

Belgian wealth inequality, 1935-2022

Evidence from inheritance and gift tax data

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The results concern the distribution of net wealth among adult individuals

- Net wealth = total assets - liabilities
- Target population: adult individuals
 - ⇒ **not** households as in e.g. HFCS!

There are three approaches to estimate wealth inequality (Kopczuk, 2015)

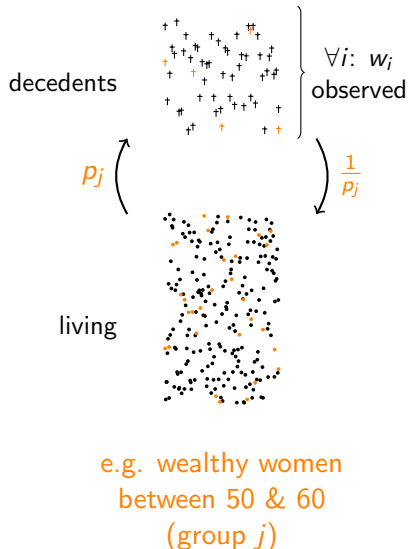
1. Wealth survey (+ Pareto correction & rescaling)
 - Only HFCS from 2010, every 3 years
 - Kuypers & Marx (2020), Vermeulen (2014, 2016, 2018), WID (2021), Apostel & O'Neill (2022), NBB (2024), ...
2. Capitalisation of capital income tax data
 - Difficult to apply to Belgium (Bastin et al., 2023), since financial income largely taxed at source and unreported (Decoster et al., 2017; Rademaekers and Vuchelen, 1996)
3. **Multiplying inheritance tax data** ('mortality multiplier' approach)

Inheritance tax data can be used to estimate wealth inequality

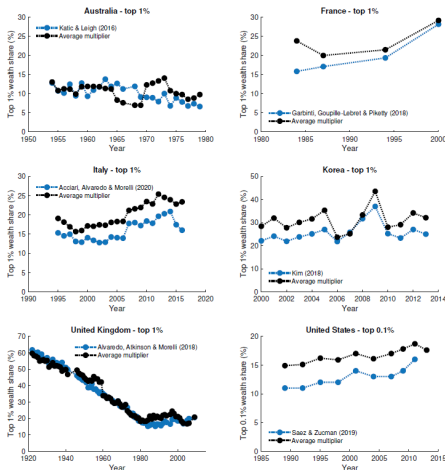
Issue: representativeness of decedents

Solution: weighting!

- Deaths can be interpreted as random draws from a group with same age, gender, and socio-economic status
- Reweigh net wealth of death to obtain net wealth of living



Reweighting might not be necessary (Berman & Morelli, 2021)



Source: Berman & Morelli (2021)

The simplified approach has lower data requirements

The differential mortality multiplier approach is more precise but requires at least tabulations subdivided by age & gender

The simplified mortality multiplier approach is less precise but only requires tabulations by inheritance size, and hence 'may unlock a wide array of aggregate estate tabulations, previously thought to be unusable, for estimating historical trends of wealth concentration' (Berman and Morelli, 2021)

The inheritance tax approach has been applied to various countries

Notably,

- Italy (Acciari et al., 2024)
- UK (Alvaredo et al., 2018)
- France (Garbinti et al., 2016)
- US (Kopczuk and Saez, 2004)

Applying the inheritance approach to Belgium is interesting

- LT evolution wealth inequality
- 'Best' approach for Belgium? (cfr WID DINA Guidelines, Blanchet et al. 2024)
- Triangulation

An important caveat

Ideally, one should use a wealth register to study wealth inequality

As a wealth register is not available, estimation approaches are required in a data-constrained environment

⇒ this work is **an attempt to provide sensible estimates given major data constraints** (similarly to related work for other countries, see Blanchet et al. 2024)

This does not imply that anything goes!

