
U.S. Tax Progressivity and Redistribution

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Updated July 10, 2020. This presentation embodies work undertaken for the staff of the Joint Committee on Taxation, but as members of both parties and both houses of Congress comprise the Joint Committee on Taxation, this work should not be construed to represent the position of any member of the Committee.

Outline

- 1) Current U.S. federal tax system is progressive**
- 2) Tax progressivity increased since 1979**
- 3) Progressivity vs. Redistribution measures**
- 4) Redistribution increased since 1979**

Previous Research

Average tax rates

- Expanded income: TPC, JCT, OTA, CBO (Kasten, Sammartino & Toder 1994)
- Fiscal income: Piketty & Saez (2007)
- National income: Auten & Splinter (2019), Saez & Zucman (2019)
- State: Metcalf (1994), ITEP, Feenberg et al. (2017), Sammartino & Francis (2016)

“Progressivity” measures

- Lorenz curve-based: Kakwani (1977), Suits (1977), Stroup (2005)
- Long-run estimates: Mathews (2014), Feenberg et al. (2017), Splinter (2019)
- TCJA: Sammartino, Stallworth & Weiner (2018), Callen & Mathur (2019)
- Net of tax ε : Musgrave & Thin (1948), Feldstein (1969), Feenberg et al. (2017)
Recent Models: Bénabou (2002), Blundell, Pistaferri & Saporta-Eksten (2016)
Heathcote, Storsletten & Violante (2017), DeBacker, Evans, & Phillips (2019)
Moore & Pecoraro (2020) review and critique use of smooth functions
- Progressivity vs. Redistribution: Kiefer (1984), Slavov & Viard (2016)

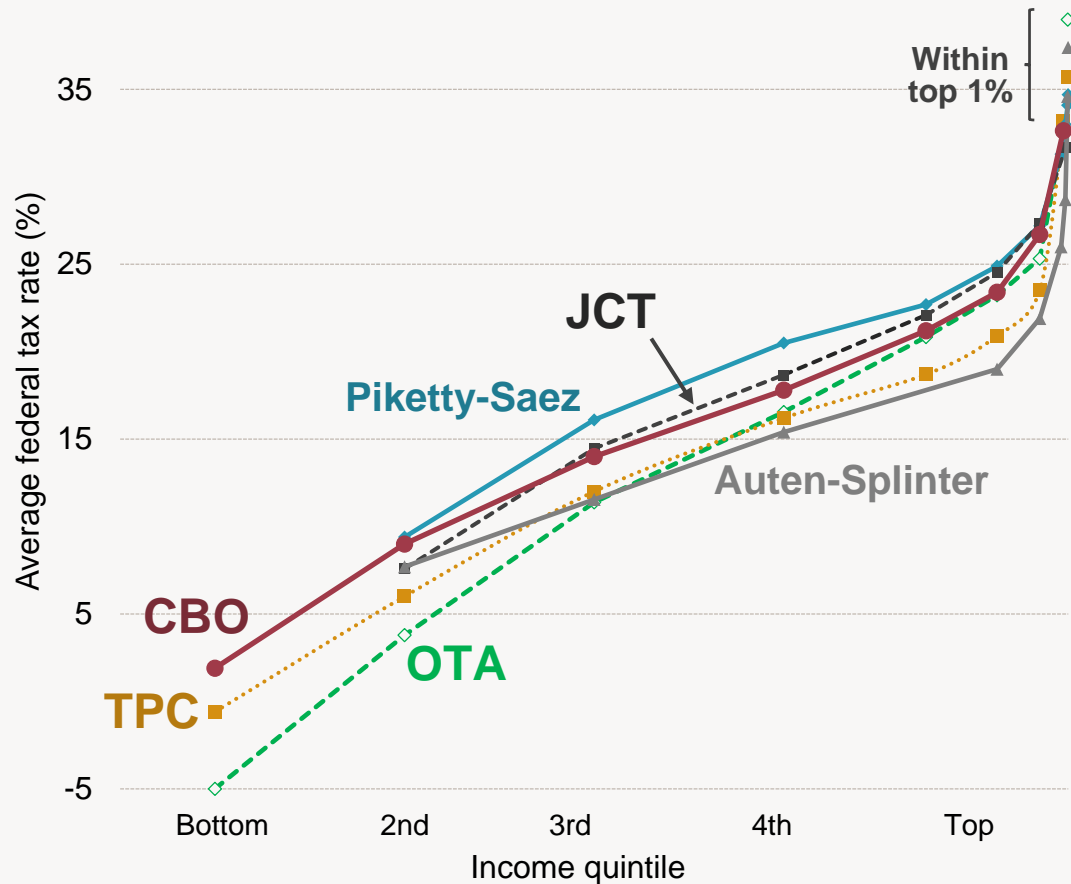
Tax/Transfer Redistribution Measures

- Reynolds & Smolensky (1977), Lambert (1985), Meyer et al. (2020)

1) Current federal tax system is progressive

Average Tax Rates in 2014

Federal taxes (including payroll taxes)

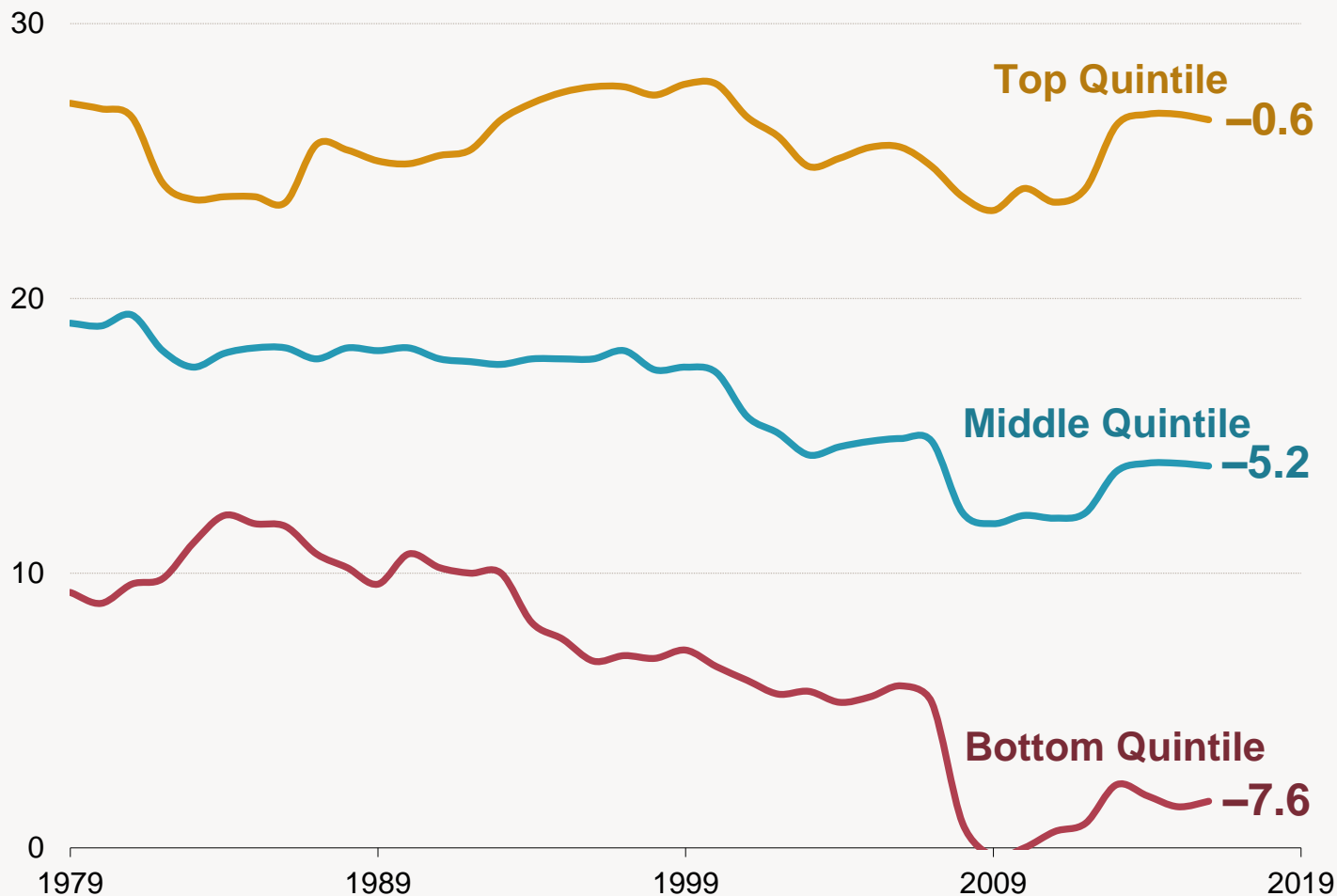


Notes: JCT for 2015. Piketty-Saez for 2004 and based on relatively narrow income definition, Auten-Splinter on broad national income, and others on intermediate income definitions.

2) Tax progressivity increased since 1979 **(CBO data for rest of presentation)**

Tax progressivity increased since 1979

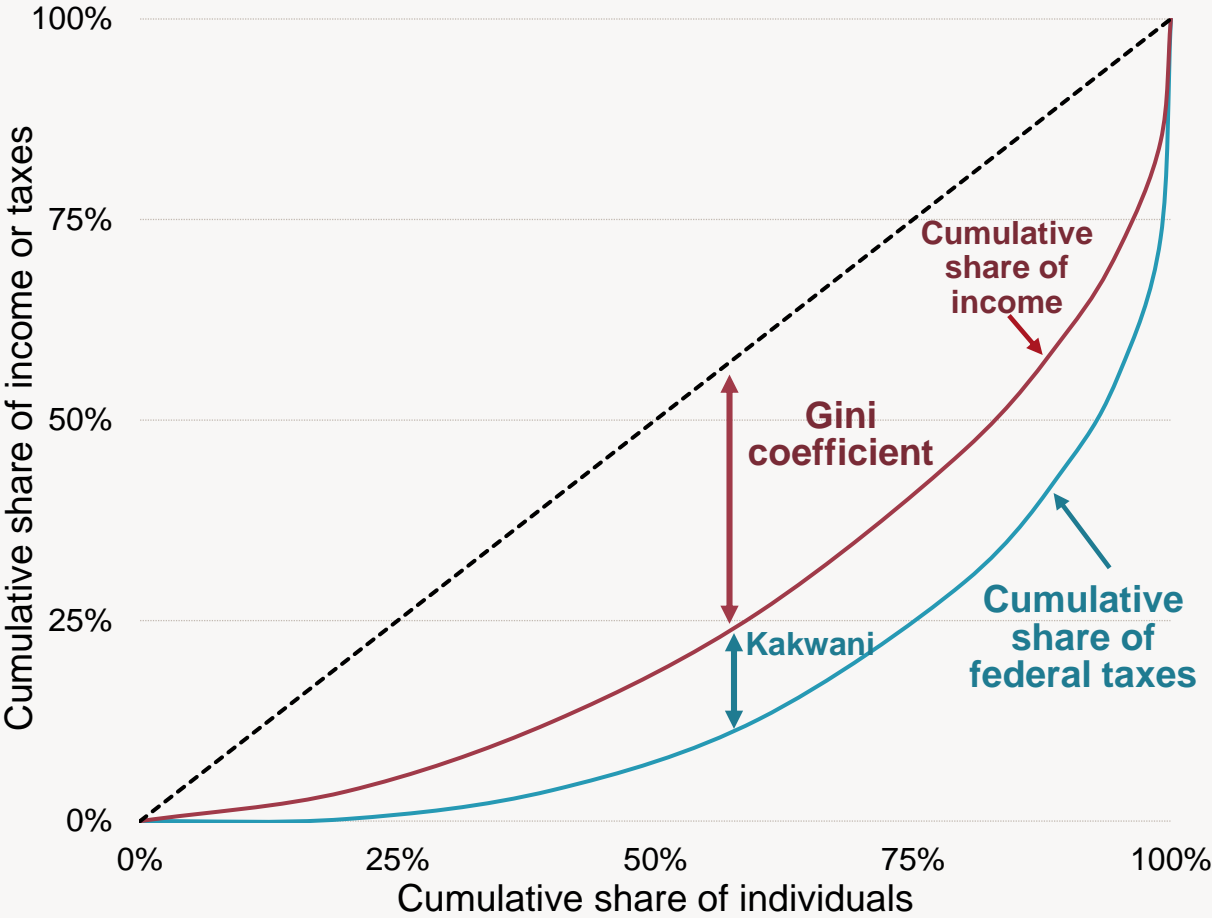
Quintile-level average federal tax rates



Source: Author's calculations from CBO estimates. *Notes:* Income excludes means-tested transfers.

