Taxing Wealth in the Presence of Liquidity Constraints: Evidence from France

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Motivation

- **Wealth taxes** are often seen as a **backstop tax** for when **income** is **mismeasured** or difficult to tax.
  - High in the public debate: G20 proposal for global billionaires wealth tax, Sanders/Warren proposals in the US 2020 presidential campaign.

- Wealth taxes could **compel households** owning assets with low-liquidity and low returns to **sell illiquid assets** (at a discount)

- In practice, most real-world wealth taxes have **capped** the **tax** at a **fraction of income**
  - Capped households get 0 MTR on wealth / high MTR on income.

- However, such **caps reduce** the **equity** of the tax system if
  - households with apparently low income actually own liquid assets
  - high net worth individuals reduce their taxable income without affecting their real income

Conflicting anecdotal evidence

Wealth tax affecting poor households in places with high land prices

Sur l'île de Ré, l'ISF frappe les non-imposables

La Rochelle (Charente-Maritime)

Par Pierre Sauvey
Le 19 mars 2005 à 00h00

Billionaires not paying any wealth tax post cap

We use the **French context** to answer **2 main questions**:

1. Did **capped households** really hold **illiquid wealth**?

2. Did **capped households** really have **low returns** (or just low *apparent* returns)?

We use the **French context** to answer **2 main questions**:

1. Did **capped households** really hold **illiquid wealth**?

▷ We measure the **strength of liquidity constraints** among capped households
   → **Descriptive** stats on wealth composition
   → Responses to a **one-year cancellation of the cap** in 2012

2. Did **capped households** really have **low returns** (or just low *apparent* returns)?

We use the **French context** to answer **2 main questions**:

1. Did **capped households** really hold **illiquid wealth**?

2. Did **capped households** really have **low returns** (or just low *apparent* returns)?

▷ We measure the **ability** of **high net worth** individuals to **manipulate** the level, composition and timing of their **taxable income**
  → Responses to the (quasi-)**cancellation** of the **wealth tax** in 2018

This paper: what we find

1. **No evidence** of **liquidity constraints** among **capped** households
   - Capped households own a **large share** of **liquid assets** (quick conversion into cash at no discount)
   - The **one-off lift** of the cap in 2012 **did not erode** household **wealth**

2. **Sizable income responses** to the **abolition of the WT** on financial wealth in 2018:
   - **Taxable income goes up** significantly, implied **ETI** is **1.7**
   - ⇒ suggests **capped households** have some **leeway** in **timing** their income and making themselves poor in terms of taxable income

Literature and contribution

The impact of wealth taxes on taxable wealth
- Previous studies (e.g., Seim, 2017; Brulhart et al., 2022) focus on **elasticity of taxable wealth**
- Jakobsen et al. (2020) use capped households as a control group to estimate the effect of a Δ in the marginal tax on wealth on taxable wealth.

Wealth tax and the design of the tax system
- Saez & Zucman (2019), Scheuer & Slemrod (2021), Bastani & Waldenström (2023) discuss the rationale behind having a wealth tax and its properties.
- Garbinti et al. (2024) study the information dimension of wealth tax design in French context.

▷ **Contributions**:
1. We investigate an understudied dimension of wealth tax design: cap based on taxable income
2. We estimate how households respond to the cap in terms of 1/ portfolio composition and 2/ reported income

▷ **Institutional context and data**

Brief History of the French Wealth Tax Cap

▷ **Wealth tax cap**

- Introduced at the inception of ISF in 1989, at 70% of taxable income.
- Threshold changed (raised to 85% of income in 1991, lowered to 75% in 2013).
- Additional rules de facto increasing or limiting it (*Capping of the cap* in 1995, *Tax Shield* = broad-based cap from 2006 to 2011).

▷ **2012 reform**

- One year cancellation of the cap.
- → Temporarily restores non-zero marginal tax rate on wealth for capped households

▷ **2018 reform**

- Abolition of wealth tax except on net real-estate wealth.
- WT cap becomes irrelevant for most taxpayers.
- Joint introduction of a 30% flat tax on most capital income
- → Reduces marginal tax rate on income for capped households

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- **Universe of French income tax data:** POTE, DGFiP, All types of income declared as part of income tax (form 2042) as a panel over the period 2006-2021.

    $\approx$ 37M observations / year

- **Universe of French wealth tax data** : ISF-IFI, DGFiP, panel data over the period 2006-2021.