Data

There are two main inheritance tax data sources for Belgium

1. 1935–1994: inheritance tax **tabulations**
2. 2009–2022: inheritance tax **microdata** (complete coverage)
 - Linked with gift tax microdata
 - Linked with fiscal (labour) income
 - Linked with sociodemographic microdata (national registry and census)

These data sources have important limitations for which I correct (not discussed here)

1935–2022: simplified mortality multiplier approach

Key idea: assume that the top share of the inheritance distribution is a good approximation for the top share of the wealth distribution

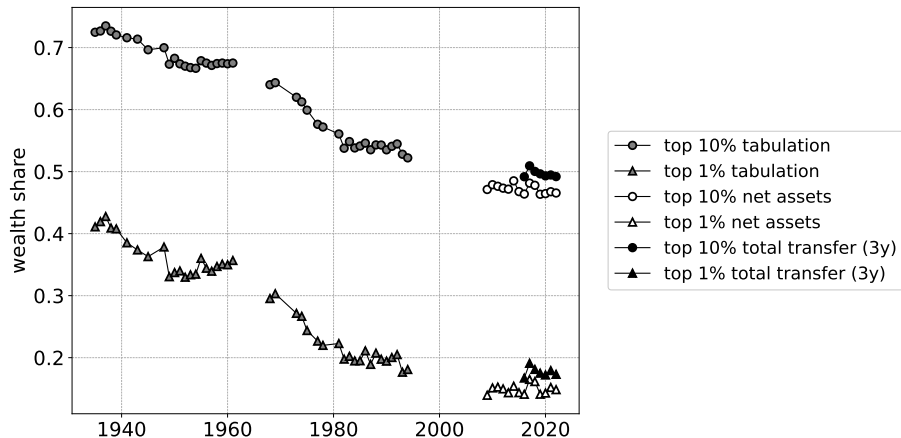
The simplified mortality multiplier approach has already been applied to Belgium

Alvaredo et al. (2024) apply the simplified mortality multiplier approach to Belgian inheritance tax tabulations for 1935-1994

My contribution

- Creating a consistent series including 2009-2022
- Thorough investigation of context knowledge (e.g. non-identified population) (not discussed here)
- Checking the appropriateness & robustness of key assumptions using recent microdata (not discussed here)

Wealth inequality has declined over time



2009–2022: differential mortality multiplier approach

Key idea: interpret deaths as random draws from corresponding sociodemographic group, and reweigh to obtain wealth distribution among the living

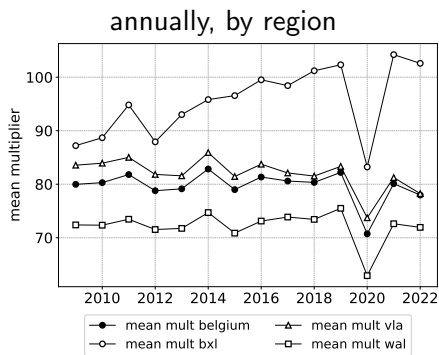
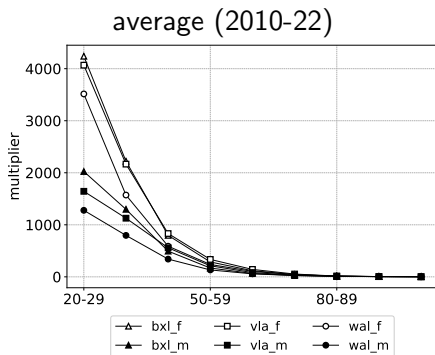
How to go from inheritance tax microdata to wealth inequality estimates?