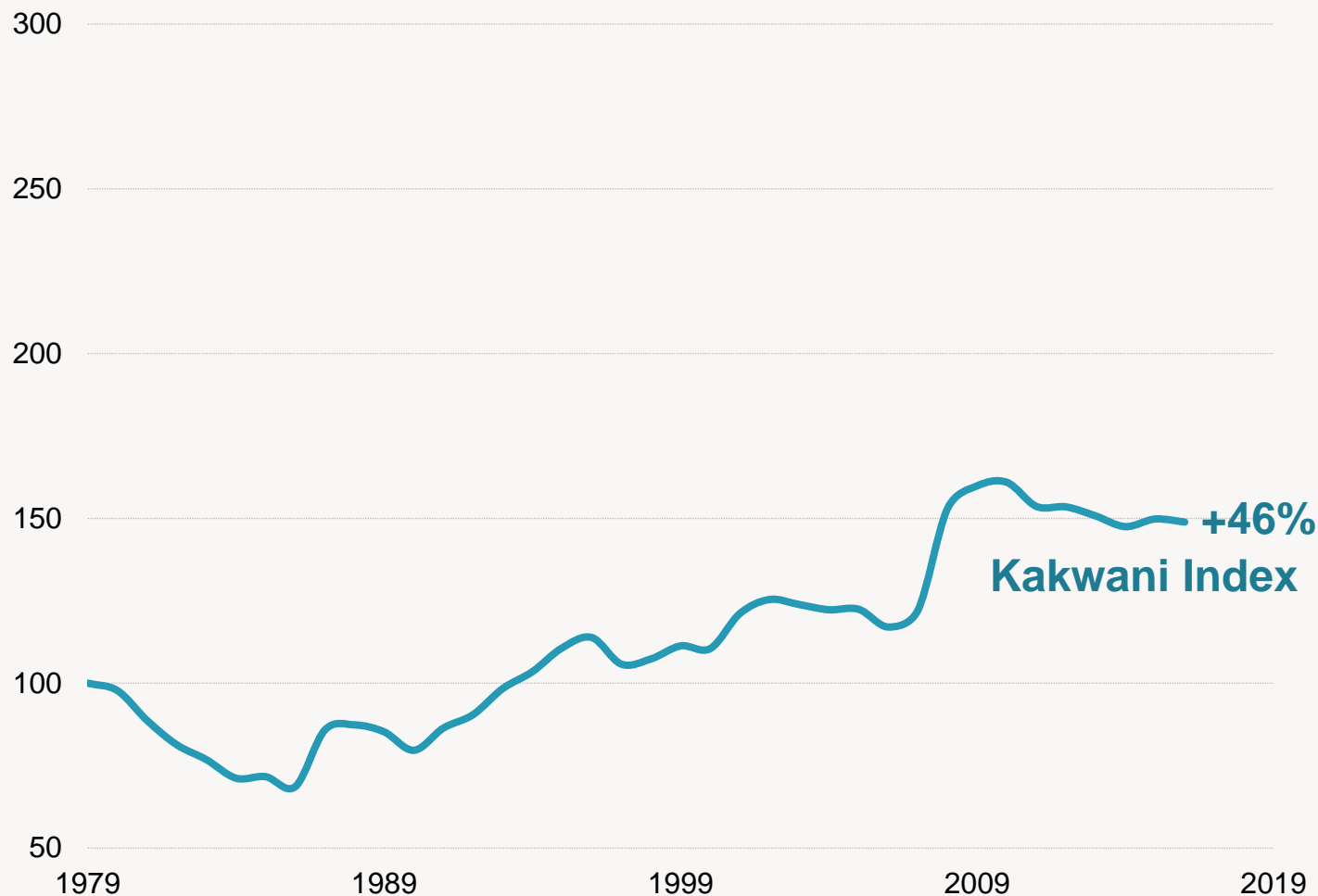
Tax progressivity measures

Kakwani index



Source: Author's calculations from CBO estimates. Notes: Income excludes means-tested transfers.

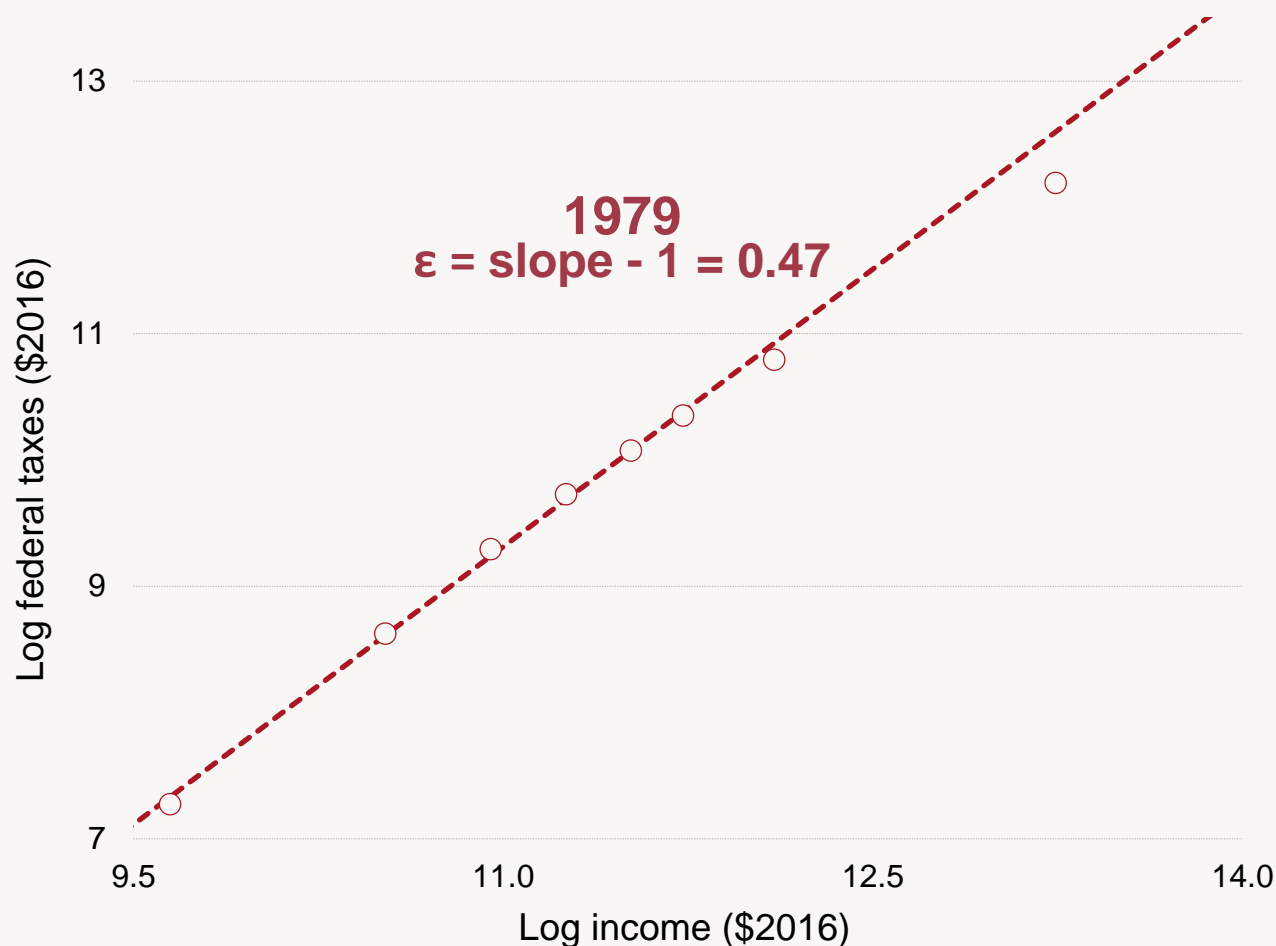
Tax progressivity increased, 1979=100



Source: Author's calculations from CBO estimates. *Notes:* Income excludes means-tested transfers. Includes 2008 recovery rebate credits, 2009-10 making work pay credits, and 2011-12 payroll tax holiday.

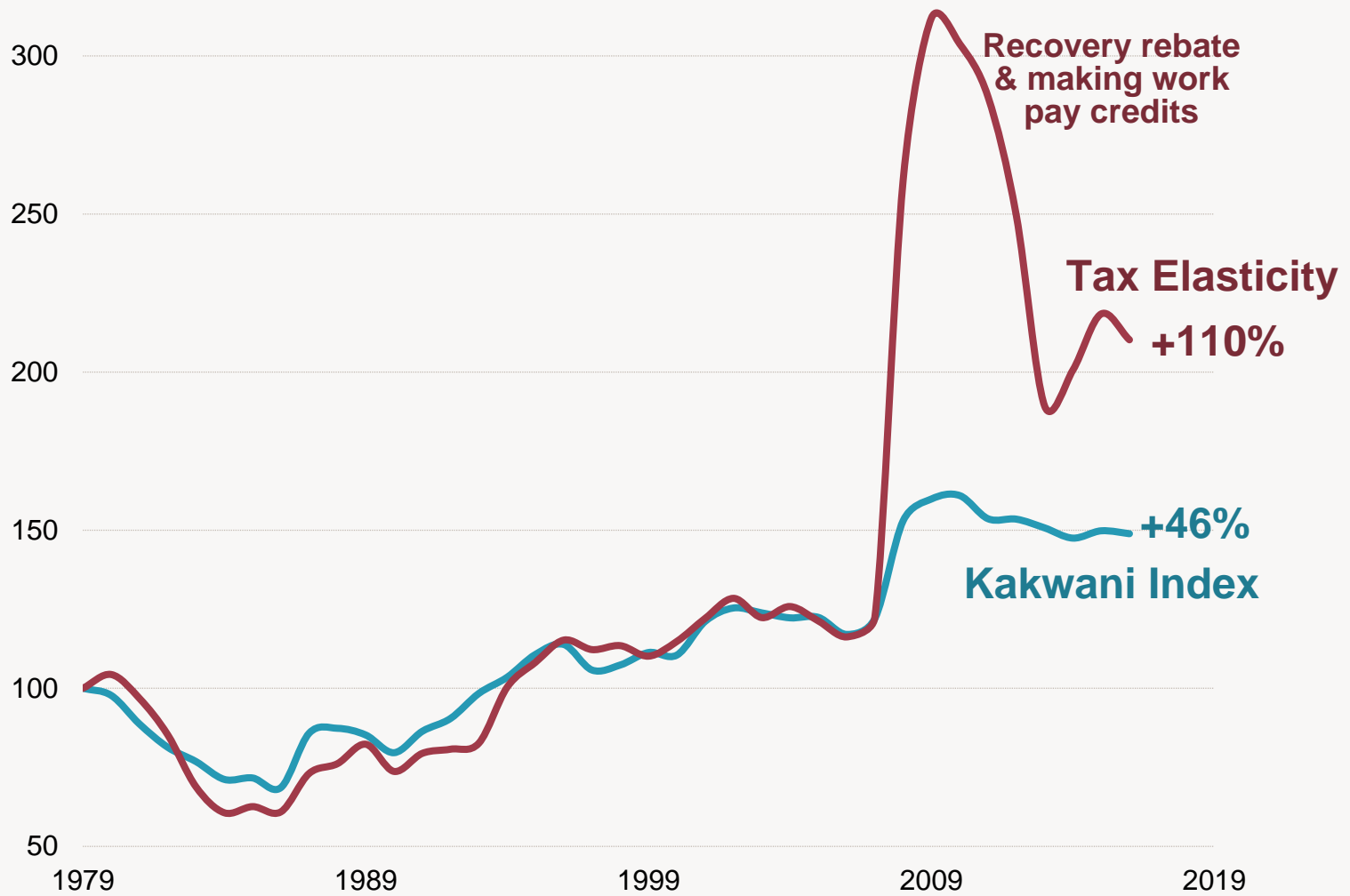
Tax progressivity measures

Tax elasticity (weighted by #individuals)



