Malign forces (wars)	•Wars •Hyperinflation (against creditors)	
Benign forces (economics, social, demography)	•Social pressure through politics (socialism, trade unions) •High taxation •Widespread education •Aging (demand for social protection)	•Movement of labor from manufacturing into heterogeneous services •Rents from tech innovations •Globalization •Technological change •Free global movement of capital •Policy changes (endogenous) •**TOP impossible to disentangle**

Brazil, China's inequality in the Kuznets framework
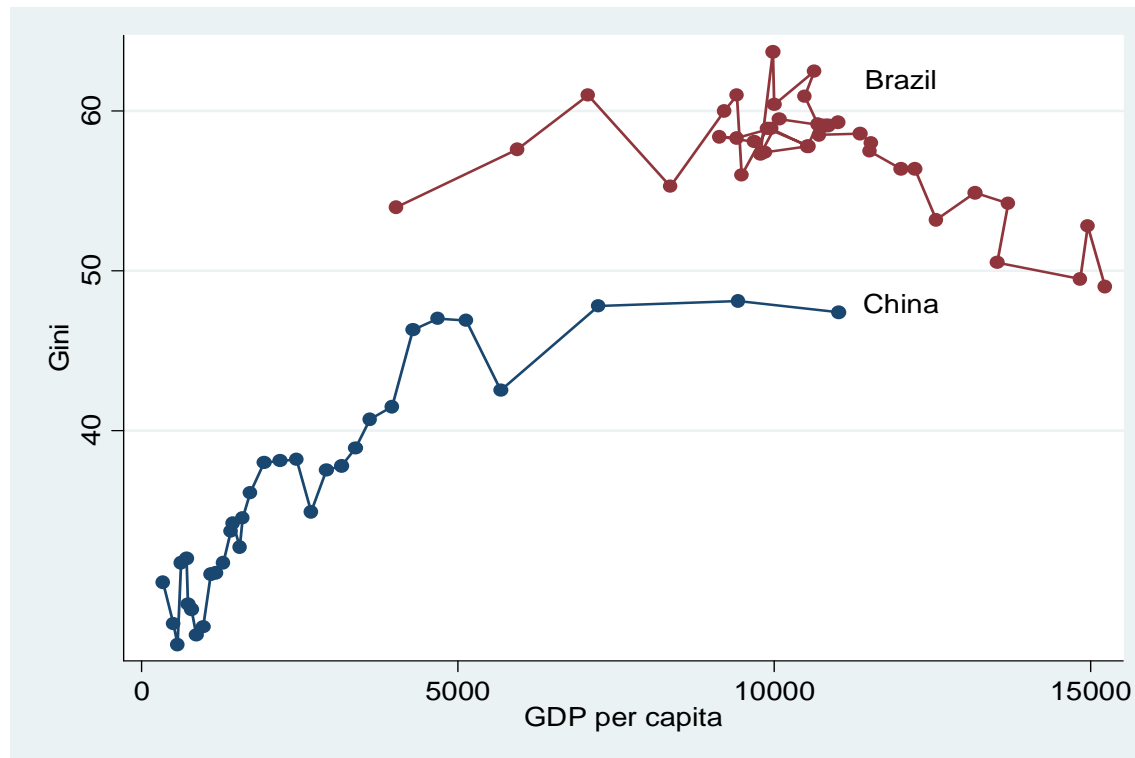

twoway (scatter Giniall gdpppp if contcod=="CHN" & year>1960, connect(l) ylabel(40(10)60) xtitle(2000 6000 12000) ytitle(Gini) xtitle(year)) (scatter Giniall gdpppp if contcod=="BRA", connect(l) text(62 12000 "Brazil") text(48 12000 "China") legend(off))
Using gdppppreg5.dta

"Endogeneity" of World War I

- Domestic maldistribution of income => High profits and insufficient domestic demand => Foreign investment => Need to control territories where investments are made => Large armies

- The same logic applied by each power leads to conflict

- "The actual practice has been for business men to secure the assistance of their governments in pushing for markets, investments, and concessions outside their own country, in competing with business men of other nations similarly supported by their governments, and in bringing diplomatic or political pressure to bear on the government or people of any weak country where their trading or other economic interests are threatened. It is this illicit and underhand use of foreign policy by private business interest which has converted economic internationalism into the peril it has shown to be. (Hobson, *The evolution of modern capitalism: a study of machine production*, pp. 492-3)

