Taxing the Rich More:
Evidence from the 2013 Tax Increase

Emmanuel Saez, UC Berkeley and NBER

October 2016

Tax Policy and the Economy

MOTIVATION

Controversial debate on the proper taxation of top incomes at time of high income inequality

Debate hinges on how taxation of top incomes affects the economy and in particular reported top incomes

Large body of empirical work using US tax reforms (Saez, Slemrod, Giertz JEL 2012)

2013 tax increase on top earners is the largest since the 1950s $\Rightarrow$ offers a unique opportunity to revisit the issue

We offer broad picture preliminary evidence using tabulated statistics from the Statistics of Income (SOI) Division at IRS

2013 TOP TAX RATE INCREASES

1) ACA (Obamacare) surtax rates (AGI above $250K):

+3.8 points on capital income

+0.9 points on labor income

S-corporation "active" profits and pensions are exempt

2) Individual income tax top bracket (above $450K):

Top ordinary tax rate increases from 35% to 39.6%

Divid./capital gains top tax rate increases from 15% to 20%

Increase was expected when Obama re-elected in early November 2012 (but actual increase enacted in early January 2013)

1. Effect of the 2013 Reform on Marginal Tax Rates

	Top Income Groups		
	Top 1%	Top 1-.1%	Top .1%
Pre-reform	32.2%	34.8%	29.3%
Post-reform	39.5%	41.6%	37.1%
Increase	7.3%	6.9%	7.8%

Average marginal tax rate in each income group including Federal payroll FICA+individual income tax based on 2011 income composition

EXPECTED BEHAVIORAL RESPONSES

1) Short-term retiming: Likely

Realizing income in 2012 (to avoid 2013 higher rates)

Particularly for realized capital gains (as in 1986 when KG tax rate ↑ from 20 to 28%), stock-option exercises (as in 1993 when ordinary top rate ↑ from 31 to 39.6%)

⇒ Spike in top incomes in 2012 followed by trough in 2013

2) Individual to corporate shifting? Unlikely

S-corp form remains more favorable than C-corp (as in 1993)

3) Long-term fall in top income shares? Unlikely

Did not happen with the 1993 top tax rate increase

METHODOLOGY

**Question:** How are top incomes affected by the 2013 reform?

Simplest and most transparent method is to analyze top income shares and their composition (Saez TPE '04)

Analysis can be done with timely public SOI tabulated data

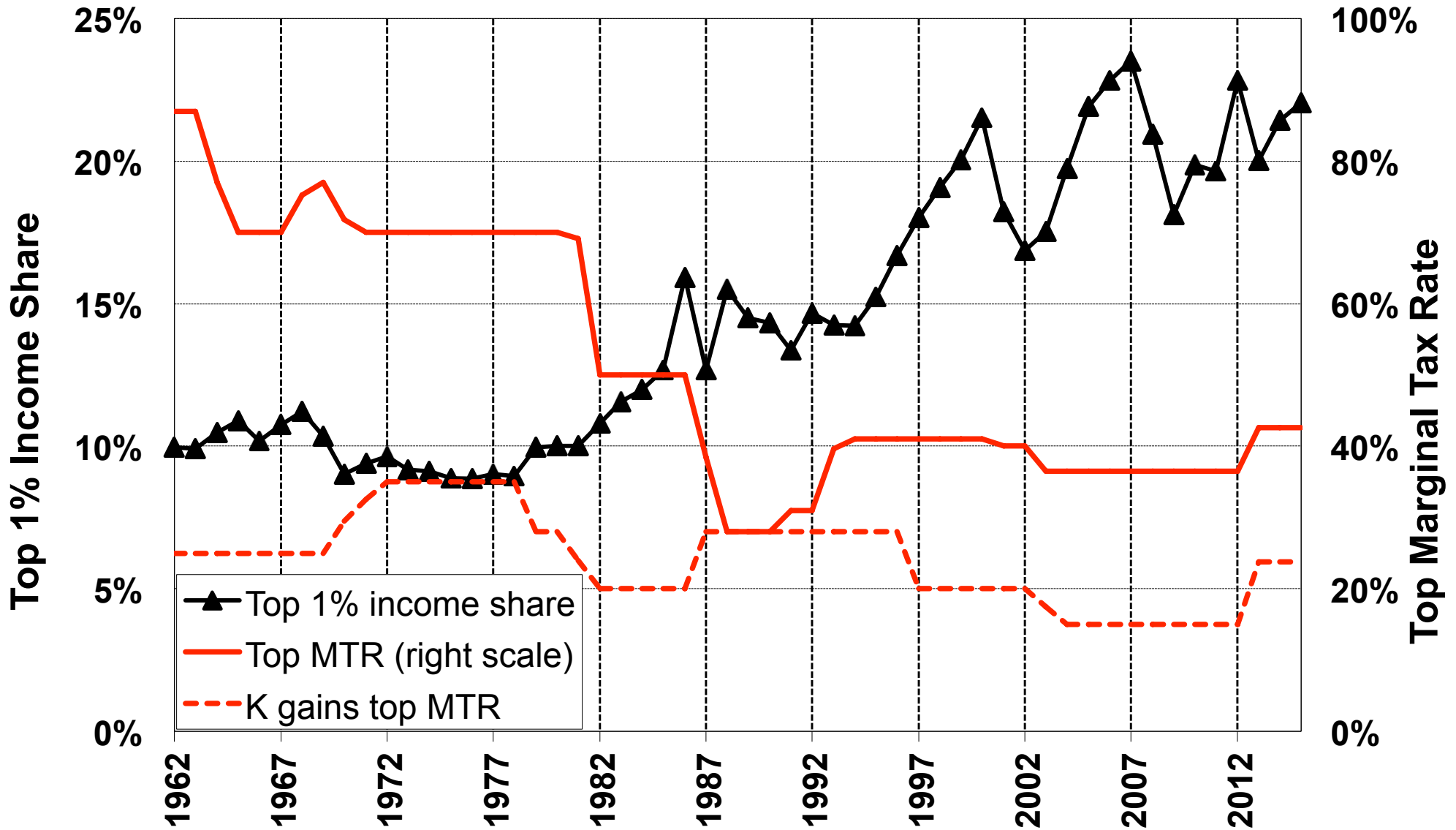My view: panel methods of Feldstein JPE'95, Gruber-Saez JpubE'02 are much less transparent and robust

Micro-data useful to refine analysis along specific dimensions
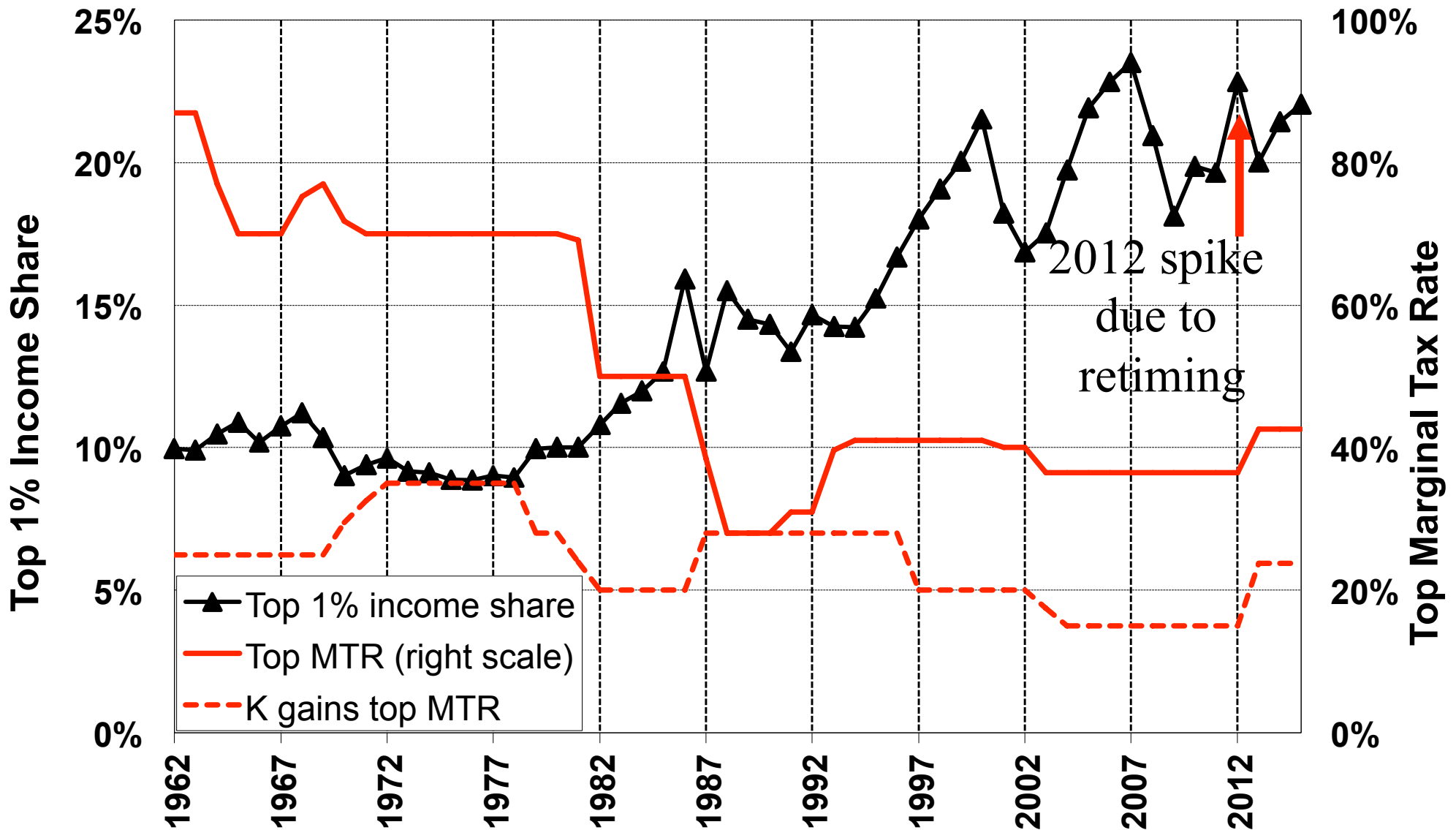
Top 1% income share (with capital gains), 1962-2015
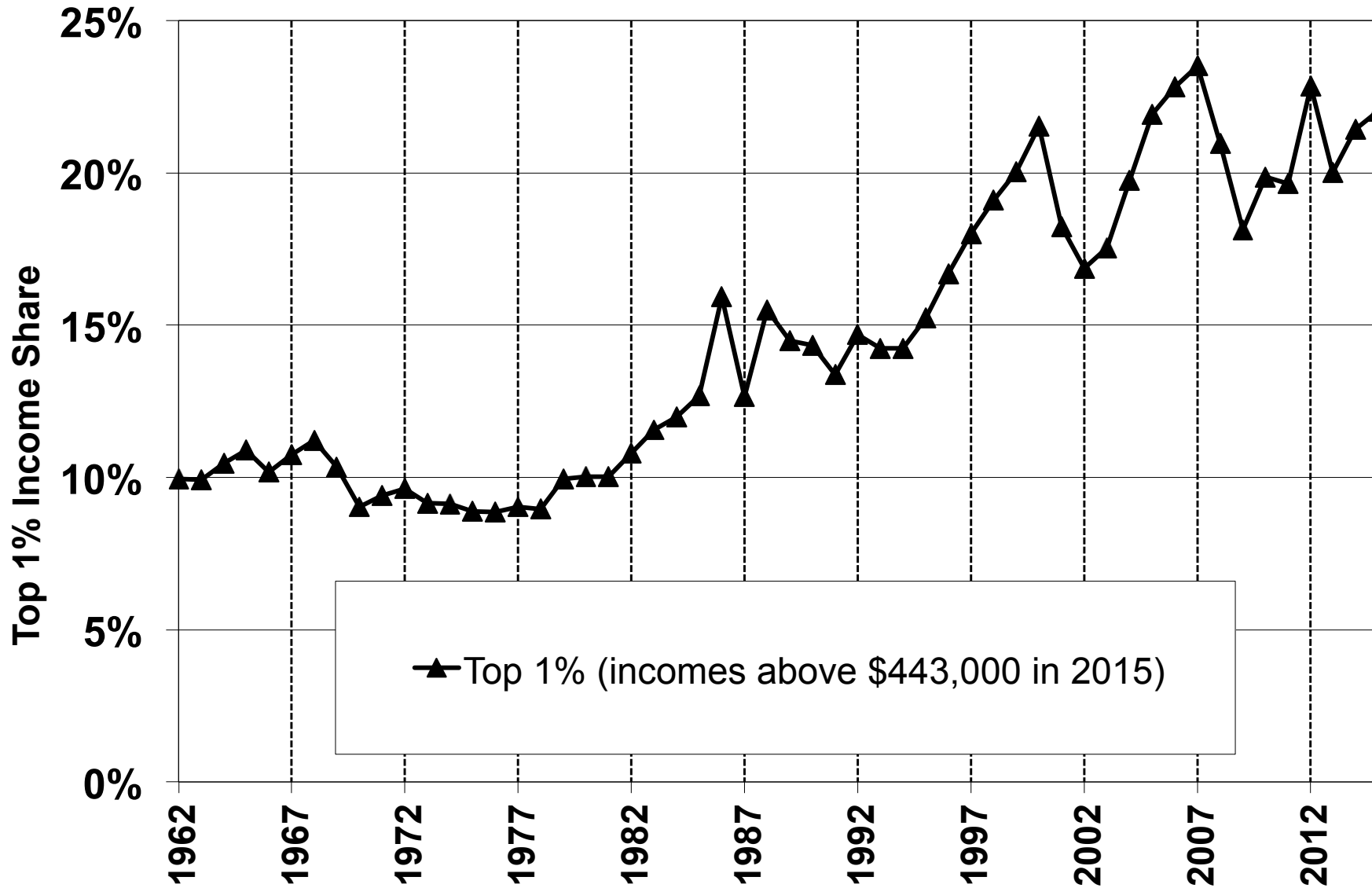
Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Top 1% pre-tax income share and top tax rates

Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

Top 1% pre-tax income share and top tax rates

2012 spike due to retiming

Legend:
- Top 1% income share
- Top MTR (right scale)
- K gains top MTR

Left axis: Top 1% Income Share (0% – 25%)
Right axis: Top Marginal Tax Rate (0% – 100%)
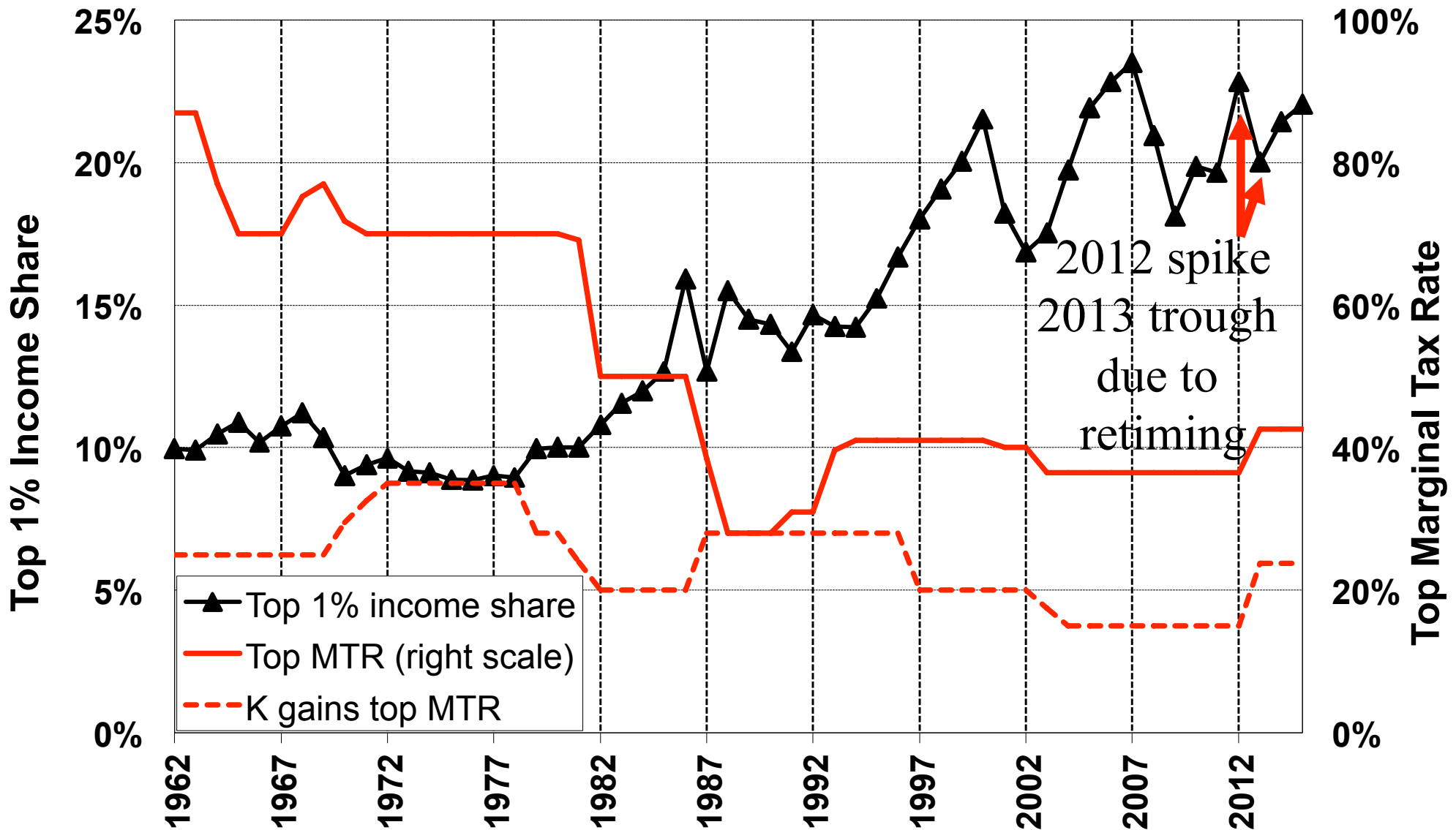X-axis years: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012

Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

Top 1% pre-tax income share and top tax rates

2012 spike
2013 trough
due to
retiming

Legend:
- Top 1% income share
- Top MTR (right scale)
- K gains top MTR

Left axis (Top 1% Income Share): 0%, 5%, 10%, 15%, 20%, 25%

Right axis (Top Marginal Tax Rate): 0%, 20%, 40%, 60%, 80%, 100%

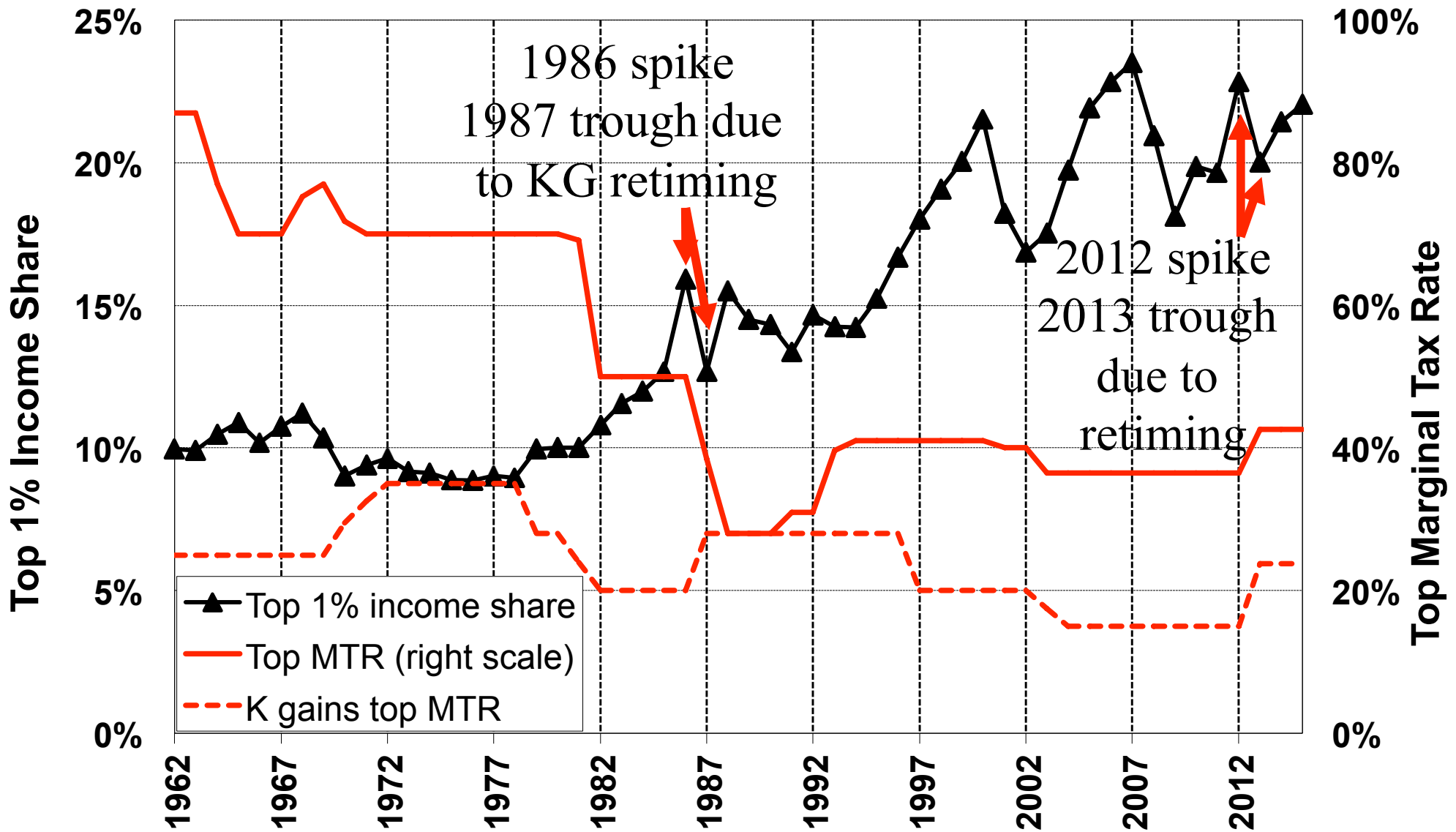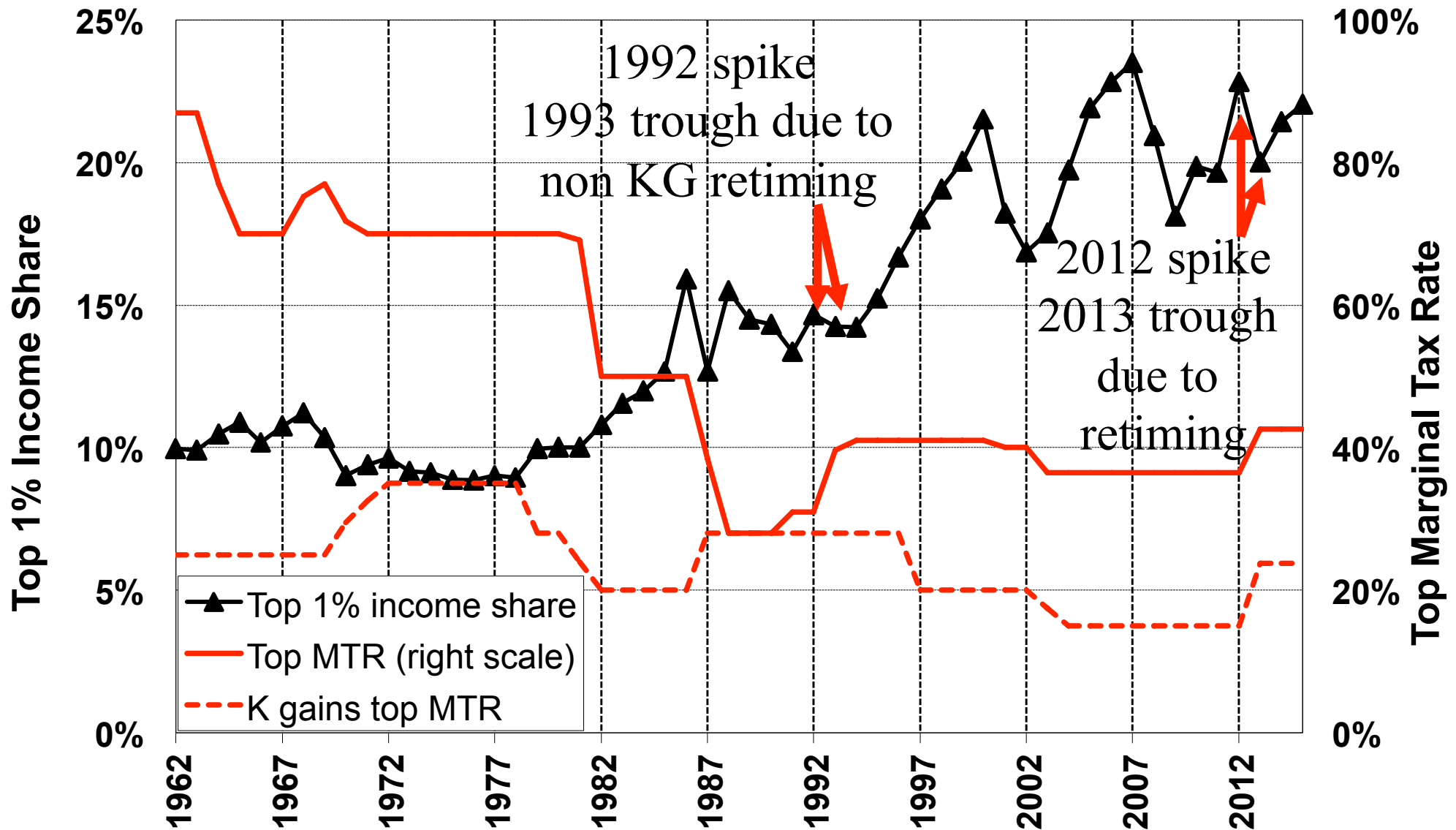X-axis: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012

Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

Top 1% pre-tax income share and top tax rates

1986 spike
1987 trough due
to KG retiming

2012 spike
2013 trough
due to
retiming

Top 1% Income Share (left axis): 0%, 5%, 10%, 15%, 20%, 25%

Top Marginal Tax Rate (right axis): 0%, 20%, 40%, 60%, 80%, 100%

Legend:
- Top 1% income share
- Top MTR (right scale)
- K gains top MTR

X-axis: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012
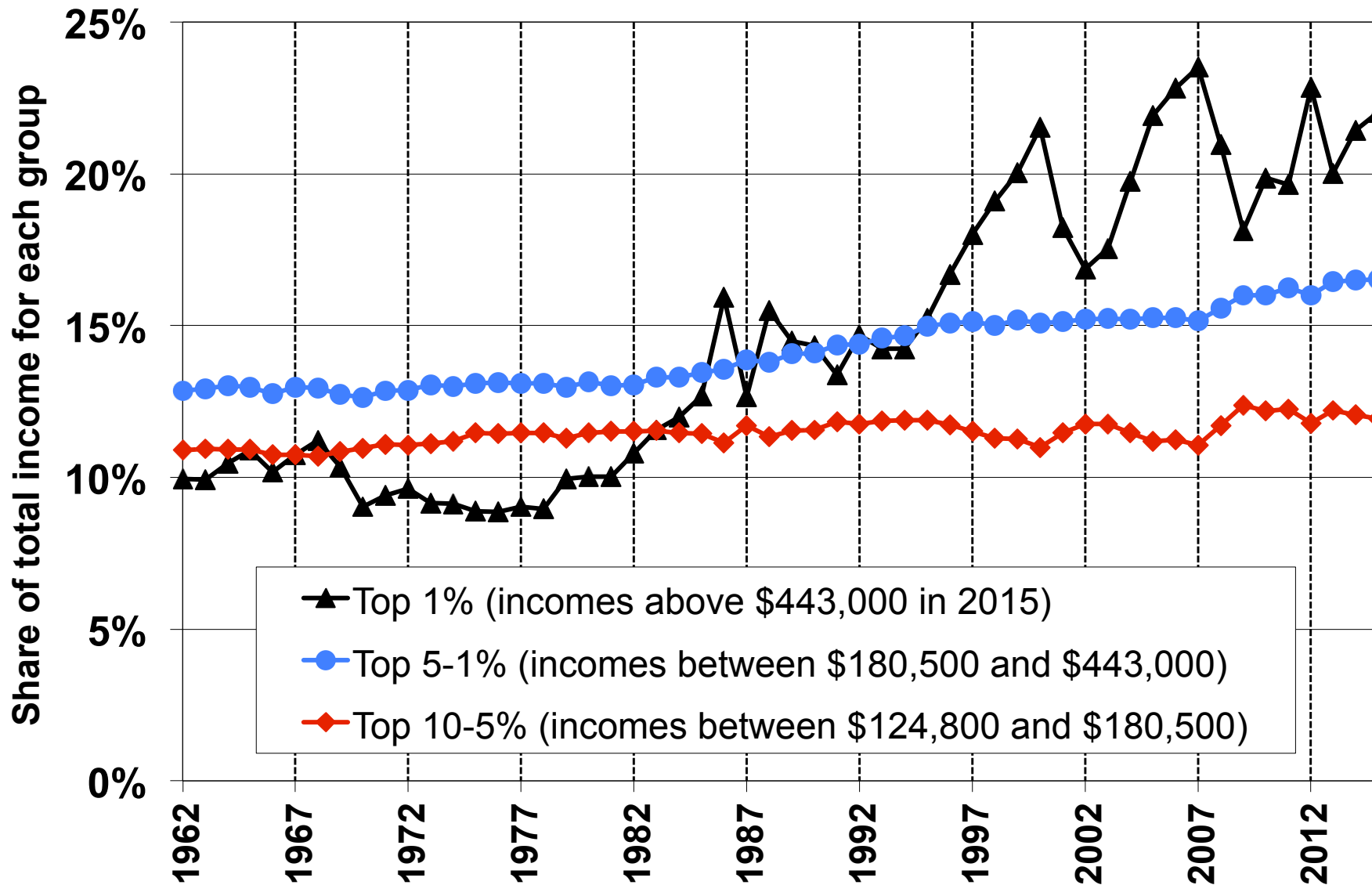
Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

Top 1% pre-tax income share and top tax rates

1992 spike
1993 trough due to
non KG retiming

2012 spike
2013 trough
due to
retiming

Top 1% Income Share (left scale: 0% – 25%)

Top Marginal Tax Rate (right scale: 0% – 100%)

Legend:
- ▲ Top 1% income share
- Top MTR (right scale)
- K gains top MTR

X-axis years: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012

Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

Top 1%, next 4%, next 5%, 1962-2015

Share of total income for each group

- ▲ Top 1% (incomes above $443,000 in 2015)
- ● Top 5-1% (incomes between $180,500 and $443,000)
- ◆ Top 10-5% (incomes between $124,800 and $180,500)