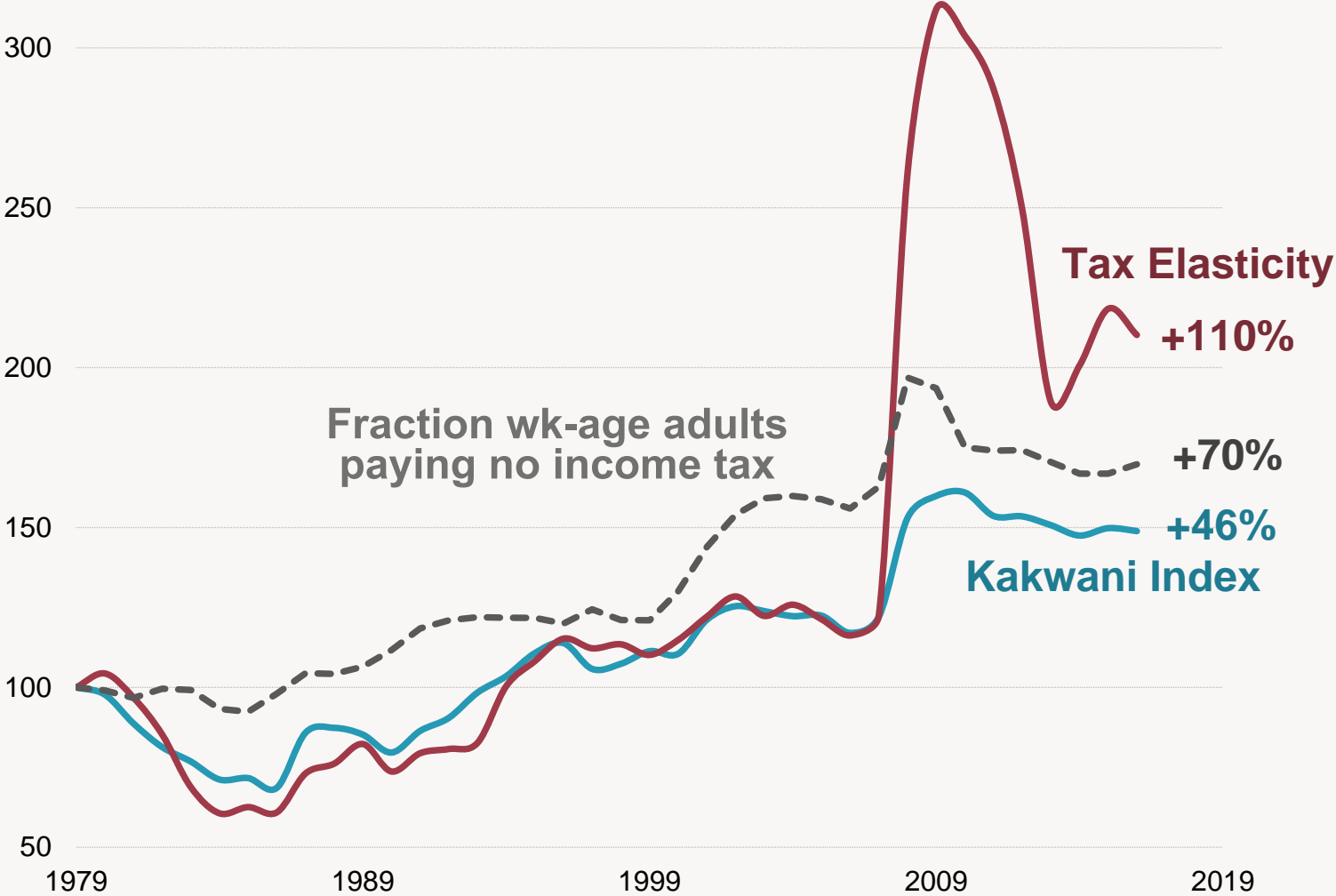
Source: Author's calculations from CBO estimates. *Notes:* Income excludes means-tested transfers.

Tax progressivity increased, 1979=100



Source: Author's calculations from CBO estimates. Notes: Income excludes means-tested transfers. Includes 2008 recovery rebate credits, 2009-10 making work pay credits, and 2011-12 payroll tax holiday.

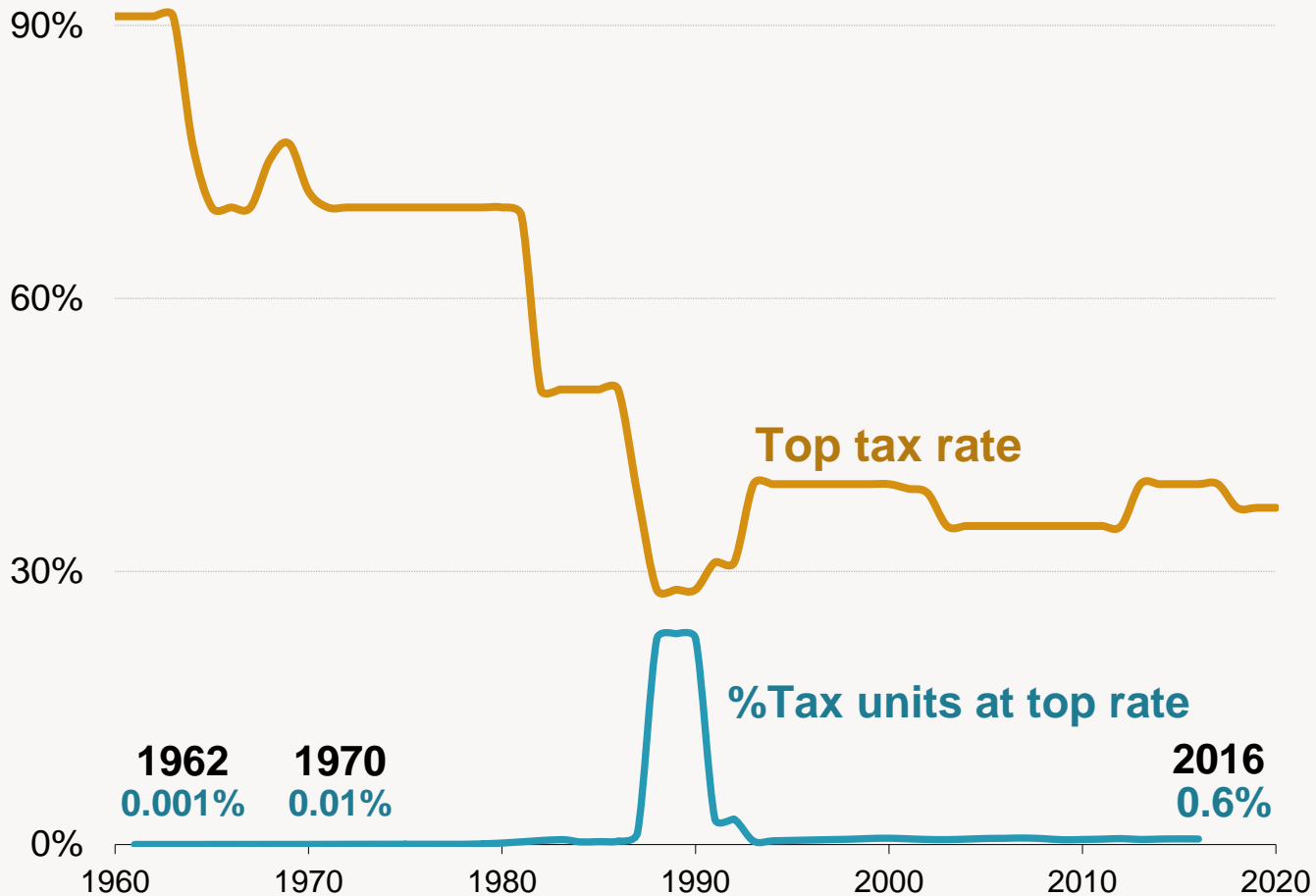
Tax progressivity increased, 1979=100



Source: Author's calculations from CBO estimates. Notes: Income excludes means-tested transfers. Includes 2008 recovery rebate credits, 2009-10 making work pay credits, and 2011-12 payroll tax holiday.

Top rates are not progressivity

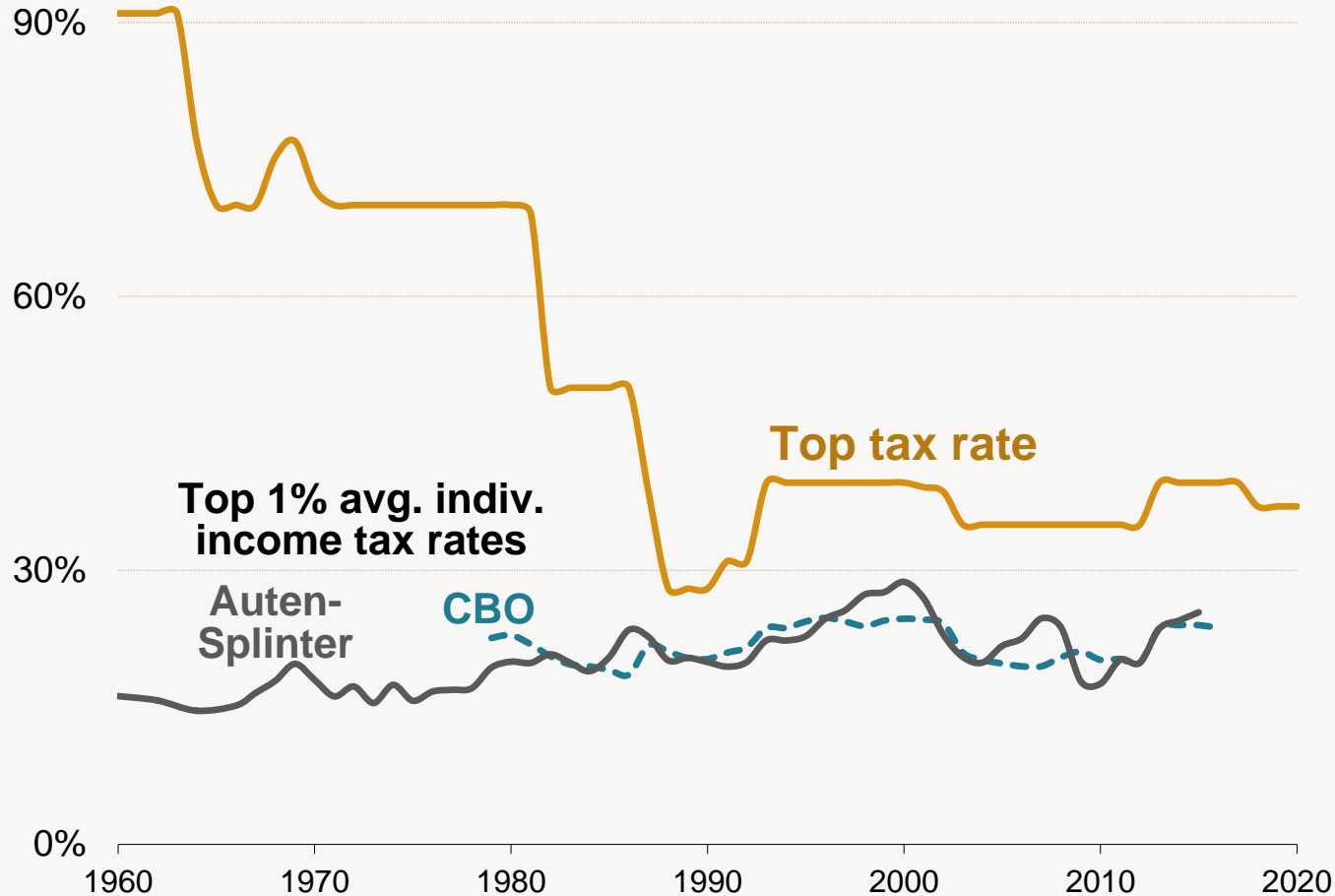
Not enough taxpayers are subject to top income rates



Source: SOI individual reports for various years.

