Weighing Down the Top - Evaluating two Techniques to Estimate Tax Progressivity

by Johannes KOENIG

Discussion by Etienne LEHMANN

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Research Question

- How to approximate complex real-world tax schedules $y \mapsto T(y,...)$ by a simple function $y \mapsto \widehat{T}(y)$ where:

$$y - \widehat{T}(y) = \chi \, y^{1-\tau}$$

- How to summarize a tax code by two tax parameters χ and τ.
  - If $\tau = 0$, the approximated tax schedule is linear.
  - If $\tau > 0$, the approximated tax schedule exhibits increasing marginal and average tax rate and is thereby progressive.
  - If $\tau < 0$, the approximated tax schedule exhibits decreasing marginal and average tax rate and is thereby regressive.

Research question

What is the “best" way to estimate τ?

What is done

- Use PSID datasets 2000, 2002, 2004 and 2006 and CBO.
- Johannes KOENIG is contrasting two methods to estimate $y - \widehat{T}(y) = \chi\ y^{1-\tau}$:
    - OLS on $\log(y - T(y)) = \log \chi + (1 - \tau) \log(y)$
    - Estimating χ and τ by minimizing the sum of squares of $y - \widehat{T}(y) - \chi\ y^{1-\tau}$, the Nonlinear Least Square (NLS) approach.

  $\Rightarrow$ Estimated $1 - \tau$ is lower (more progressivity) under OLS than under NLS

  $\Rightarrow$ The Root Mean Square Error (RMSE) and Mean Absolute Error (MAE) are lower using NLS than OLS.
- Given explanation: the NLS better weight high-income observations, where the rise in MTR decelerates.
- A very nice methodological paper to read, I learned a lot!

Discussion

How to summarize a complex tax schedule into a two-parameters approximation depends on the purpose for which you need to do this approximation.

- To compute Inequality indicators such as D9/D1, Gini, ...?
- To calibrate a macroeconomic representative agent framework? (high income earners matters more for the GDP than low income earners)
- To describe what are the incentives to supply labor along the extensive margin? (maybe low income earners should then be overweight)
- To describe what are the incentives to save incomes? (maybe high income earners should then be overweight)
- ...

Discussion (2)

$\Rightarrow$ A theoretical model should clarify the correct weighting procedure depending on the purpose for which you need this approximation.

- What if you take into account heterogeneity across
  - family composition (EITC...),
  - states/länder, ...
  - Share of capital income, of rents in AGI?

Taxing Billionaires: Estate Taxes and the Geographical Location of the Ultra Wealthy

by Enrico MORETTI and Daniel J. WILSON

Discussion by Etienne LEHMANN

NTA 2019

Research question

Are ultra-wealthy (Forbes 400 billionaires) residence decisions' sensitive to estate tax?

- Up to 2001, state estate tax + federal estate tax did not vary across states.
- By 2001, Estate tax is larger in states implementing a state estate tax (ET states) compared to the other states.

⇒ Double differences: Do the numbers of Forbes 400 increase in non-ET states and do the numbers of Forbes 400 decrease in state ET after the 2001 reform? In a nutshell: Yes

⇒ Triple differences: Are these responses larger for older Forbes 400? In a nutshell: Yes

- The revenue raised by state using an estate tax outweighs the foregone income tax revenue lost in (present discounted value) by Forbes 400 when they leave, ... except if the top personal income tax is very high (California...).
- In state with no state-PIT, even ultra wealthy should pay some sales tax?
- A very stimulating paper to read!

Discussion (1): on the specific role of estate tax

- I used to argue that estate tax should be less distorsive than capital income tax, because "once your are dead, you can no longer modify your behavior".
- This paper concludes I am wrong. Forbes 400 do care about the estate tax that will be paid by their inheritors and not by themselves!

Q1 Beyond identifying migration responses, would it be possible to estimate intensive responses on capital accumulation behaviors?

Q2 How different are the responses to change in estate tax rates compared to change in other tax rates?

Q3 With only 400 Forbes 400 in the US, how to be sure the estimates are caused by the ET reform in 2001 and not by some other aspects of the 2001 tax reform?

Discussion (2): How specific are the ultra-wealthy?

- An information (at least for me) by itself: the death of a single Forbes 400 may have a huge impact on estate tax revenue of its residing state (James Walton death in 1995 generates $148,300,000 additional tax revenues in Arkansas !)

Q4 Are migration elasticities identical for Forbes400 and for very-but-not-ultra wealthy?
In a QJE (2014) with Simula and Trannoy, we argue that the optimal nonlinear income tax schedule not only depends on the average migration elasticity within the top 1%, but also on how these responses vary inside the top 1%. What can we learn from your study?