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.
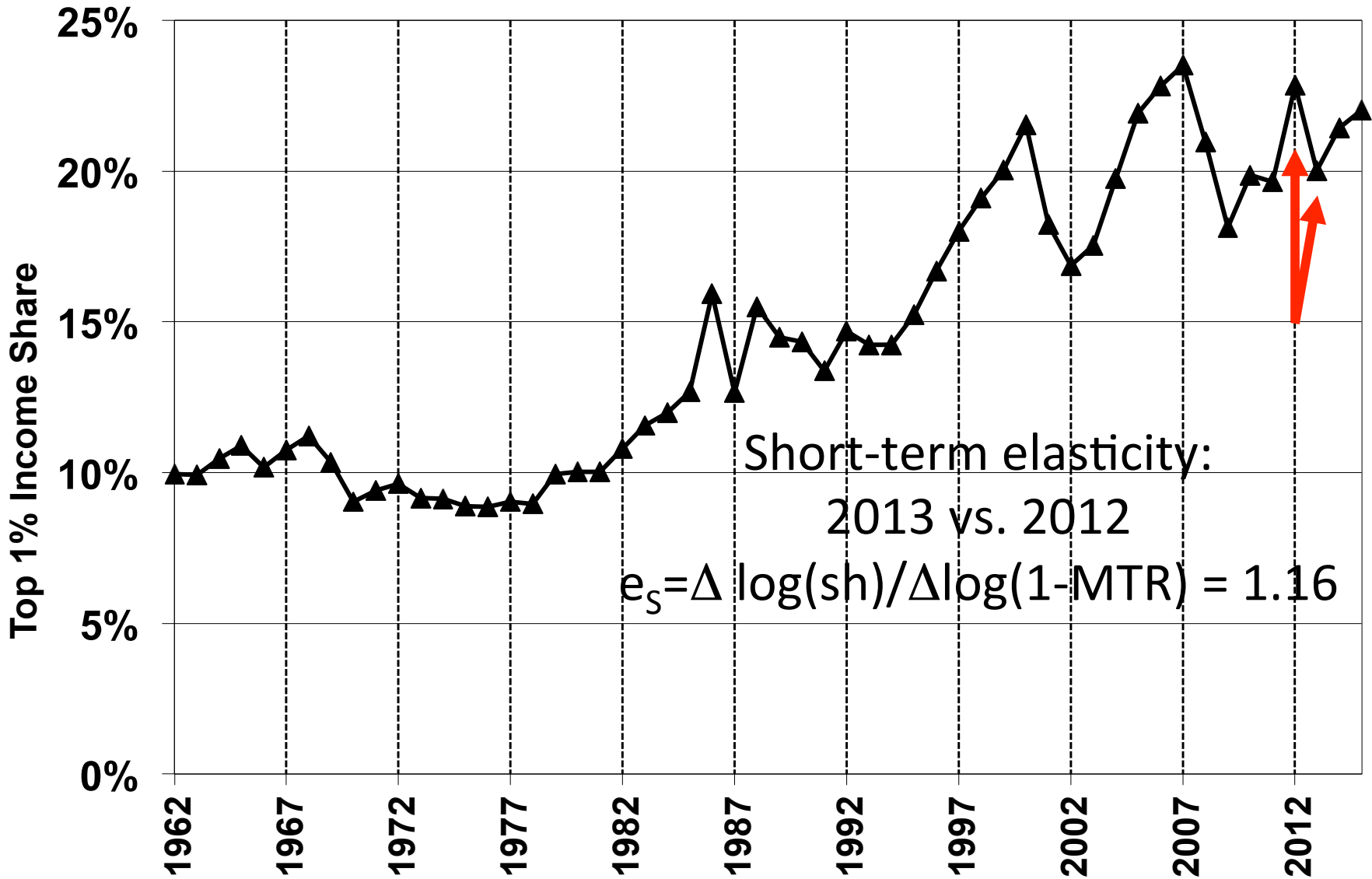
SHORT-TERM ELASTICITY ESTIMATION

$$e_S = \frac{\Delta \log sh}{\Delta \log(1 - MTR)} = \frac{\log sh_{2013} - \log sh_{2012}}{\log(1 - MTR_{2013}) - \log(1 - MTR_{2012})}$$

where sh_t is top income share and MTR_t is the average MTR for top group in year t

Identification assumption: absent tax change, $sh_{2013} = sh_{2012}$ [retiming spike is big relative to top income share trend]
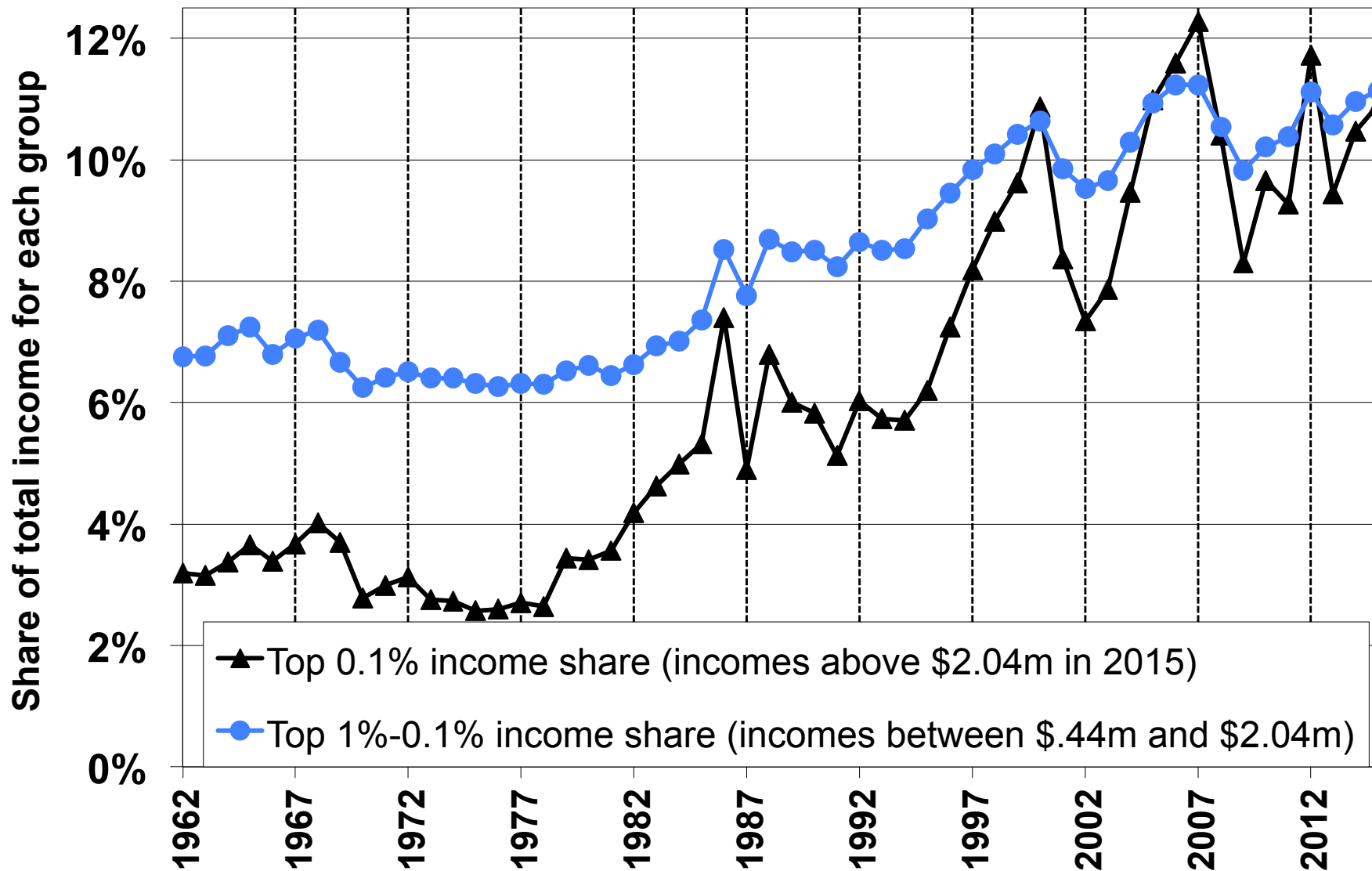
This slightly underestimates e_S as there is an overall upward trend in top income shares (in opposite direction to retiming)

Top 1% income share (with capital gains), 1962-2015

Top 1% Income Share

Short-term elasticity:
2013 vs. 2012
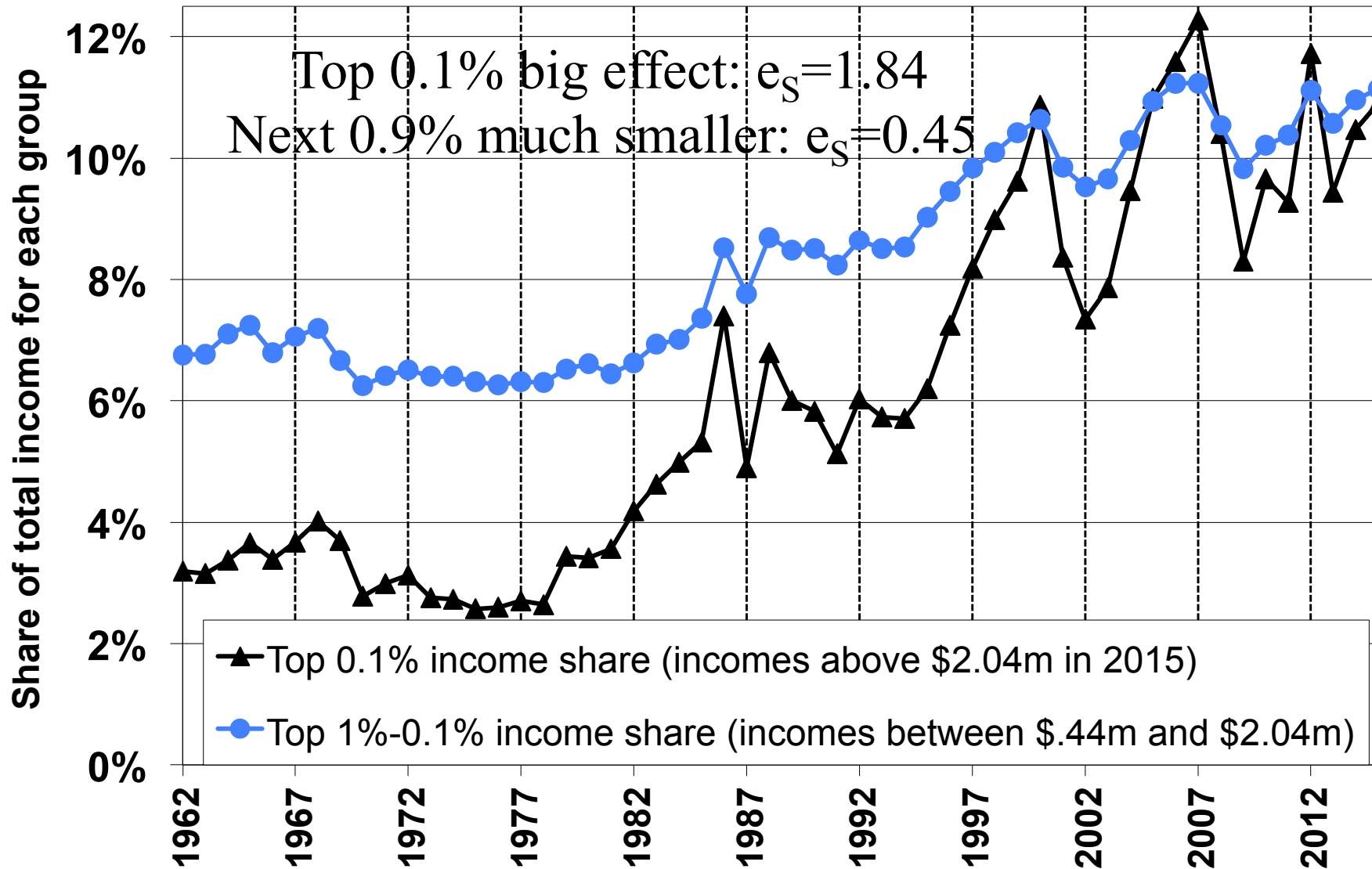$e_S = \Delta \log(sh)/\Delta\log(1-MTR) = 1.16$

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Decomposing Top 1% into top 0.1% and next 0.9%

Share of total income for each group

—▲— Top 0.1% income share (incomes above $2.04m in 2015)

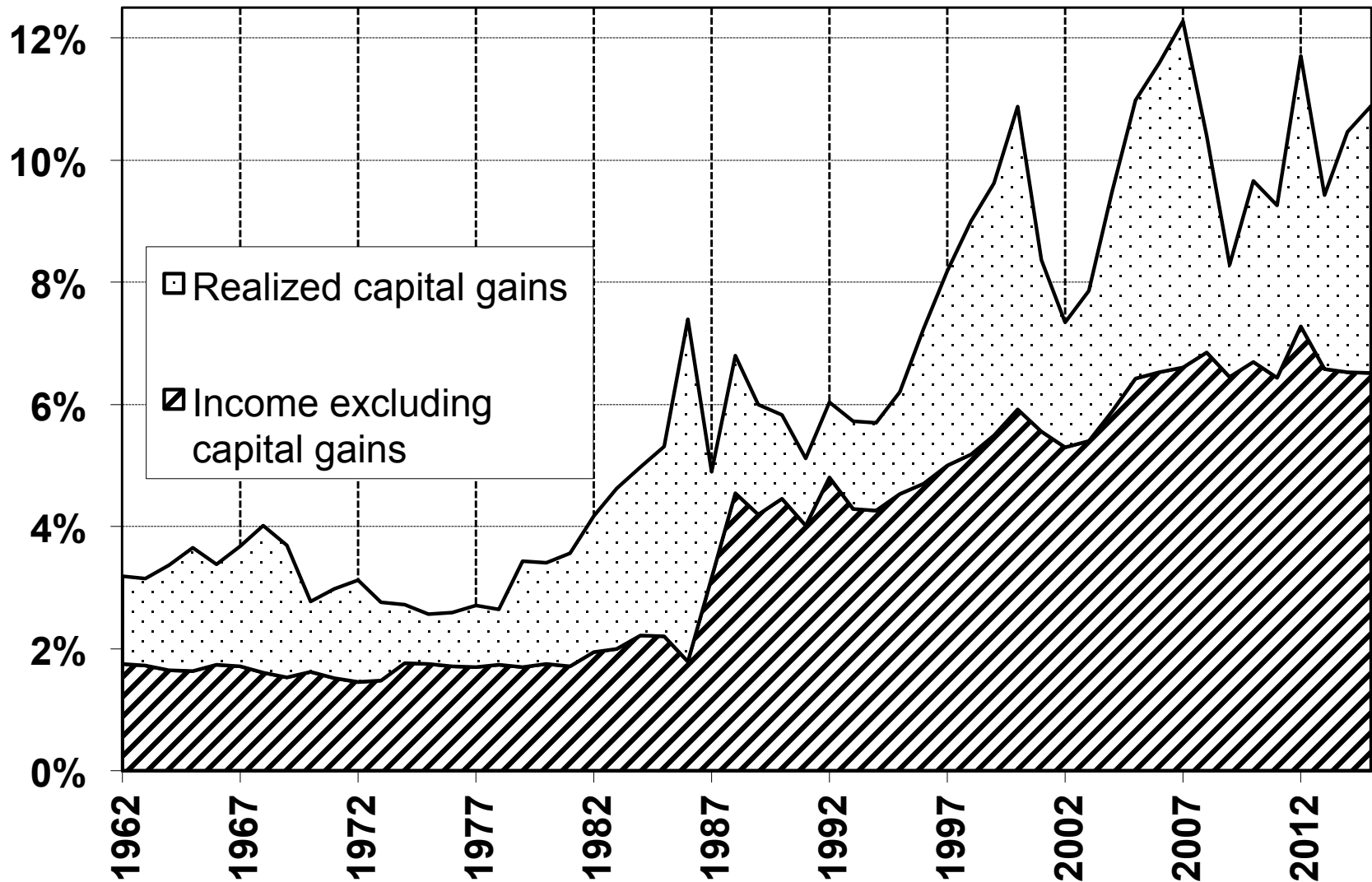—●— Top 1%-0.1% income share (incomes between $.44m and $2.04m)