Top rates are not progressivity

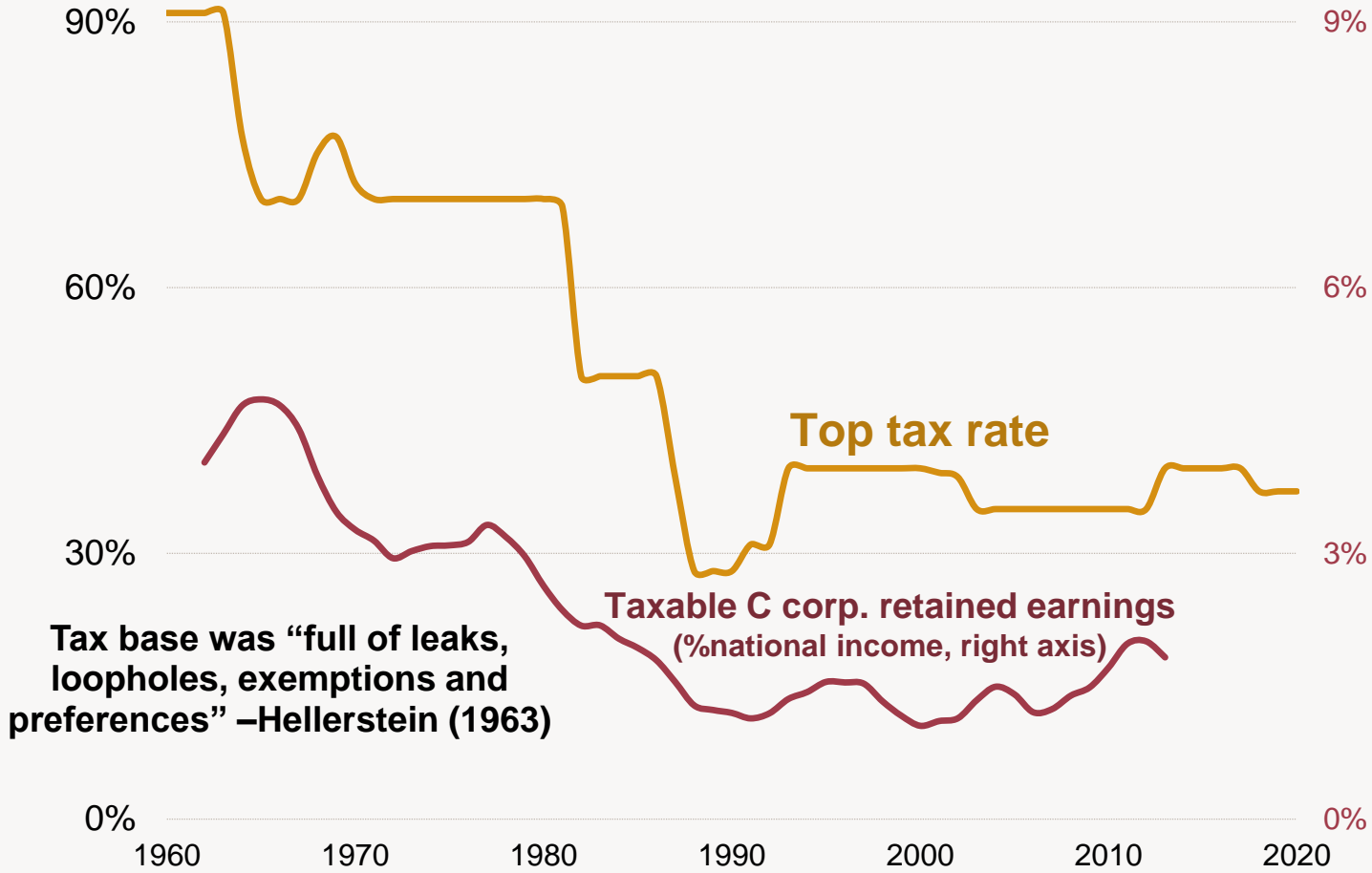
Top 1% avg. income tax rates flat since 1960s



Source: SOI individual reports for various years.

Top rates are not progressivity

more sheltering in C corps with higher rates



Tax base was “full of leaks, loopholes, exemptions and preferences” –Hellerstein (1963)

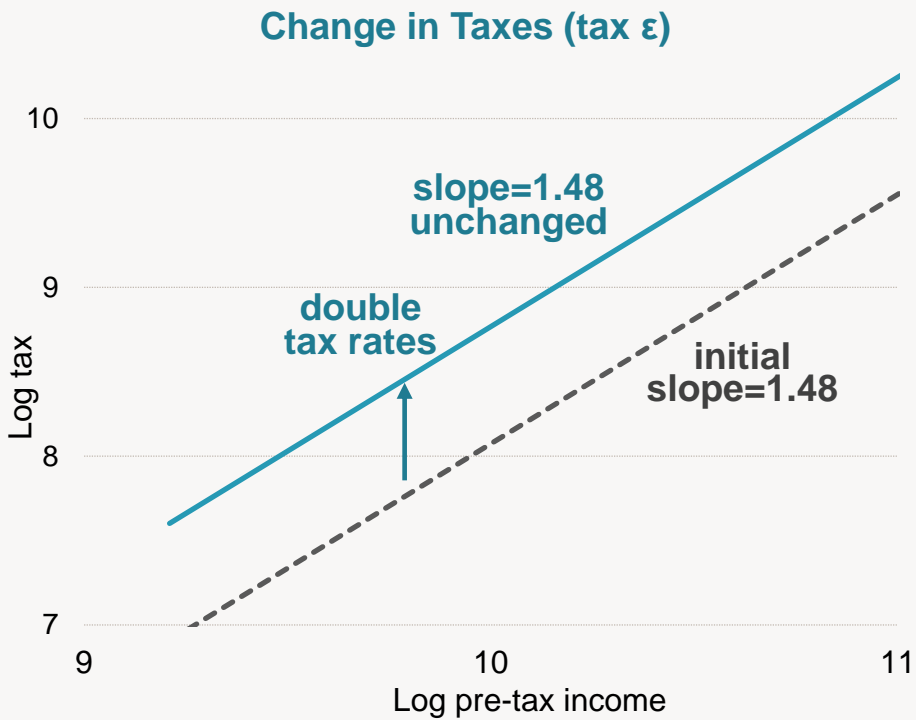
Source: SOI individual reports for various years.

3) Progressivity vs. Redistribution measures

Progressivity vs. Redistribution

$\% \Delta$ Taxes measures progressivity

- independent of proportional tax changes
- not sensitive to amount of total taxation

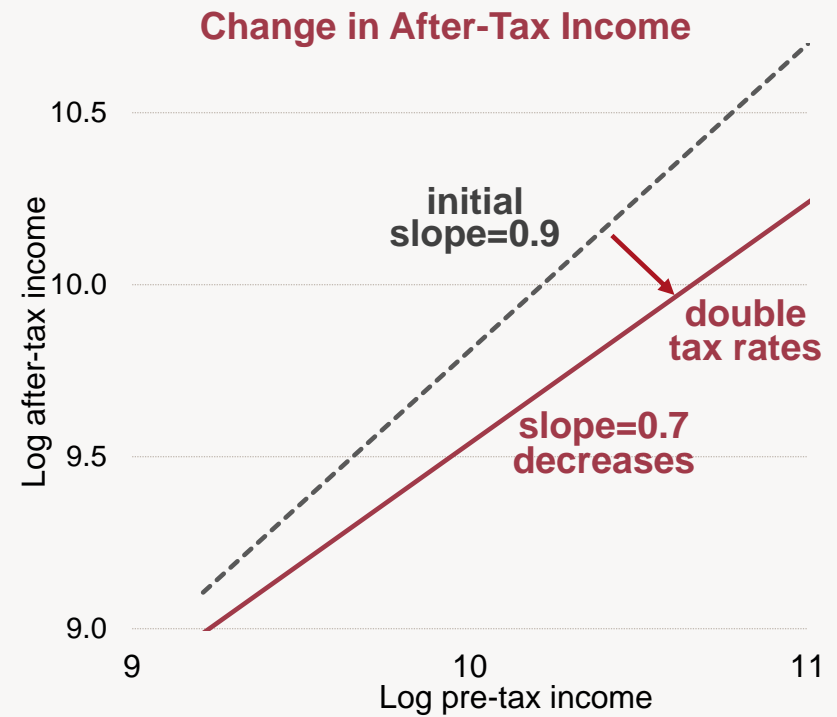


Source: Author's example: initial A income of \$10K and tax \$1K, B of \$100K and \$30K.

Progressivity vs. Redistribution

% Δ After-tax income measures redistribution

- not independent of proportional tax changes
- sensitive to amount of total taxation



Source: Author's example: initial A income of \$10K and tax \$1K, B of \$100K and \$30K.

Progressivity vs. Redistribution

Proportional changes to 2014 taxes

- Progressivity is NOT affected
- Redistribution is affected

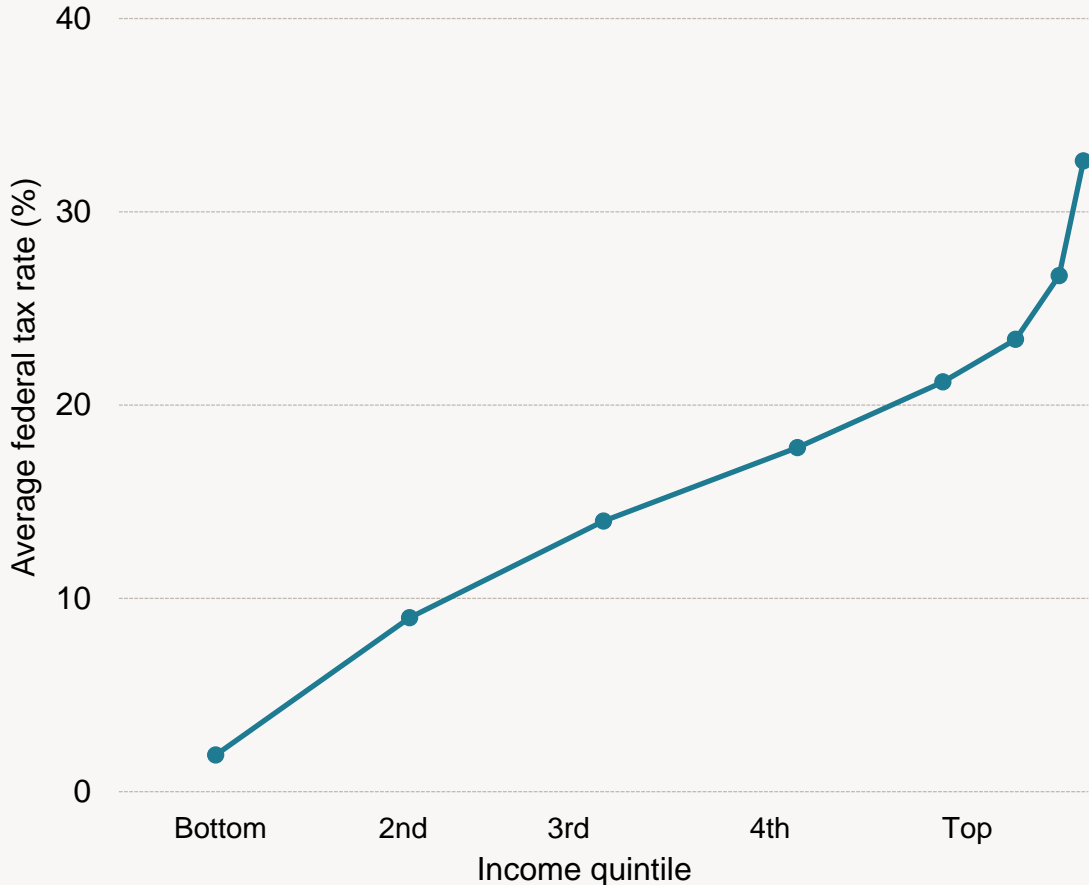
<u>Effective tax rate</u>		<u>Tax progressivity (%Δ)</u>		<u>Tax redistribution (%Δ)</u>
Baseline (2014)	New rate	Kakwani index	Tax elasticity	Net of tax elasticity
<i>Proportional increase in avg. tax rates of 10 percent</i>				
21.2	23.3	0.0	0.0	+12
<i>Proportional decrease in avg. tax rates of 10 percent</i>				
21.2	19.1	0.0	0.0	-12

Source: Author's calculations from CBO estimates. *Notes:* Income excludes means-tested transfers.

