

# Comments on measures of progressivity in Saez and Zucman “Triumph of injustice” (plus some other comments)

Wojciech Kopczuk  
Columbia University

Columbia University  
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# Measuring progressivity

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Sum of **income** — how do we measure income

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**Group** — who do we consider?

**Sum of taxes** — what is a tax and what's not a tax

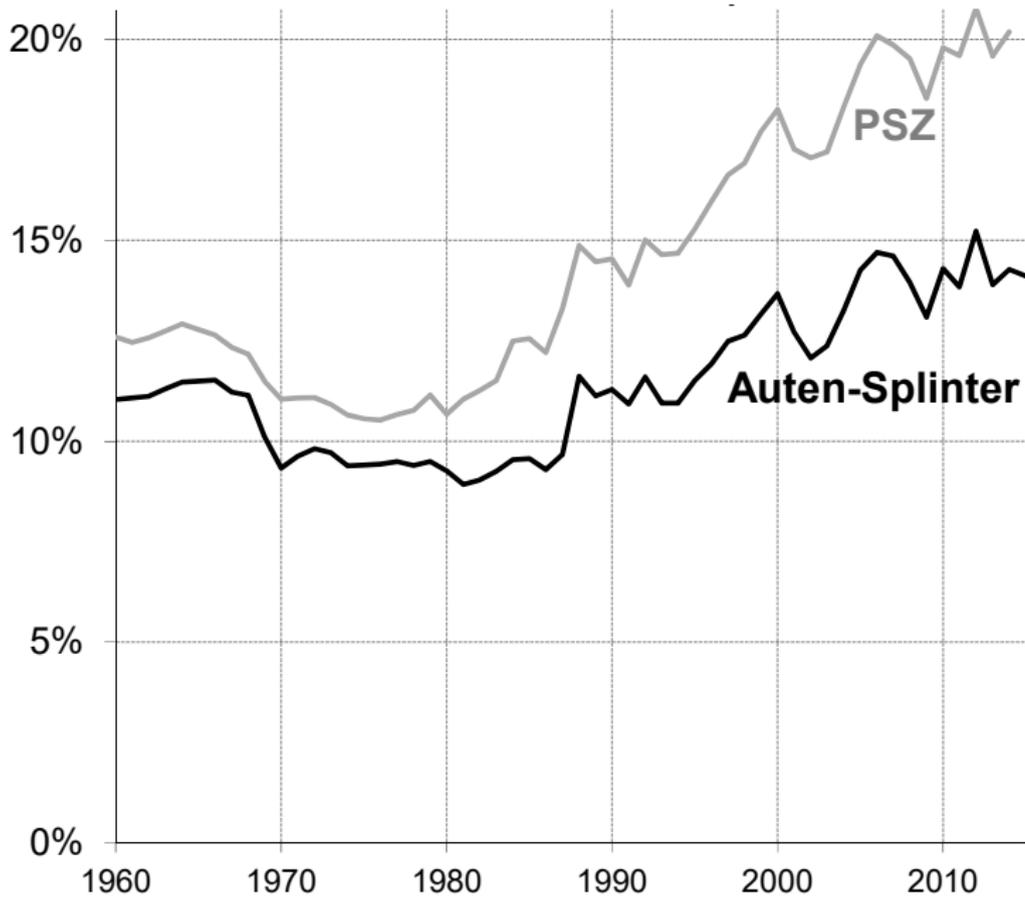
**Sum of taxes** — how do we measure tax liability

**Sum of income** — what is income and what's not income

**Sum of income** — how do we measure income

**What are we doing all of it for?**

# Sum of **income**



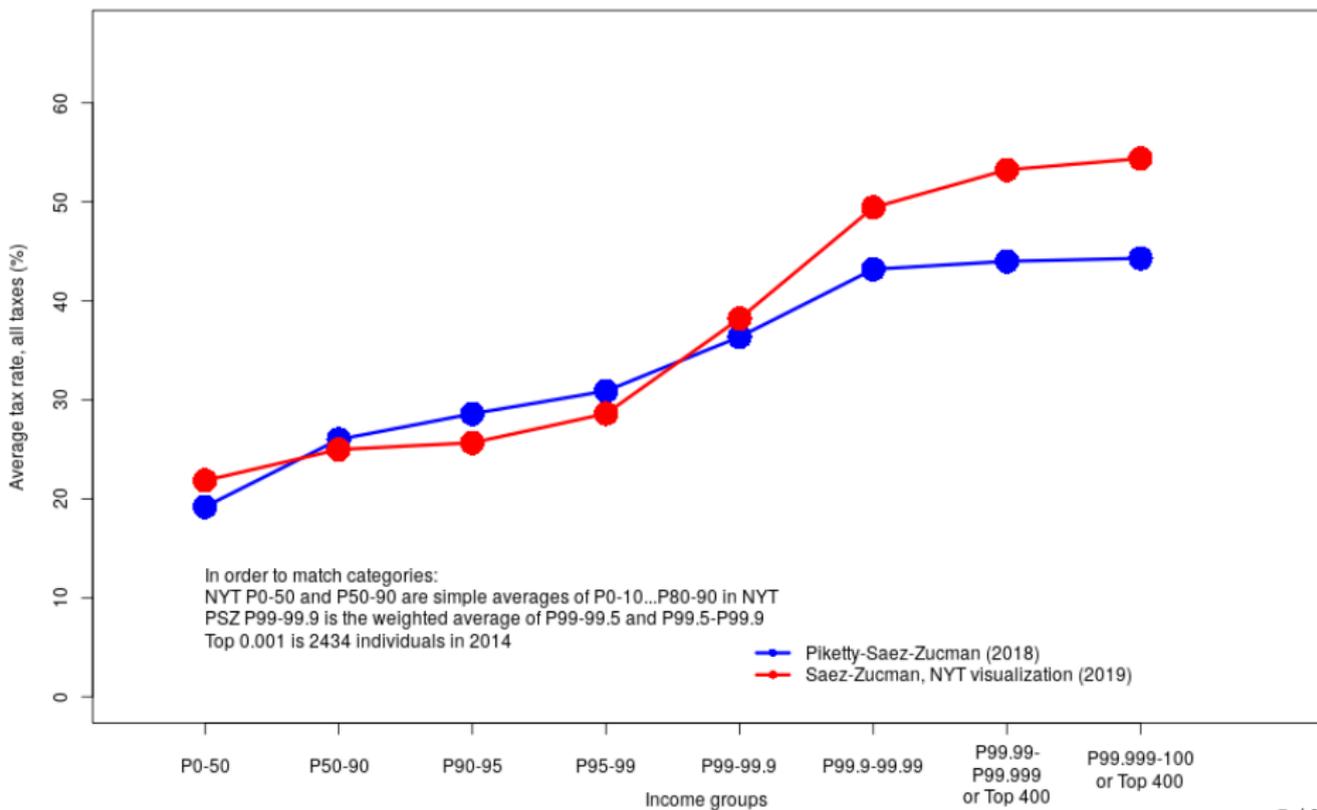
# Sum of **income** — imputations, things we do not know

Table 4: Decomposition of top one percent income shares by approaches

| Auten-Splinter approach                                 | PSZ approach                                  | Percentage point level difference |            |            | Percentage point difference in changes |            |
|---|---|-----------------------------------|------------|------------|--|------------|
|   |   | 1962                              | 1979       | 2014       | 1979–2014                              | 1962–2014  |
| <i>Pre-tax income</i>                                   |   |                                   |            |            |  |            |
| Underreported income by IRS audit data                  | Underreported income by positive income       | 0.1                               | 1.0        | 2.2        | 1.2                                    | 2.1        |
| Include distributed & other retirement income           | PSZ private retirement distribution           | 0.3                               | 0.2        | 1.3        | 1.1                                    | 1.1        |
| Non-retirement pre-tax corporate income                 | PSZ non-retirement pre-tax corp. income       | 0.5                               | 0.2        | 0.7        | 0.4                                    | 0.2        |
| Other taxes by disposable income less savings           | Other taxes by factor income less savings     | 0.4                               | 0.2        | 0.7        | 0.5                                    | 0.3        |
| Various corrections to tax income definition            | Use uncorrected tax return market income      | -0.1                              | -0.1       | 0.4        | 0.6                                    | 0.5        |
| Imputed rent by property tax deductions                 | Imputed rent by housing wealth estimates      | 0.5                               | 0.2        | 0.3        | 0.1                                    | -0.2       |
| Limit returns to adult residents                        | No adjustment                                 | -0.1                              | 0.2        | 0.2        | -0.1                                   | 0.3        |
| Groups by individuals/size-adjusted incomes             | Groups by adults/equal-split married inc.     | -0.2                              | 0.1        | 0.2        | 0.1                                    | 0.4        |
| Non-profits/govt. income half per capita                | Non-profits/govt. income all by income        | *                                 | *          | 0.1        | *                                      | *          |
| Social insurance benefits/deficit excluded              | Social insur. ben./def. incl., taxes deducted | 0.2                               | *          | -0.1       | -0.1                                   | -0.2       |
| Federal Reserve payments by mortgage interest           | Fed. Res. payments by income                  | *                                 | *          | 0.1        | 0.1                                    | 0.1        |
| Inflation correction                                    | No correction                                 | *                                 | -0.5       | -0.1       | 0.5                                    | *          |
| <b>Pre-tax differences (PSZ less AS) &amp; totals</b>   |   | <b>1.6</b>                        | <b>1.7</b> | <b>5.9</b> | <b>4.3</b>                             | <b>4.4</b> |
| <i>After-tax income</i>                                 |   |                                   |            |            |  |            |
| Govt. consumption allocated half per capita             | Govt. consumption all by after-tax income     | 0.8                               | 0.7        | 1.2        | 0.5                                    | 0.4        |
| Non-SS deficits by federal income taxes                 | Half by government transfers, half taxes      | -0.2                              | 0.1        | 0.6        | 0.5                                    | 0.7        |
| Government transfers as described in text               | PSZ transfers distribution                    | -0.3                              | -0.2       | *          | 0.2                                    | 0.3        |
| Estate tax by prior decade decedent income              | Estate tax by wealth distribution             | *                                 | *          | *          | *                                      | *          |
| Corporate taxes by wages and corp. ownership            | Corporate taxes by capital ownership          | -0.2                              | -0.3       | -0.3       | *                                      | -0.1       |
| Other taxes by disposable income less savings           | Other taxes by factor income less savings     | -0.2                              | -0.1       | -0.3       | -0.2                                   | -0.1       |
| <b>After-tax differences (PSZ less AS) &amp; totals</b> |   | <b>0.2</b>                        | <b>0.3</b> | <b>1.1</b> | <b>0.8</b>                             | <b>0.9</b> |