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Decomposing Top 1% into top 0.1% and next 0.9%

Top 0.1% big effect: e_S=1.84
Next 0.9% much smaller: e_S=0.45

Share of total income for each group

12%

10%

8%

6%

4%

2%

0%

— ▲ — Top 0.1% income share (incomes above $2.04m in 2015)

— ● — Top 1%-0.1% income share (incomes between $.44m and $2.04m)

1962   1967   1972   1977   1982   1987   1992   1997   2002   2007   2012

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

2. Short-run Elasticity e_S Comparing 2012 and 2013 Top Incomes

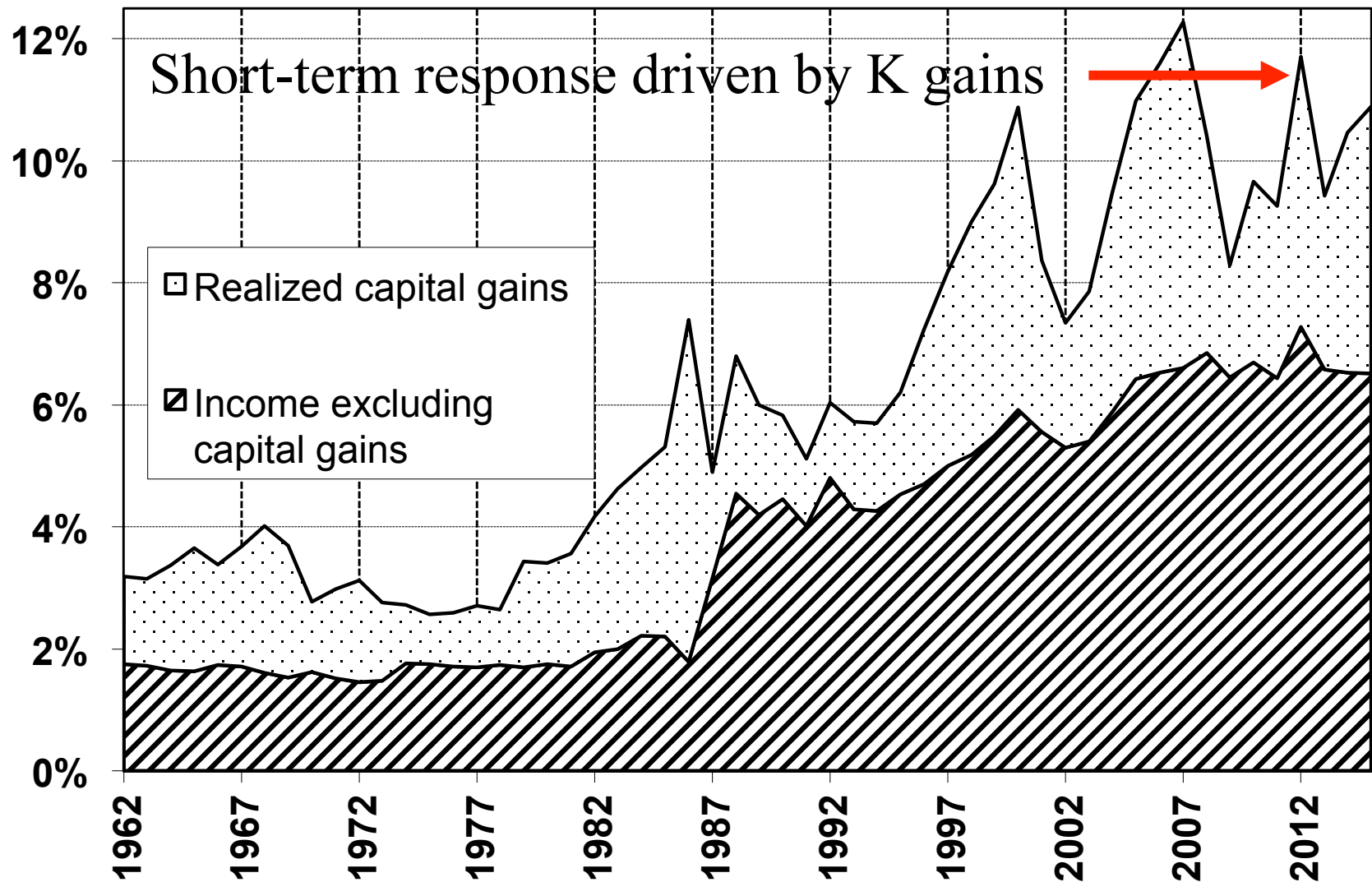|	Top Income Groups		
	Top 1%	Top 1-.1%	Top .1%
A. Elasticity Computation			
Top income share in 2012	22.8%	11.1%	11.7%
Top income share in 2013	20.0%	10.6%	9.4%
Log change in top income shares 2012 to 2013	-13.2%	-5.0%	-21.7%
Net-of-tax rate in 2012	67.8%	65.2%	70.7%
Net-of-tax rate in 2013	60.5%	58.4%	62.9%
Log change in net-of-tax rate 2012 to 2013	-11.4%	-11.1%	-11.8%
Elasticity of income wrt net-of-tax rate	1.16	0.45	1.84

This table presents the short-run elasticity estimates e_S of reported income with respect to one minus the marginal tax rate comparing 2012 and 2013 top incomes.
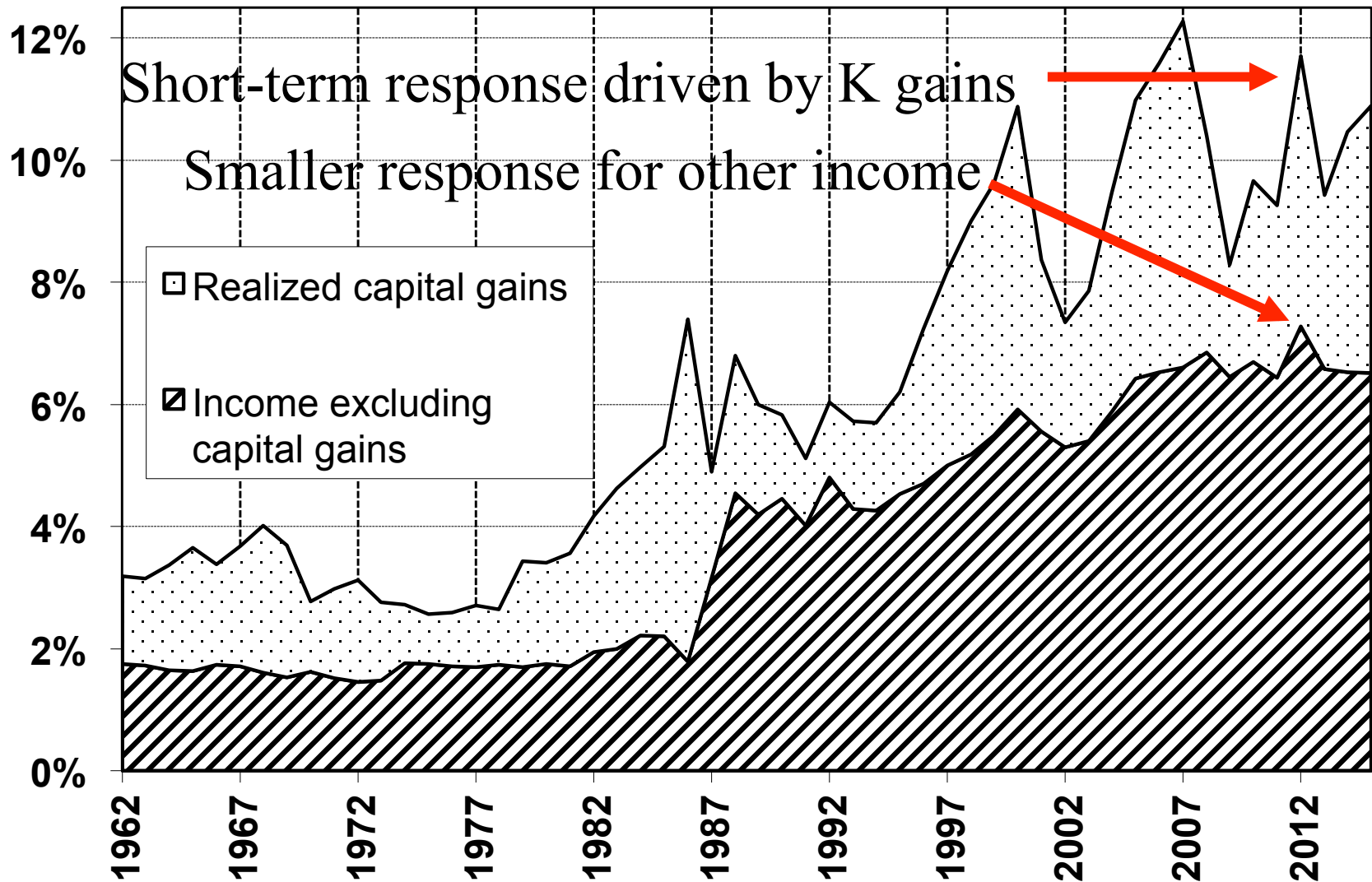
US Top 0.1% Income Share and Composition

Legend:
- ☐ Realized capital gains
- ☑ Income excluding capital gains

Y-axis: 0%, 2%, 4%, 6%, 8%, 10%, 12%

X-axis: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012
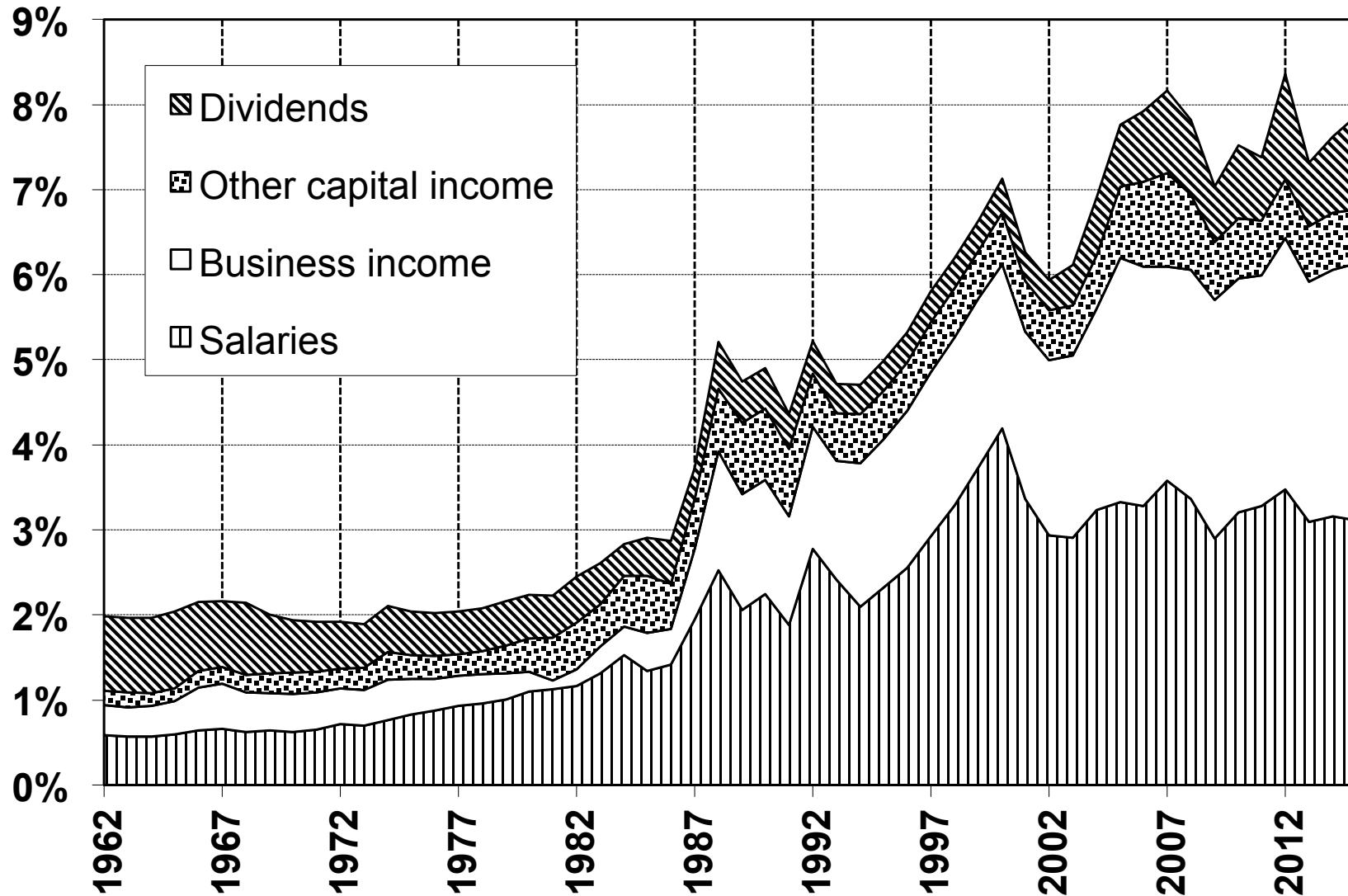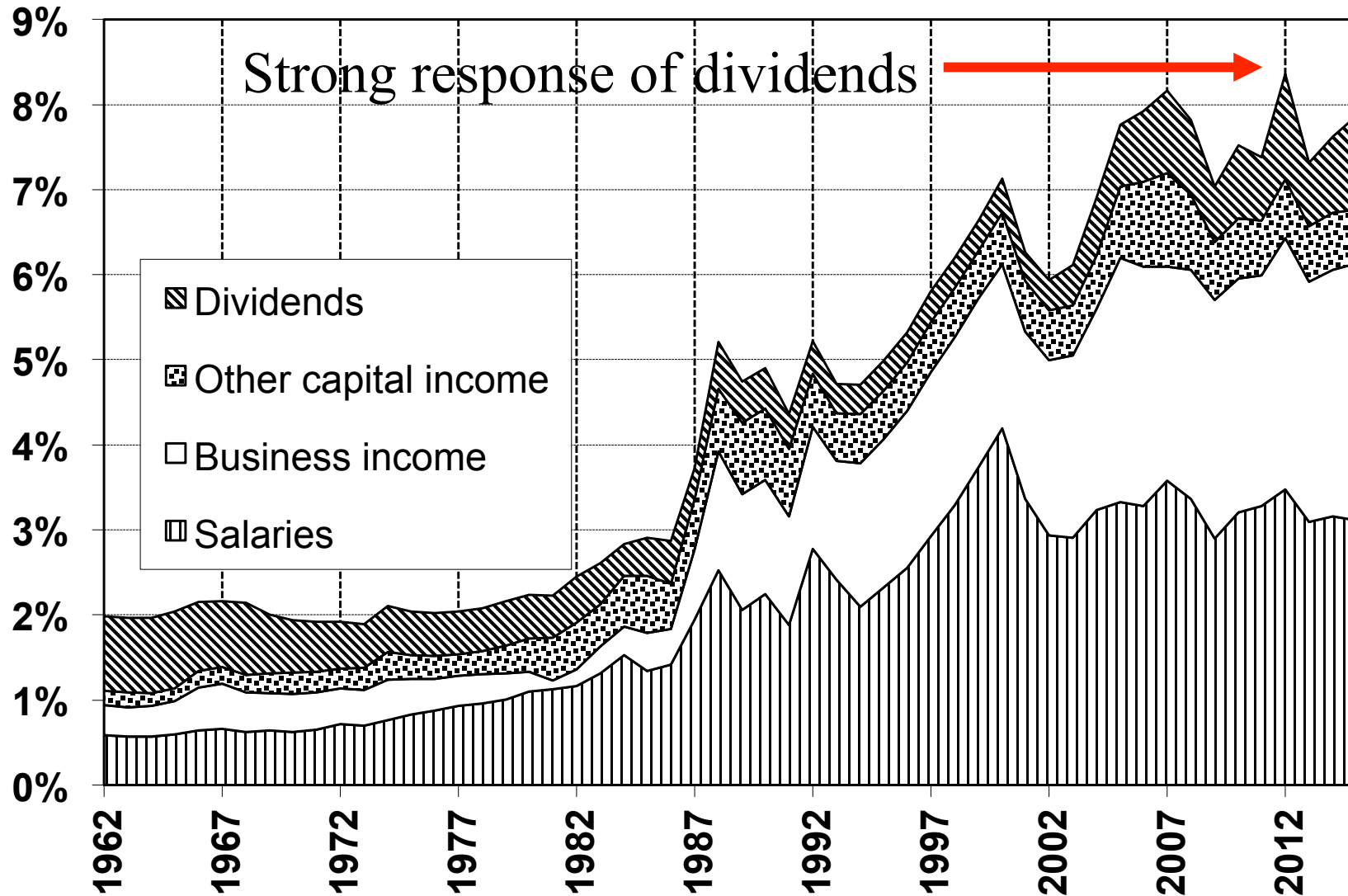
Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains, and always excluding government transfers.

