Critiques of Piketty's Capital

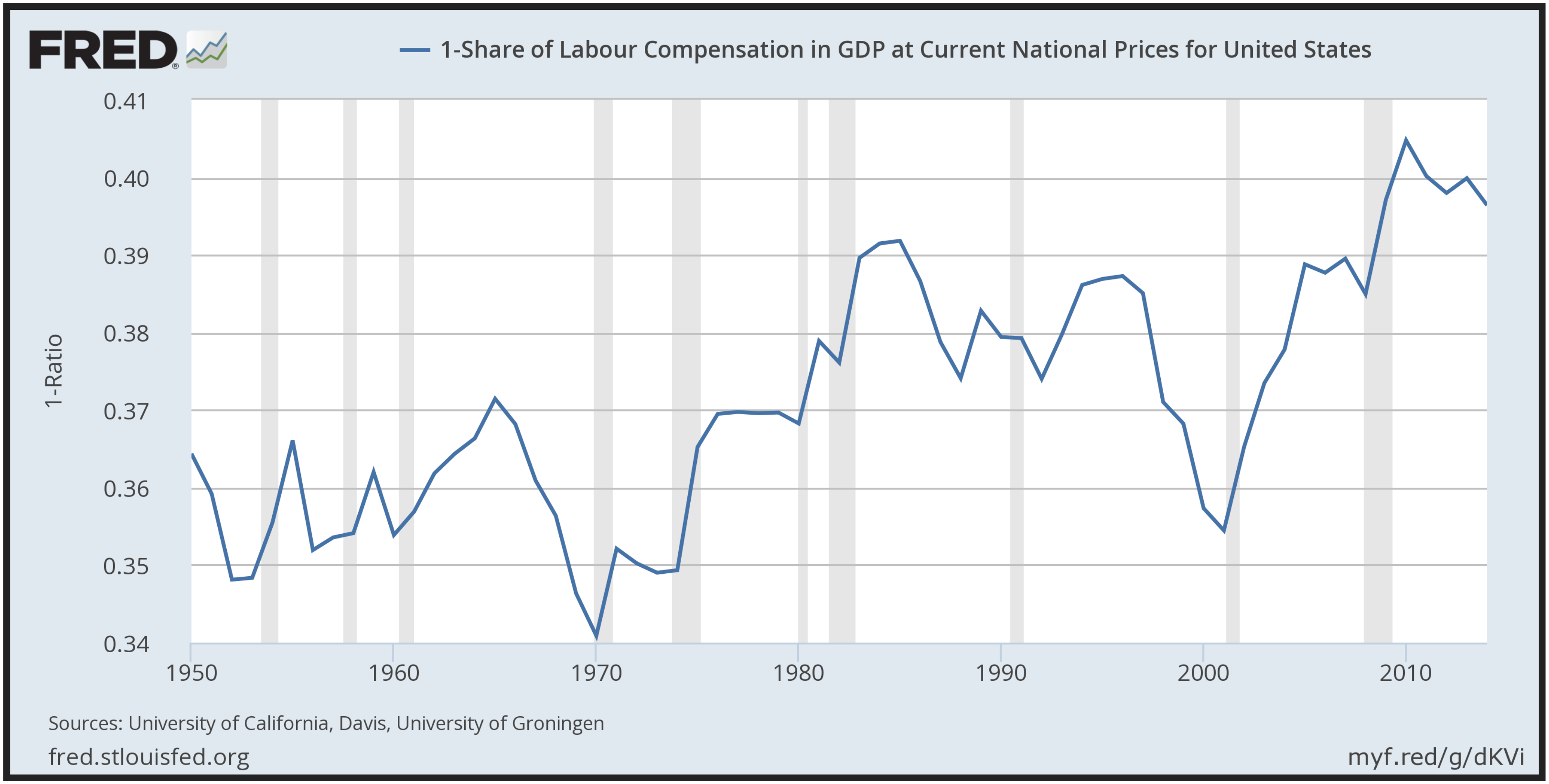
ECON 499: Economics of Inequality

Winter 2018

Piketty's "first fundamental law of capitalism"

$$\text{Capital share of income} = \alpha = r\frac{K}{Y}$$

- Just a definition
- r is the return on capital
- rK is capital income per year
- rK/Y is share of capital income to total income (Y)


