Discussion of "Wealth Tax Mobility and Tax Coordination" by Agrawal, Foremny and Martínez-Toledano

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Outline

1. Summary of the paper

2. Comments

What this paper does

- Empirically investigates a form of individual-level tax avoidance of the wealth tax
  - Mechanism: relocation (mobility) of fiscal residence by individuals
  - Makes possible move the taxable location of all assets (and income!)
- Setting: unique tax variation resulting from the decentralization of the Spanish wealth tax
  - 2000s: Spanish regions had normative capacity
  - Wealth tax suspended in 2008-2010, but recovered in 2011 (tax revenue crisis)
  - Madrid region decided to maintain the effective tax rate at 0
- Research questions:
  - Does a zero-tax jurisdiction (tax competition) induce mobility of taxpayers?
  - What are the effects (tax revenue, efficiency) of this tax competition?

Empirical analysis

- Use individual tax records on PIT and wealth tax (until 2007)
  - Overcome post-2008 data limitations: compute individual wealth (using NA)
  - Tax calculator for the wealth tax (regional)
  - Descriptive evidence: significant migration flows of the "2010 wealthy"
- **Empirical strategies** to provide causal estimates of tax-induced mobility
  - Diff-Diff design aggregating individual data to the region-year wealth level
  - Individual location choice model: linear probability model (OLS and IV)
- **Revenue analysis**: simulations of different policy alternatives
  - Partial equilibrium analysis: revenue allocation across regions
  - Decentralization vs harmonization and minimun tax rate

Main results

- The existence of a zero-tax jurisdiction induced mobility of wealth holders
  - 5 years: 9% increase in the relative population of top wealth holders in Madrid
    - Individuals with higher wealth respond more strongly
    - Mobility elasticity wrto the net of tax rate on wealth at most 5.1
    - This response translates into a modest elasticity of capital income 0.24
- Tax induced mobility creates efficiency costs
  - Important contribution: cross-tax base (spillover) effects in the PIT
    - Modest impact of tax competition in wealth tax revenue, 5% < €100M
    - Impact on PIT revenue is 6 times larger (all regions other than Madrid)
  - Simulations illustrate tax coordination problems in decentralized tax systems
    - Minimum tax rate may be feasible under a majority rule

General comments

- **Nice paper** (hopefully published soon)!
- Exhaustive analysis, plenty of robustness and extensions
- Important contributions in the literature
  - Scarce evidence about the mobility responses to wealth taxation
  - Mobility of capital: avoidance mechanism in decentralized residence-based tax systems
  - Show the relevance of considering cross-base fiscal externalities
- Significant impact on policy debate

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Comments

1. Data limitations and the sample of the top wealth holders
2. Confounding Factors: Regional Tax Competition in the PIT
3. Robustness: Average vs Marginal Tax Rates
4. Policy Implications: A Tax in Crisis

Data limitations: random sample of top wealth holders?

- Paper uses micro data from *Panel de declarantes del IRPF 1999-2015*
  - 4% longitudinal stratified random sample of PIT
  - base year 2003, no refreshments just replacement of outflows with new entrants
  - Oversampling of the top income distribution (top gross income strata $\geq$ €240k)
- Merge with wealth tax micro data in *Panel Impuesto del Patrimonio 2002-2007*
  - Specifications use a balanced panel of PIT taxpayers in 2008-2015
  - Authors reweight the data *"to be representative of the total population of both wealth taxpayers and PIT taxpayers across regions"*
- The authors do their best to overcome data limitations, but the lack of access to micro administrative tax data still poses challenges for the empirical analysis
  - Reweighting matches the aggregates, but it does not solve the issue of having a representative random sample of the (top) wealth holders in the period 2008-2015

Descriptive Evidence: Sample vs Census Data

- Suggestive evidence: top wealth holders may be underrepresented in the estimation sample
- Potential downward bias in estimates of mobility responses and capital income elasticity
  - the greater the wealth, the greater the incentives to move (as illustrated in the paper)

Table: Mean Wealth Tax Base of the tax filers residing outside Madrid

Source	Mean
2010 Wealthy (Agrawal et al.)	€2.141 million
2011 Wealthy (AEAT)	€2.849 million

Geographical heterogeneity in the evolution of wealth

- Having a representative sample of the top 0.1% seems relevant in this context
- Quick concentration of large wealth holders in Madrid since 2011
  - Small number of wealth holders in top 0.1% drives the aggregates
  - 2019 wealth holders > €30M: 65% in Madrid and hold 75% of wealth of this group

Table: Changes in Madrid wealth holders with > €2M

Period	$\triangle Individuals$	$\triangle TotalWealth$	Av. Wealth	$\triangle Av.Wealth$
2011-2015	2.092	47,37%	€8.043 million	€2.011 million
2015-2019	2.113	29,01%	€9.469 million	€1.305 million

Source: AEAT.