4) Redistribution increased since 1979

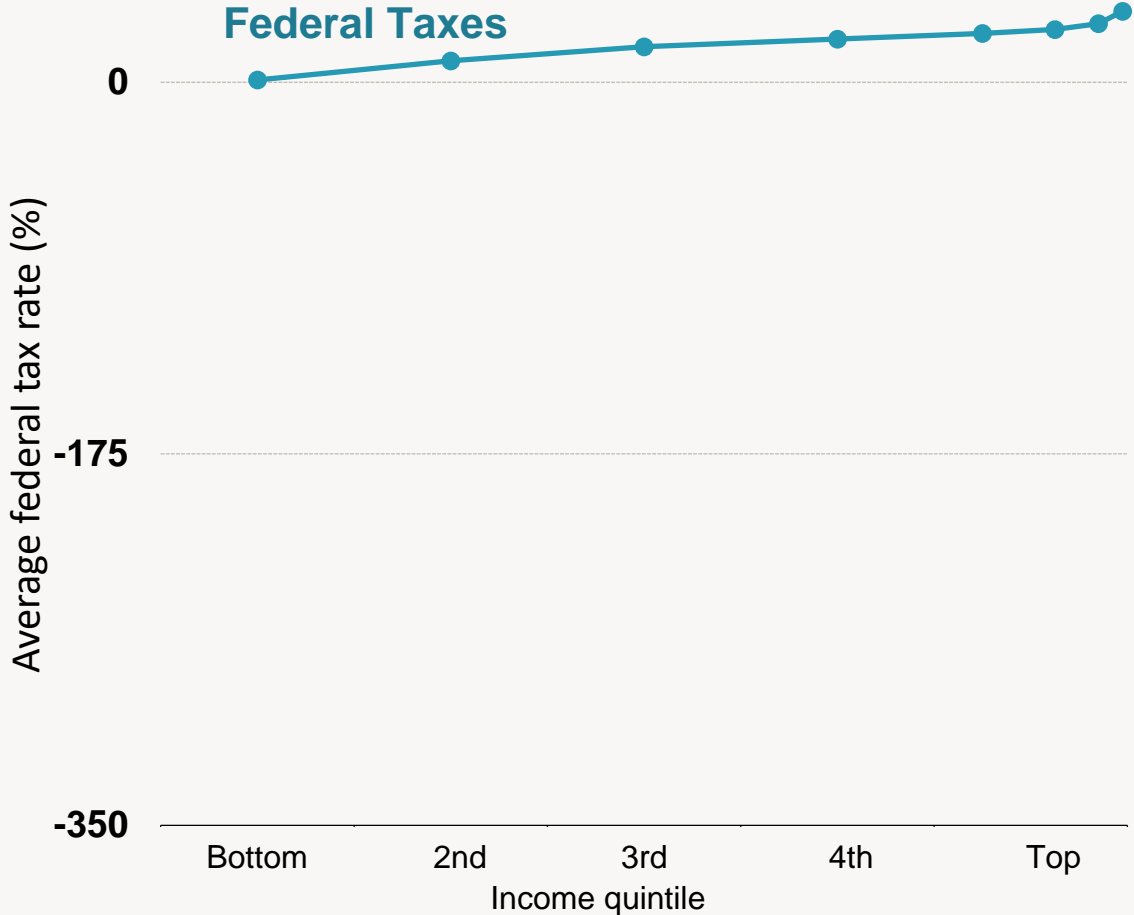
Average Tax Rates

Tax rate = taxes/income



Average Tax Rates

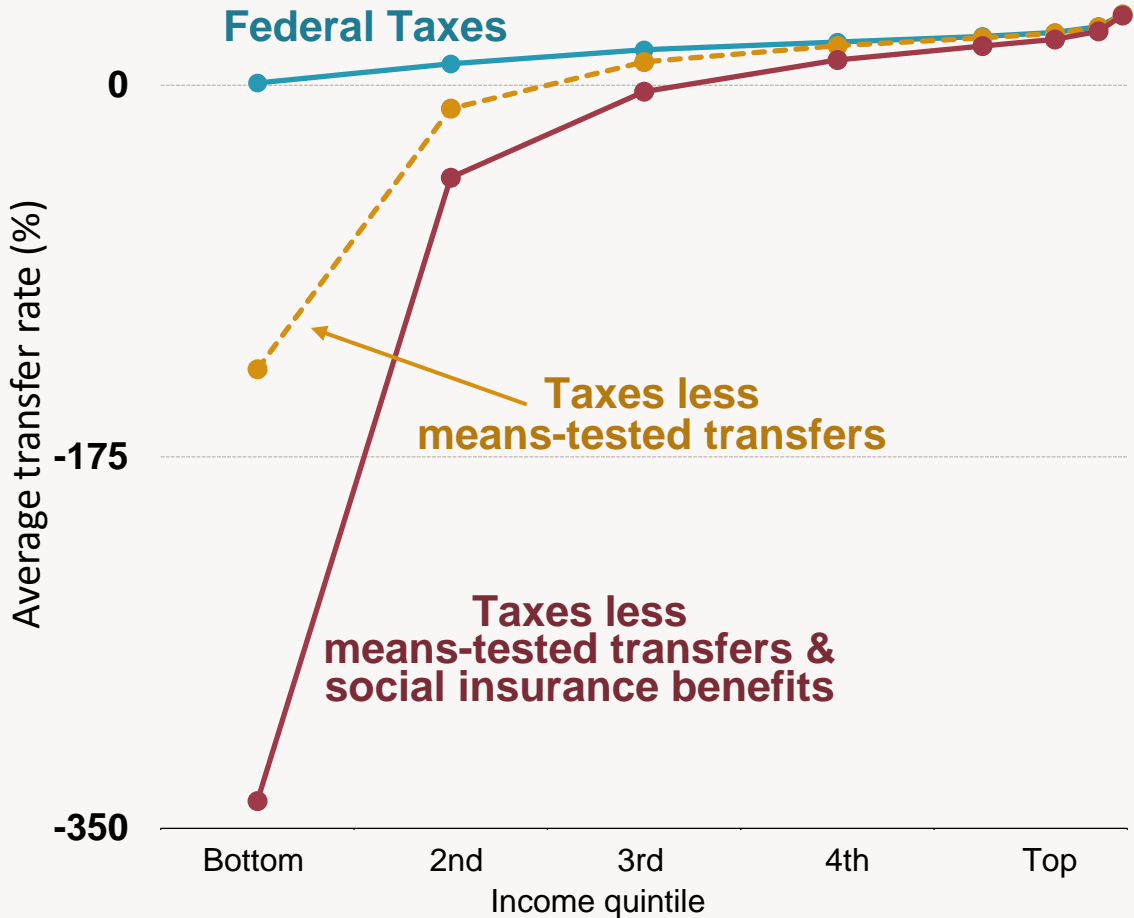
Tax rate = taxes/income



Source: Author's calculations from CBO estimates. Notes: Income is market income.

Tax/transfer redistribution in 2016

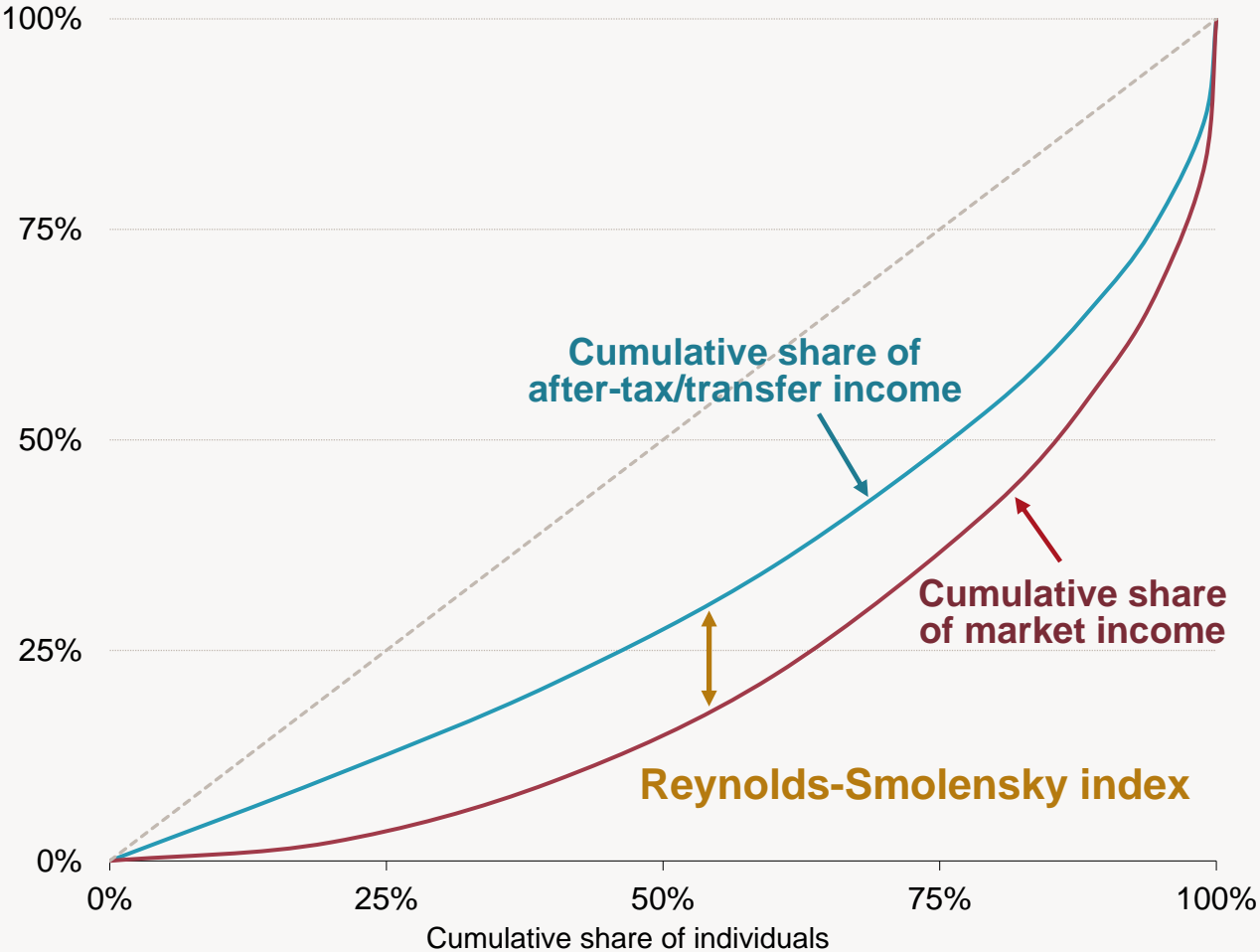
Redistribution rate = (taxes – transfers)/income



Source: Author's calculations from CBO estimates. Notes: Income is market income.