US Top 0.1% Income Share and Composition

Short-term response driven by K gains →

- □ Realized capital gains
- ☑ Income excluding capital gains

(Chart: y-axis from 0% to 12% in 2% increments; x-axis years 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012)
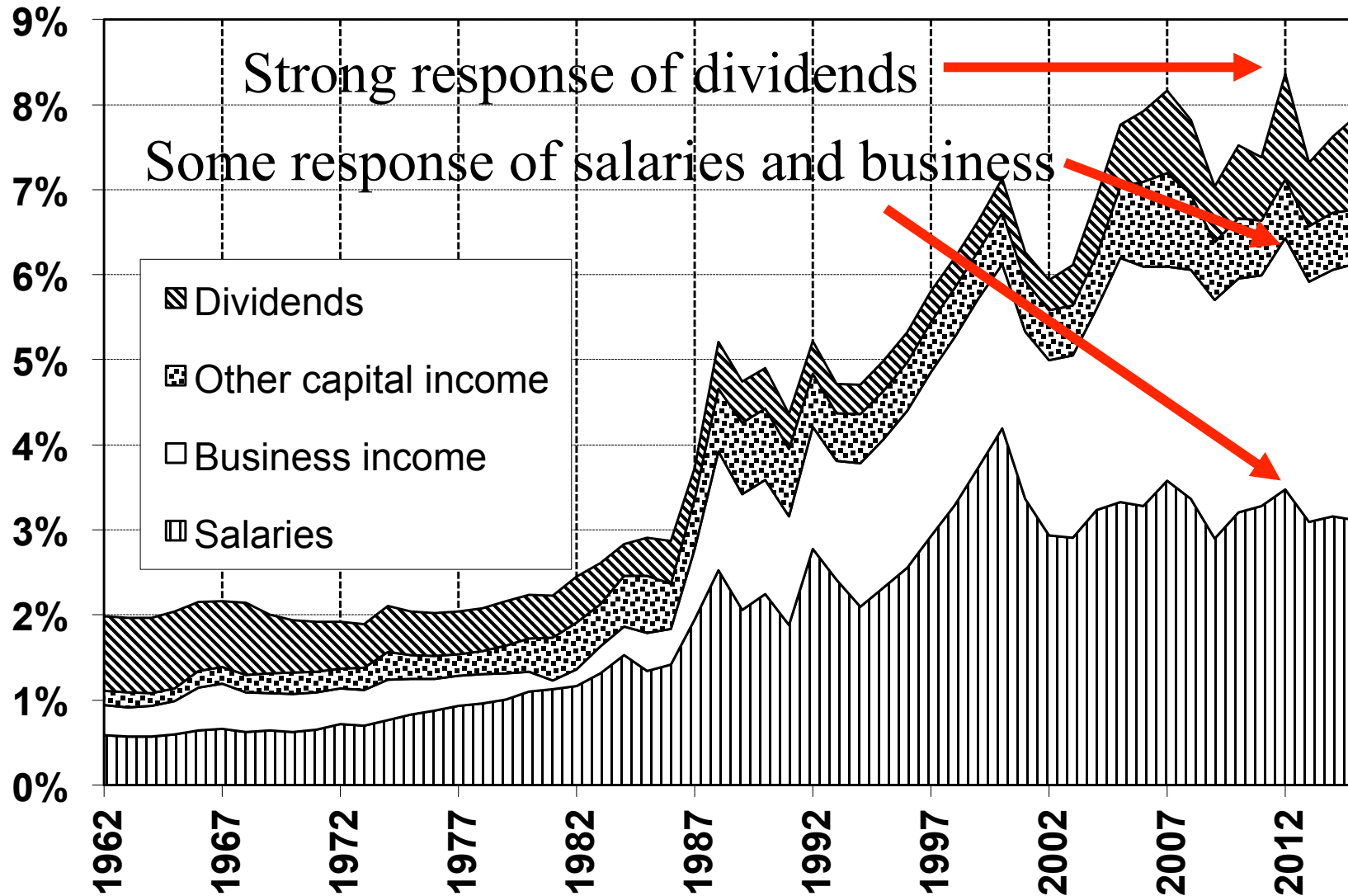
Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains, and always excluding government transfers.

US Top 0.1% Income Share and Composition

Short-term response driven by K gains

Smaller response for other income

Legend:
□ Realized capital gains
☑ Income excluding capital gains

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains, and always excluding government transfers.

US Top 0.1% Income Share and Composition (excl. K gains)

Legend:
- Dividends
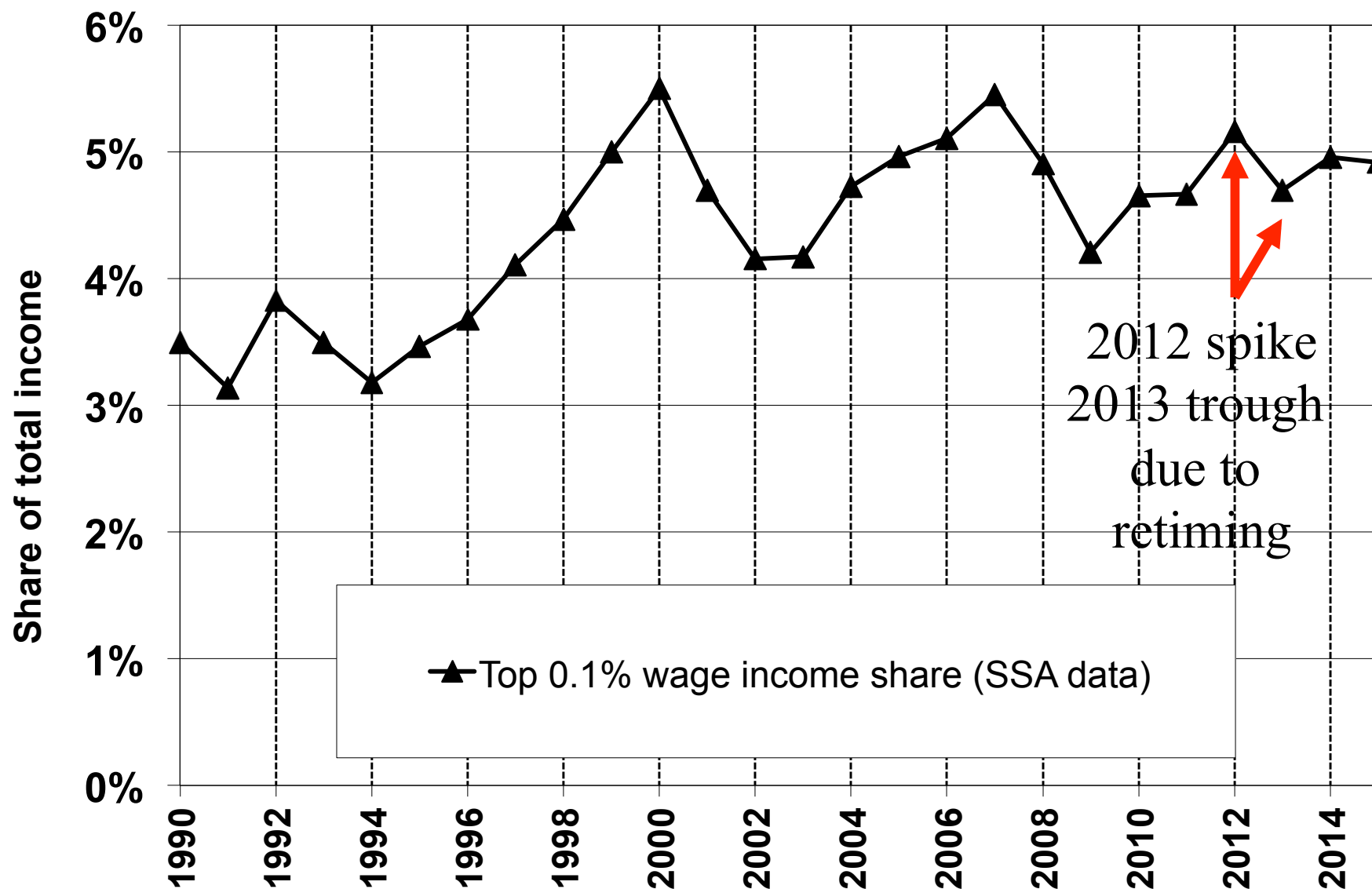- Other capital income
- Business income
- Salaries

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income excluding realized capital gains, and always excluding government transfers.

US Top 0.1% Income Share and Composition (excl. K gains)

Strong response of dividends →

Legend:
- Dividends
- Other capital income
- Business income
- Salaries

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income excluding realized capital gains, and always excluding government transfers.

US Top 0.1% Income Share and Composition (excl. K gains)

Strong response of dividends

Some response of salaries and business

Legend:
- Dividends
- Other capital income
- Business income
- Salaries

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income excluding realized capital gains, and always excluding government transfers.

2. Short-run Elasticity e_S Comparing 2012 and 2013 Top Incomes

	Top Income Groups		
	Top 1%	Top 1-.1%	Top .1%
C. Elasticity of Each Income Component			
Total income including realized capital gains	1.16	0.45	1.84
Realized capital gains	3.16	1.96	3.53
Income excluding realized capital gains	0.73	0.37	1.19
Wages, Salaries, and Pensions	0.44	0.13	1.09
Business income	0.55	0.71	0.41
Ordinary capital income	1.59	0.85	1.99
Dividends	3.19	1.46	4.01
Interest, rents, royalties, fiduciaries	0.42	0.54	0.34

This table presents the short-run elasticity estimates e_S comparing 2012 and 2013 for each income component. Computations are based on the composition of top incomes from Piketty-Saez series.

Top 0.1% wage income share, 1990-2015

Share of total income

6%
5%
4%
3%
2%
1%
0%

2012 spike
2013 trough
due to
retiming

▲ Top 0.1% wage income share (SSA data)

1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014

Source: Piketty and Saez, 2003 updated to 2015 based on Social Security Administration data.
Series based on indiv. wage income inclusive of elective pension contributions (like 401(k)s).

Top 0.1% wage income share, 1990-2015
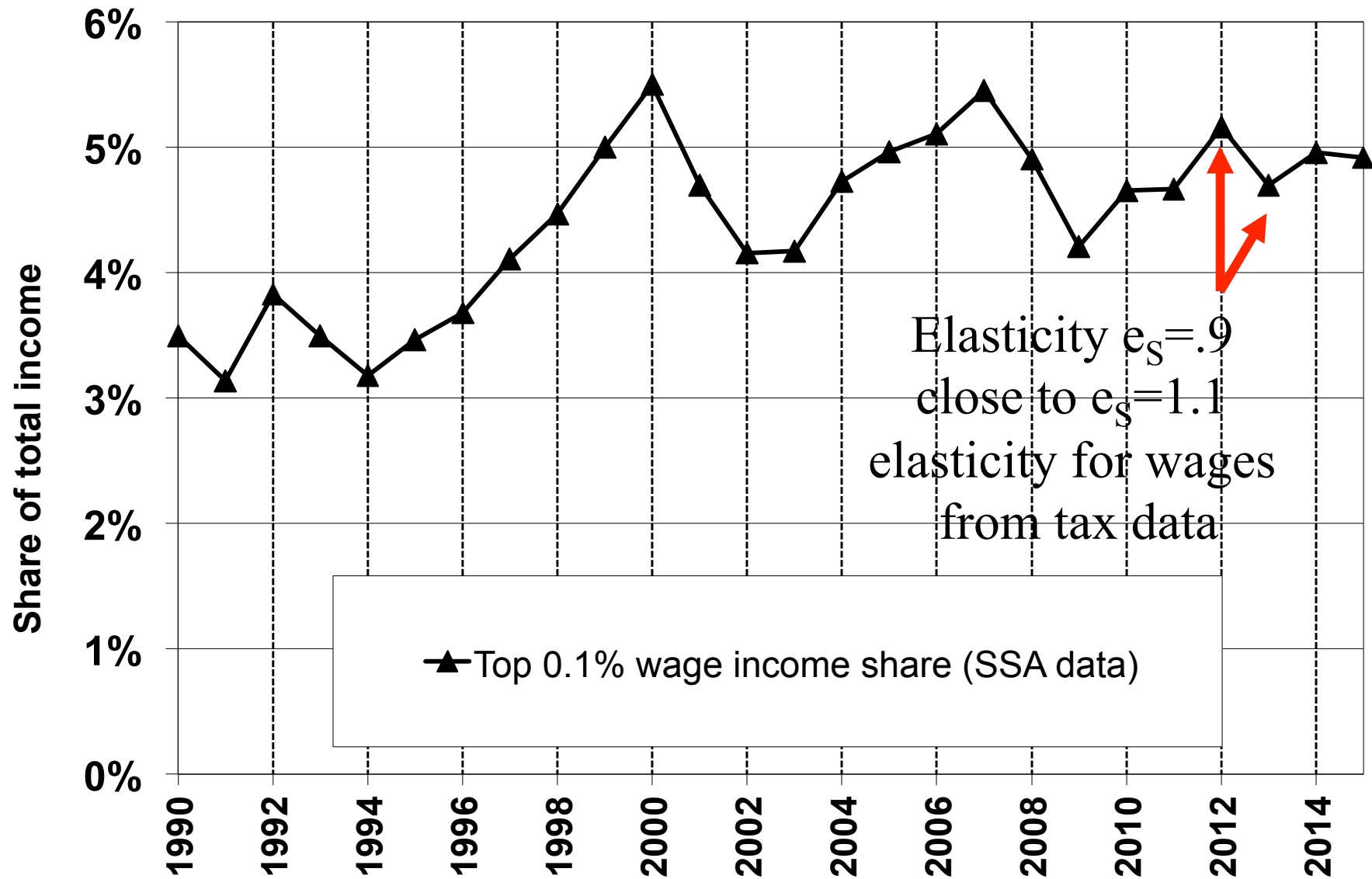
Share of total income (y-axis, from 0% to 6%)

x-axis: 1990 – 2014

Elasticity e_S=.9
close to e_S=1.1
elasticity for wages
from tax data

▲ Top 0.1% wage income share (SSA data)