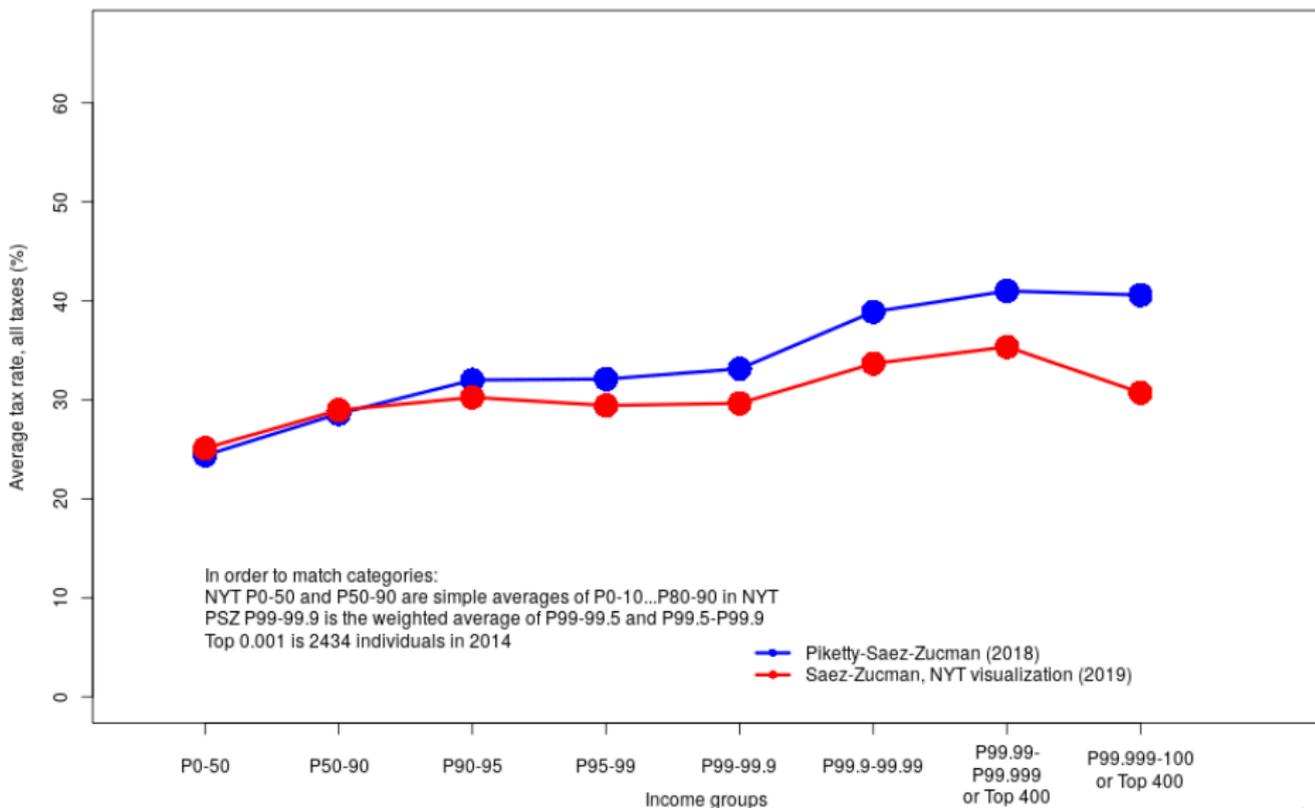
# Progressivity in 1962 — SZ (2019) vs PSZ (2018)

Total average tax rates, federal and state, PSZ vs SZ (book, NYT) 1962



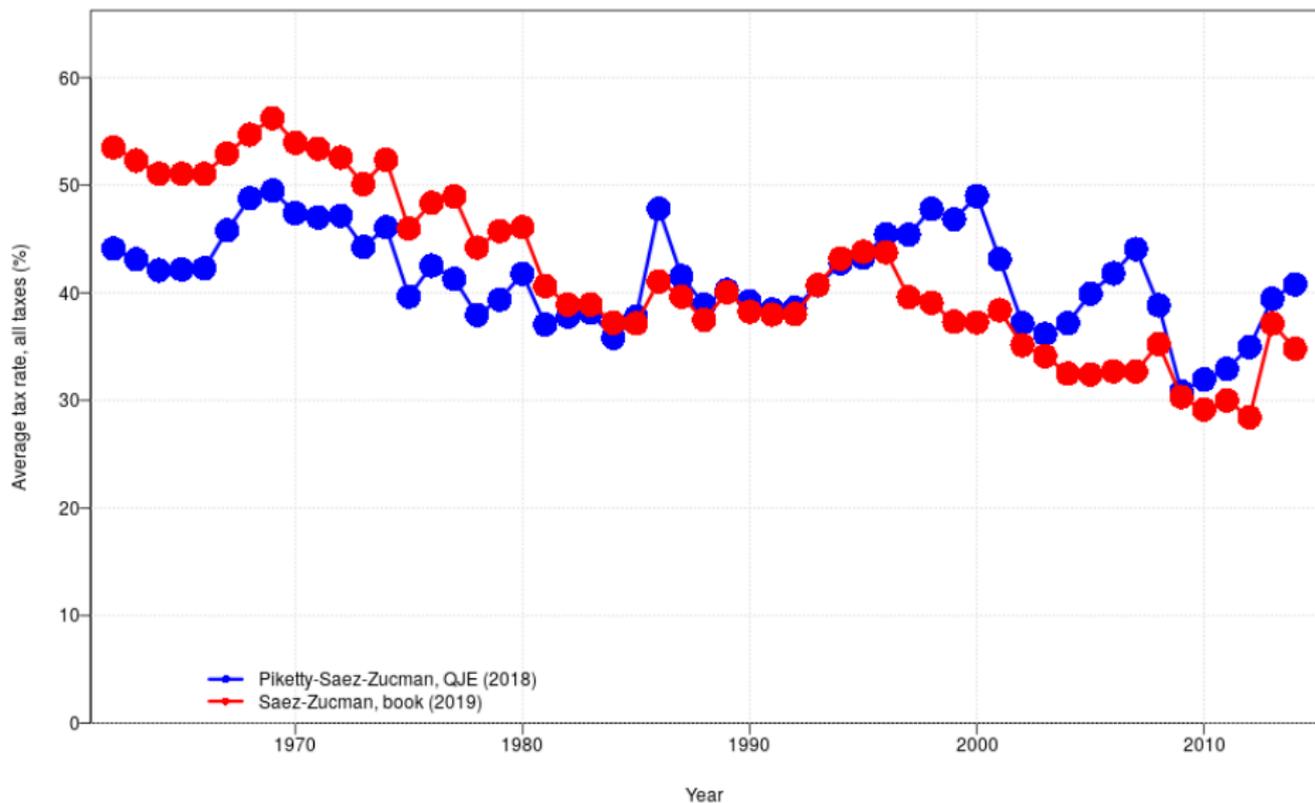
# Progressivity in 2014 — SZ (2019) vs PSZ (2018)