Military Expenditures and Foreign Wealth, 1845–1913
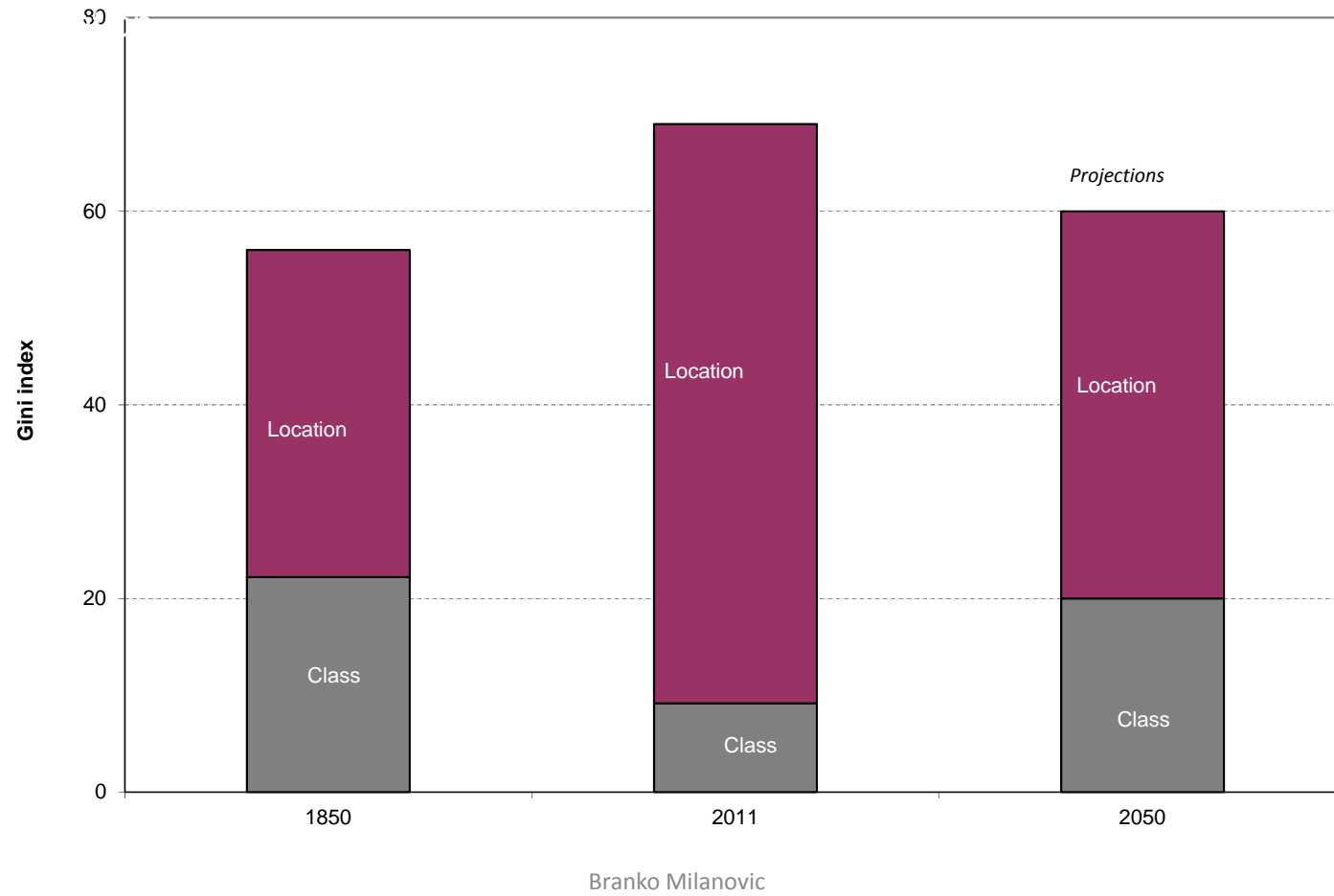
Countries included: DEU, DNK, FRA, GBR, SWE, USA
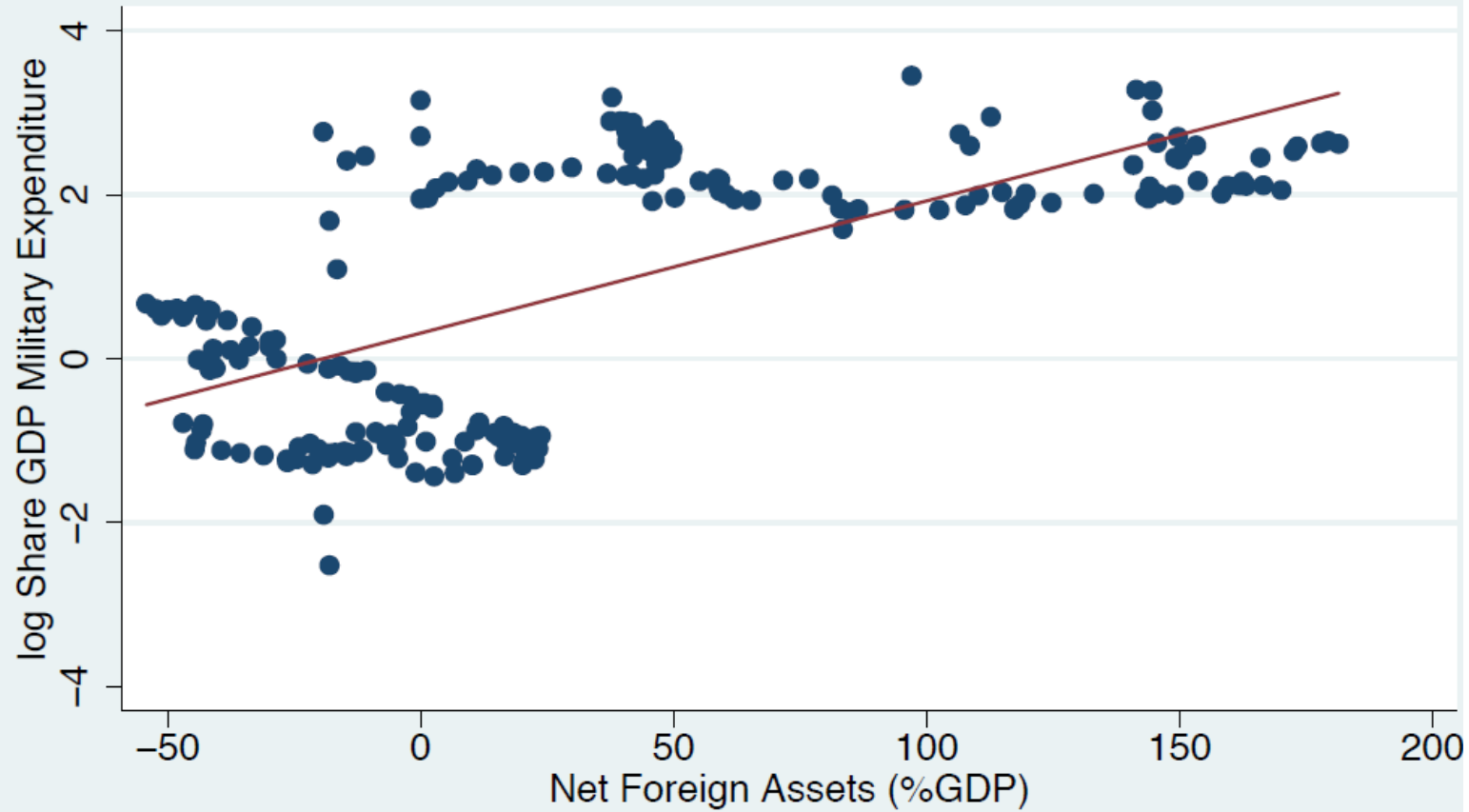
From Thomas Hauner

Chapter 3. Inequality between countries: from Karl Marx to Frantz Fanon and back to Marx?

La longue durée: Global inequality From Karl Marx to Frantz Fanon and back to Marx?

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Issues of justice and politics

1. Citizenship rent
2. Is global equality of opportunity an objective to pursue?
3. Migration, citizenship and national welfare state

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Global inequality of opportunity

- Regressing (log) average incomes of 118 countries' percentiles (11,800 data points) against country dummies "explains" 77% of variability of income percentiles
- Where you live is the most important determinant of your income; for 97% of people in the world: birth=citizenship.
- Citizenship rent or *citizenship premium*

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Is citizenship a rent?

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

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

- Does national self-determination dispenses with the need to worry about GEO?