1. Determine weights of sociodemographic groups (= 'mortality multipliers')
2. Aggregate gifts close to death and add to net inheritance total
 - Avoidance mainly shortly before death (Goupille-Lebret & Infante, 2018; Kopczuk, 2007)
3. Reweigh inheritance data

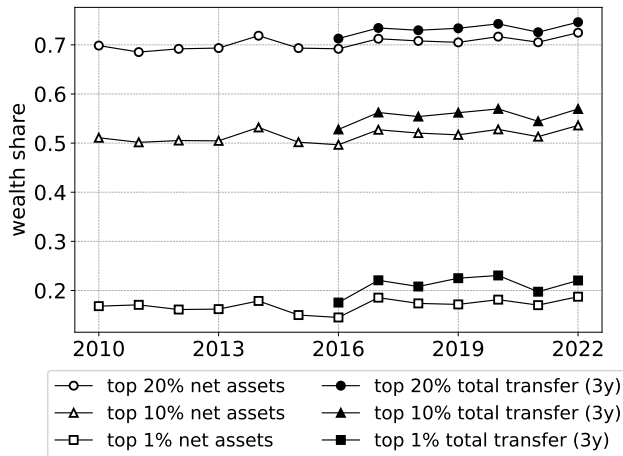
How to determine weights?

- Literature rather rough approximation
- My approach
 - 'Naive' weighting
 1. Weights by age, gender & region (as in Acciari et al., 2024)
 - **'Theory-driven' weighting** (shown here)
 1. Calculate literature-derived SES scores for each individual
 2. Weights by age, gender, region, and linked SES score groups
 - 'Data-driven' weighting
 1. ML prediction of net wealth (ranks) among the living
 2. Weights by age, gender, region, and predicted net wealth rank group

Young decedents have a heigher weight

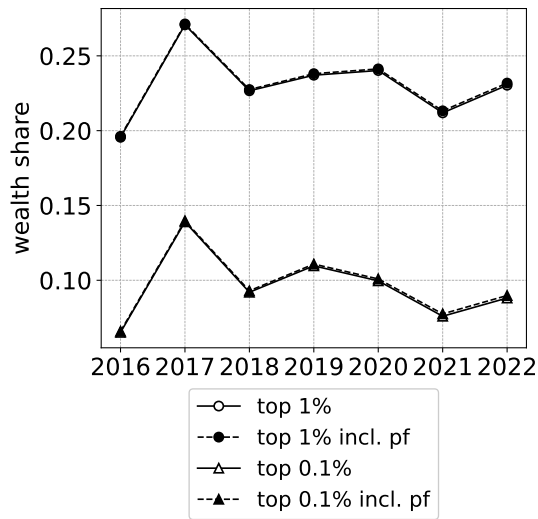


Wealth inequality has been stable in recent years

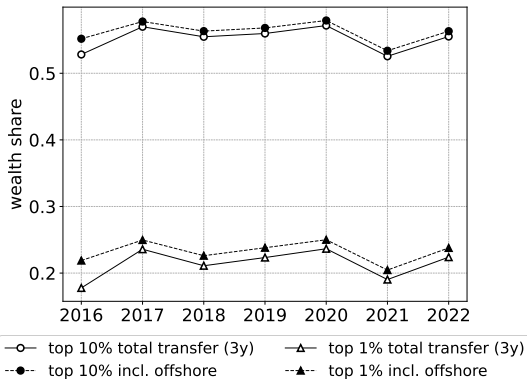


Note: more unequal than
simplified approach!

Private foundations only marginally impact inequality

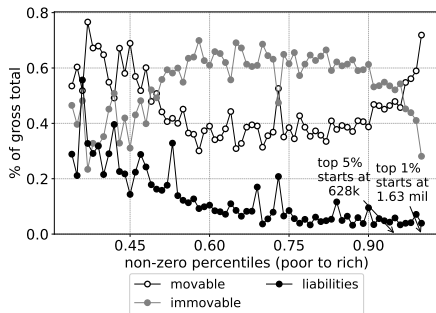


Off-shore wealth is of somewhat more importance

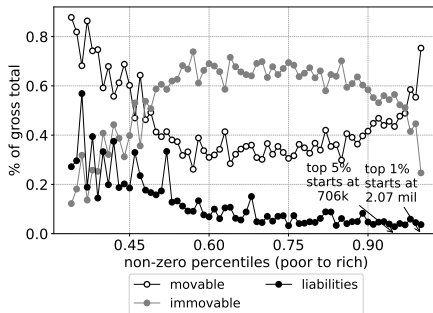


The wealthy predominantly hold movable assets

net inheritance (2022)

