

A European Wealth Tax for a Fair and Green Recovery

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Motivation

Distribution of Wealth in the EU

- We know a lot about US, UK, France ...
- much less about EU as a whole.
- This [paper](#) makes two contributions:
 - ① Estimate wealth distribution for the EU22¹ (90.7% of EU27 GDP)
 - ② Based on that calculate revenues for four wealth tax designs
- Joint work with Prof. Jakob Kapeller and Stuart Leitch

¹EU27 minus Bulgaria, Czechia, Denmark, Romania and Sweden.

What do we find?

- ① Wealth in the EU is heavily concentrated at the top
- ② Extreme inequality means high revenue potential for wealth taxes

Methodology

Estimating Europe's Wealth Distribution

- wealth = household net wealth (i.e. assets minus liabilities)
- data from ECB's Household Finance and Consumption Survey (HFCS)
- surveys: poor tail coverage (HFCS, WAS) because
 - ▶ **nonobservation bias** (Eckerstorfer et al. 2016)
 - ▶ **differential nonresponse bias** (Bricker et al. 2016, D'Alessio & Faiella 2002, Osier 2016)

Fitting Pareto tails to wealth survey data I

household wealth survey data comes with challenges

- 1) tail coverage varies considerably across countries
 - a) Netherlands: richest observation net wealth of €8 million
 - b) Germany: €31 million
 - c) France: €181 million
- 2) the very richest households are missing
 - a) no billionaire observations
 - b) in many countries only single or low double digit millionaires

Fitting Pareto tails to wealth survey data II

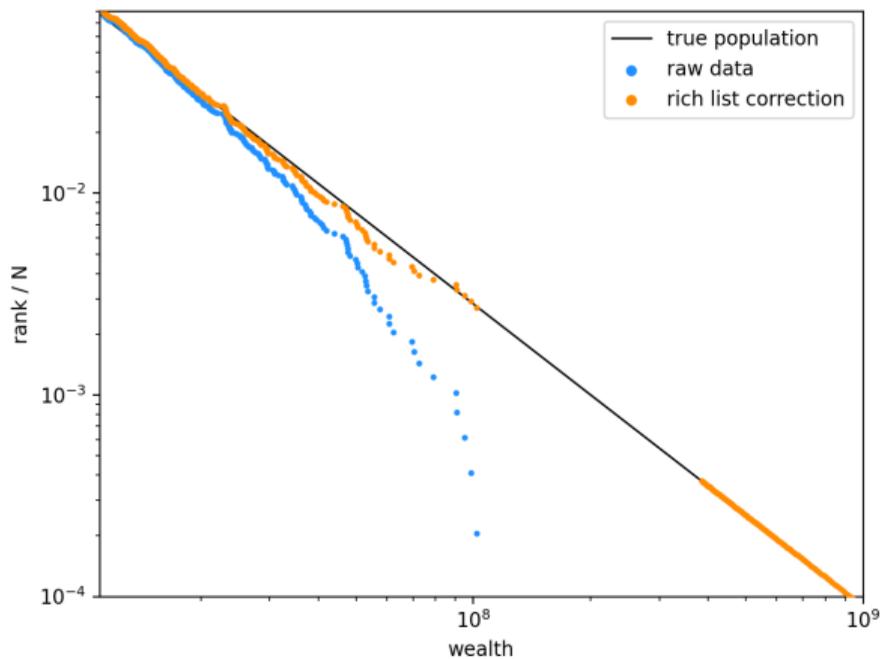
We proceed in four steps:

- 1 Add observations from Forbes world's billionaire list and fit Pareto distribution (Vermeulen 2018)
- 2 Step 1 is repeated for top 10 percentiles as cut-off and best fit based on Cramver-von-Mises goodness of fit test selected (Eckerstorfer et al. 2016, Clauset et al. 2009)
- 3 Combine survey data with households generated from estimated distribution
- 4 Correct those countries with no Forbes entries based on the following regression:

$$Top1_{Pareto} / Top1_{HFCS} = \beta_0 + \beta_1 oversamp + \beta_2 response + \epsilon$$

A Pareto tail in income or wealth

amend sample by richest 100 observations from rich list



Europe's Wealth Distribution

Who is who?

- Detailed distribution tabulations for all 22 countries in [▶ Online Appendix](#)
- For now let's focus on the EU22 distribution:
 - ▶ The poorest 20% of the population: $\leq \text{€}7,000$
 - ▶ The poorest 50% (median): $\leq \text{€}90,000$
 - ▶ The richest 10%: $\geq \text{€}490,000$
 - ▶ The richest 3%: $\geq \text{€}1,039,000$
 - ▶ The richest 1%: $\geq \text{€}2,153,000$
- Keep in mind net wealth: house worth $\text{€}700,000$ with mortgage of $\text{€}500,000$ means net wealth of $\text{€}200,000$

Who owns how much?