FRED
1-Share of Labour Compensation in GDP at Current National Prices for United States
1-Ratio
0.41
0.40
0.39
0.38
0.37
0.36
0.35
0.34
1950
1960
1970
1980
1990
2000
2010
Sources: University of California, Davis, University of Groningen
fred.stlouisfed.org
myf.red/g/dKVi

Why is α changing?

- Changes in r, s, g not enough to explain changes in α
- Evidence suggests that increase in α mostly attributed to rising home prices
- Housing more evenly distributed than other forms of wealth

Piketty's "second fundamental law of capitalism"

$$\frac{\bar{K}}{\bar{Y}} = \frac{s}{g}$$

- s is the *net* savings rate
- g long-run growth rate
- Y is *net* income

Savings rates

- Basic Solow: constant *gross* savings rate
- Piketty's Solow: constant *net* savings rate
- If g falls, K/Y rises if s remains unchanged
- How will K/Y change as g falls in both models?

TABLE 1
QUANTITATIVE IMPLICATIONS OF THE MODELS

		Gross Model		Net Model		Net/Gross	
δ	g	k/y	$k/\bar{y}$	k/y	$k/\bar{y}$	k/y	$k/\bar{y}$
.032	.026	3.35	3.75	3.35	3.75	1.00	1.00
.032	.013	4.31	5.00	6.04	7.49	1.40	1.50
.032	.000	6.06	7.52	31.25	∞	5.16	∞
.064	.026	3.35	4.24	3.35	4.24	1.00	1.00
.064	.013	3.90	5.19	5.50	8.48	1.41	1.63
.064	.000	4.69	6.70	15.63	∞	3.33	∞

Which model is better?

- The savings rate is a decision variable
- Models with *endogenous* savings seem to suggest that "basic" Solow is closer to "microfounded" agent behavior
- With competitive markets, net savings is theoretically 0!
- What do the data say?