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Rawls' views on inter-generational transmission of wealth

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

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Migration: a different way to reduce global inequality and citizenship rent

- How to view development: Development is increased income for poor people regardless of where they are, in their countries of birth or elsewhere

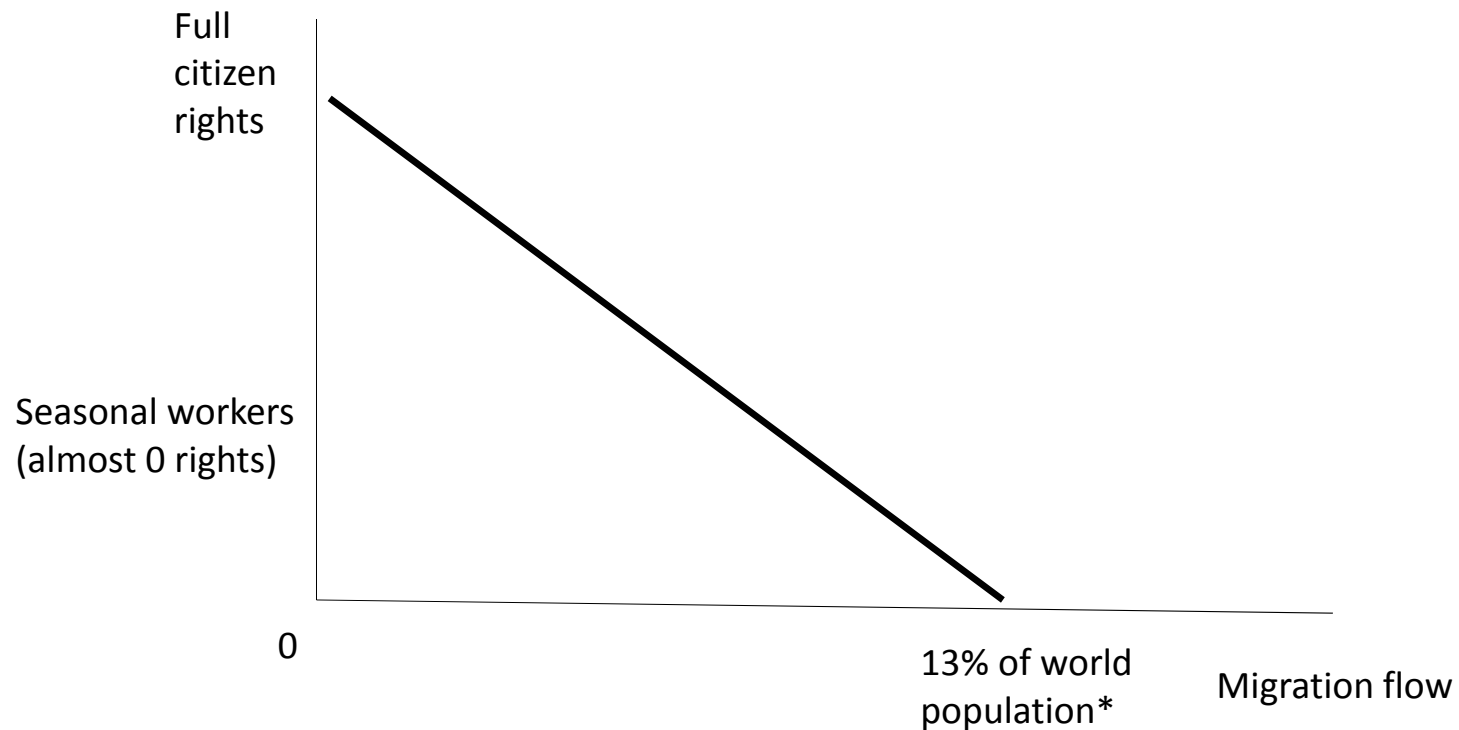- Migration and LDC growth thus become the two equivalent instruments for development

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Growing inter-country income differences and migration:
Key seven borders today

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The logic of the migration argument

- Population in rich countries enjoys the citizenship premium
- They are unwilling to share, and thus possibly reduce (at least "locally") this premium with migrants
- Currently, the premium is full or 0 because citizenship is (broadly) a binary variable
- Introduce various levels of citizenship (tax discrimination of migrants; obligation to return; no family etc.) to reduce the premium
- This should make native population more acceptant of migrants

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Trade-off between citizenship rights and extent of migration

Full
citizen
rights

Seasonal workers
(almost 0 rights)

0

13% of world
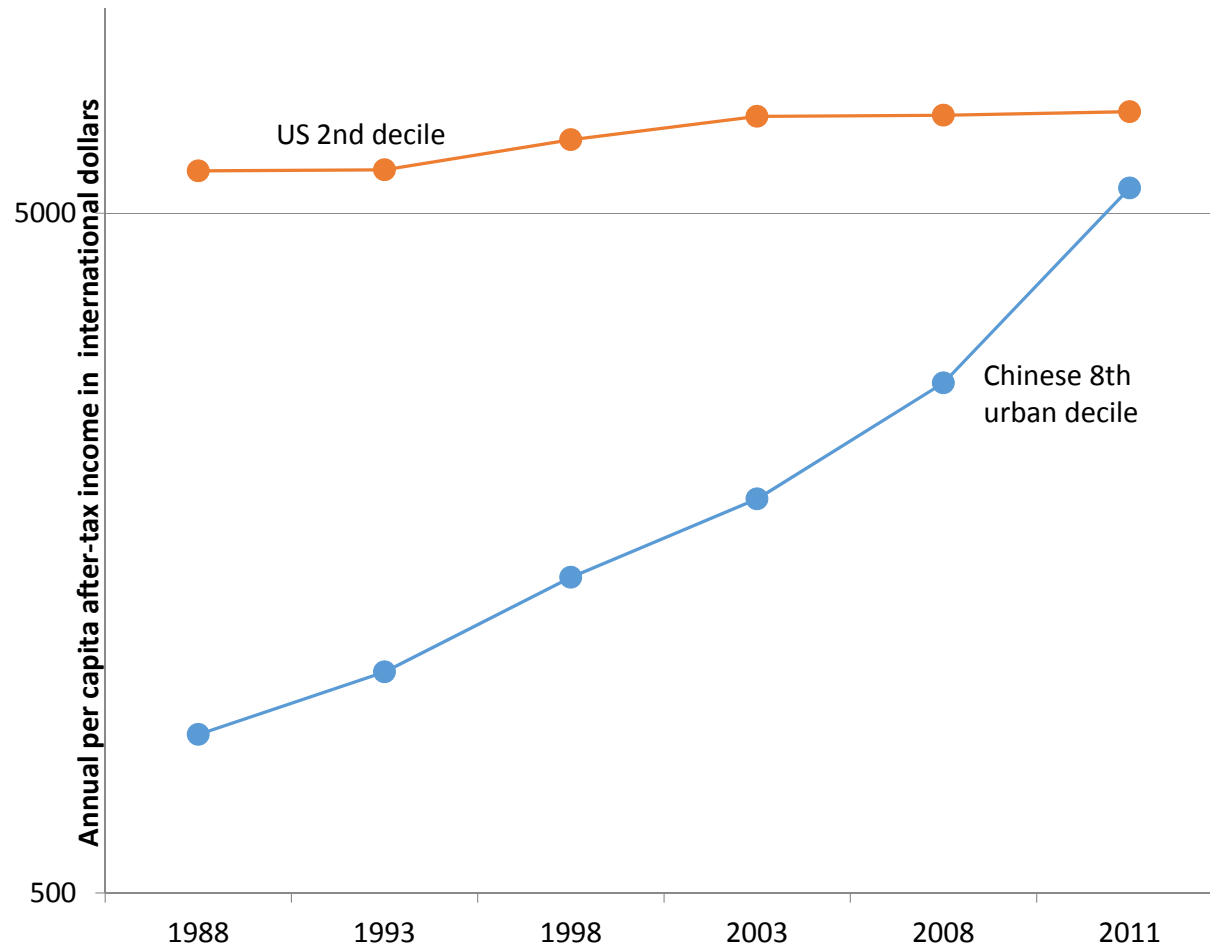population*

Migration flow

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

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# Chapter 4. Global inequality in this century and the next