- the richest 1% of households hold 32% of total wealth in the EU22
- some individual countries:
 - ▶ Italy: 27%
 - ▶ Poland: 33%
 - ▶ Germany: 38%
- how does that compare?
 - ▶ South Korea: 25% (2015)
 - ▶ China: 30% (2015)
 - ▶ USA: 35% (2017)
 - ▶ Russia: 43% (2015)
- Europe is much more unequal than we like to think

Comparing our results to other data sources

Table 3: Assessing the model fit

German top wealth shares	Raw survey*	Survey + Pareto*	Schröder et al 2020*
Top 1%	18.6%	37.7%	35.3%
Top 5%	40.8%	55.2%	54.9%
Top 10%	55.4%	66.3%	67.3%
French top wealth shares	Raw survey*	Survey + Pareto*	Garbinti et al 2020*
Top 1%	17.1%	27.5%	23.4%
Top 5%	35.5%	43.9%	43.1%
Top 10%	49.2%	55.9%	55.3%
Total wealth EU22	Raw survey**	Survey + Pareto**	Krenek and Schratzenstaller 2018**
	35,713	43,629	49,599
Billionaires in the EU22	Raw survey	Survey + Pareto	National rich lists
	0	461	431

*% of total wealth holdings, **€bn. Source: raw survey estimates are from the HFCS's third wave and the survey + pareto results are based on the authors' calculations (eg. Table 2).

A European Wealth Tax

Wealth Tax Models

	model I
approach	flat tax
threshold	€1 million
tax brackets	
€1 million	2%
€2 million	2%
€5 million	2%
€10 million	2%
€50 million	2%
€100 million	2%
€500 million	2%

Wealth Tax Models

	model I	model II
approach	flat tax	mildly progressive
threshold	€1 million	€1 million
tax brackets		
€1 million	2%	1%
€2 million	2%	2%
€5 million	2%	3%
€10 million	2%	3%
€50 million	2%	3%
€100 million	2%	3%
€500 million	2%	3%

Wealth Tax Models

	model I	model II	model III
approach	flat tax	mildly progressive	strongly progressive
threshold	€1 million	€1 million	€2 million
tax brackets			
€1 million	2%	1%	
€2 million	2%	2%	2%
€5 million	2%	3%	3%
€10 million	2%	3%	5%
€50 million	2%	3%	7%
€100 million	2%	3%	8%
€500 million	2%	3%	10%

Wealth Tax Models

	model I	model II	model III	model IV	
approach	flat tax	mildly progressive	strongly progressive	wealth cap	
threshold	€1 million	€1 million	€2 million	0.5 times av wealth (€130,000)	
tax brackets				tax brackets	
€1 million	2%	1%		$\emptyset \times 0.5$	0.1%
€2 million	2%	2%	2%	$\emptyset \times 2$	1%
€5 million	2%	3%	3%	$\emptyset \times 5$	2%
€10 million	2%	3%	5%	$\emptyset \times 10$	5%
€50 million	2%	3%	7%	$\emptyset \times 10^2$	10%
€100 million	2%	3%	8%	$\emptyset \times 10^3$	60%
€500 million	2%	3%	10%	$\emptyset \times 10^4$	90%

Revenue estimation

		Survey data + Pareto tail	Survey data + Pareto tail + evasion effects
model I: flat tax	€ bn.	271	192
	% GDP	2.3%	1.6%
model II: mildly progressive	€ bn.	316	224
	% GDP	2.7%	1.9%
model III: strongly progressive	€ bn.	505	357
	% GDP	4.3%	3.0%
model IV: wealth cap	€ bn.	1,837	1,281
	% GDP	15.5%	10.8%

Funding a Green Deal

Green Investment Requirements

- European Commission estimates additional investment of 350 billion Euro annually necessary to tackle climate change (EC 2021)
- Commission's assessment most likely a grave underestimation
- Making Europe's buildings energy efficient requires threefold increase of current renovation efforts, additional 490 billion Euro (EC 2019)
- Wildauer et al. (2020): across all sectors excluding transport 850 billion Euro needed annually (7.2% of GDP)
- wealth tax revenue model III (strongly progressive): 357 - 505 billion Euro (3% - 4.3% of GDP)

Conclusion

Conclusion

- ① Wealth in Europe is highly concentrated at the top (top 1% share of 32%)
- ② Flip side of unequal distribution is high revenue potential of a wealth tax
- ③ 1.9% to 3% of GDP in annual revenues with mildly or strongly progressive designs
- ④ 10.8% with Piketty wealth cap design
- ⑤ Could be key to close green funding gap of 7.2% of GDP
- ⑥ It is also feasible given tax authorities are given the required tools

Thank you!

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Appendix

Accounting for tax evasion

- Based on the literature we assume the following proportion of the tax base is lost due to evasion:
- real estate 20%, financial wealth 24%, directly held companies 13% and other assets 100%
- in addition we model strong evasion as: real estate 20%, financial wealth 48%, directly held companies 26% and other assets 100%

A well-designed European Wealth Tax ...

should be introduced along the following lines:

- ① Levied at European level or coordinated European approach
- ② Based on current prices
- ③ Well-equipped tax authorities
- ④ Information exchange and pre-filled tax files
- ⑤ Pressure on tax haven on information exchange