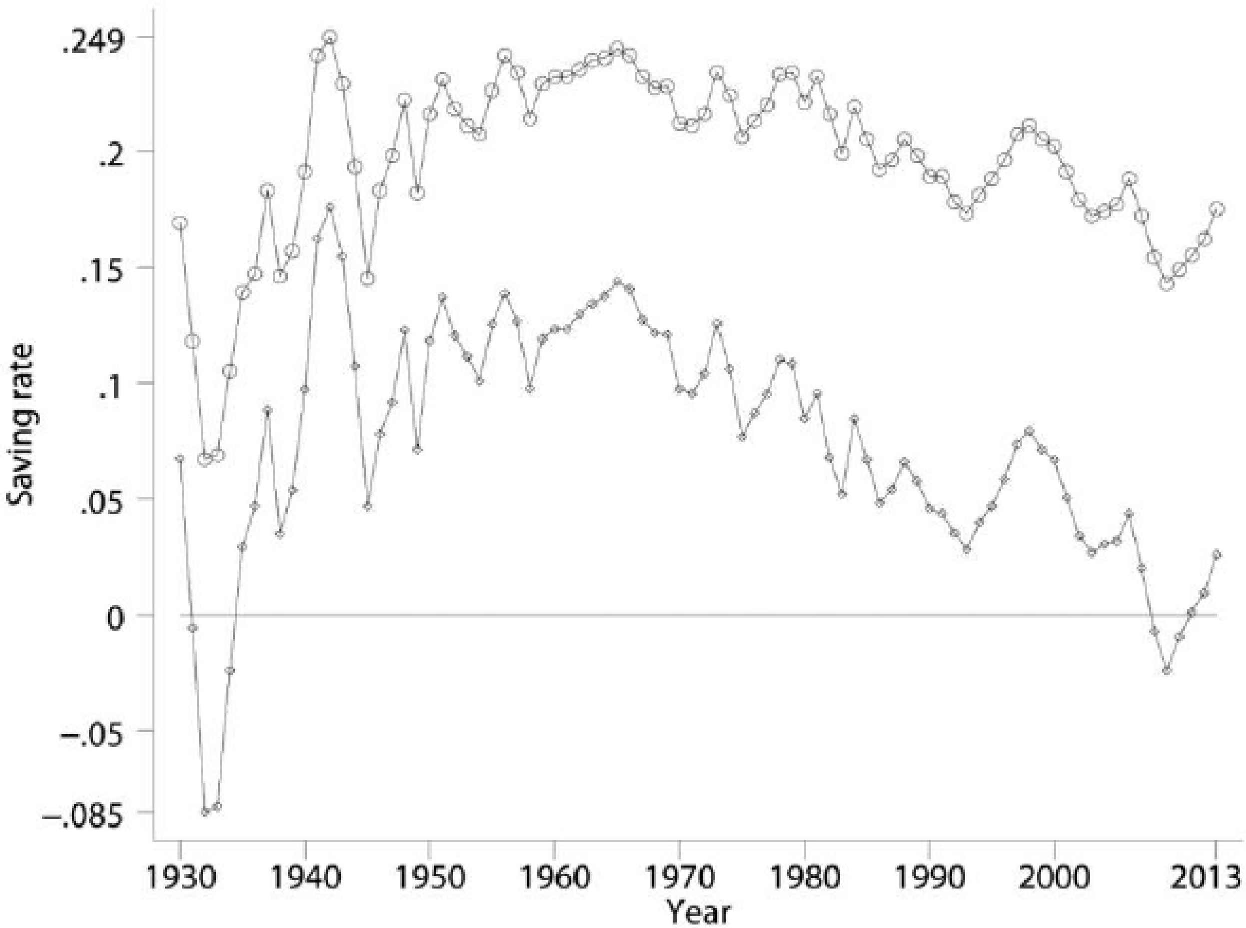


Fig. 2.—Annual gross and net savings rates: United States, 1930–2013. The upper line is the gross saving rate and the lower line is the net saving rate.