Total average tax rates, federal and state, PSZ vs SZ (book, NYT) 2014



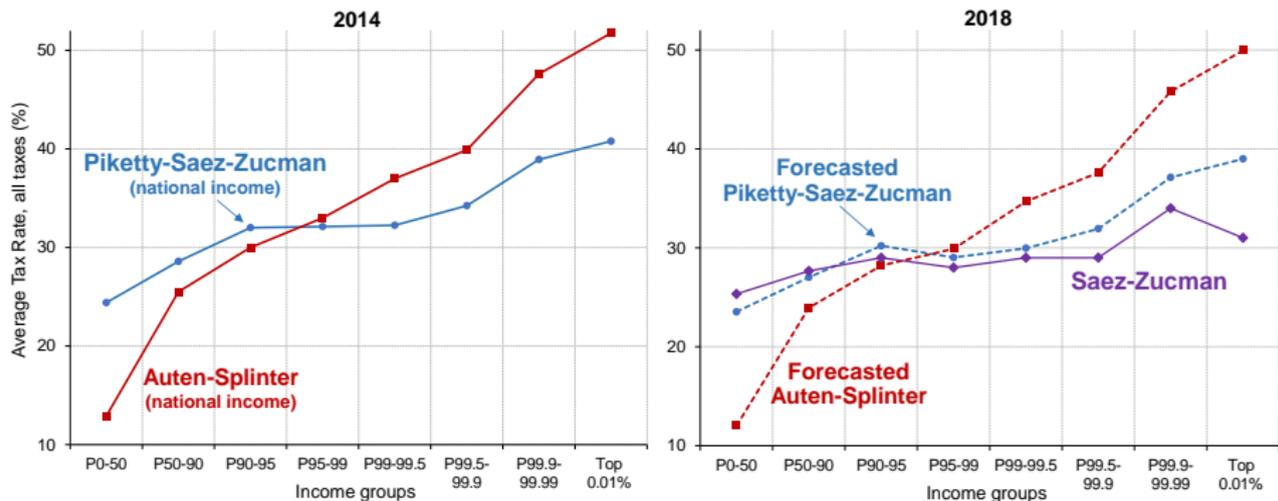
# Progressivity top 0.01% — SZ (2019) vs PSZ (2018)

Total average tax rates, federal and state, PSZ (2018) vs SZ (2019) Top 0.01%



# Progressivity — other sources: Auten-Splinter (2019)

Figure 3: Average tax rates

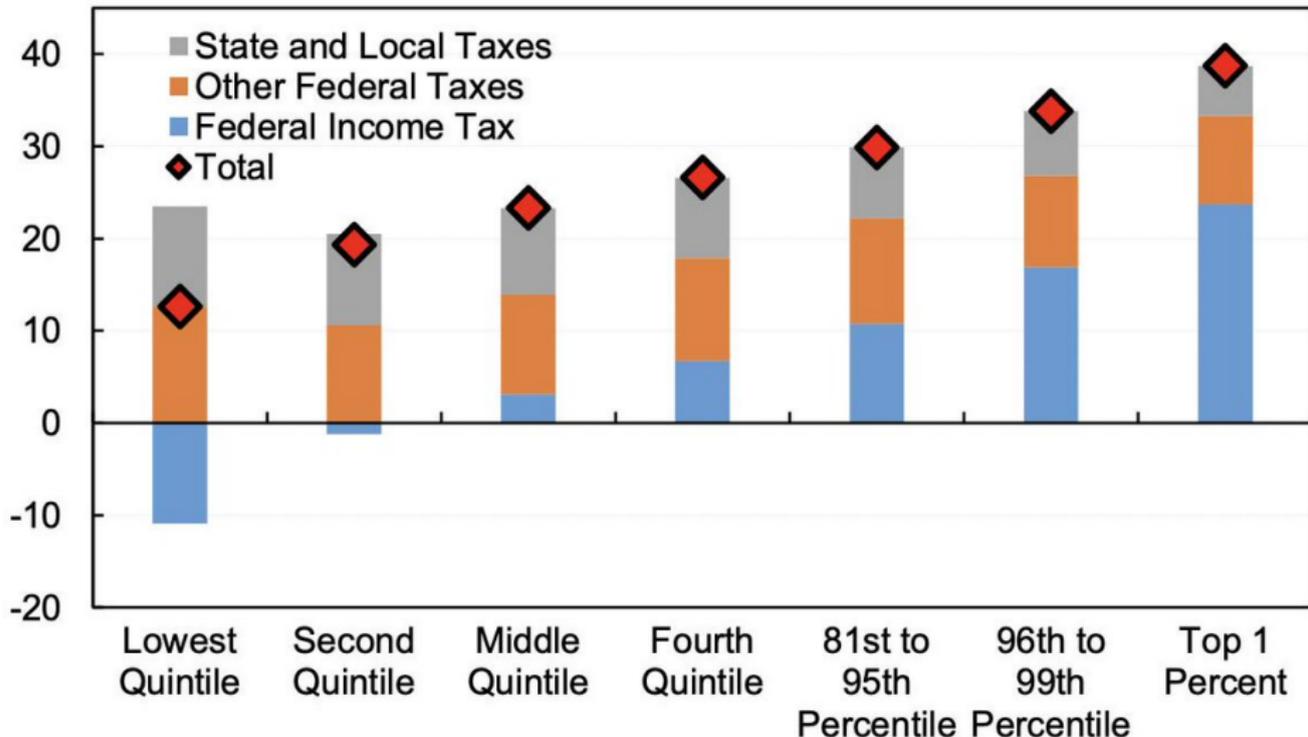


*Notes:* Average tax rates are all taxes divided by income. Both PSZ and Auten-Splinter exclude the refundable portion of tax credits, which are categorized as transfers in the national accounts—adding them would lower bottom 50 percent tax rates up to 3 percentage points. Forecasted rates apply Tax Policy Center (2017) estimated changes to 2014 rates. To match the 2014 PSZ groups, the Saez-Zucman bottom groups are averaged for the P0–50 bin, P99–99.9 values are applied to separate groups, and the top 400 rate is excluded.

*Sources:* PSZ, AS, Saez and Zucman (2019), and author's calculations.

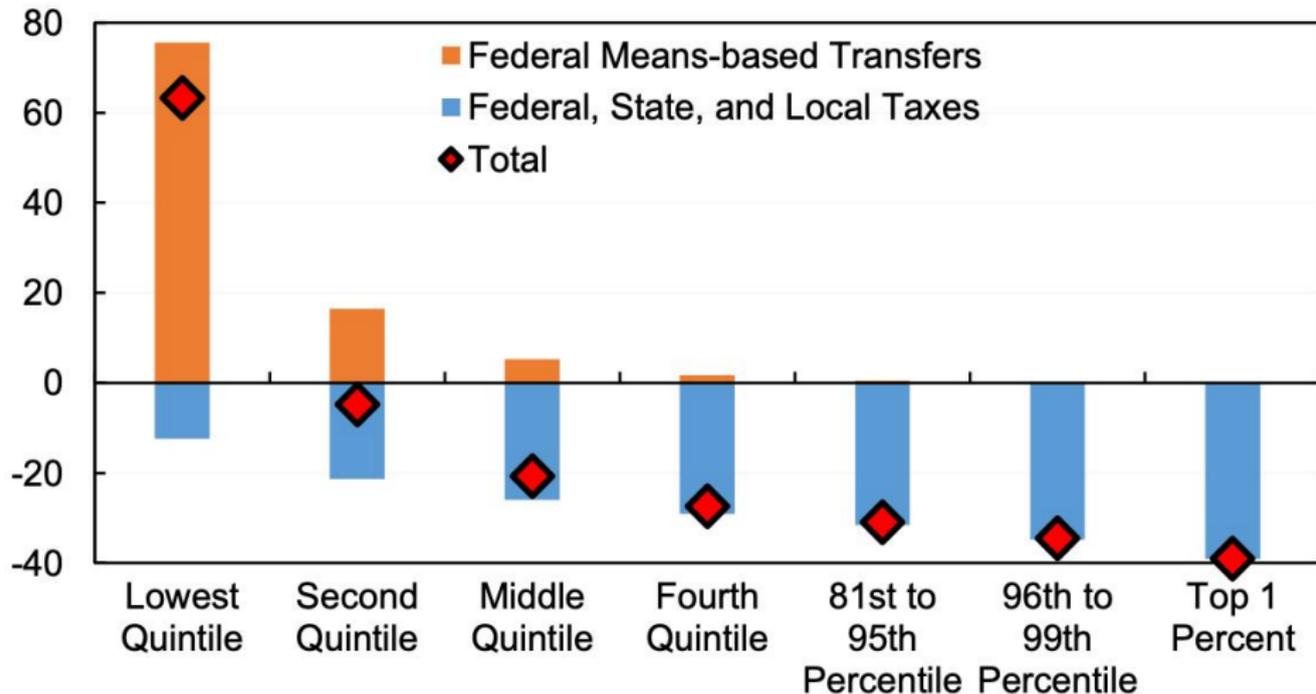
## Average Tax Rates by Before-Tax Income Distribution, 2016