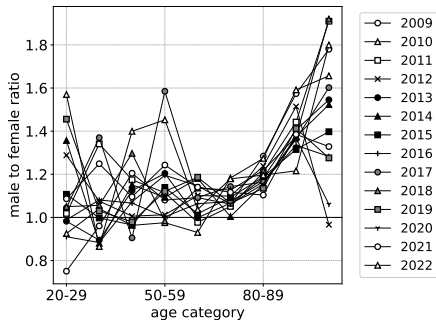


total transfer (2022, 3y back)

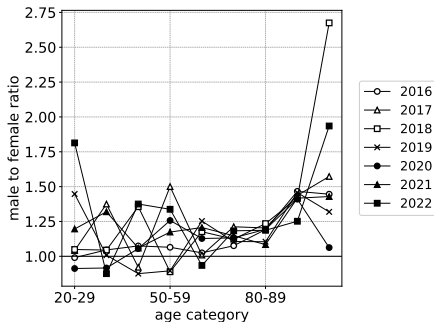


The male-female gap is especially important at older age

net inheritance

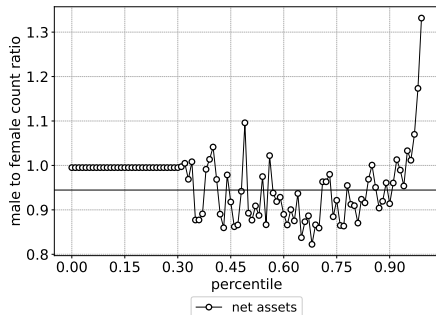


total transfer (3y back)

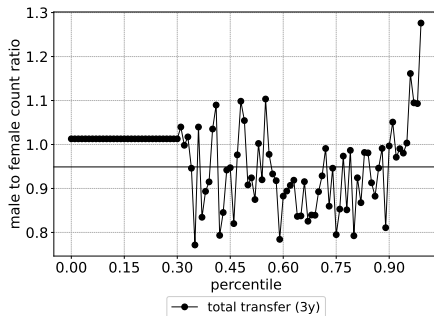


Men are overrepresented at bottom and top

net inheritance (2009-2022 average)

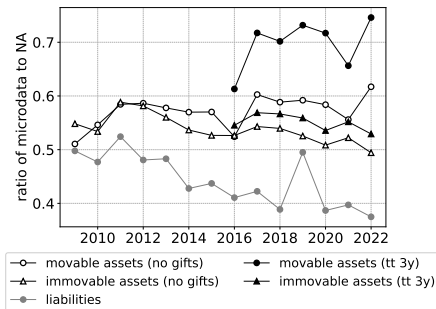


total transfer (2016-2022 average, 3y back)



