Effective tax rates by income and wealth class

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Disclaimer

The analysis and conclusions set forth are those of the author and do not indicate concurrence by other members of the research staff or the Board of Governors of the Federal Reserve System.

Intro

- How does federal tax burden (average tax rate, ATR) change by:
    - by income?
    - by *wealth*?
    - across time?

- Use the Survey of Consumer Finances (SCF), 1995-2016.
    - Household survey with *wealthy oversample*
        - Total sample size $\approx$ 6,500, incl. wealthy *oversample* $\approx$ 1,500 families
        - In line with external aggregates (income in SOI, assets in FA).
    - "Bulletin" wealth $+$ estimate DB pension wealth (Sabelhaus Volz 2019)

- Generate a federal tax liability for each family via TAXSIM
    - SCF income (prior year), generate exemptions, deductions by tax unit
    - Combine tax units back into households
    - SCF sample included filers and nonfilers.
    - No payroll, state, corporate (but can include), no estate tax

SCF ATRs similar to other estimates

- SOI-PUF (own estimate), SCF, Piketty-Saez

Average tax rate, 2003, 2004
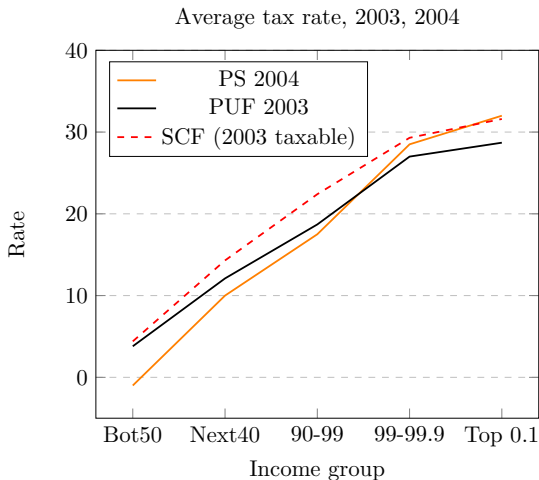
Vary income measure

- What counts as income?
  1. Taxable income: income minus exemptions, deductions
  2. "Bulletin" income: reported in the survey, includes nontaxable interest and some govt transfers
  3. **Preferred:** add more non-taxable income: distribute NIPA employer-provided health care, Medicare/aid, other transfers
   - We will use this measure through rest of the slides

ATRs by income measure

- Taxable ATRs >> "bulletin" ATRs
  - Taxable income < "bulletin": deductions, exemptions reduce income
- "Bulletin" ≈ prefered: add non-taxable income to denominator
  - Mostly in bottom, middle, but avg. group liability (numerator) is low
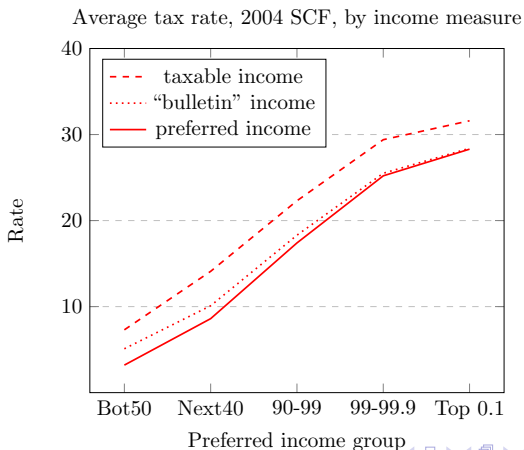
Average tax rate, 2004 SCF, by income measure

Tax changes over time

- Major law Δes: TRA97, EGTRRA 2001, JGTRRA 2003, ATRA 2012
- Most narrowed tax base/lowered rates; ATRA 2012: raised top rates
- Bottom 90% and 90th to 99th: changes to child tax credit, EITC
- For Top 1% and Top 0.1%: capital gains and dividends rates