Percent of Income Before Taxes and Transfers



## Average Tax and Federal Means-tested Transfer Rates for Non-elderly Households by Before-Tax Income Distribution, 2016

Percent of Income Before Taxes and Transfers



# General measurement comments



Paul Krugman ✓

@paulkrugman

I guess my point is that excluding transfers and consideration of incidence sound like rigorous criteria, but are actually more problematic, involving more judgement calls, than they seem 8/

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- Allocate everything consistently with national accounts.  
⇒ it does not directly answer any well-defined questions related to consequences of tax-and-transfer system on well-being
- Rely on statutory incidence of taxation  
⇒ it is much more arbitrary than you may think and does not answer any well-defined questions related to consequences of tax-and-transfer system on well-being



Paul Krugman ✓

@paulkrugman

Saez and Zucman make this point brilliantly, and also tell us a lot about how that happened. So the important thing is not to get too hung up on the technical disputes. The core SZ insight is totally robust 11/

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# Measurement at the bottom

**sum of income** pre-tax, pre-transfer (except for Social Security), negative interest income (7.5% reduction!)

**sum of taxes** ignore transfers, refundable credits,

**sum of taxes**

- allocate sales/excise tax based on consumption (transfer income not counted!); payroll tax all on employees
- Sales/excise tax of 10% at the bottom — sales tax rates 6-7% with lots of exemptions (food, rent!); gasoline, alcohol, tobacco
- Aside: statutory incidence of payroll tax partially on employers; statutory incidence of sales/excise tax on sellers.

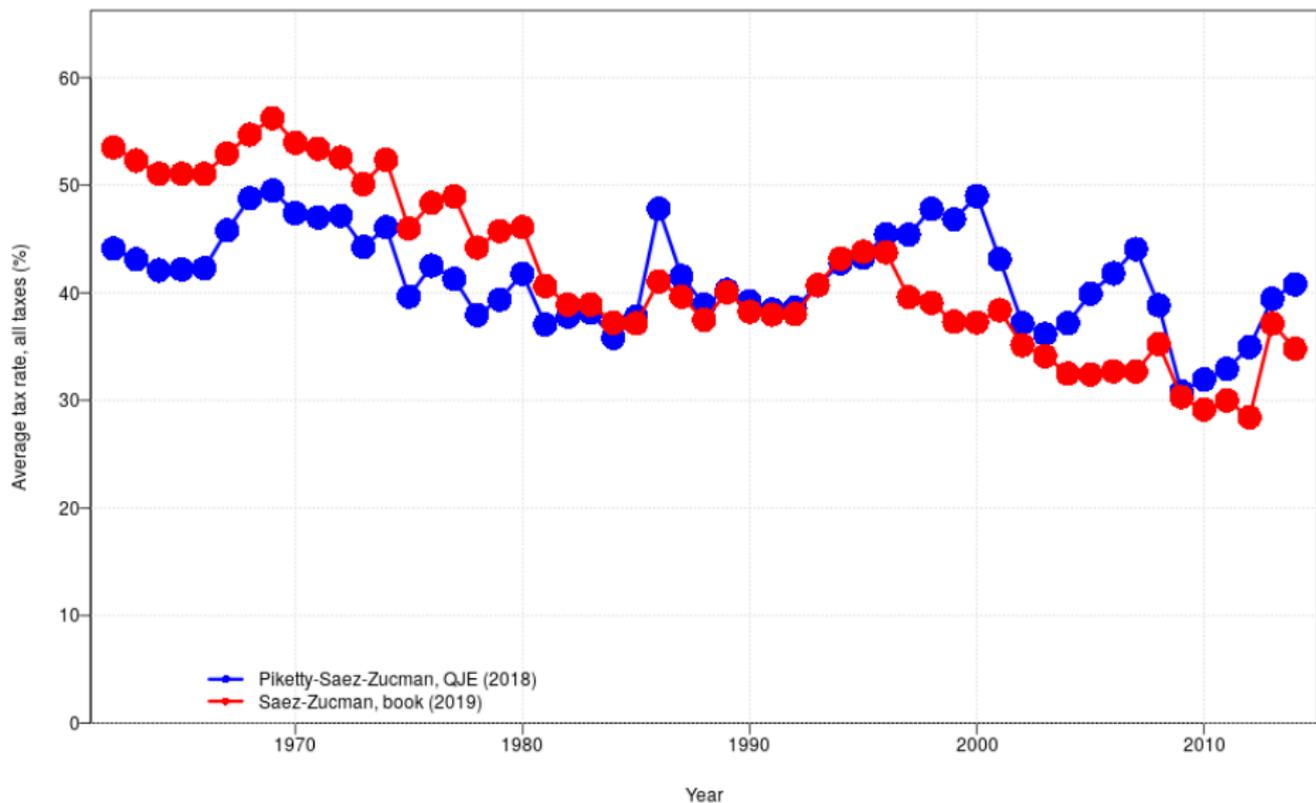
**division sign** sales tax based on consumption but no transfer income accounted for → infinite/very large tax rate

**group**

- drop 27 million very low income people when talking about tax rates, still use them for inequality statistics
- transfers still relevant higher up
- low income people include: college students (adults 20 and up), institutionalized population, retirees. Demographic trends.
- no economies of scale

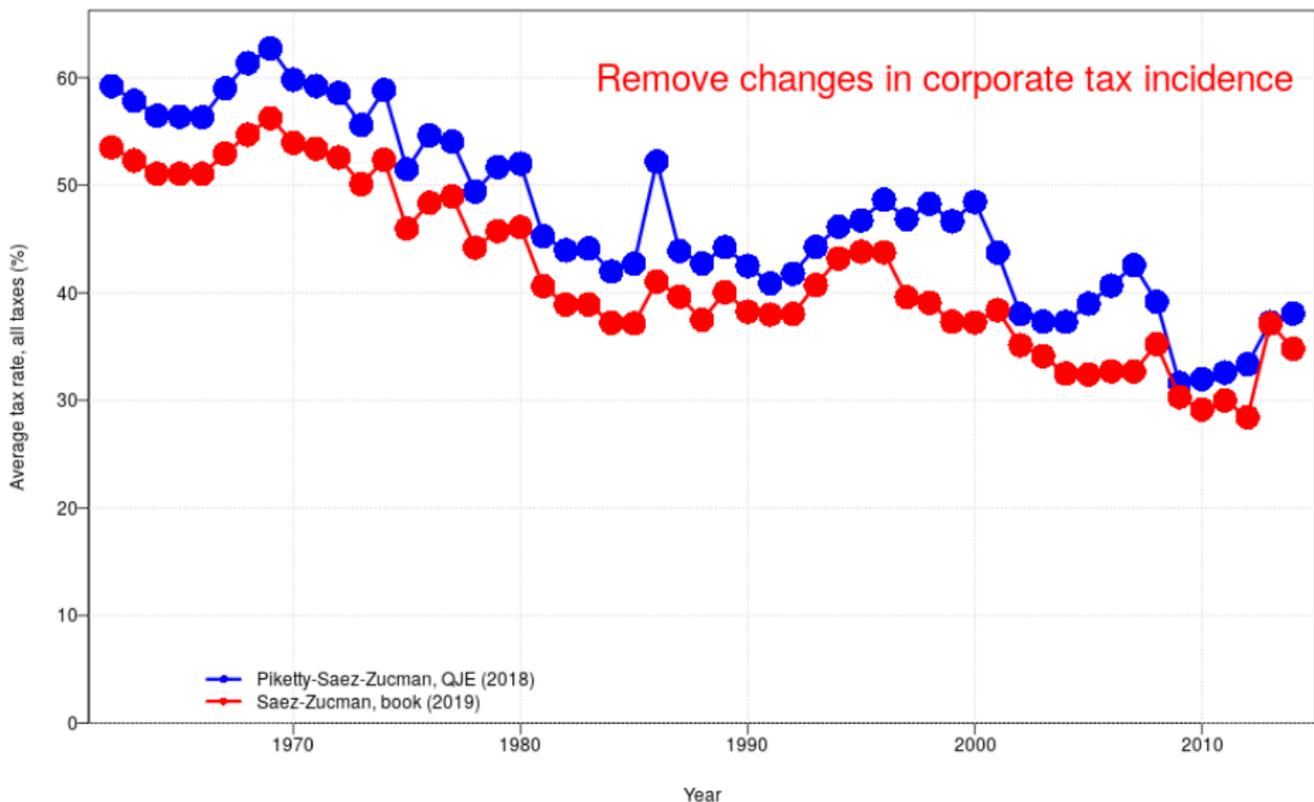
# Measurement at the top — SZ (2019) vs PSZ (2018)