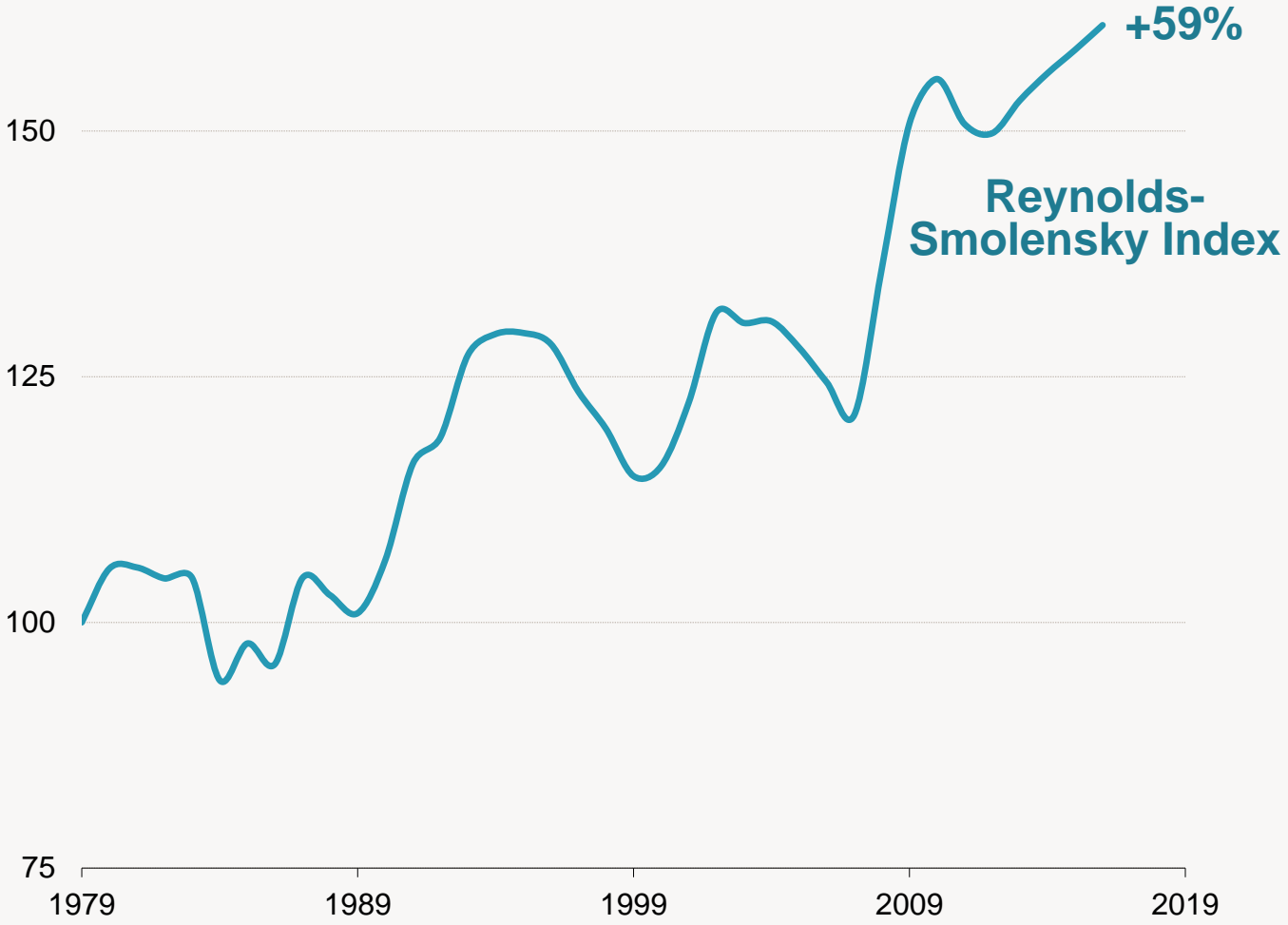
Tax/transfer redistribution measures

Reynolds-Smolensky index



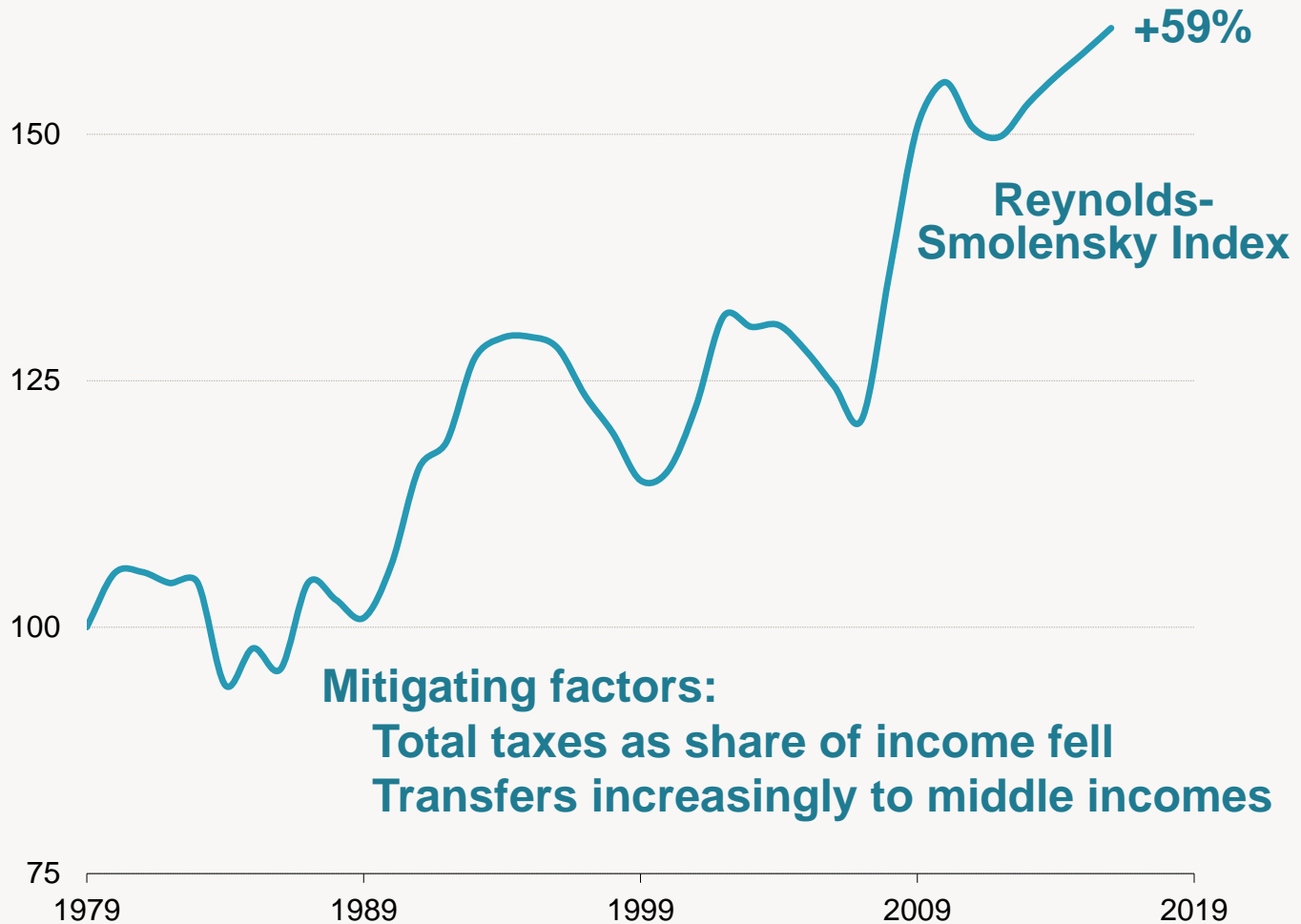
Source: Author's calculations from CBO estimates. Notes: Individuals ranked by market income.

Tax/transf. redistribution increased since 1979



Source: Author's calculations from CBO estimates. Notes: 1979 level set to 100.

Tax/transf. redistribution increased since 1979



Source: Author's calculations from CBO estimates. Notes: 1979 level set to 100.

Conclusions

Current U.S. tax system is progressive

Measures of progressivity vs. redistribution

Δ after-tax income measures Δ redistribution

Progressivity/Redistribution increased since 1979

Tax progressivity by Kakwani increased 46%

Redistribution by Reyn-Smol. increased 59%

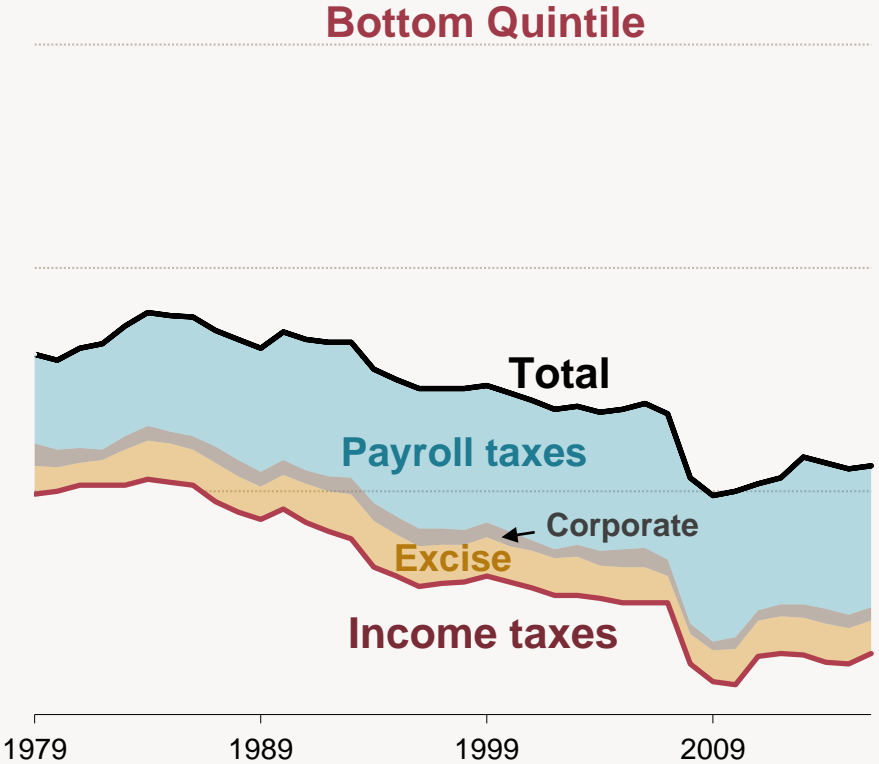
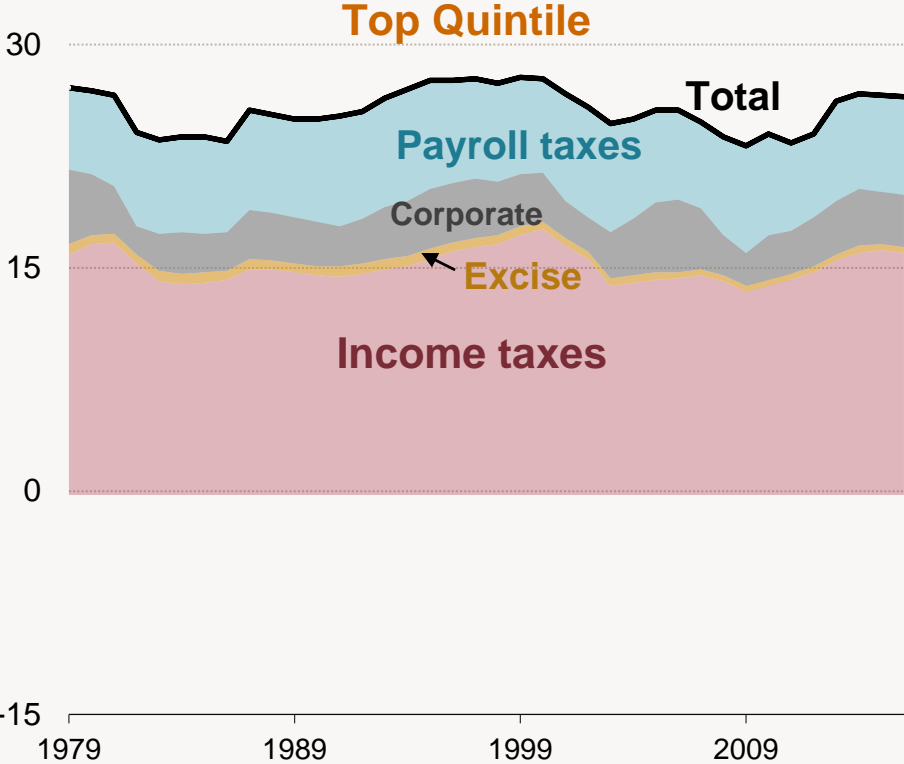
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Appendix Slides