Interaction of mean income convergence and Kuznets waves

1. Will convergence economics spread to Africa?
2. Evolution of income inequality in the US and China
3. Hollowing out of the Western middle classes: populism vs. plutocracy
4. Global reminder: capitalism the only existing social system

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Annual per capita after-tax income in international dollars

US 2nd decile

Chinese 8th urban decile

5000

500

1988   1993   1998   2003   2008   2011

From summary_data.xls

US and China's growth at the same income level
(GDPpc in Maddison's 1990 $PPP)
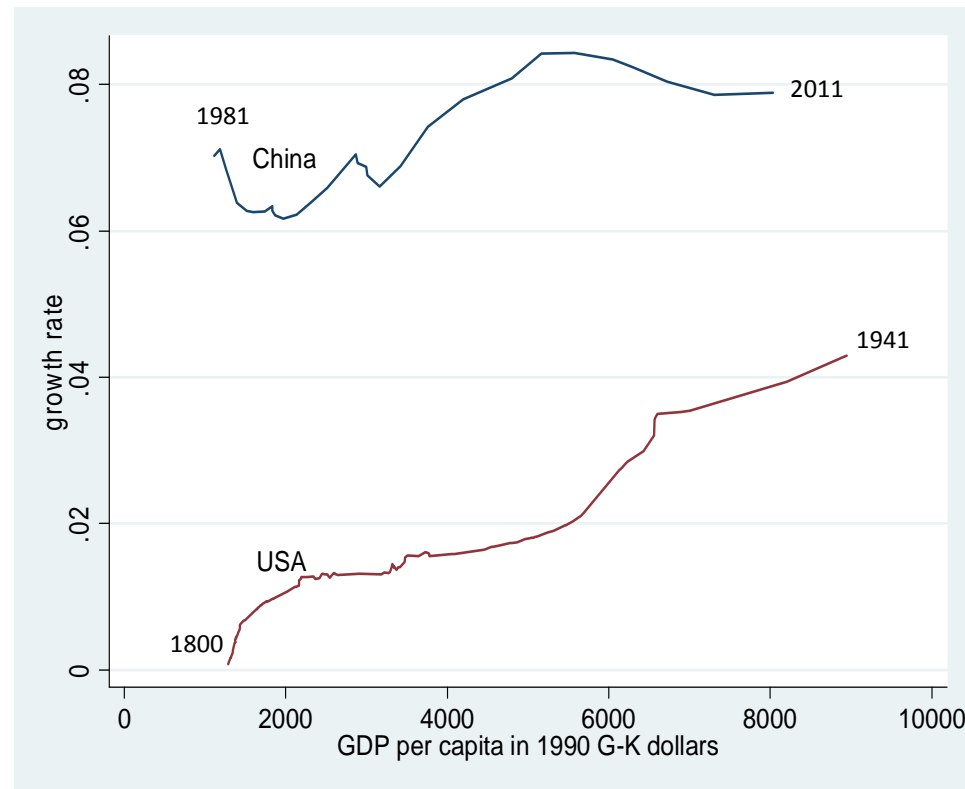
twoway (lowess growth gdpppp if contcod=="CHN" & year>1980) (lowess growth gdpppp if contcod=="USA" & gdpppp<9000, text(0.07 1980 "China")
text(0.015 1950 "USA") legend(off) xtitle(GDP per capita in 1990 G-K dollars) ytitle(growth rate))
Using Polity_Maddison_2013.dta

Difference in the combined (population-weighted) growth rates of the large emerging economies (excluding China) and rich countries, 1951-2014:
Since the mid 1980s rich economies have never grown faster than large emerging economies, even excluding China
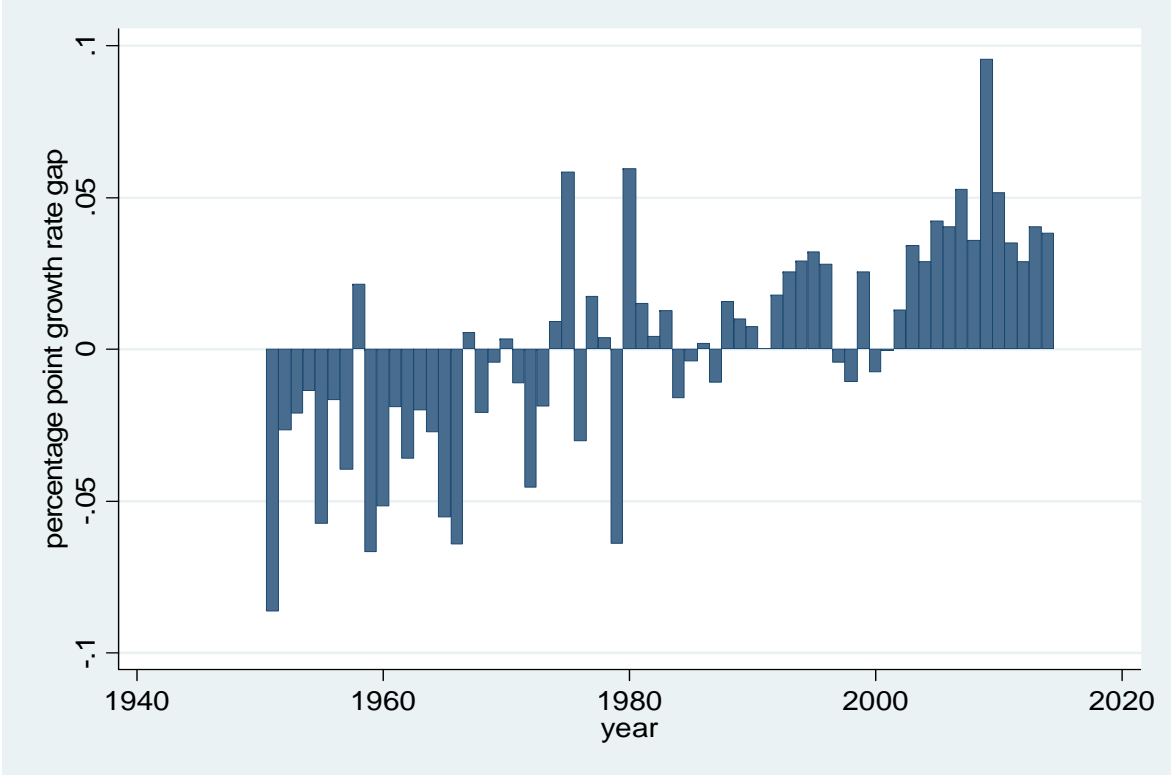