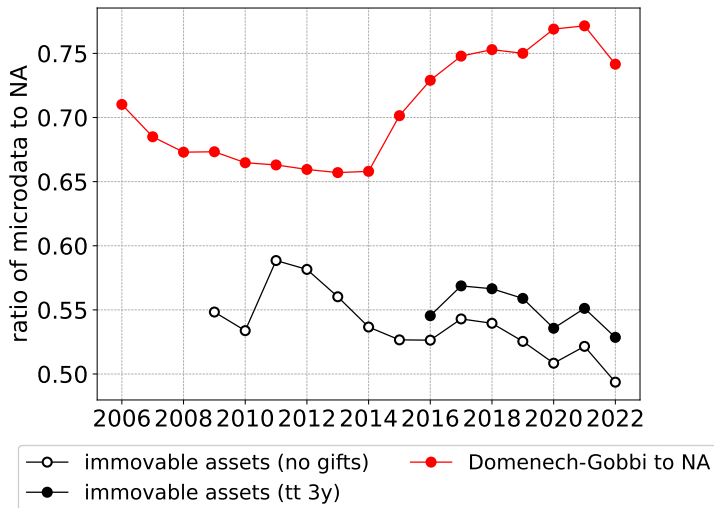
Triangulation & comparison

Remarkable gap with respect to adjusted NA

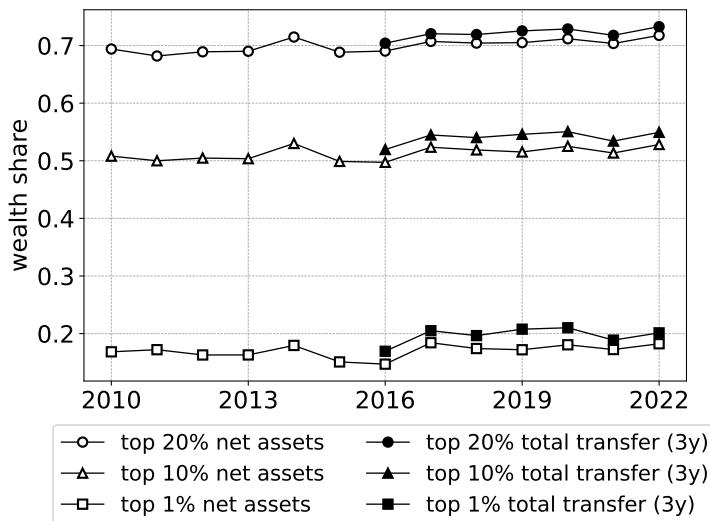


- Movable assets: not all gifts are registered + evasion
- Liabilities: net negative excluded, life insured mortgages
- Immovable assets: registration mandatory → undervaluation + NA unreliable?

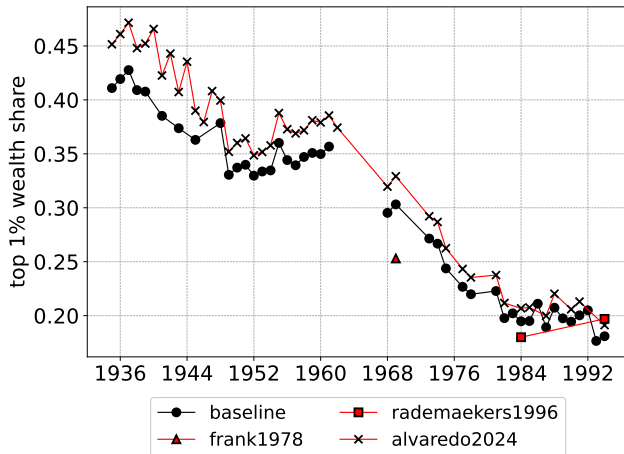
NA immovable property aggregate could be an overestimate