Tax progressivity increased since 1979

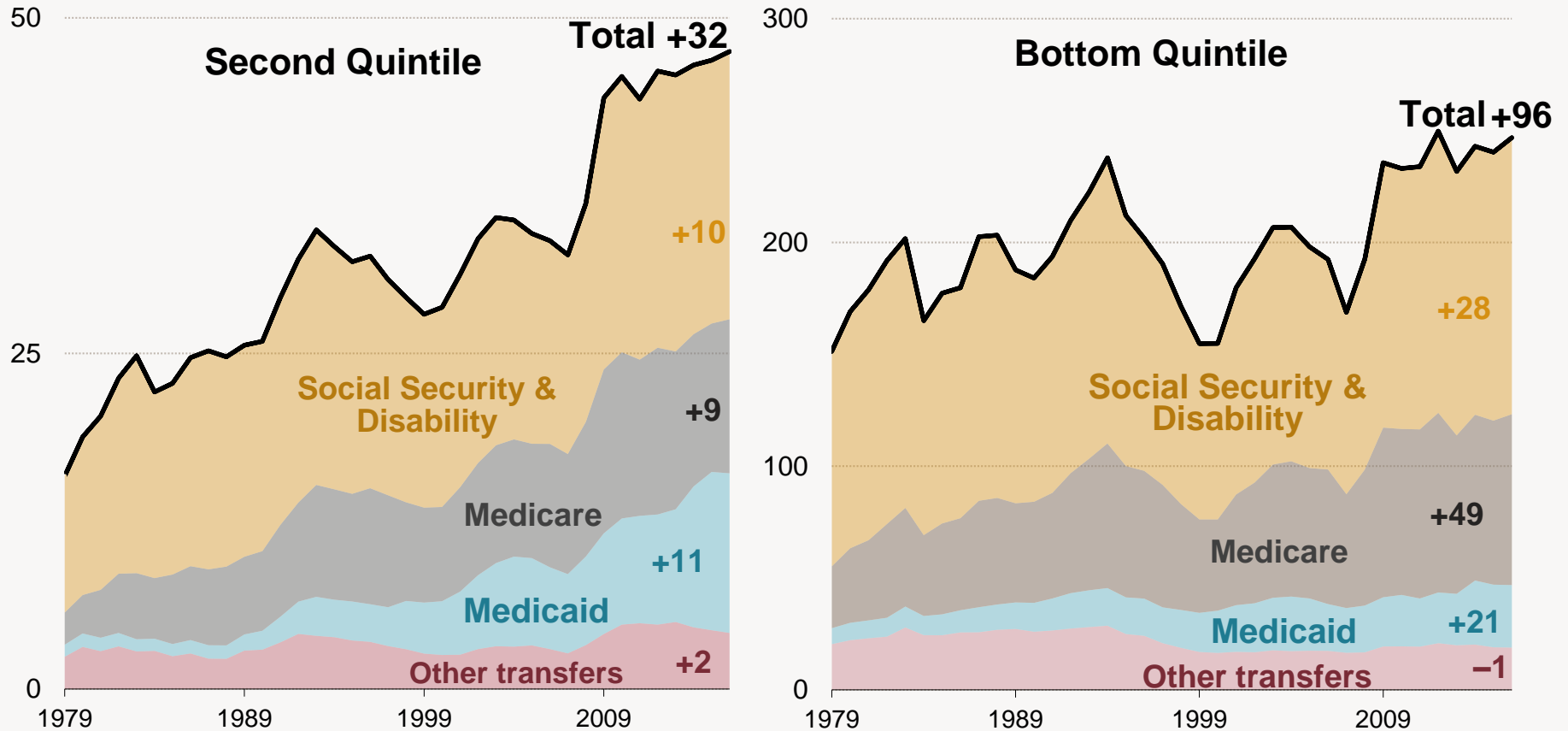
Quintile-level federal tax rate by source



Source: Author's calculations from CBO estimates. Notes: Income excludes means-tested transfers.

Redistribution increased since 1979

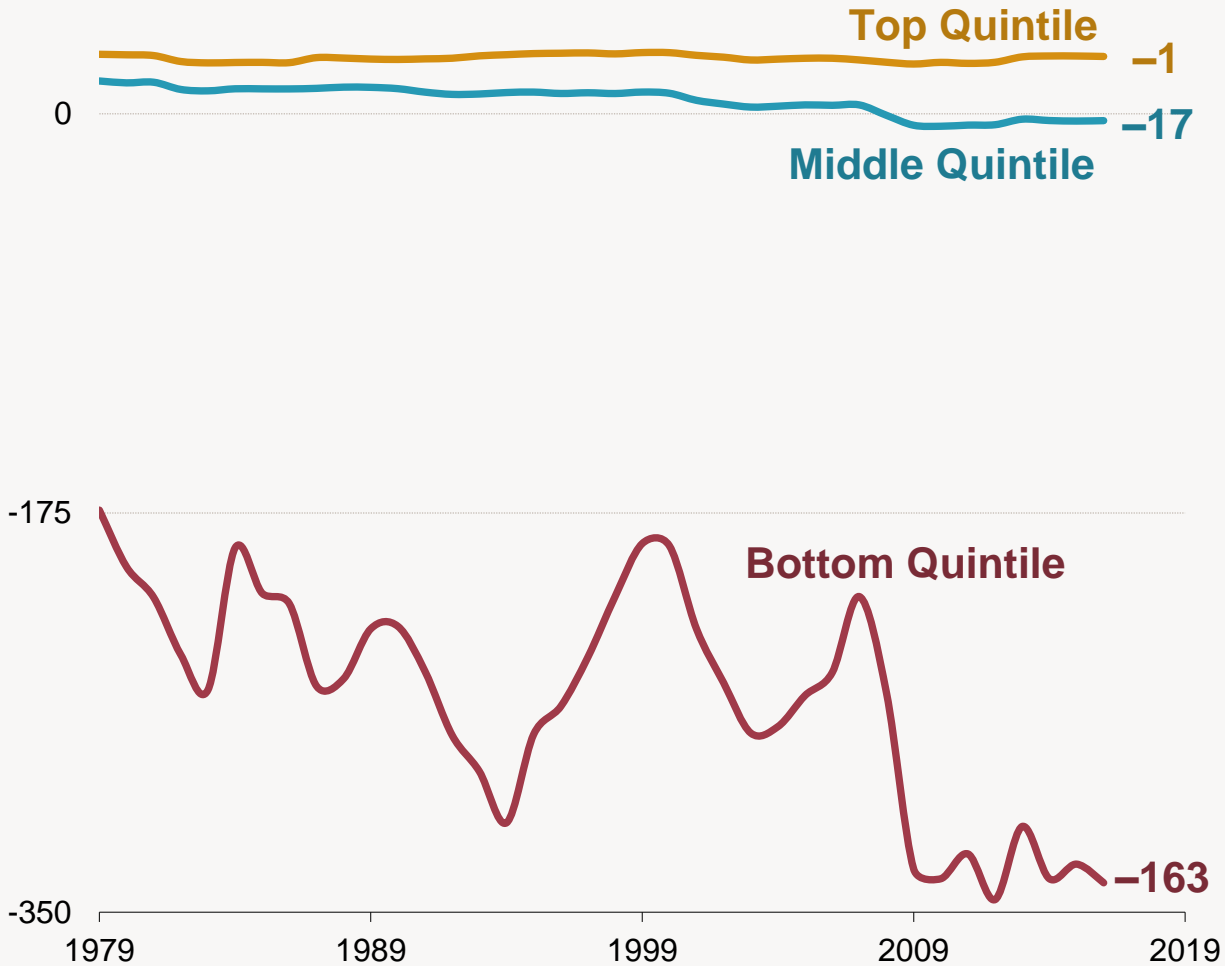
Quintile-level transfer rates by source



Source: Author's calculations from CBO estimates. Notes: Income is market income.

Tax/transf. redistribution increased since 1979

Average redistribution rates (pp changes)

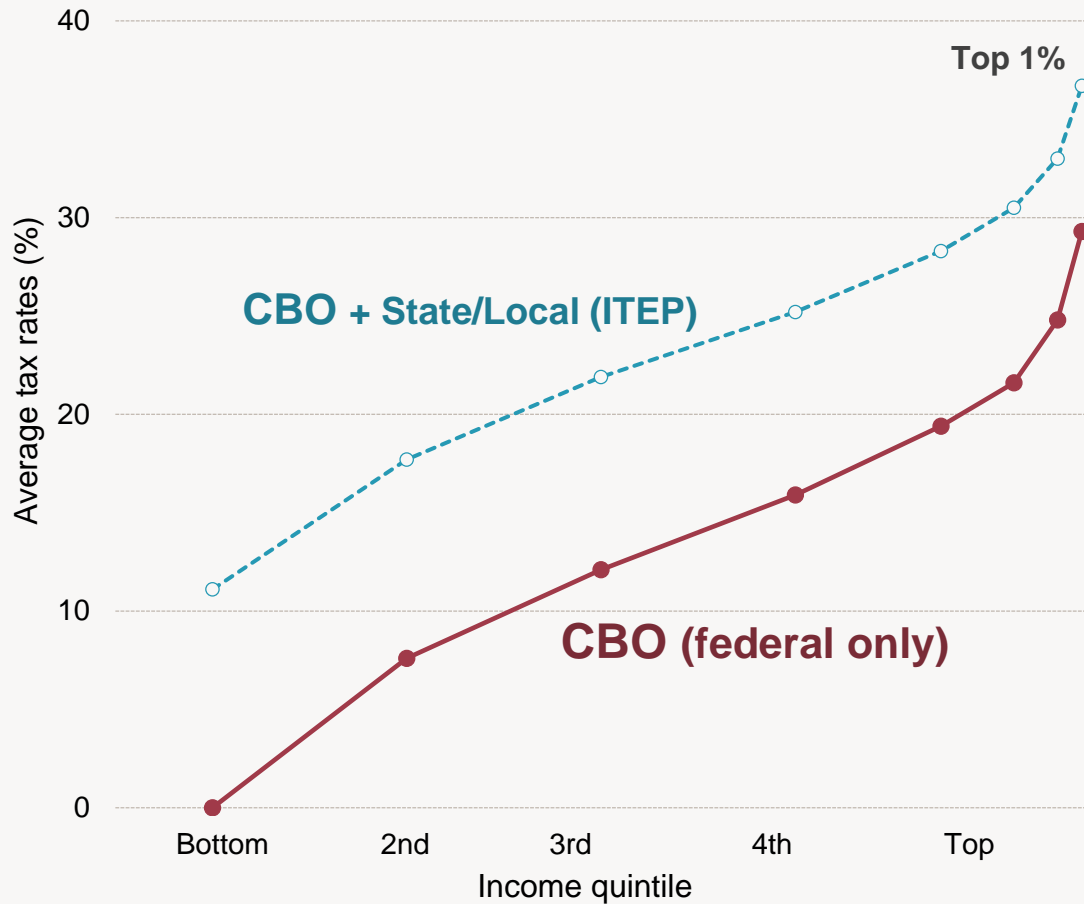


Source: Author's calculations from CBO estimates. Notes: Income is market income.

Saez-Zucman (2019) reconciliation to CBO + state/local approach

Average Tax Rates in 2010

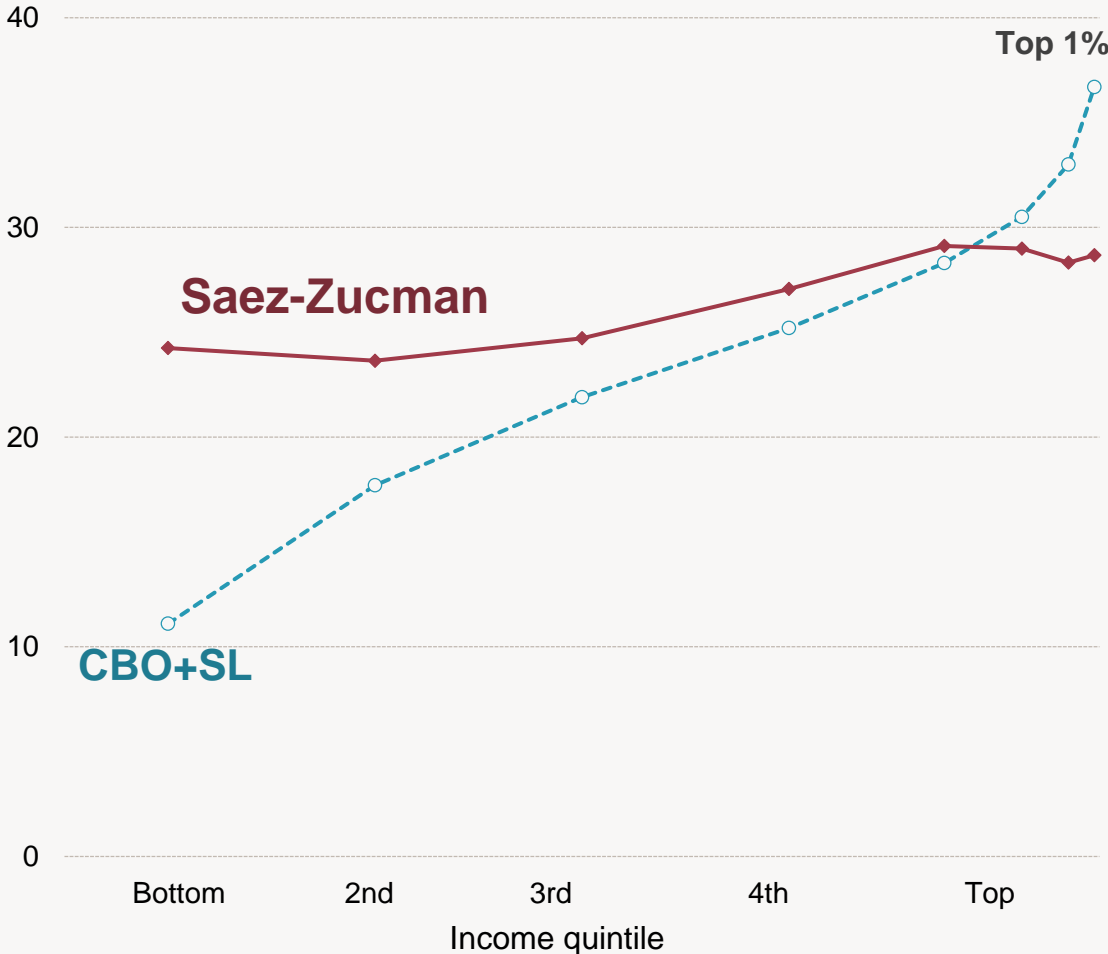
Federal (CBO) + State/Local taxes (ITEP)



Notes: ITEP is the Institute on Taxation and Economic Policy.