Large emerging economies are India, South Africa, Brazil, Indonesia and Vietnam.
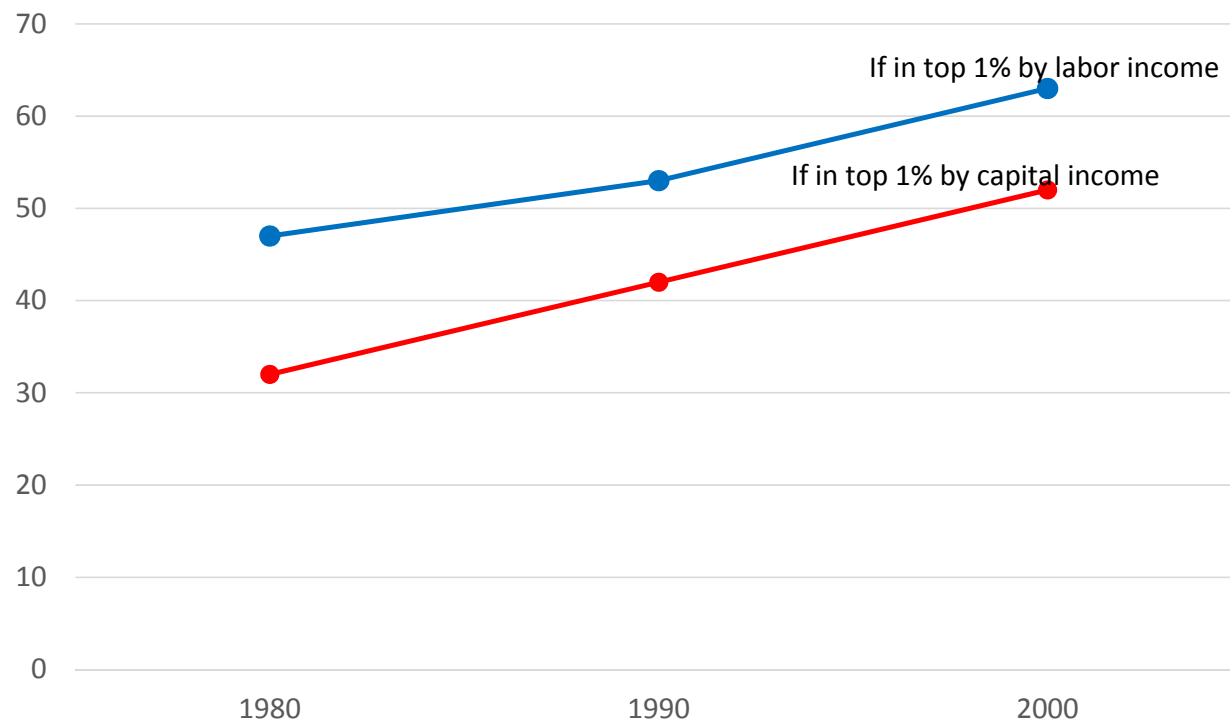
The US "perfect storm"

- Rising share of capital income in total net income
- Unchanged or increased concentration of capital ownership (Gini is in excess of 85)
- Increased association between high capital and labor incomes (see the next slide; Atkinson and Lakner)
- Continued or increased homogamy (assortative mating): the process which goes on for some 30 years (Greenwood et al.)
- Continued or increasing ability of the rich to "buy" policies (Bartels, Page)