Source: Piketty and Saez, 2003 updated to 2015 based on Social Security Administration data.
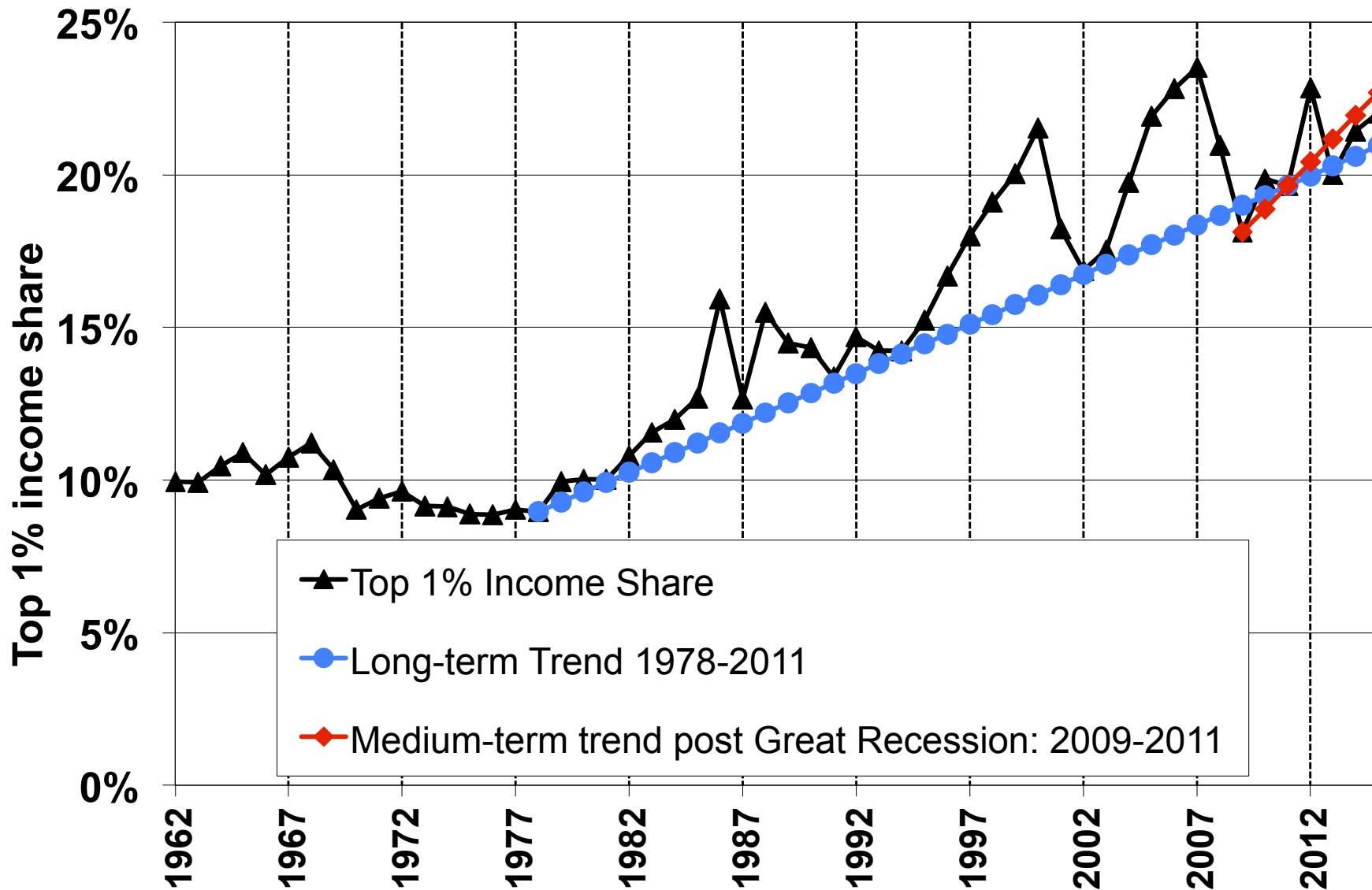Series based on indiv. wage income inclusive of elective pension contributions (like 401(k)s).

MEDIUM-TERM ELASTICITY ESTIMATION

$$e_M = \frac{\Delta \log sh}{\Delta \log(1 - MTR)} = \frac{\log sh_{2015} - \log sh_{2015}^c}{\log(1 - MTR_{2015}) - \log(1 - MTR_{2011})}$$

where sh_{2015}^c is counterfactual top share absent the reform

Difficult identification assumption: Is $sh_{2015}^c = sh_{2011}$?

Upward trend in top income share absent tax change likely:

a) secular increase [top 1% ↑ 0.32 pts/year in 1978-2011]

b) fast recovery trend after Great Recession [top 1% ↑ 0.76 pts/year in 2009-2011]

Assumption: assume same trend over 2011-5 as over 2009-11

$$\Rightarrow sh_{2015}^c = sh_{2011} + (2015 - 2011) \times (sh_{2011} - sh_{2009})/2$$

Top 0.1% wage income share, 1990-2015
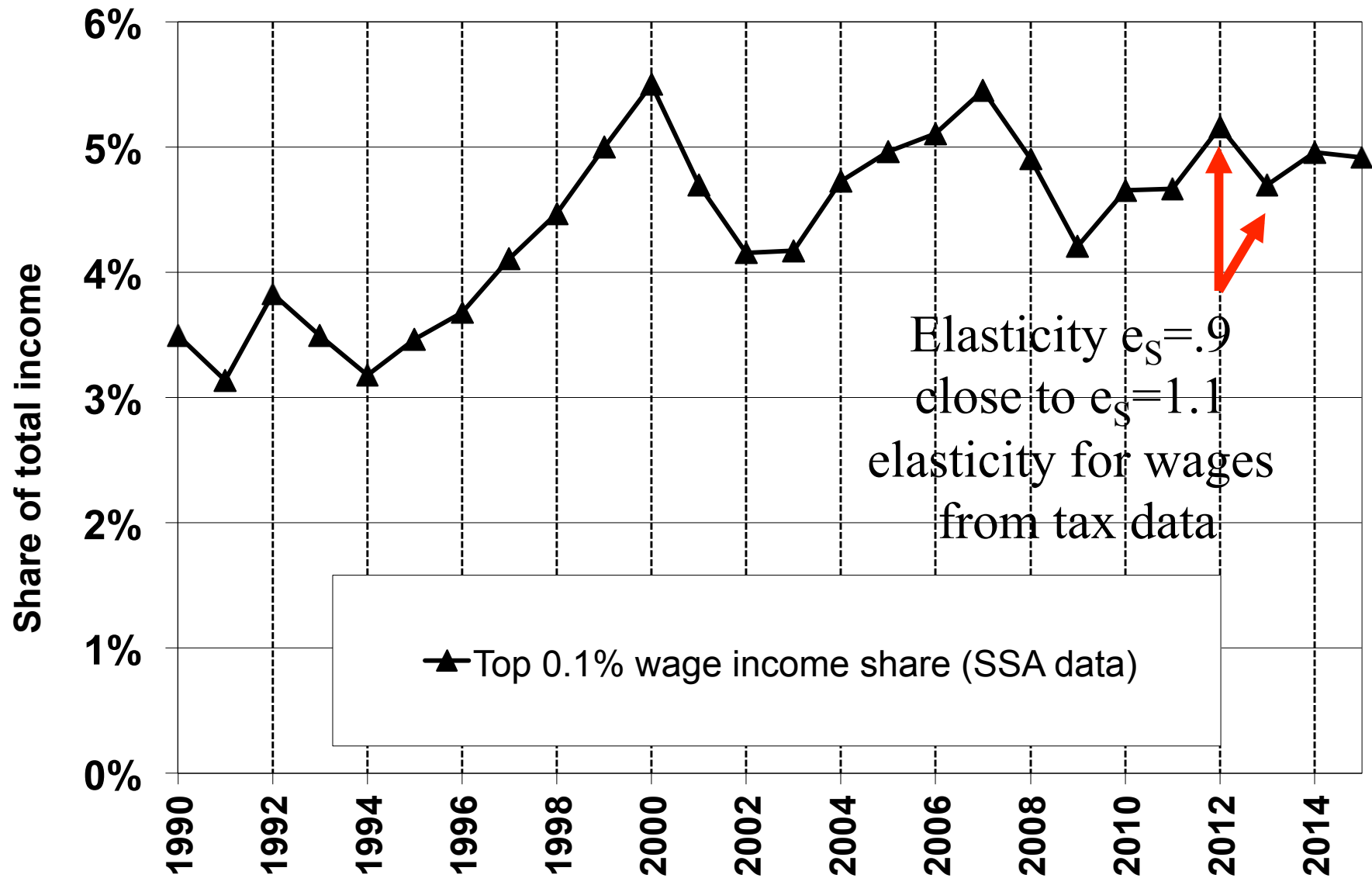
Elasticity e_S=.9
close to e_S=1.1
elasticity for wages
from tax data

Share of total income

▲ Top 0.1% wage income share (SSA data)

Source: Piketty and Saez, 2003 updated to 2015 based on Social Security Administration data.
Series based on indiv. wage income inclusive of elective pension contributions (like 401(k)s).
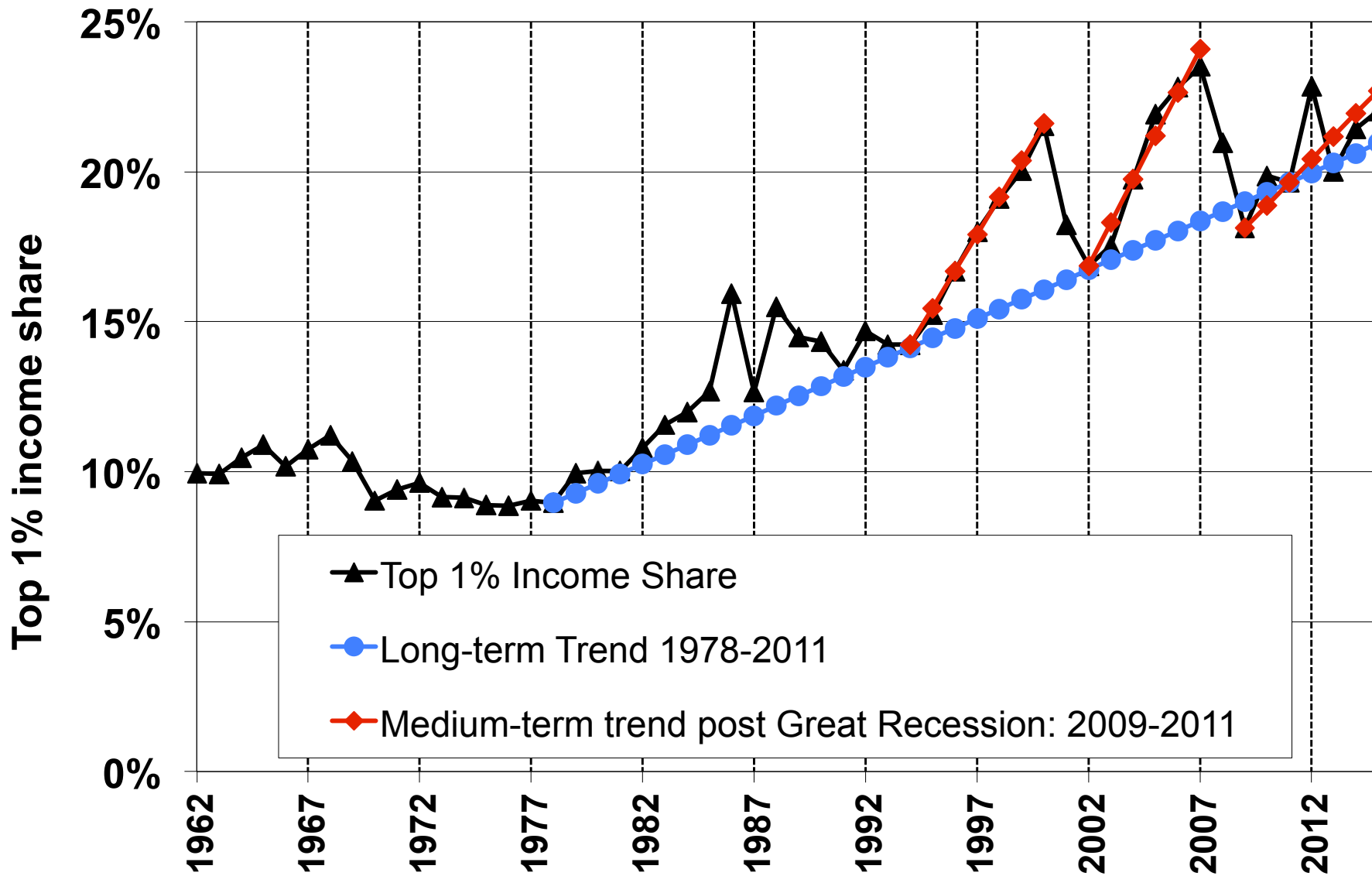
Top 1% income share (with capital gains), 1962-2015
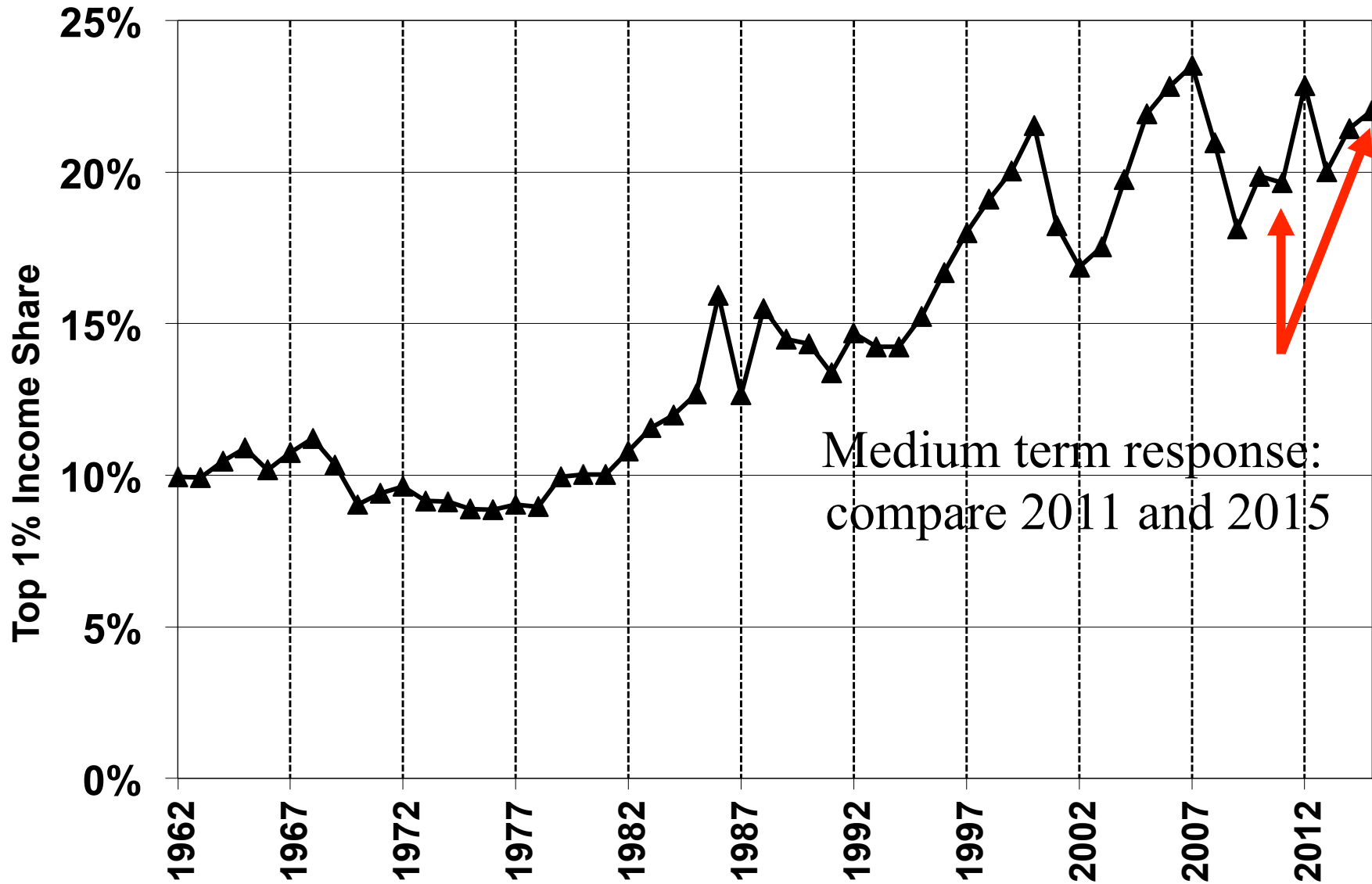
Top 1% Income Share