Maximum Indiv. Tax Rate, LT Cap. Gain Rate

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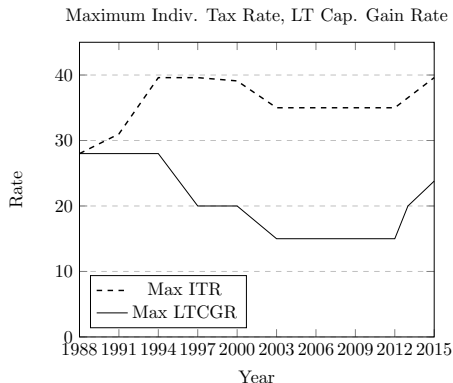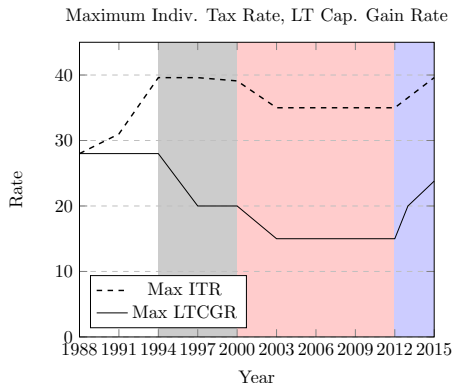
Progressivity by income

- Tax burden increases as income increases

Average tax rate, by SCF survey year
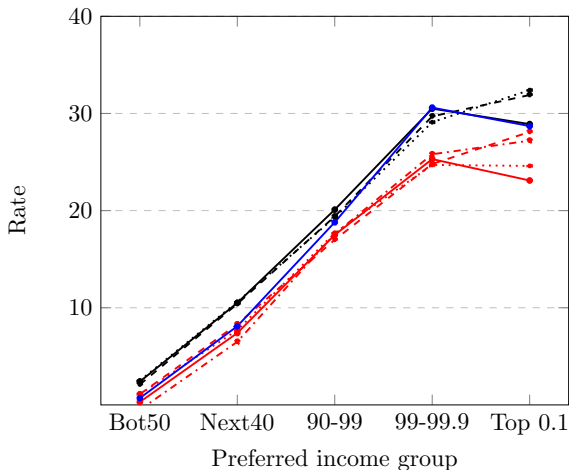
Legend: -•- 1995 ····•···· 1998 —•— 2001 -•- 2004 ····•···· 2007 -··•·· 2010 —•— 2013 —•— 2016

Wealth vs. income

- Many discussions use income and wealth interchangeably
- SCF data can show you income and wealth
- Income (realized in a given year) $\neq$ wealth
- But only 1/3rd of top 0.1 by pr. income are also in top 0.1 by wealth

		Pref. income groups				
		Bot50	Next40	90-99	99-99.9	Top 0.1
	Bot50	74	32	4	0	0
	Next40	26	58	42	6	0
Wealth	90-99	1	9	50	44	8
groups	99-99.9	0	0	4	45	59
	Top 0.1	0	0	0	5	34

Table: Wealth vs. income, 2016 SCF

Wealth vs. income

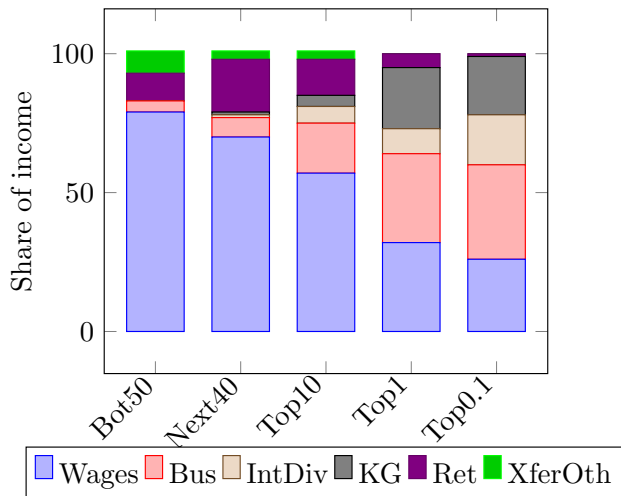|		Minimum, thousands of $	
		Preferred income	Wealth
	Bot50	-	-
	Next40	71.1	144.2
Percentile	90-99	193.9	1,694.5
groups	99-99.9	846.0	10,635.9
	Top 0.1	3,897.0	43,168.1