Total average tax rates, federal and state, PSZ (2018) vs SZ (2019) Top 0.01%



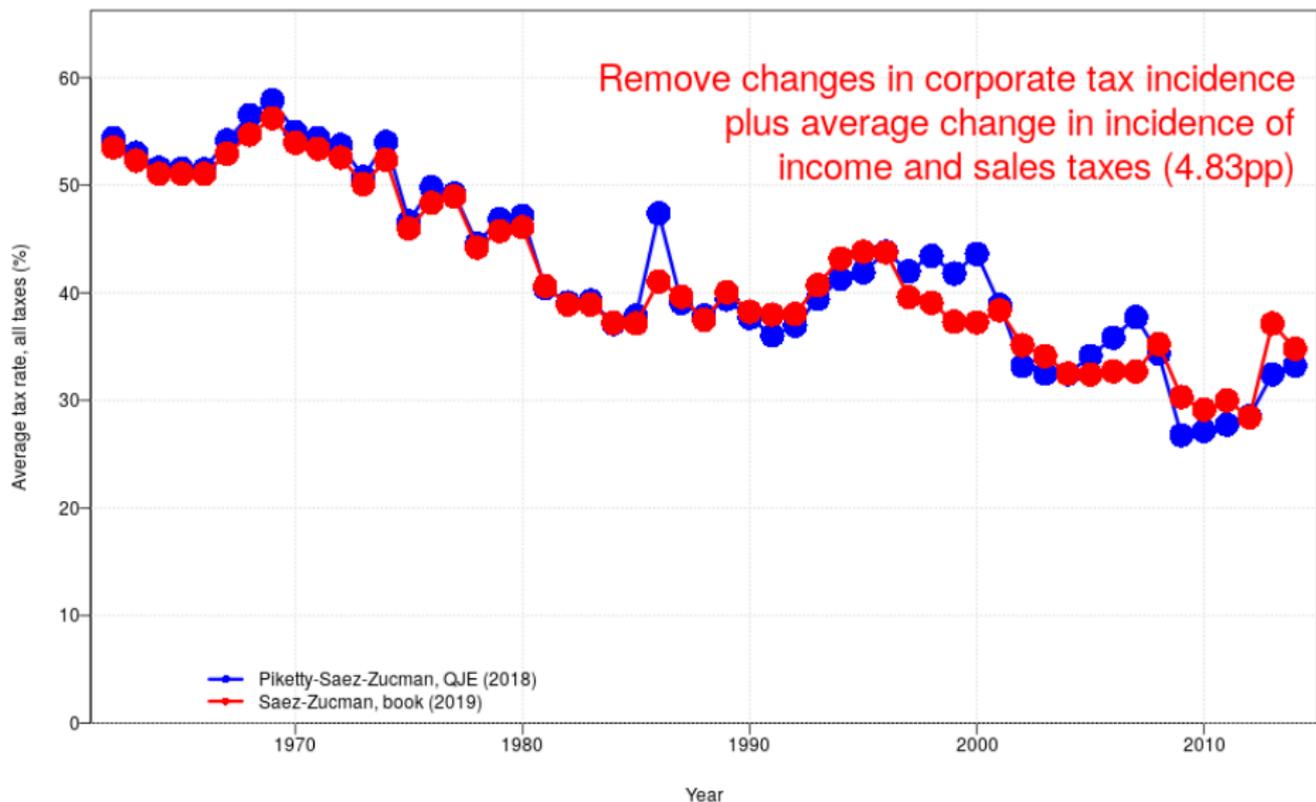
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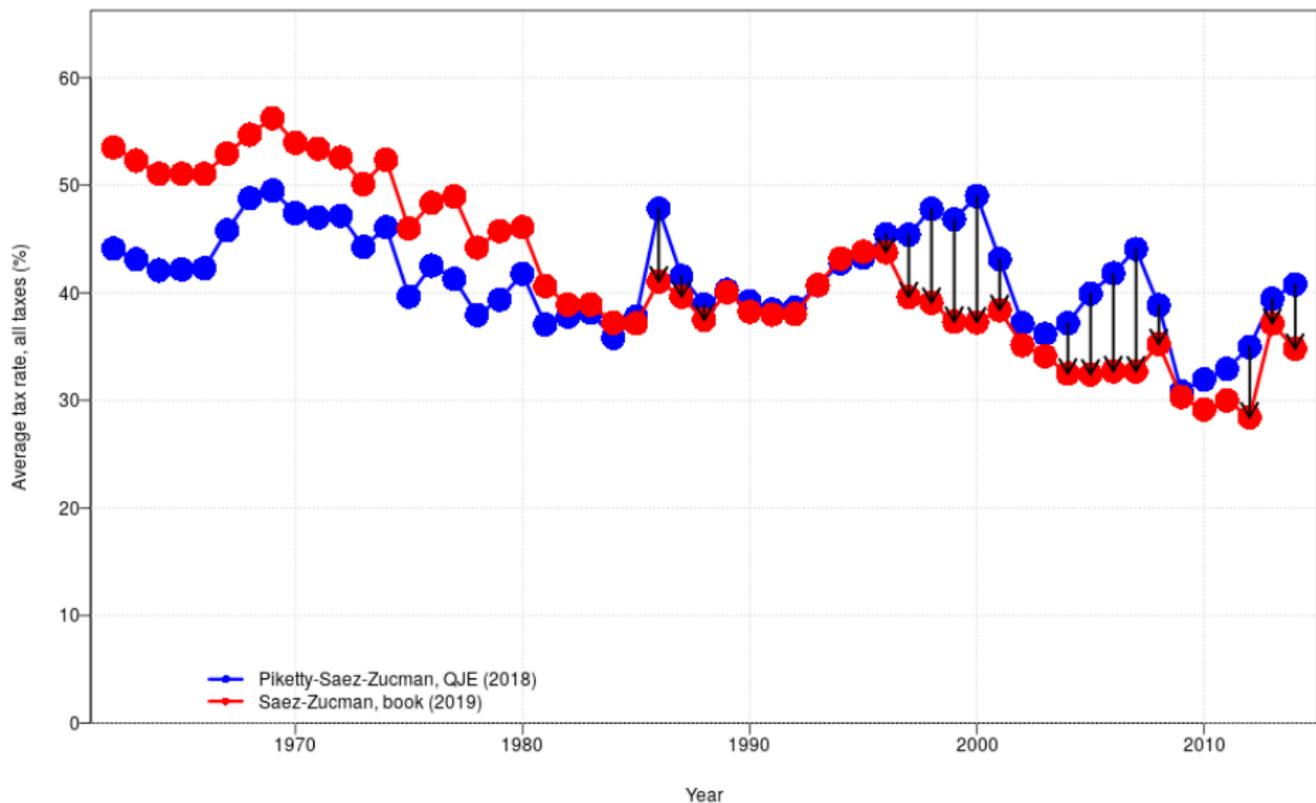
# Measurement at the top

sum of taxes Big one: corporate tax incidence

- familiar question: does **labor** bear any burden? Both PSZ and SZ assume no (good recent evidence though that it is  $> 0$ , AER papers by Suarez-Serrato and Zidar (2016) and Fuest, Peichl and Siegloch (2018))
- less familiar: does **other capital** bear burden? Everybody (including PSZ) assumes so. SZ do not.
- why does it matter? **Historical trend**. According to the wealth data they rely on (I have issues with it, but let's put aside), top 1% owned directly
  - 40% of equities and 20% of fixed income in the 1970s
  - 60% of equities and 60% of bonds now.
- Move everything to shareholders → increase tax liability of the rich in the past. **It creates strong trend where there was not much of it.**