Gini coefficients of capital and labor income: US 1974-2013
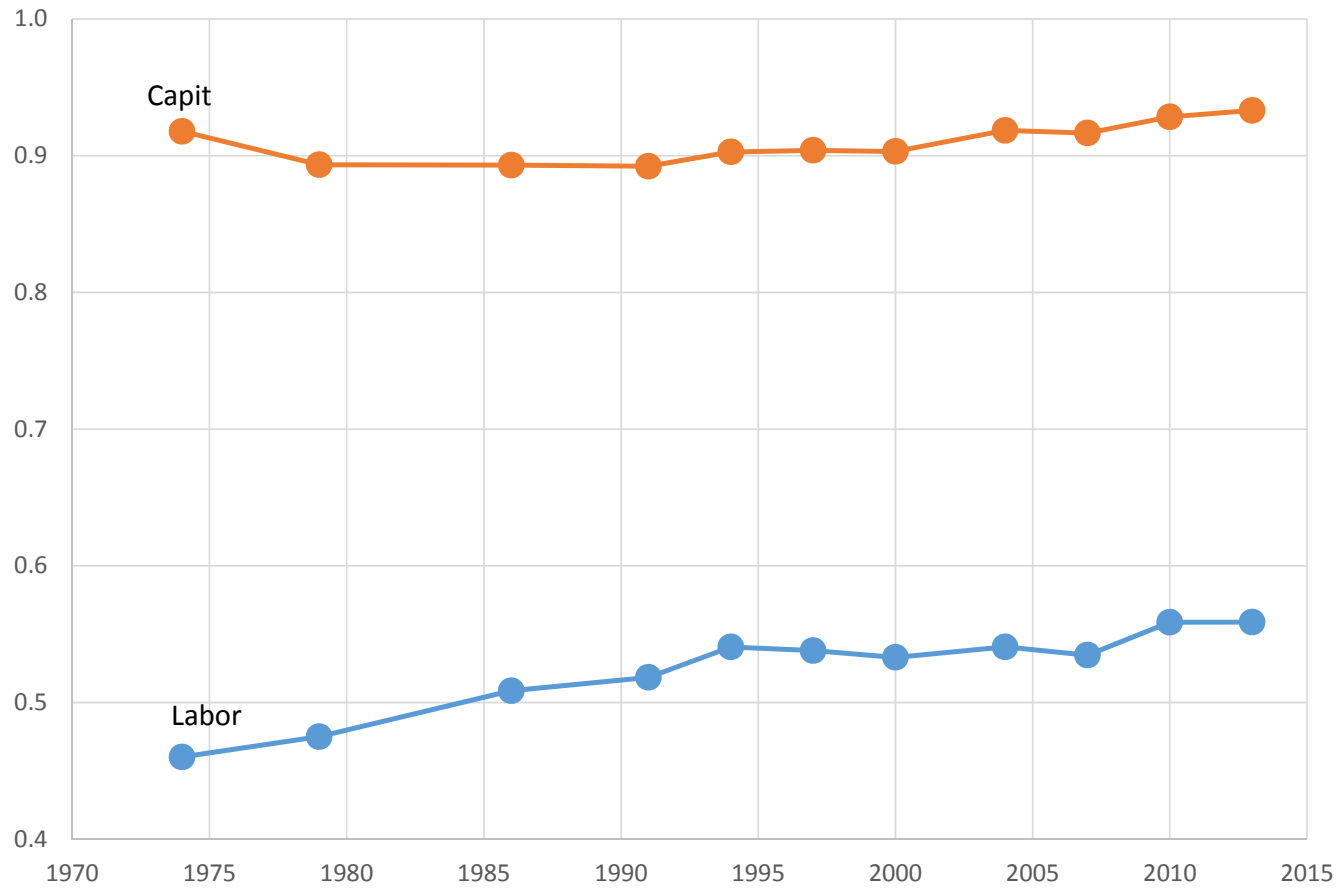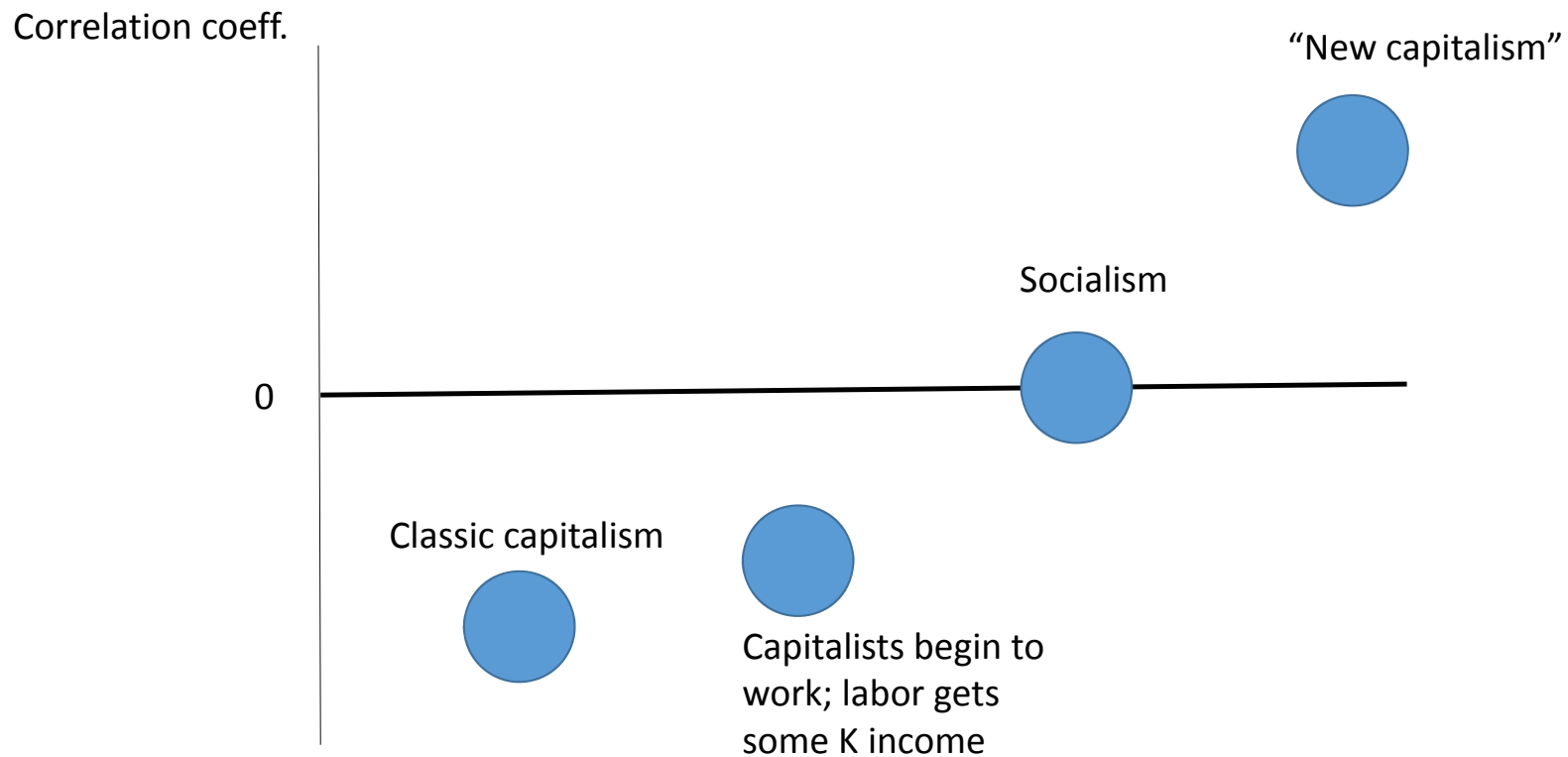
Based on LIS data;
us87_13_revised.xls

Probability (in percent) of being in top 10% by capital (labor) income if a person is in top 1% by labor (capital) income

Lakner and Atkinson (2015)

Stylized correlation between capital and labor income in history (across persons)

Correlation coeff.

"New capitalism"