Table: Wealth vs. income, 2016 SCF

Income composition of top income

- KG biggest income source at very top (often one-time event)
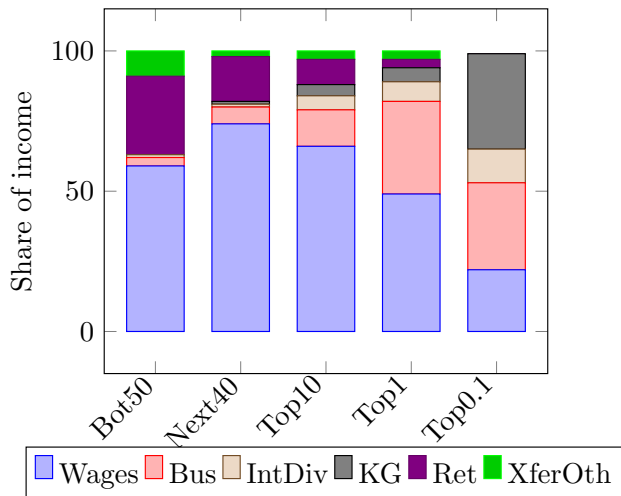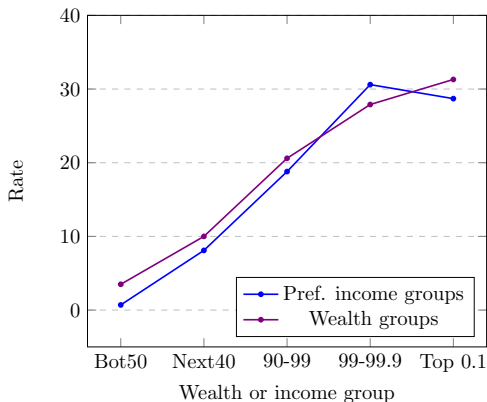
Income composition of wealthy

- Income of wealthy derived by: 1. business 2. wages 3. KG 4. int/div
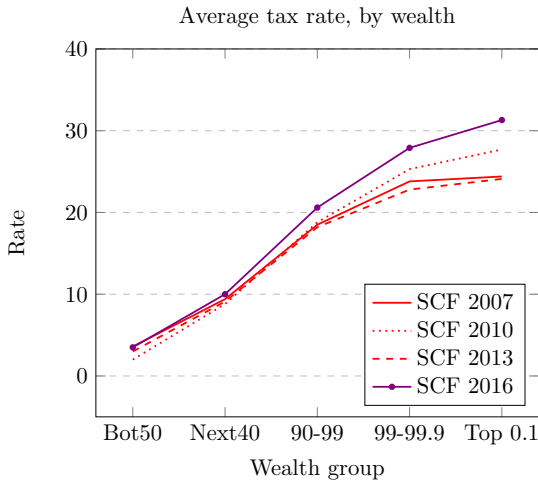
By wealth

- Tax burdens shift a bit relative to income but similar
  - Relatively higher for low (<90th) and highest (top 0.1)
- Progressive by wealth

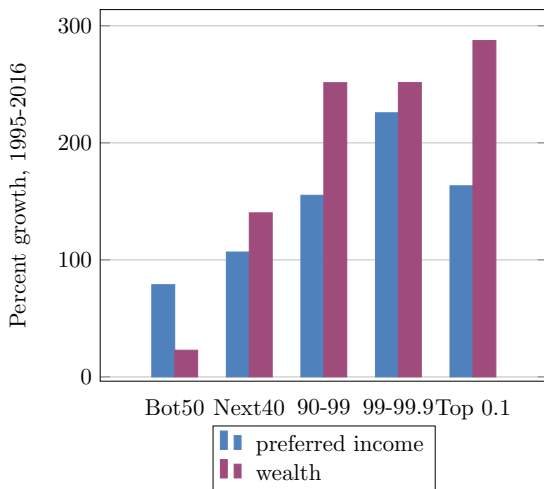Average tax rate, by wealth and pref. income, 2016 SCF