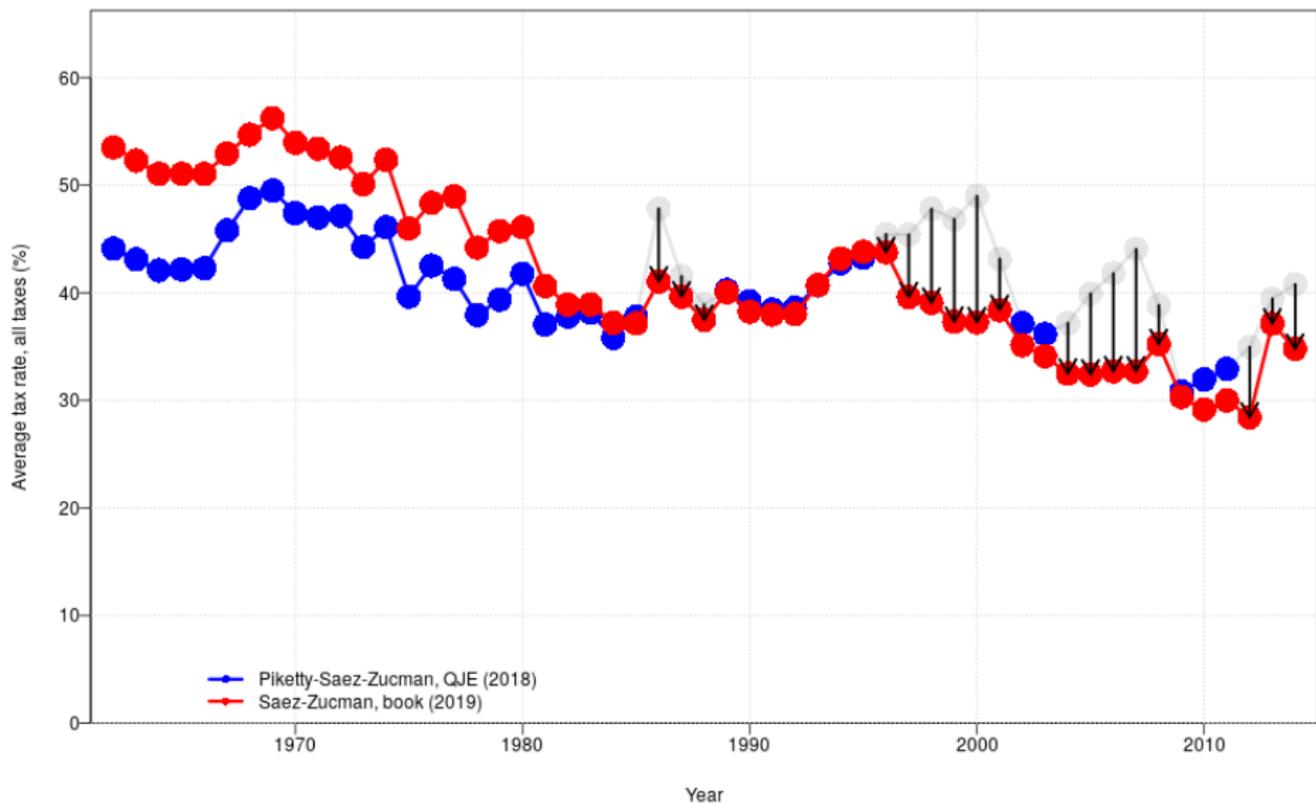
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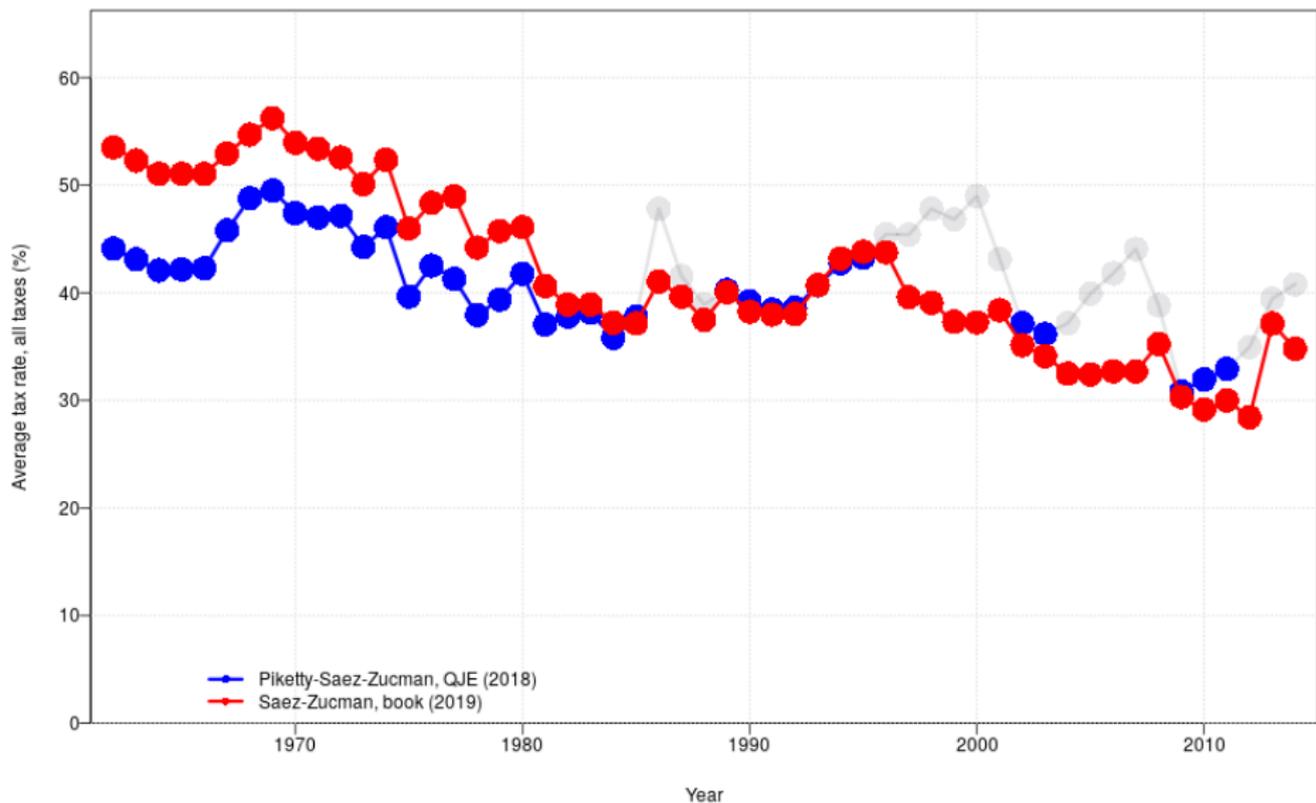
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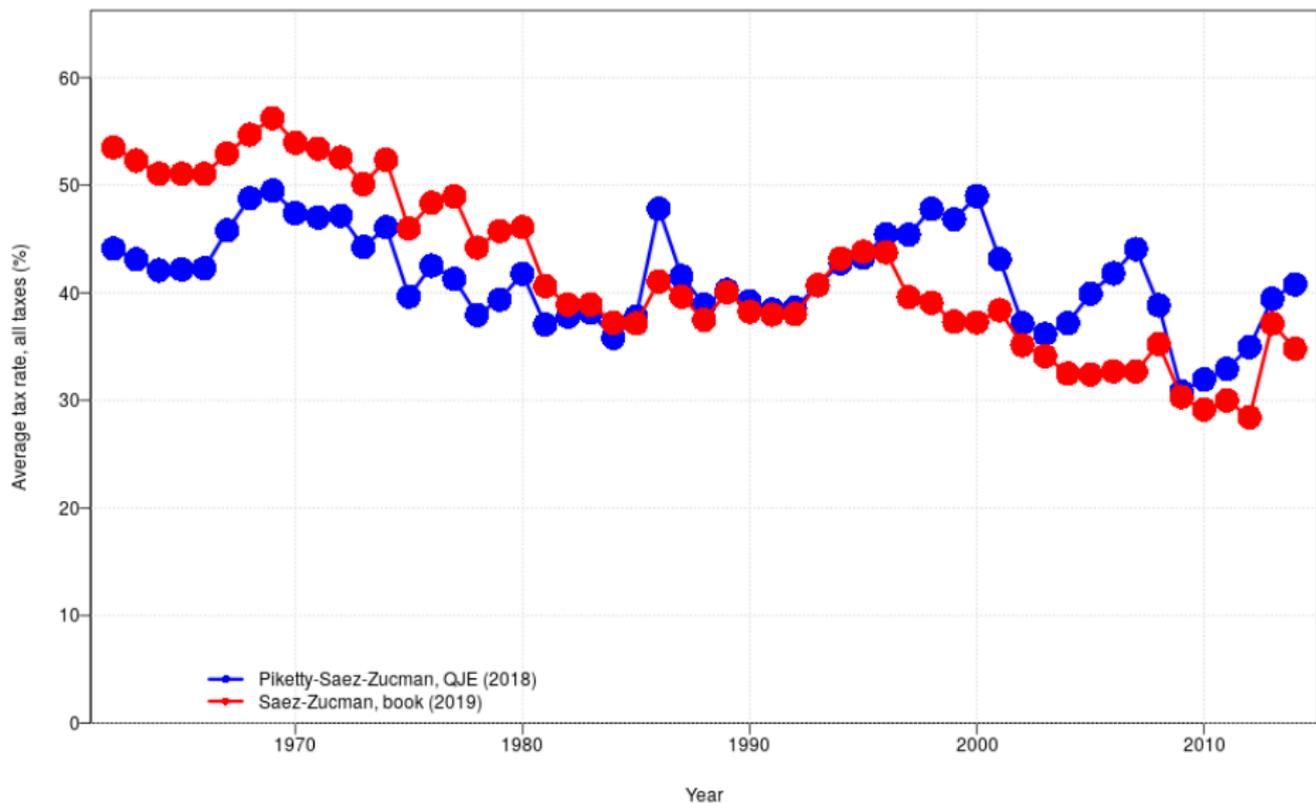
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# Measurement at the top

## Sum of income Treatment of capital gains

- “Pure” capital gains (over 3%) included in income
- It breaks national accounts (so much for that principle)
- Included in year when realized not earned; double counting if CGs reflect future profits; corresponding losses not fully accounted for

## Sum of income

- Recall Auten-Splinter. Put wide confidence bands on measures of inequality
- Where is economic income of Forbes 400 coming from? It's based on Forbes estimates. Best evidence shows about 50% of Forbes estimate on estate tax returns. Maybe evasion, but also (1) debt (2) family ownership (3) errors.
- 2017 and 2018 are projections, no tax data yet

- Tons of assumptions, inconsistent with the literature but very consequential
- The principle of reliance statutory incidence is economically meaningless, you cannot run away from counterfactuals
- It is also not consistently applied (employer share of payroll, sales tax). Neither is reliance on national accounts consistently applied (population, capital gains)
- Read the book if you can see past the numbers



The New York Times

Opinion

## How to Tax Our Way Back to Justice

It is absurd that the working class is now paying higher tax rates than the richest people in America.