Socialism

0

Classic capitalism

Capitalists begin to
work; labor gets
some K income

Policy responsiveness to the divergent preferences of the rich, middle class and the poor
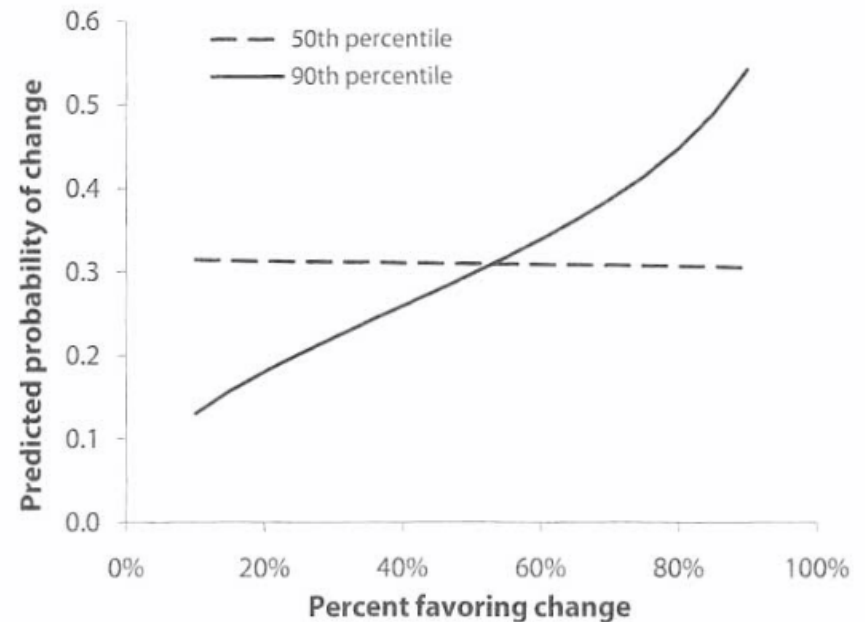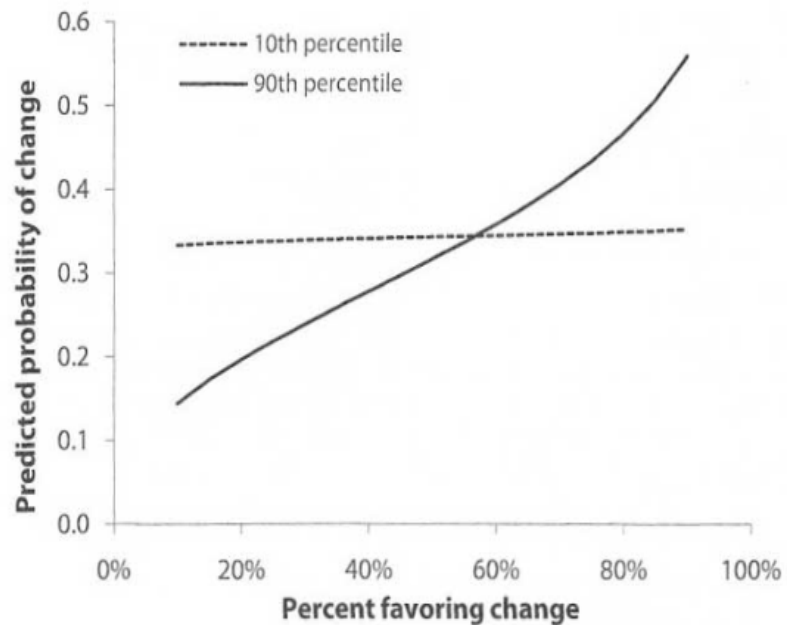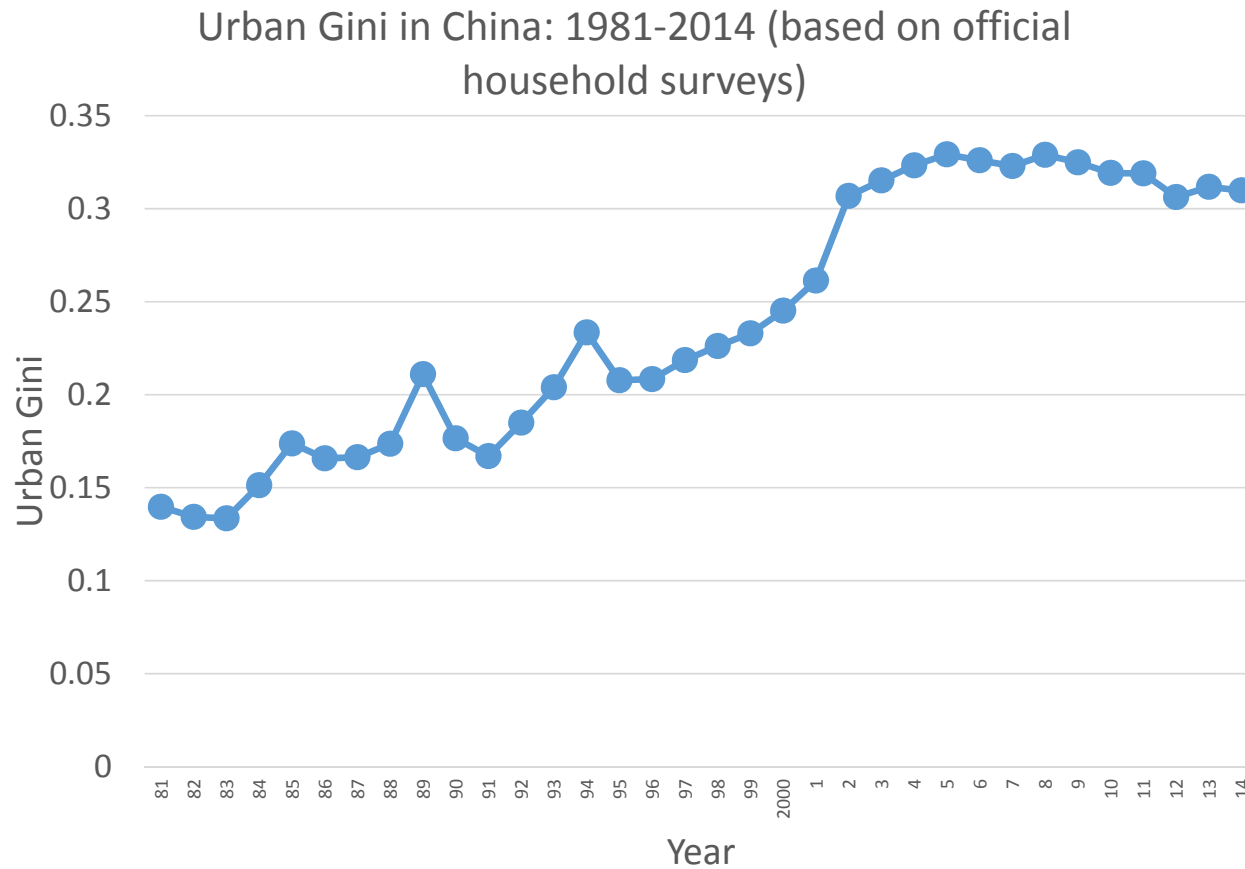