ATRs by wealth over time

- Tax income that wealthy people realize to be more progressive
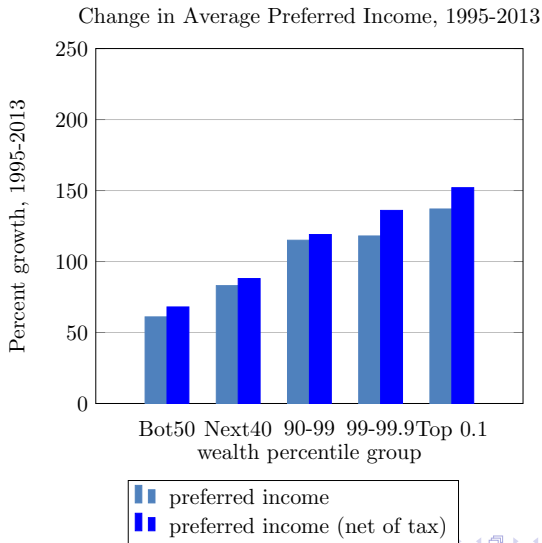- Increase tax burden on *wealthy* by taxing their income

Average tax rate, by wealth

Wealth accumulation: saved income

- Δ*wealth* $=$ *capital gains* $+$ *net of tax income* $-$ *consumption*

Wealth accumulation: saved income

- Δ*wealth* = *capital gains* + *net of tax income* − *consumption*

Change in Average Preferred Income, 1995-2013

Wealth accumulation: saved income

- Δ*wealth* $=$ *capital gains* $+$ *net of tax income* $-$ *consumption*

Change in Average Preferred Income, 1995-2016
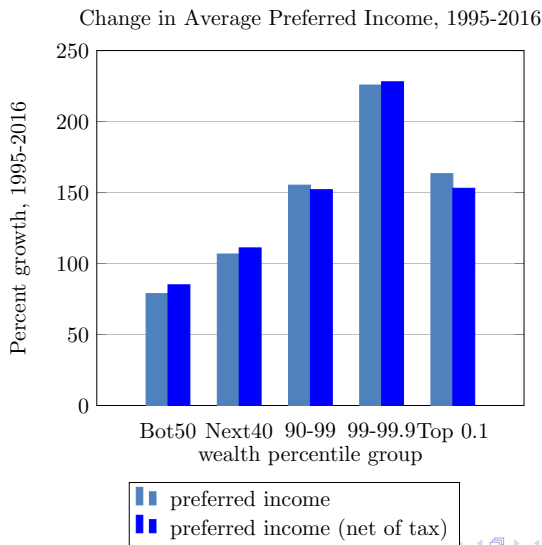
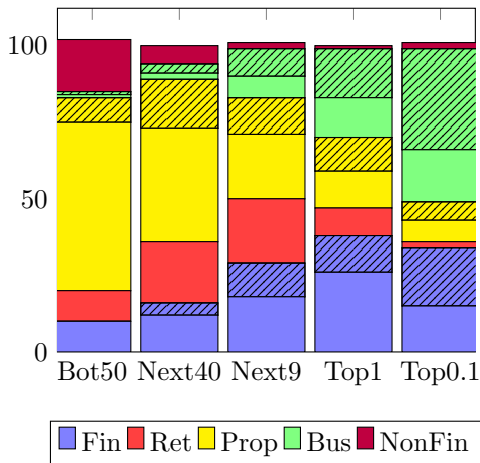# Wealth accumulation: unrealized capital gains

- $\Delta wealth = capital\ gains + net\ of\ tax\ income - consumption$
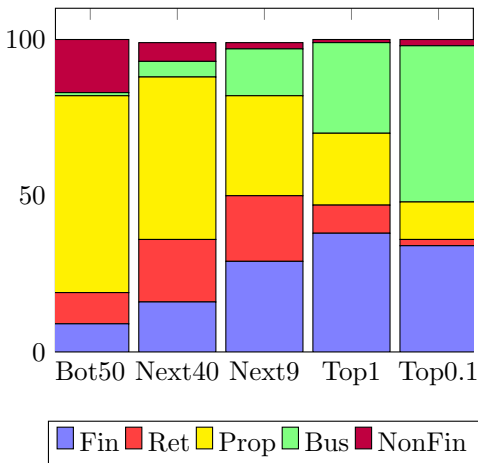
Wealth accumulation: unrealized capital gains

- ≈50% of assets of wealthiest 0.1 percent are unrealized KG

Conclusion

- Tax income that wealthy people realize to be more progressive

- Income taxes can potentially decrease income and wealth inequality

- ≈50% of assets of wealthiest 0.1 percent are unrealized KG
  - Estate tax? Stepped-up basis? Tax at accrual?