By Emmanuel Saez and Gabriel Zucman

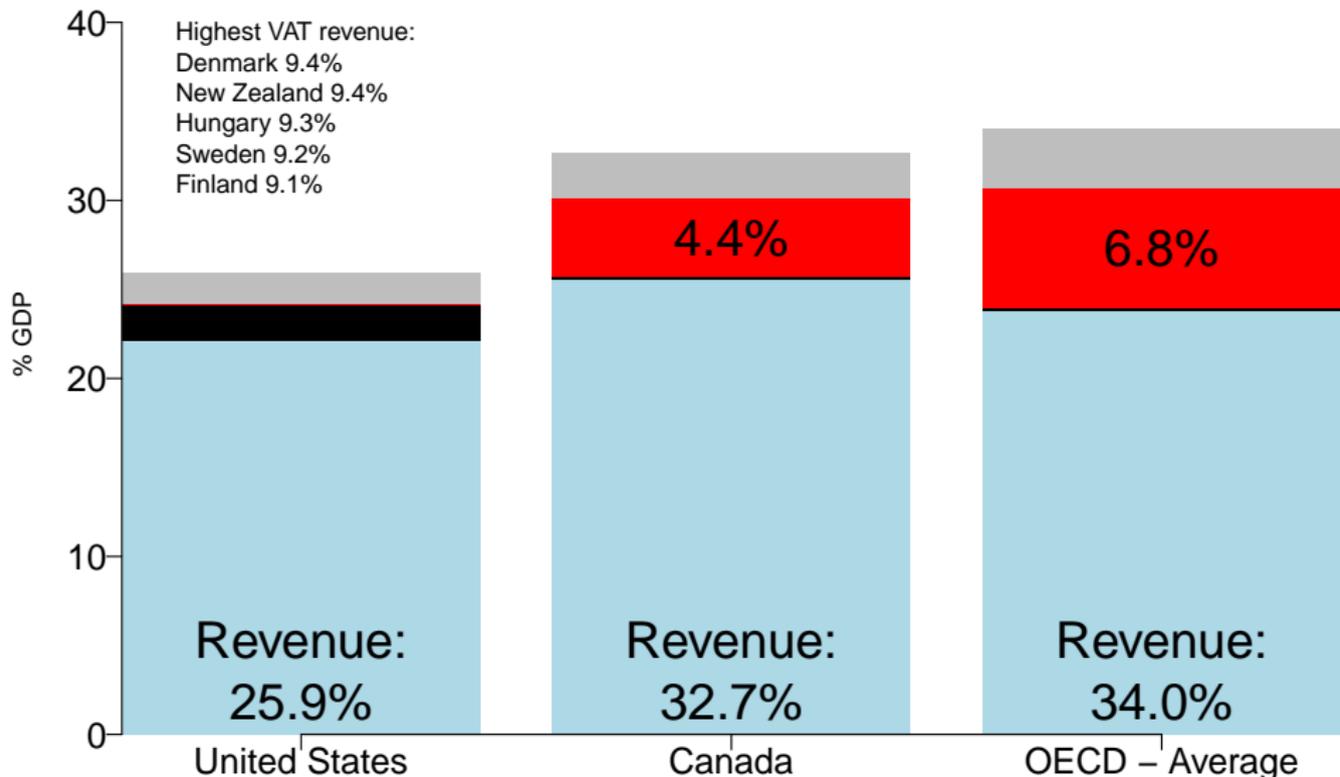
The authors are economists at the University of California, Berkeley.