$\boldsymbol{r - g}$ in theory

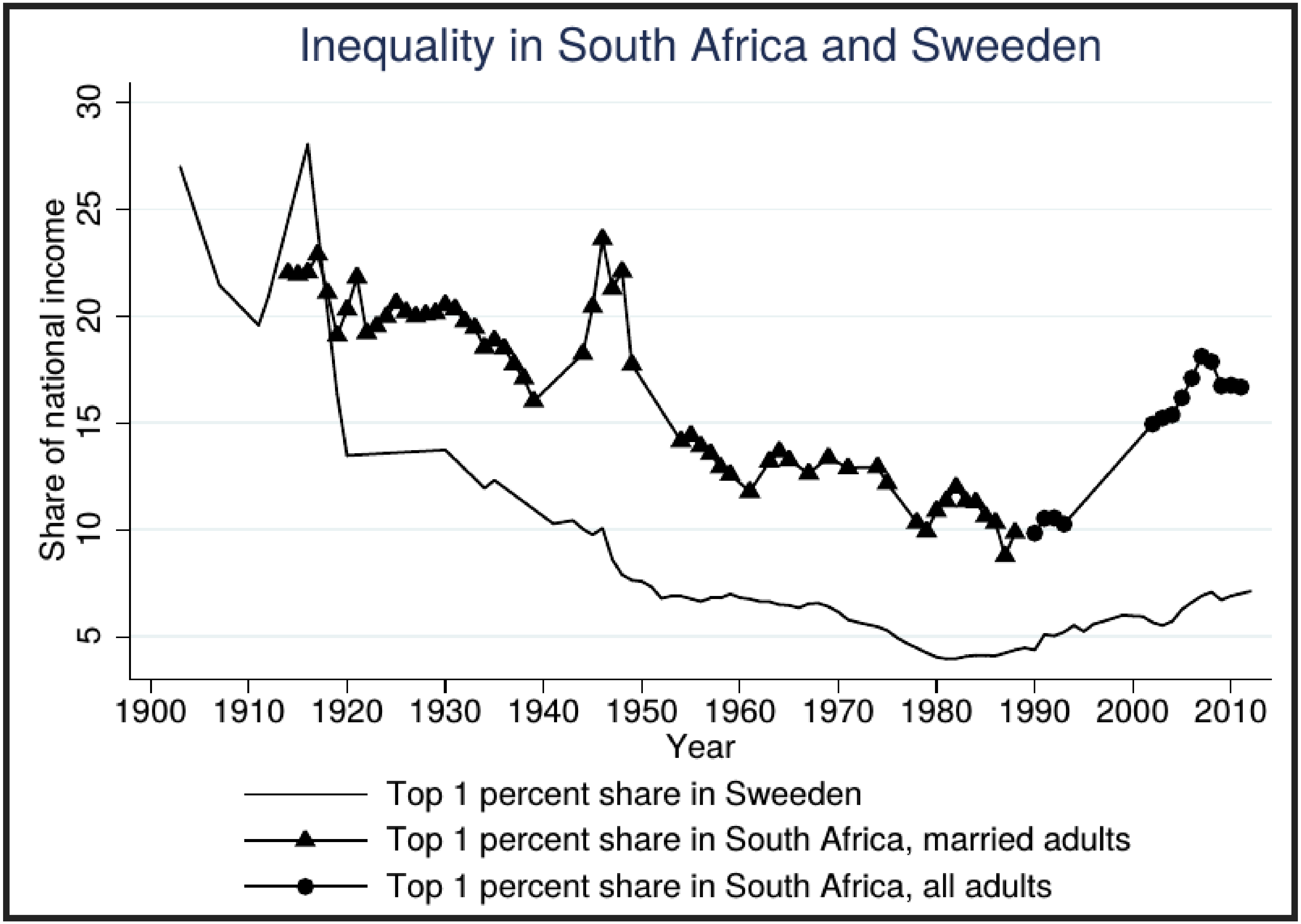
- $r > g$ does not necessarily imply more inequality
- Small amounts of social mobility mean $r > g$ can lead to a **decrease** in inequality
- High returns on capital encourage people to save more, accumulate wealth (endogenous s)