25%

20%

15%

10%

5%

0%

Medium term response:
compare 2011 and 2015

1962
1967
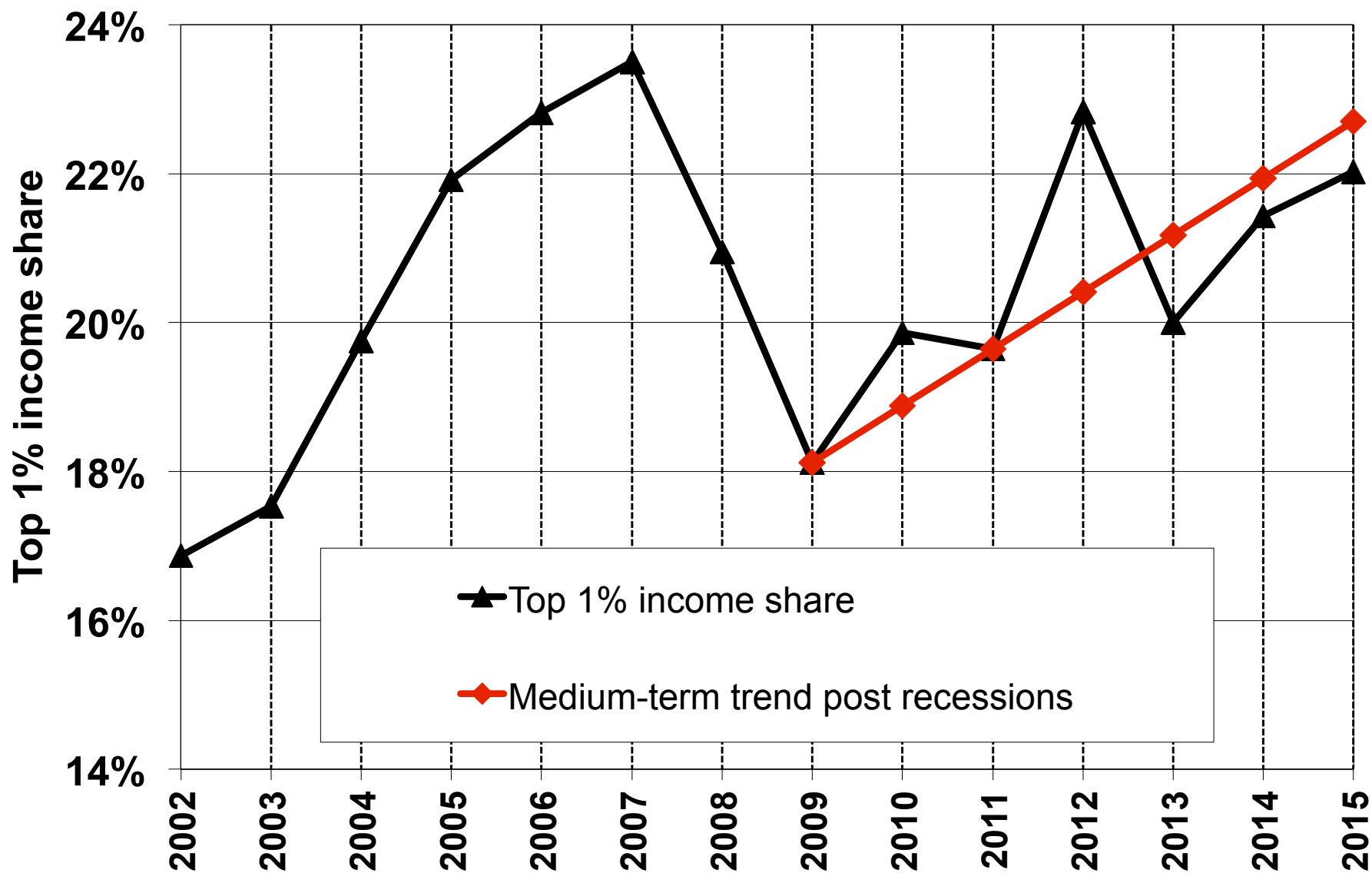1972
1977
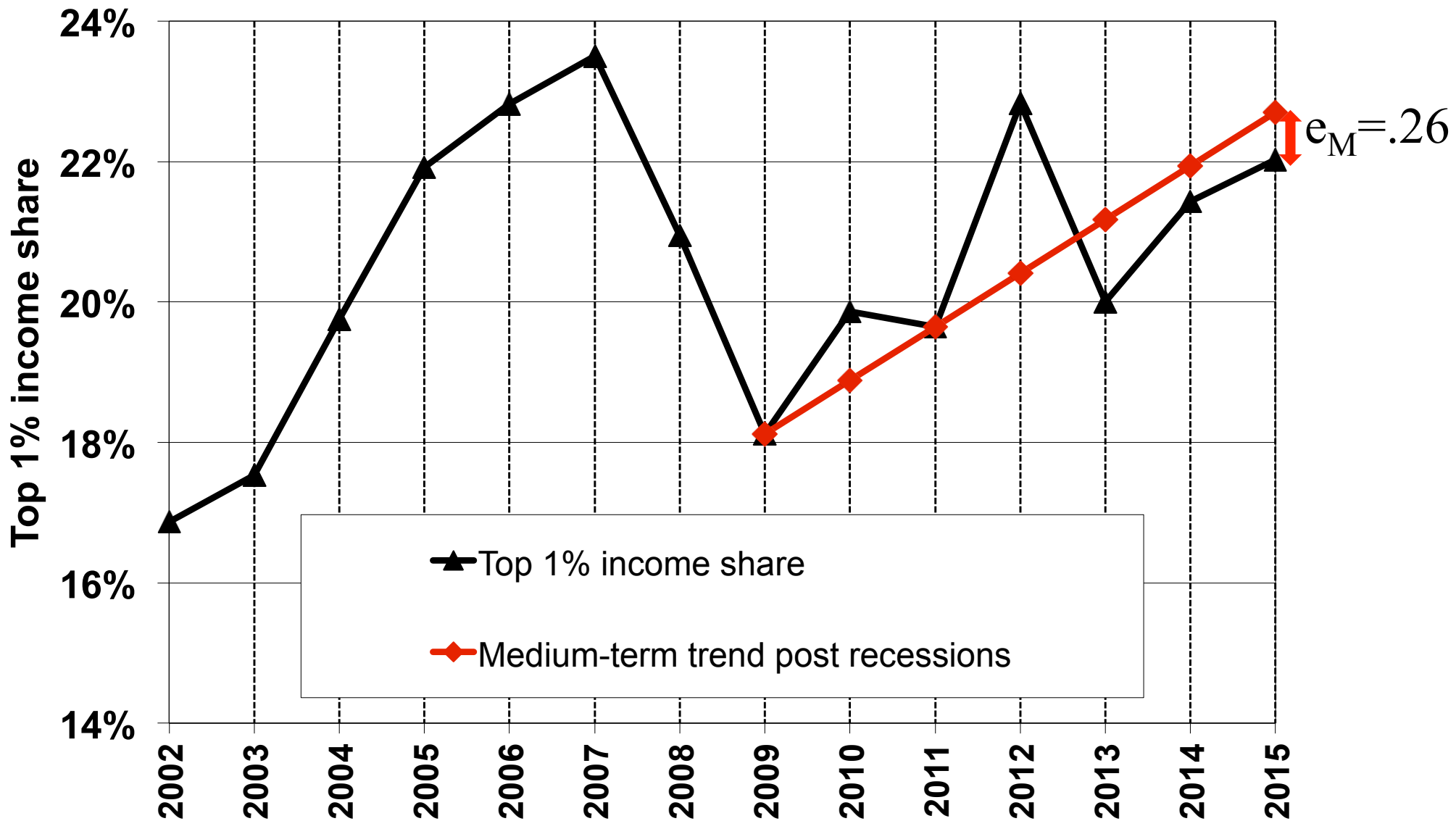1982
1987
1992
1997
2002
2007
2012

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Counterfactual top 1% income shares

Top 1% income share (y-axis)

Legend:
- ▲— Top 1% Income Share
- ●— Long-term Trend 1978-2011
- ◆— Medium-term trend post Great Recession: 2009-2011

y-axis labels: 0%, 5%, 10%, 15%, 20%, 25%

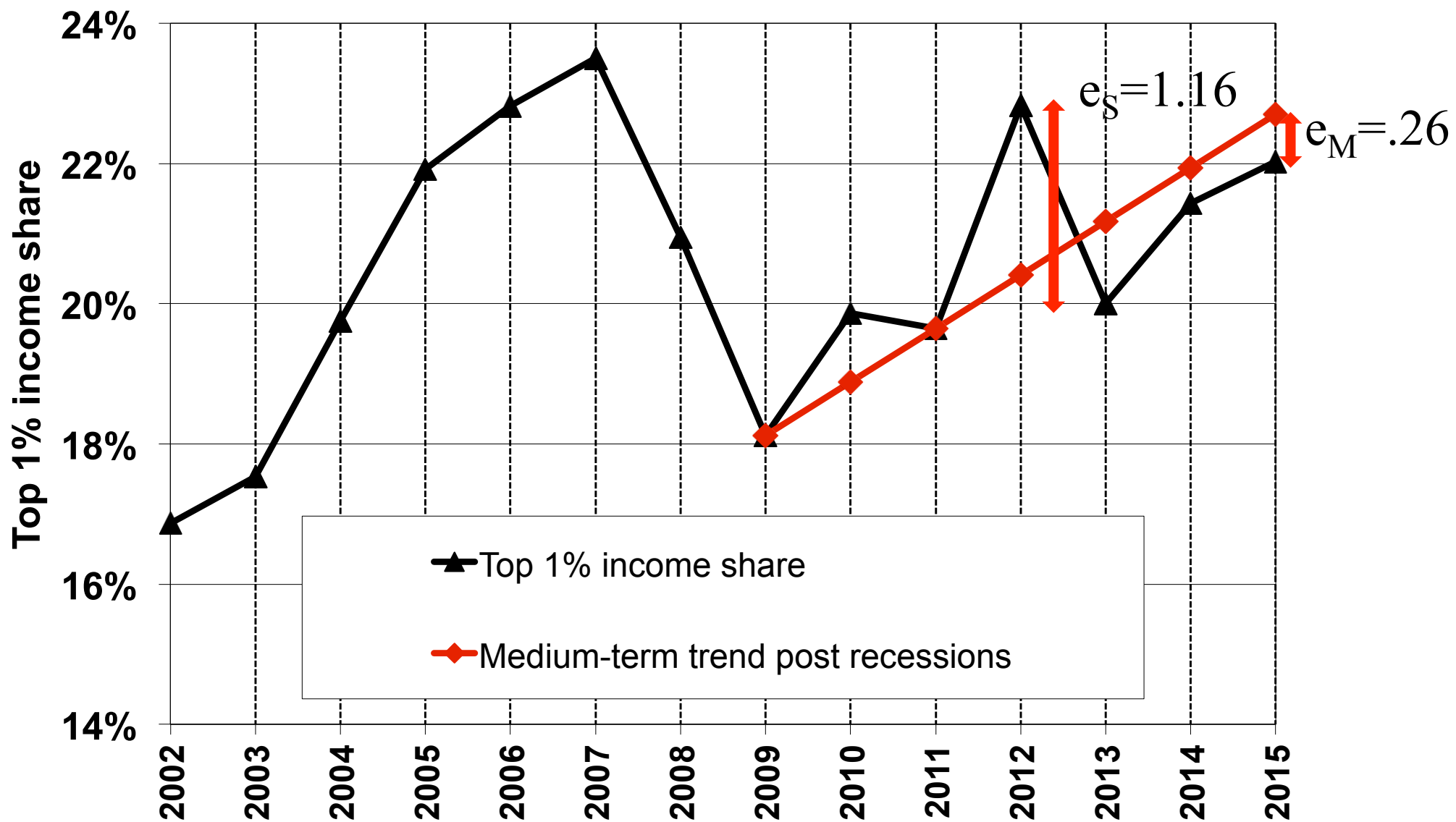x-axis labels: 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012

Source: Piketty and Saez, 2003 updated to 2014. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Counterfactual top 1% income shares

Source: Piketty and Saez, 2003 updated to 2014. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Top 1% income share, 2002-2015

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Top 1% income share, 2002-2015

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

Top 1% income share, 2002-2015

Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

3. Estimates for the Medium-run Elasticity e_M

	Top Income Groups		
	Top 1%	Top 1-.1%	Top .1%
A. Comparing 2011 and 2015 Top Incomes			
Elasticity for income incl. K gains	0.26	0.29	0.24
Elasticity for income excl. K gains	0.32	0.39	0.22
B. Comparing 2011 and 2014 Top Incomes			
Elasticity for income incl. K gains	0.21	0.21	0.20
Elasticity for income excl. K gains	0.33	0.34	0.31