Figure 3.5. Policy Responsiveness When Preferences across Income Levels Diverge. Predicted probabilities are based on the logistic regressions reported in table 3.2.
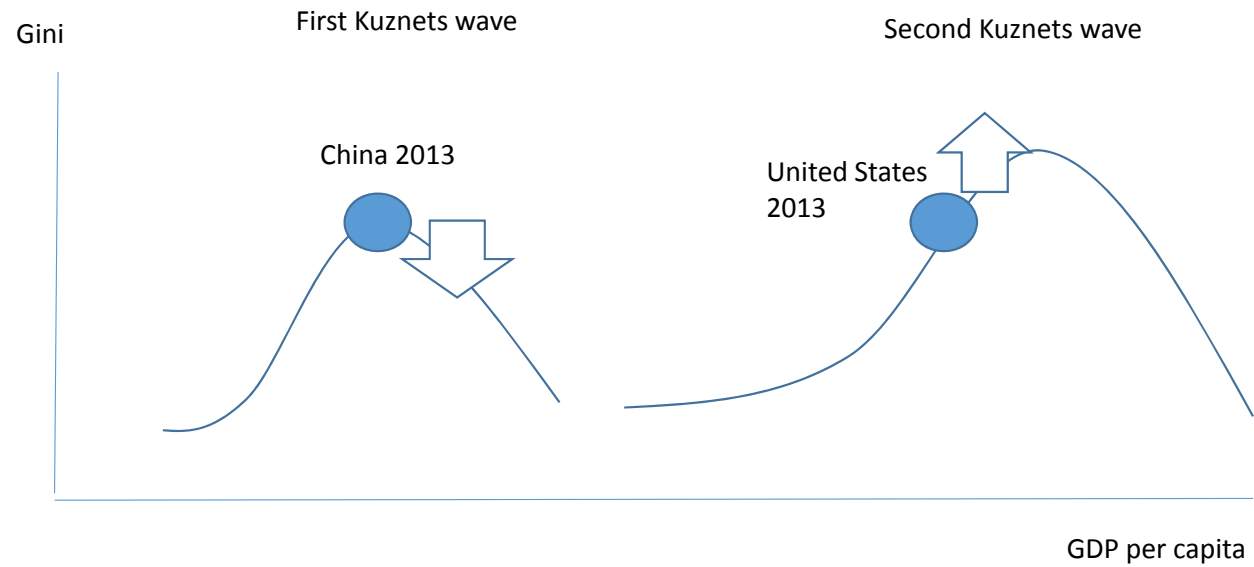
From Martin Gilens, Affluence and Influence

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The "plateaing " of the urban Gini in China, 1981-2014

Urban Gini in China: 1981-2014 (based on official household surveys)

Calculated from Chinese urban household surveys (published data)

Where are now China and the US?

What might drive the 2ⁿᵈ Kuznets cycle down?

- Progressive political change (endogenous: political demand)
- Dissipation of innovation rents
- Low-skilled biased technological progress (endogenous)
- Reduction of the skill premium as education expands further (but I am skeptical of its relevance)
- Global income convergence: Chinese wages catch up with American wages: the hollowing-out process stops (but other poor countries on the horizon…)

Is this an optimistic or pessimistic theory of changes in income inequality?

- The question boils down to whether there are endogenous forces that would curb and check increase in income inequality under capitalism

- Such forces can be benign: political pressure and greater taxation, ideology, low-skill biased technological change, greater supply of educated labor, aging population and demand for social services

- Or they can be malign: as they were in the run up to World War I where insufficient domestic demand led to the competition for control of colonies (imperialism) and ultimately war

- Such forces cannot be excluded today.

Chapter 5. What next? Ten short reflections on global inequality
(here: only one)

The 21st century reduction of inequality should rely less om redistribution of current income and more on equalization of labor and capital endowments
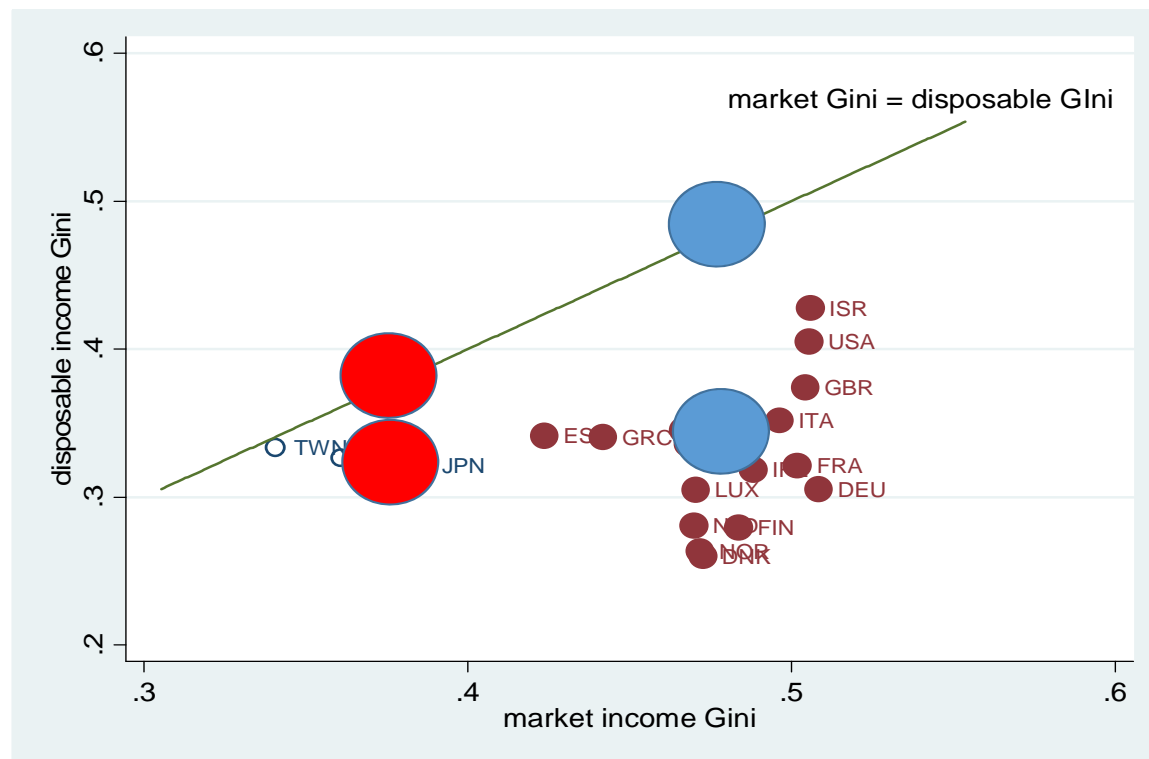
Policy implications (summarized)

- Focus on deconcentration of asset ownership (ESOPs, special tax benefits for small investors) and equalization of returns to education (public education)
- Thus, focus on pre-distribution and taxation of inheritance rather than increased redistribution of current income (i.e., working on equalization of stocks rather than on flows)
- European welfare state's ability to combat increased inequality by "traditional tools" of taxes and transfers is limited by (i) increased ethnic and cultural heterogeneity and (ii) mobility of capital and high income earners
- Reform of political funding
- More diverse forms of citizenship (to allow for greater migration)
- Multilateral migration quotas
- Movement away from single-minded pursuit of horizontal equality

Glossary of new terms

- "Elephant graph"
- Kuznets waves in pre-modern and modern societies
- Malign and benign forces that reduce inequality
- Endogeneity of World War I
- Citizenship rent or premium
- Trade-off between citizenship as a binary category and reduction of global inequality and poverty
- Focus on deconcentration of asset ownership