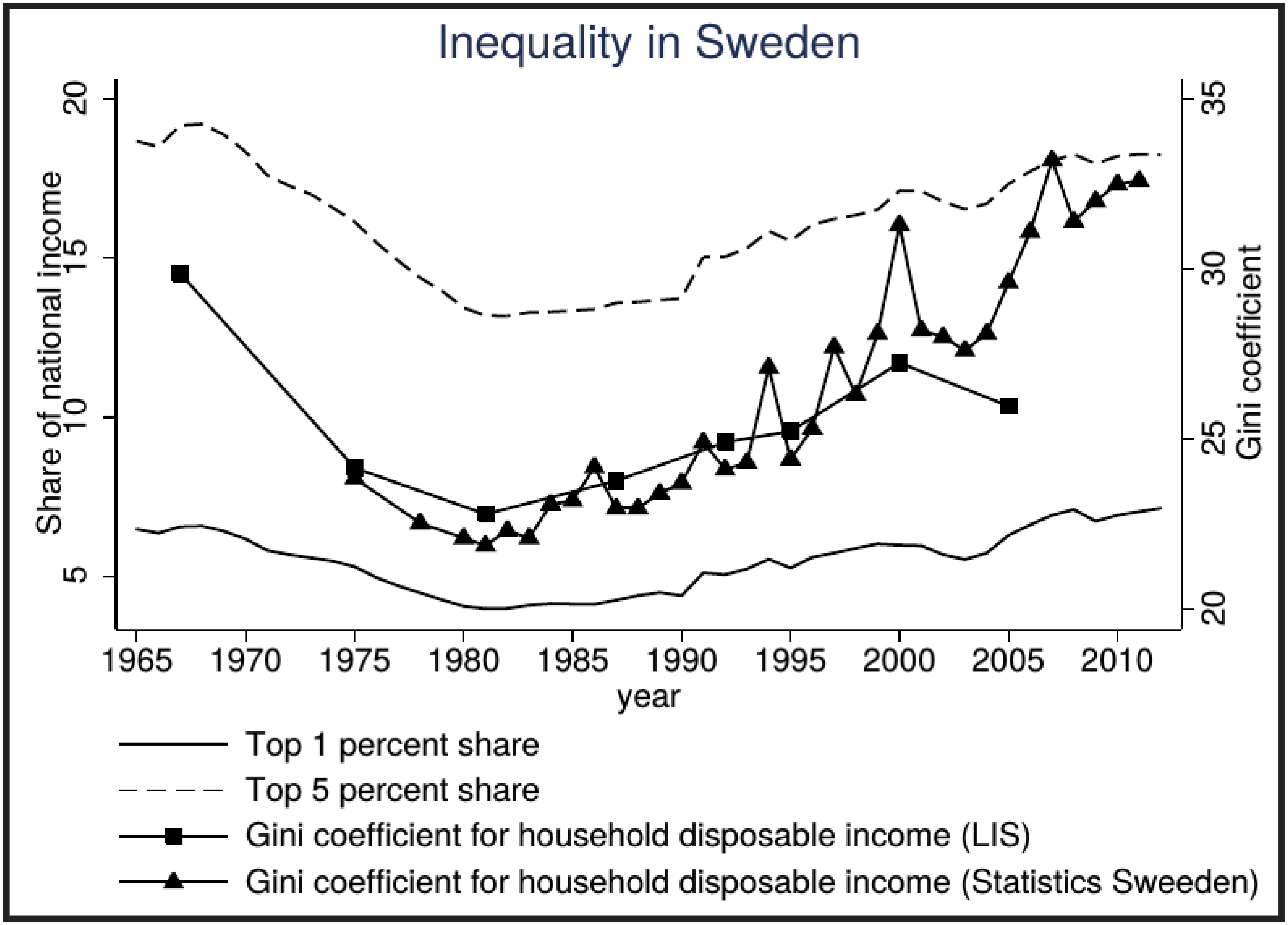
$r - g$ in history

- Piketty does not show any correlations between $r - g$ and inequality
- From 1870 to 2012:
  - Increases in $r - g$ are not associated with rising top income share
  - Same holds for many definitions of r
  - No long term effects in the data either