This table presents the medium-run elasticity estimates e_M comparing 2011 and 2015 incomes in Panel A and 2011 and 2014 incomes in Panel B. We assume that, absent the tax change, top income shares would have increased at the same rate as the medium-term post Great Recession increase from 2009 to 2011.
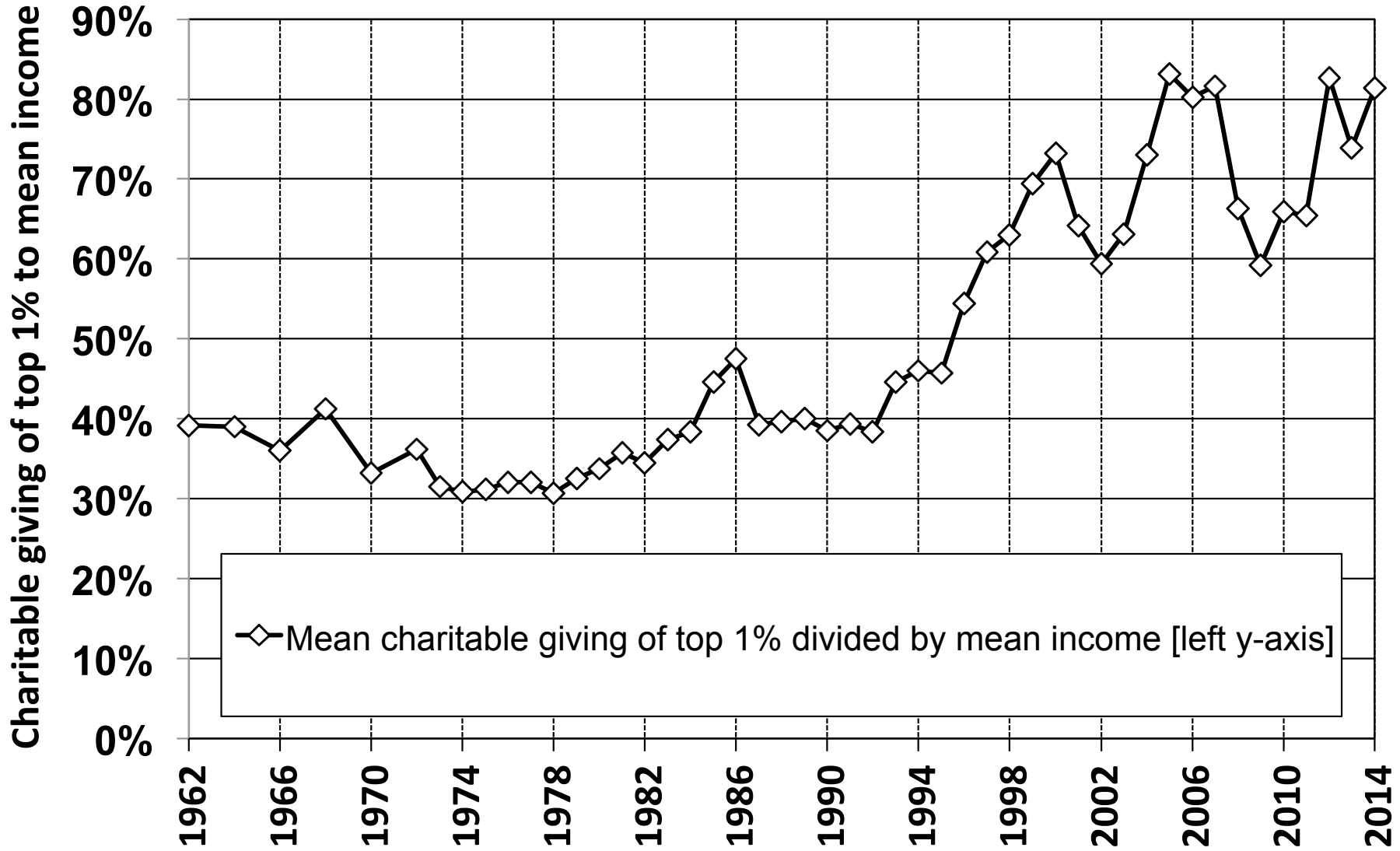
CHARITABLE GIVING

Charitable giving useful to tell apart tax avoidance driven changes from real changes in top incomes

Absent tax rate changes, top incomes and charitable giving at the top should move in **tandem**

With top tax rate increase, incentive to report less income but more charitable giving: top incomes and charitable giving at the top should move in **opposite** directions

However, in 2012, both top incomes and charitable giving went up: top earners did not postpone charitable giving to 2013

Charitable Giving of Top 1% Income Earners

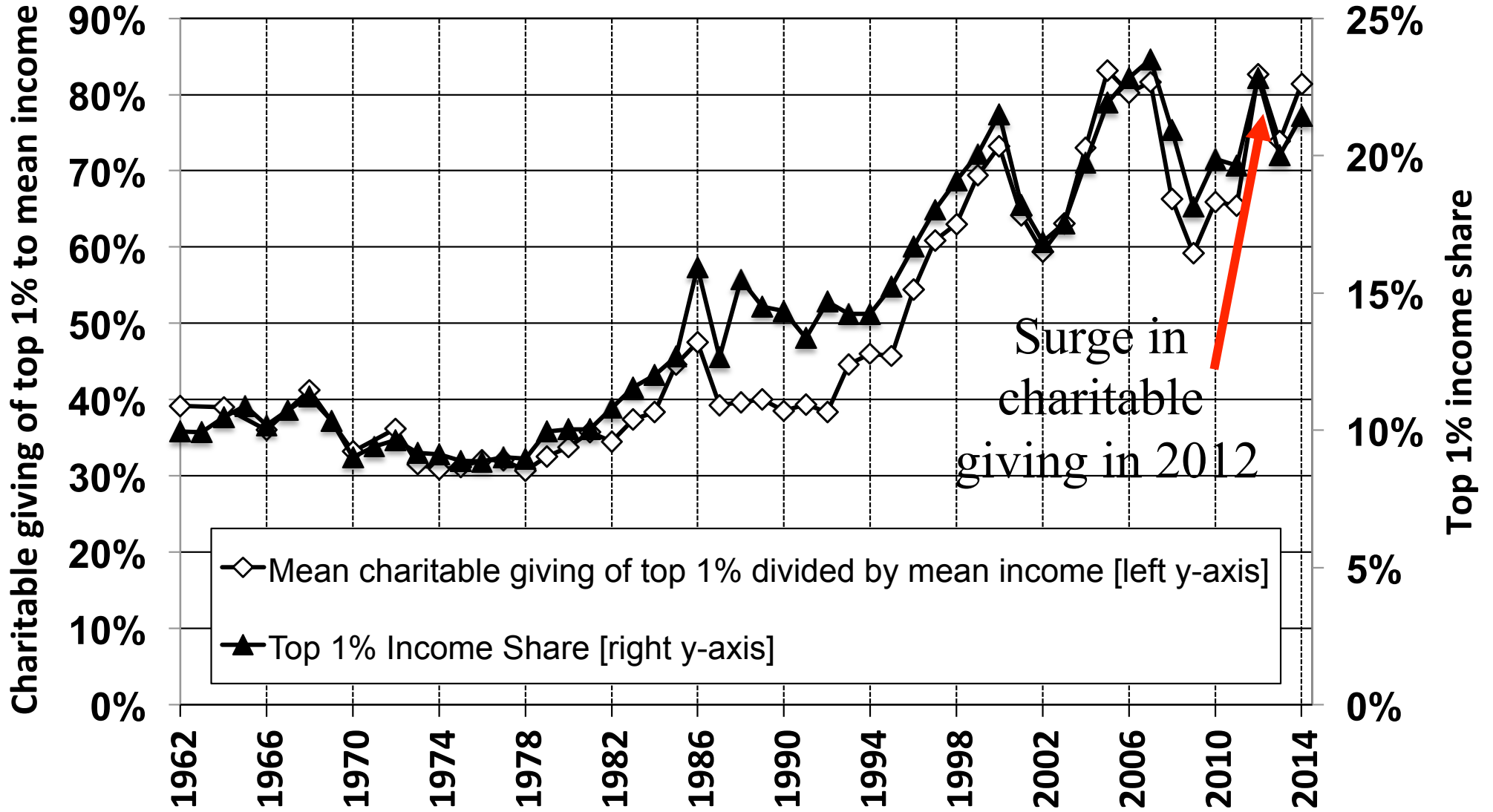Mean charitable giving of top 1% divided by mean income [left y-axis]

Source: The figure depicts average charitable giving of top 1% incomes (normalized by average income per family) on the left y-axis.

Charitable Giving of Top 1% Income Earners
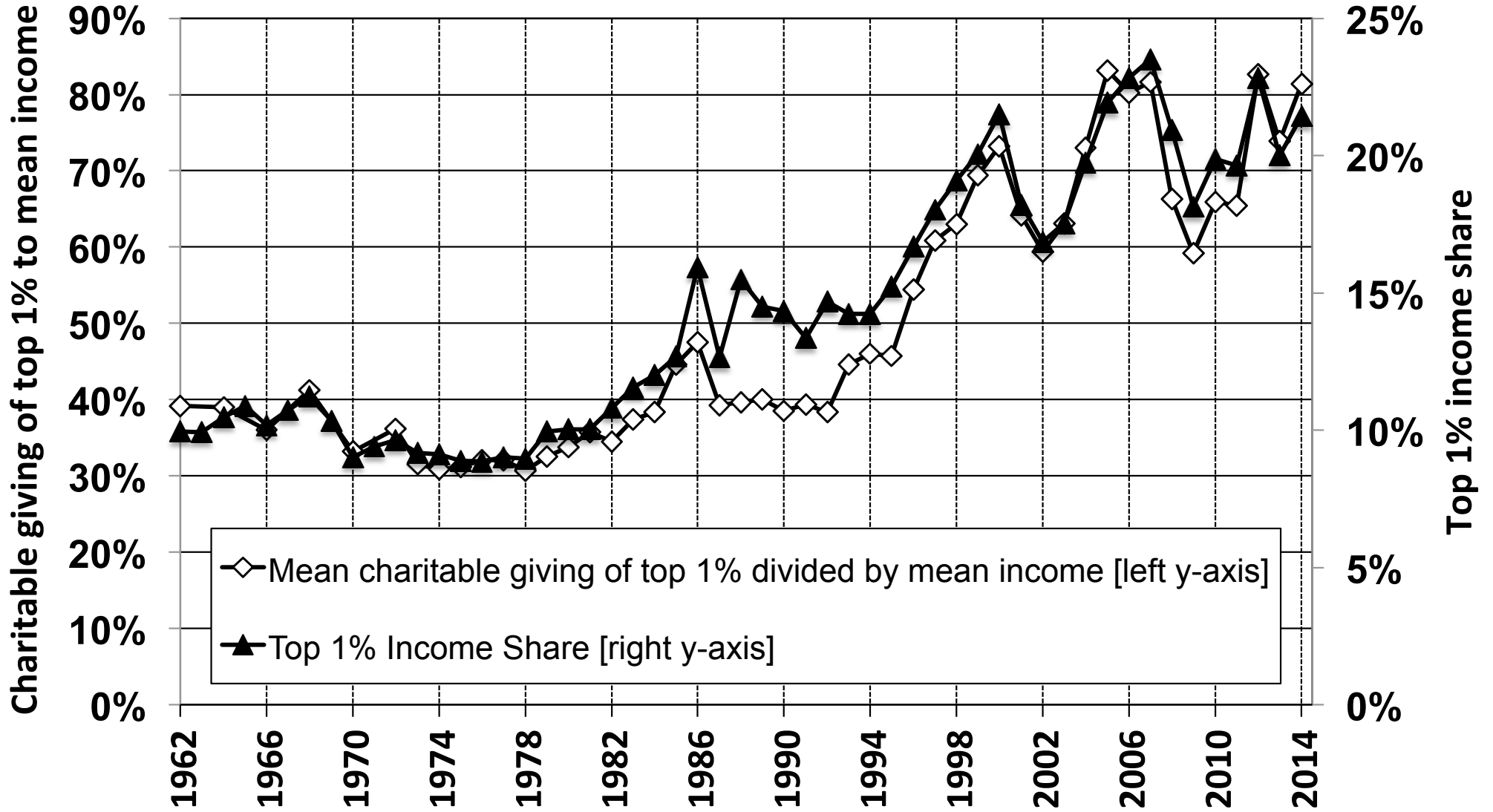
Mean charitable giving of top 1% divided by mean income [left y-axis]

Top 1% Income Share [right y-axis]

Source: The figure depicts average charitable giving of top 1% incomes (normalized by average income per family) on the left y-axis. For comparison, the figure reports the top 1% income share (on the right y-axis).

Charitable Giving of Top 1% Income Earners

Source: The figure depicts average charitable giving of top 1% incomes (normalized by average income per family) on the left y-axis. For comparison, the figure reports the top 1% income share (on the right y-axis).

REVENUE EFFECTS

How much of the projected revenue is lost through behavioral responses?

In 2014+: assume $e_M = .26$ represents pure loss in economic activity $\Rightarrow$ only **19%** revenue loss

In 2013: assume $e_S = 1.16$ is due to retiming to 2012: shifted income still pays 2012 MTRs $\Rightarrow$ again only **19%** revenue loss

Top tax rates increased without reducing much growth in top incomes $\Rightarrow$ Efficient tax increase (even ignoring distribution)

2013 tax increase will not curb US pre-tax income inequality

Top 1% pre-tax income share and top tax rates
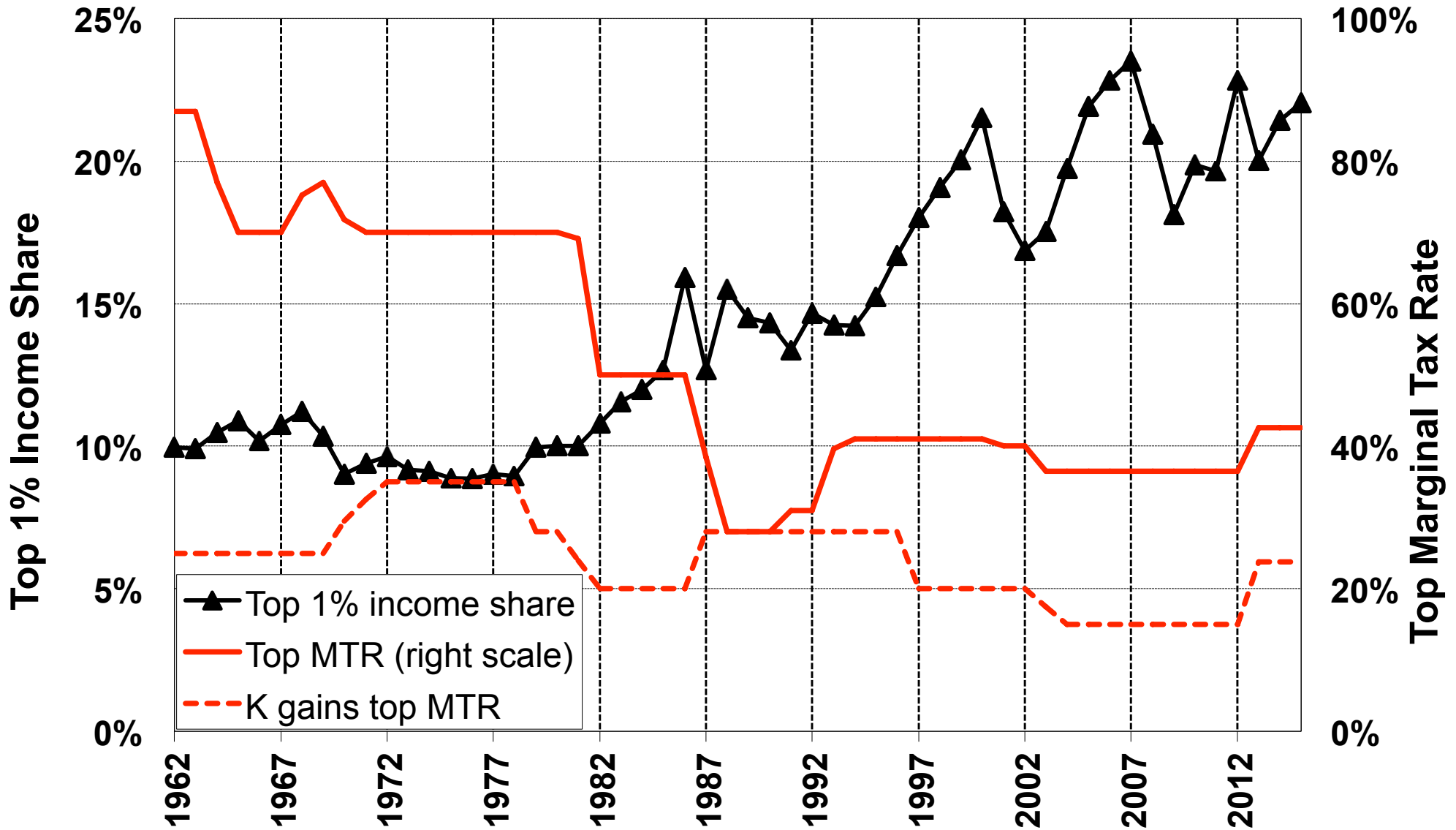
Source: Top 1% income share: Piketty and Saez, 2003 updated to 2015, series including realized capital gains. Top MTR include Federal individual tax + uncapped FICA payroll tax.

FUTURE WORK

1) Key open questions:

Would further top tax rate increases curb pre-tax income concentration?

Would this be desirable? [supply-side vs. rent-seeking responses]

2) Micro-data:

Direct evidence on retiming using longitudinal data

Assess role of stock-options (on W2s) in wage earnings response

Understand which types of dividends respond (private equity?)