Oct. 11, 2019

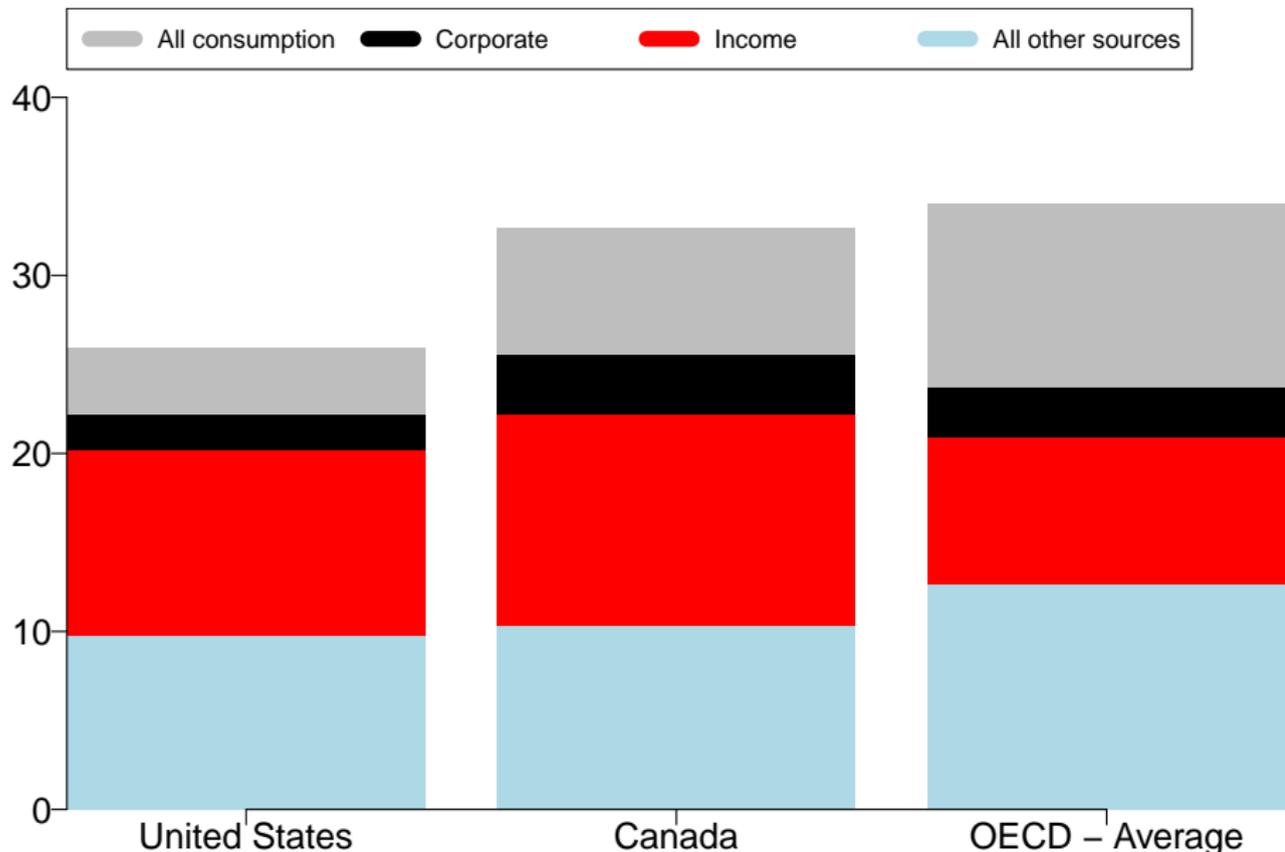
# Revenue (%GDP) — VAT and excise



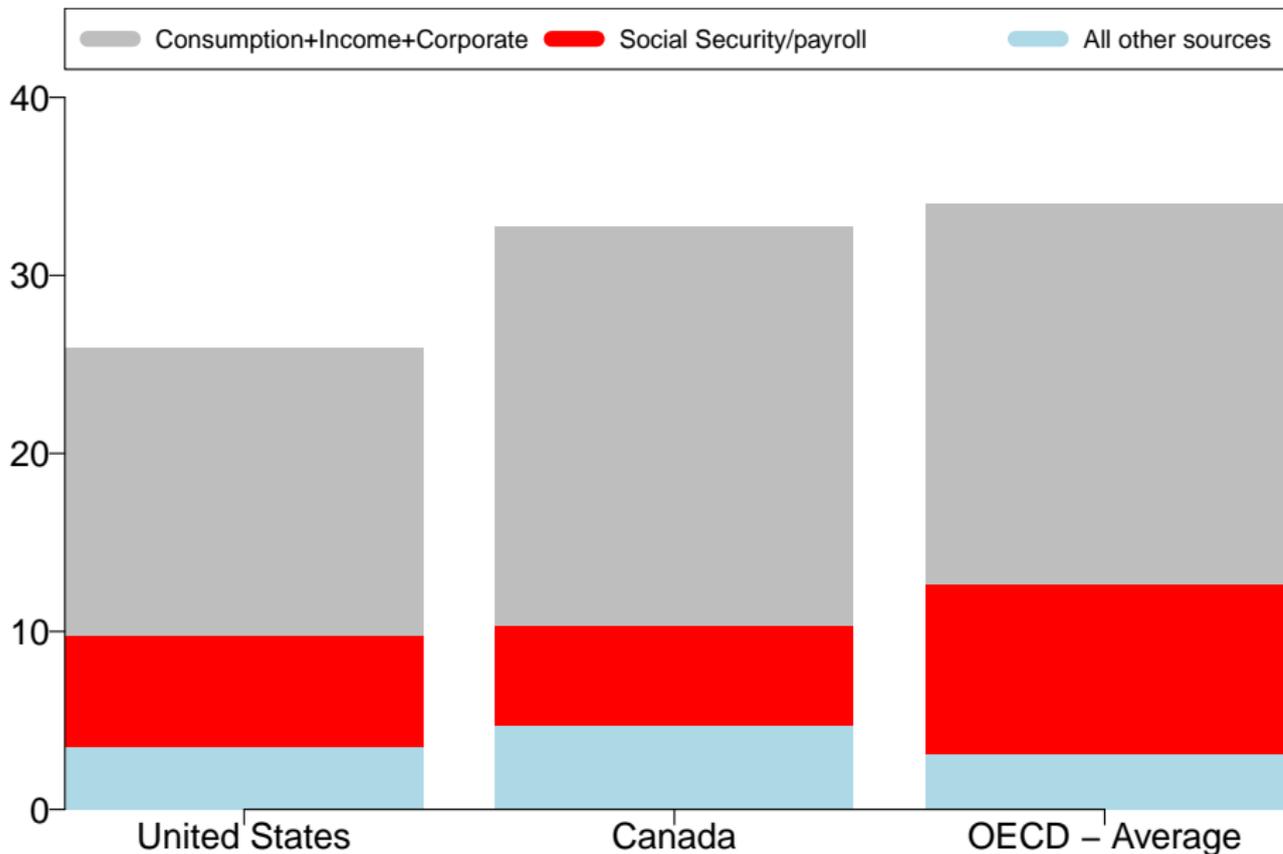
Highest VAT revenue:  
Denmark 9.4%  
New Zealand 9.4%  
Hungary 9.3%  
Sweden 9.2%  
Finland 9.1%



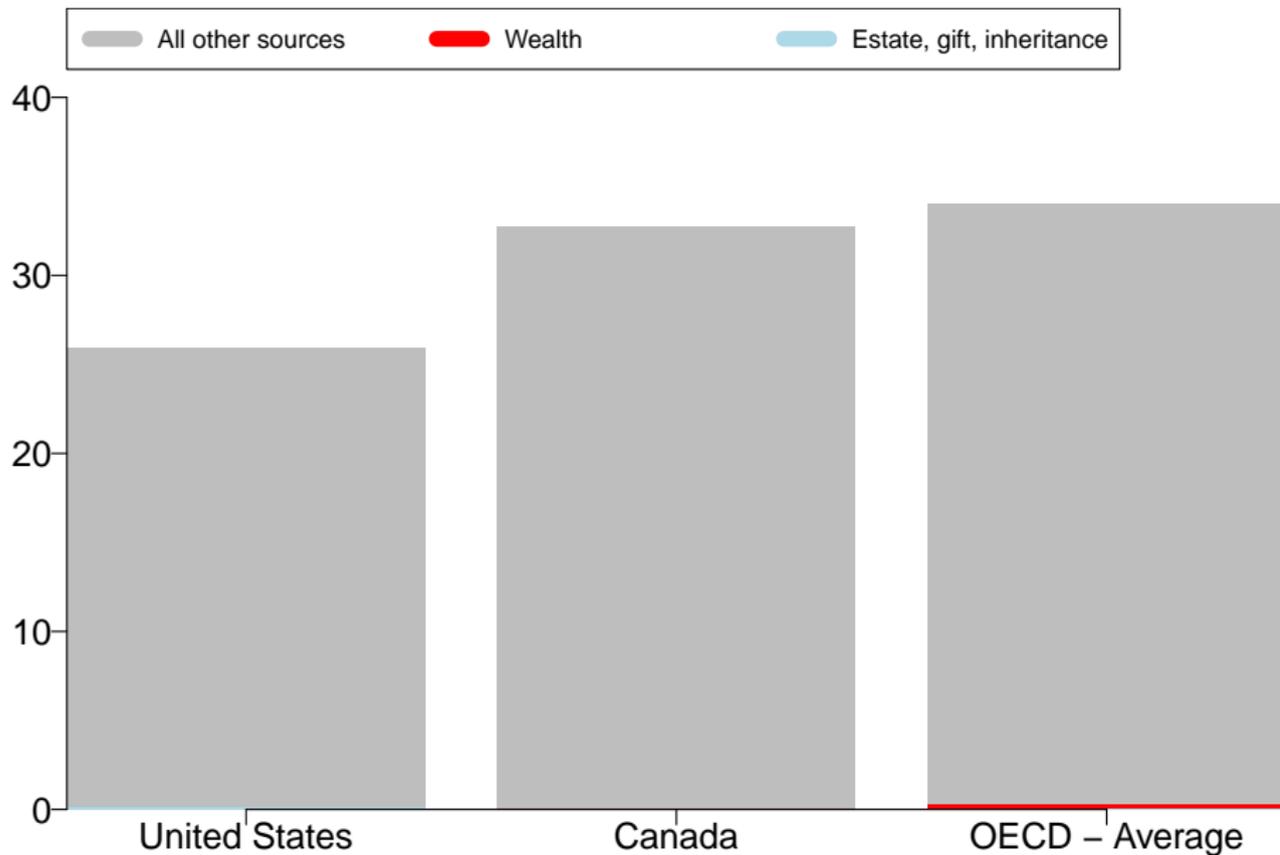
# Revenue (%GDP) — income and corporate tax



# Revenue (%GDP) — Social Security and payroll taxes

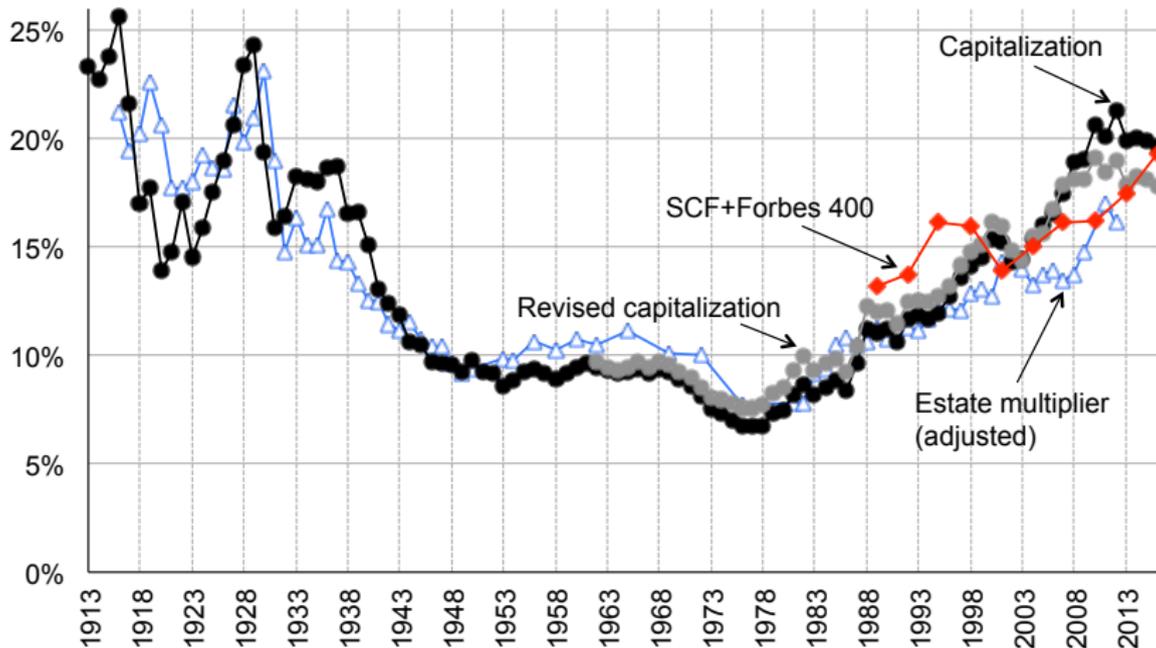


# Revenue (%GDP) — estate/gift and wealth taxes



# Bonus: wealth inequality — Saez-Zucman (2016)

(a) Top 0.1% wealth share



# Bonus: wealth inequality — Smith-Zidar-Zwick (2019)

## A. Top 0.1% Share of Total Wealth