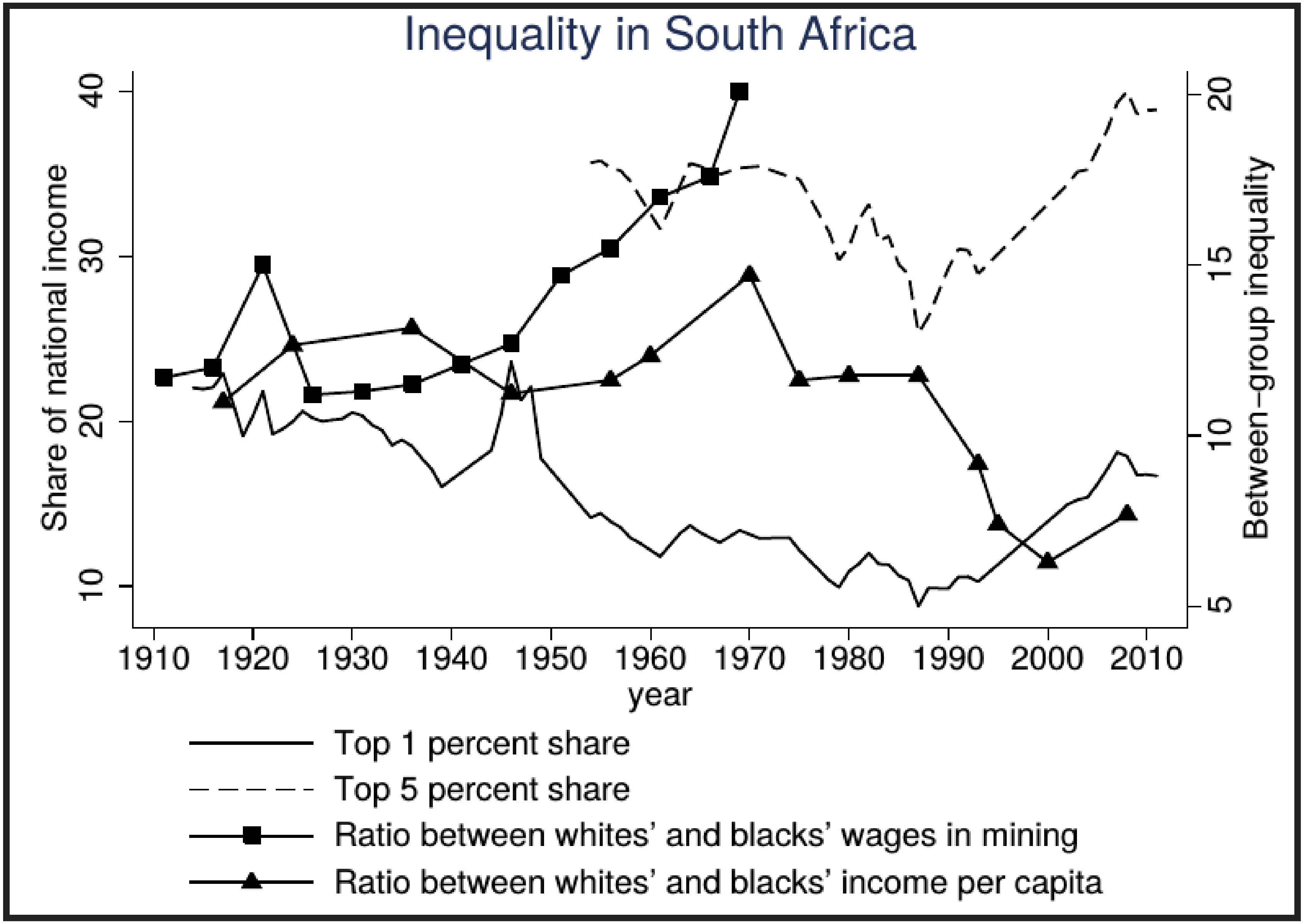
Capital mobility and capital returns

- Capital is generally very mobile across national boundaries
- The rich can earn a high return even if there are low returns in their home country
- Returns should equalize across countries
- Wealth accumulation should occur everywhere


Inequality in South Africa and Sweeden
Share of national income
30
25
20
15
10
5
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
Year
Top 1 percent share in Sweeden
Top 1 percent share in South Africa, married adults
Top 1 percent share in South Africa, all adults



Inequality in Sweden
Share of national income
Gini coefficient
year
5
10
15
20
20
25
30
35
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
Top 1 percent share
Top 5 percent share
Gini coefficient for household disposable income (LIS)
Gini coefficient for household disposable income (Statistics Sweeden)



Inequality in South Africa
Share of national income
Between–group inequality
year
10
20
30
40
5
10
15
20
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
Top 1 percent share
Top 5 percent share
Ratio between whites' and blacks' wages in mining
Ratio between whites' and blacks' income per capita

South Africa and Sweden

- Both countries capitalist
  - "Fundamental laws of capitalism" should apply equally in both places
- Inequality in SA much different than inequality in Sweden
- SA inequality was/is institutionalized (apartheid)
- Changes in inequality reflect changes in institutions more than $r - g$