Potential Robustness: Other Confounding Factors

- **Just in 2011** significant changes in the top marginal rates in the regional PIT schedule
  - Relevance of top income earners mobility induced by these changes stressed in Agrawal and Foremny (REcStat 2019)
- Paper considers different alternatives to circumbent this confounding factor:
  - Capital income is concentrated in savings tax base (no tax competition)
  - LPM individual choice model: discard individuals $>$ €90k in PIT
    - Do the same robustness for the baseline diff-diff regression?
  - **Control group**: individuals with positive financial capital income no-wealth tax filers
    - Robustness: control group top income earners (general base) no-wealth tax filers

Confounding factors: regional competition in the PIT

- Potential wealth tax filers: component of income under the PIT general tax schedule
- High relevance of financial capital income, but also real estate and business income

Table: PIT of the potential wealth tax filers residing in Madrid

Year	Mean Tax Base	Average Tax Rate
2011	€248.269	35,48%
2013	€256.927	34.32%
2014	€283.899	34.73%
2015	€339.876	29,62%

Source: AEAT.

Confounding factors: regional competition in the PIT

- **2011**: regional tax incentives for mobility accumulate (wealth tax + PIT)
- Authors stress salience of Madrid wealth tax induced mobility: €3M wealth save €9.400

Table: PIT marginal *savings* of the potential wealth tax filers residing in Madrid

Taxpayer	Default schedule	Catalonia
Mean taxable income	€2.180	€4.230
Additional €100K	€4.280	€8.330

Source: AEAT.

Potential Robustness: Average vs Marginal Tax Rates

- The tax-induced mobility literature focuses on the impact of average tax rates on location
- Authors use tax mobility responses to infer an elasticity of taxable capital income
  - Paper provides an elasticity of 0.24 for top capital income earners
- **ETI Literature**: focus on net-of-marginal tax rate when examining progressive taxation
  - Behavioral responses (substitution effects) driven by changes in marginal rates
- Suggestions:
  - **Aggregate exercise**: use differentials in marginal tax rates among regions (more variation than changes in average tax rates)
  - **Individual choice model**: run baseline regressions using the net-of-marginal tax rates in the wealth tax

The elasticity of capital income in Spain

- Elasticity of top capital income earners (0.24) is equal or lower than available elasticities of capital income in Spain (estimated for the average taxpayer)
- We expect that the top wealth holders will have greater incentives and more sophistication that can generate greater elasticities and efficiency concerns

Table: Elasticities of Taxable Income in Spain

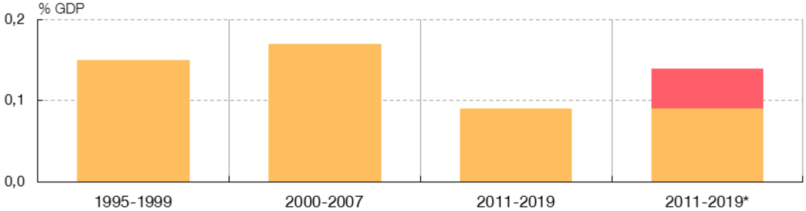
Source of income	Gruber-Saez	Kleven-Schultz	Weber
Total taxable income	0.35	0.22	0.65
Labor income	0.18	0.22	0.38
Financial capital income	0.25	0.24	0.32
Real-estate capital income	0.37	0.35	0.49
Business income	0.89	0.80	1.40

Source: Almunia and Lopez-Rodriguez (2018).

Policy Implications: A Tax in Crisis

- The collection of Wealth Tax in Spain is modest (0.1pp GDP) and tends to decrease in a context of greater concentration of wealth.
    - Even when regions are increasing marginal tax rates (top wealth: high rates 2-3.5%)
    - Even when considering potential revenues in Madrid

WEALTH TAX REVENUE



SOURCE: AEAT, INE.

* Revenue include potential collection in Madrid using the default tax schedule.

Policy implications: A Tax in Crisis

- Paper illustrates several serious efficiency costs created by this tax
  - Coordination problems and cross-tax base (spillover) effects induced by mobility
  - Compliance and administrative costs, eg. tax enfocement
- Other problems: extensive margin responses potentially more relevant in recent years
  - Sophisticated avoidance and evasion tools, eg. *Shell Companies*
  - International mobility of tax bases + counterfactual without a 0 tax jurisdiction
- What is the future of this tax?
  - **Current design:** difficult to survive a cost-benefit welfare analysis
  - Are alternative (+ efficient) policy tools available, eg. progressive property tax?
  - Should taxation on top financial capital income be allocated to supranational levels?

Thanks for your attention!