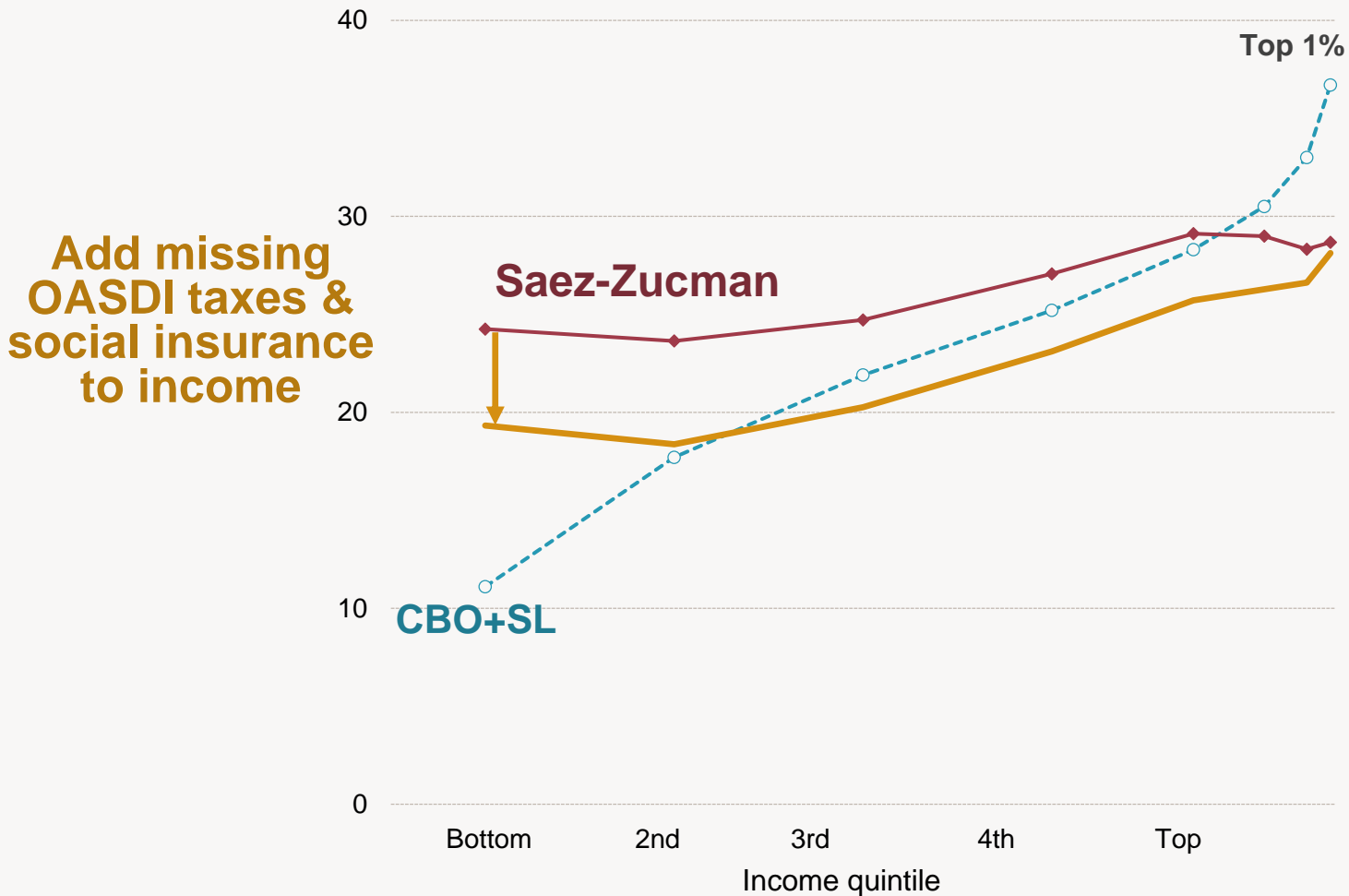
Average Tax Rates in 2010

Saez-Zucman rates matched to CBO+State/Local



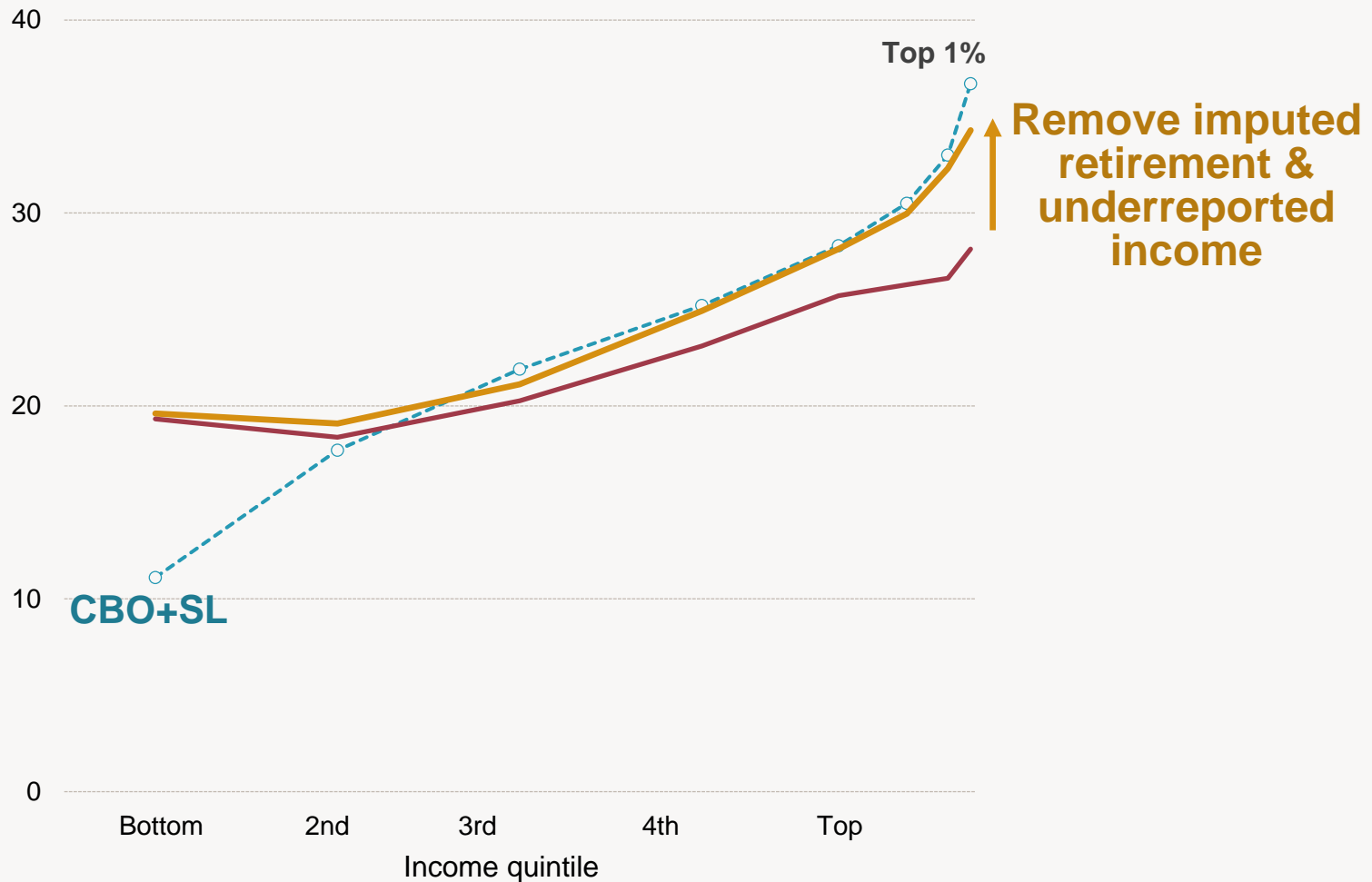
Average Tax Rates in 2010

Saez-Zucman rates matched to CBO+State/Local



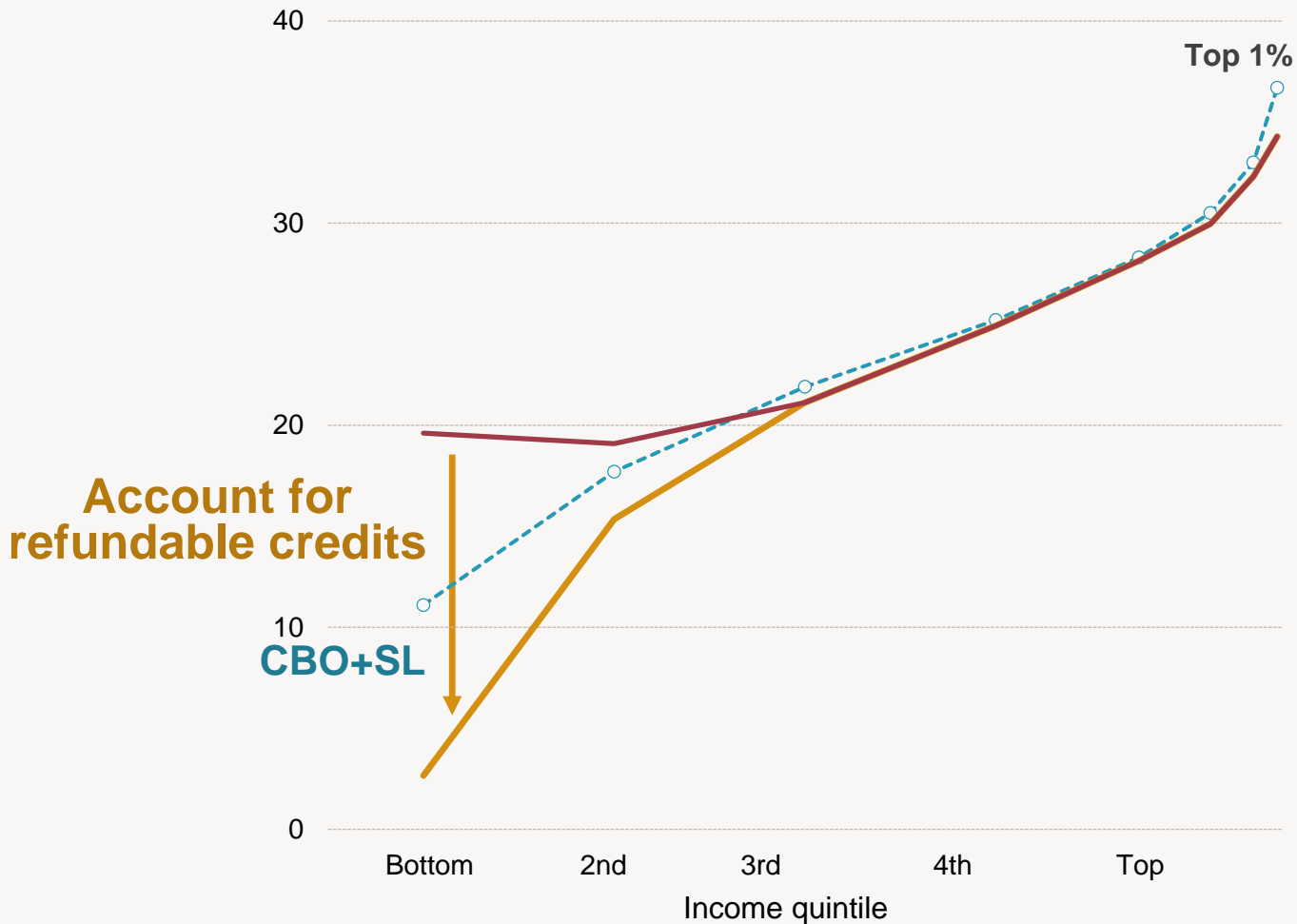
Average Tax Rates in 2010

Saez-Zucman rates matched to CBO+State/Local



Average Tax Rates in 2010

Saez-Zucman rates matched to CBO+State/Local



Average Tax Rates in 2010

Saez-Zucman rates matched to CBO+State/Local