Rescaling to NA does not lead to substantially different results

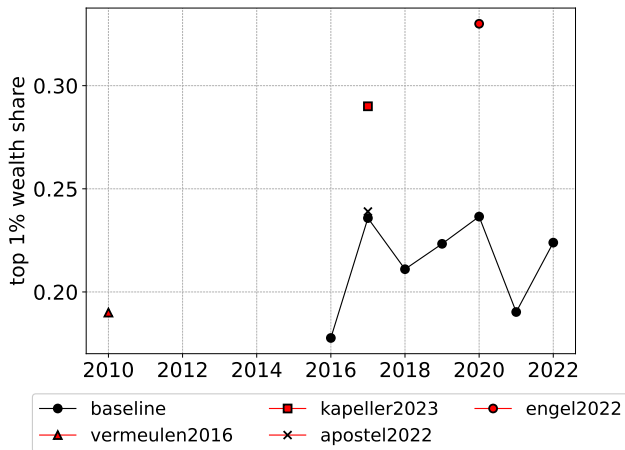


Baseline is in line with previous work for the 20th century



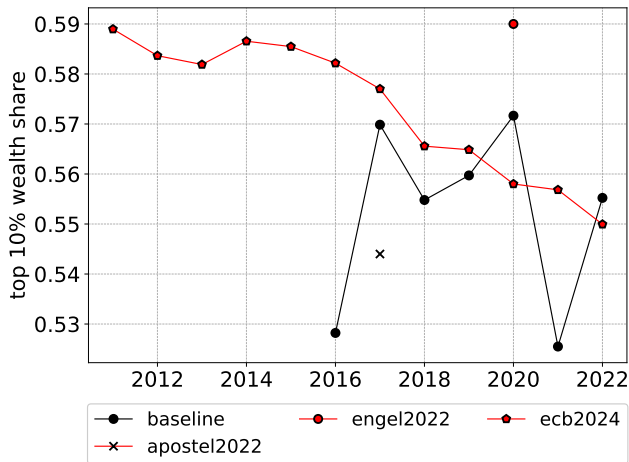
- Previous studies at household level!

Belgian wealth inequality is stable in the 21st century



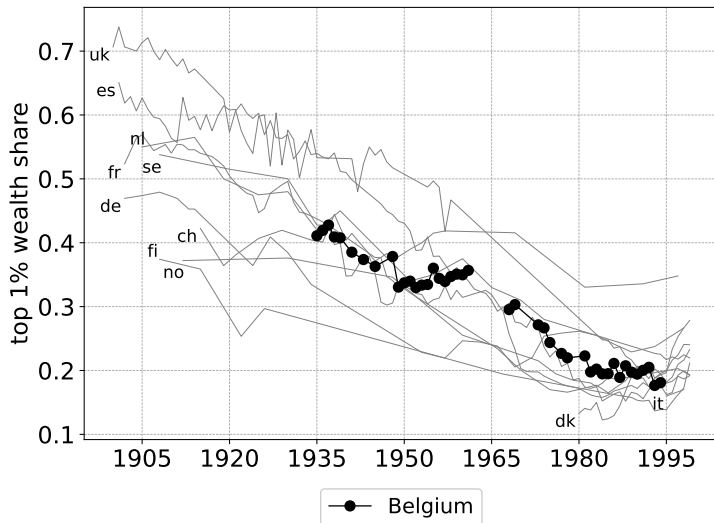
- Previous studies at household level!
- Not the WID.world series, as they do not correct for the top (Blanchet and Martinez-Toledano, 2022)

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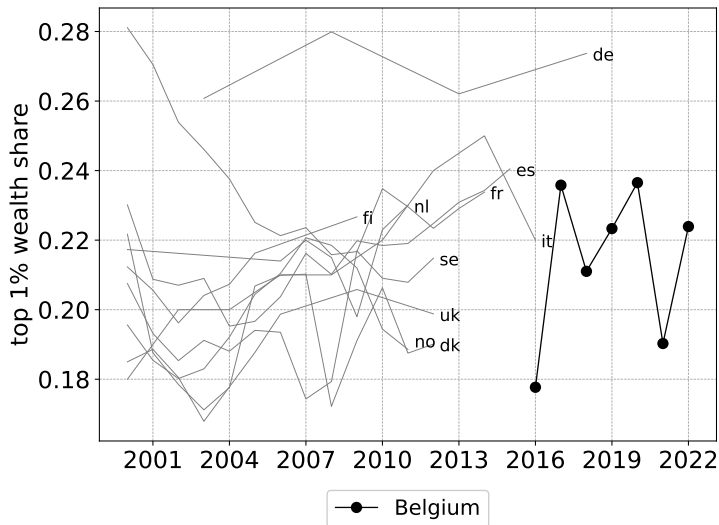
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Belgium does not seem to be an outlier in the 20th century



Source: Waldenström (2022)

Belgium does not seem to be an outlier in the 21st century



Source: Waldenström (2022)

- Belgian wealth inequality
 - has declined throughout the 20th century
 - is no longer declining, but also not increasing
 - and seems in line with the evolution in other European countries
- Limitations
 - Most notably, tax evasion & avoidance
- NBB working paper available

Thank you!