    $\approx$ 360k observations / year

▷ Wealth and asset composition of capped households

Quantitative importance of capped households

	Total number of households	Share of capped households (%)	Share of capped households (%), weighted by:		
			Wealth	Pre-cap wealth tax	Post-cap wealth tax
All wealth taxpayers	356,229	3.17	13.30	29.65	11.96
By wealth bracket					
– 1.3 to 2.57 M€	257,729	0.57	0.61	0.77	0.22
– 2.57 to 10 M€	91,426	6.25	8.77	12.97	6.88
– 10 to 50 M€	6,639	56.95	62.17	65.34	38.73
– above 50 M€	437	72.54	64.14	80.94	41.39

- Capped households represent 3% of WT payers, 13% of taxable wealth, 30% of pre-cap wealth tax, 40% of life insurance holdings.

# Pre and post-cap wealth tax rates, within top 1% of wealth distribution
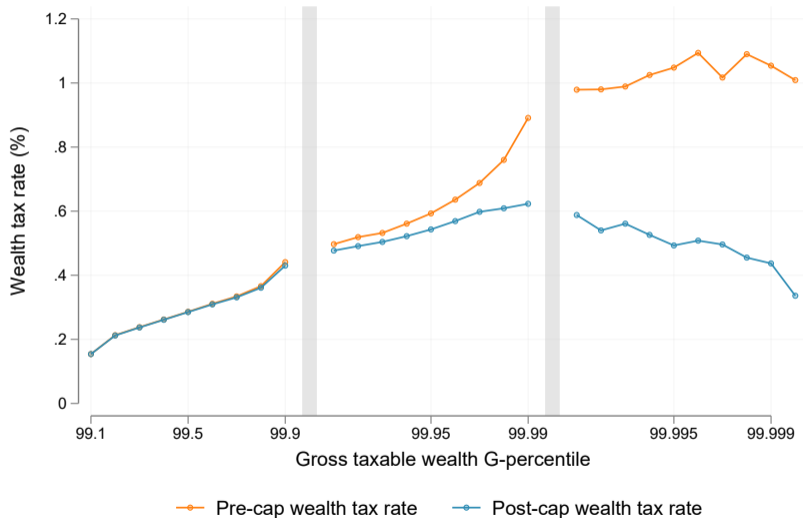
Descriptive statistics (for 2017), above 2.57M€

	Uncapped				Capped			
	Mean	Median	1st quartile	3rd quartile	Mean	Median	1st quartile	3rd quartile
# fiscal shares	2.076	2	1.250	3	1.874	2	1	2.750
Age ref. person	69.28	69	52	87	67.63	68	49	87
Gross wealth, k€	4727.3	3749.2	2836.3	7018.9	13929.1	8760.9	3670.6	26625.2
Taxable wealth, k€	4473.1	3536.1	2699.9	6662.6	13281.8	8494.2	3509.1	26091.3
Taxable income, k€	311.4	138.6	51.4	531.5	130.8	60.2	6.9	282.3
Prog. Income tax / TI	0.201	0.190	0.0289	0.380	0.178	0.129	0.0119	0.442
Flat Income tax / TI	0.132	0.126	0.0839	0.165	0.219	0.151	0.0929	0.406
Pre-cap wealth tax / TI	0.166	0.129	0.00794	0.391	3.724	1.279	0.519	8.957
Post-cap wealth tax / TI	0.166	0.129	0.00794	0.391	0.565	0.534	0.165	0.956
# obs.		91,290				9,817		

- Average taxable wealth among **non-capped** households ≈ 4,7 M euros
- Average taxable wealth among **capped** households ≈ 14 M euros
- Average income is 60% smaller among capped households

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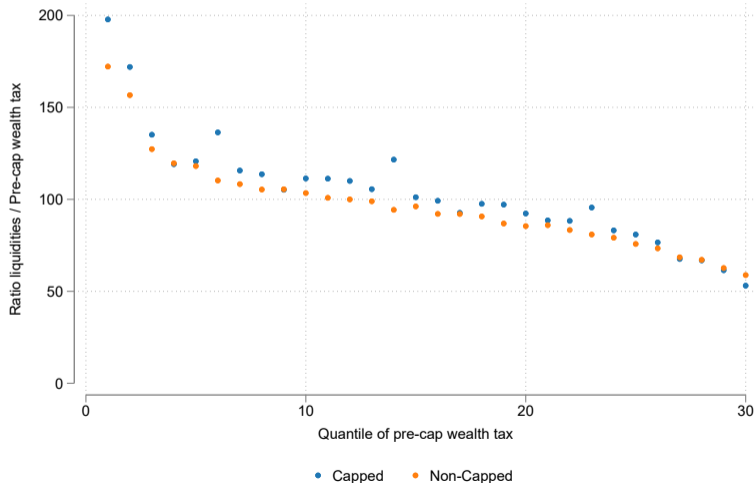# Portfolio composition of capped and non-capped wealth taxpayers
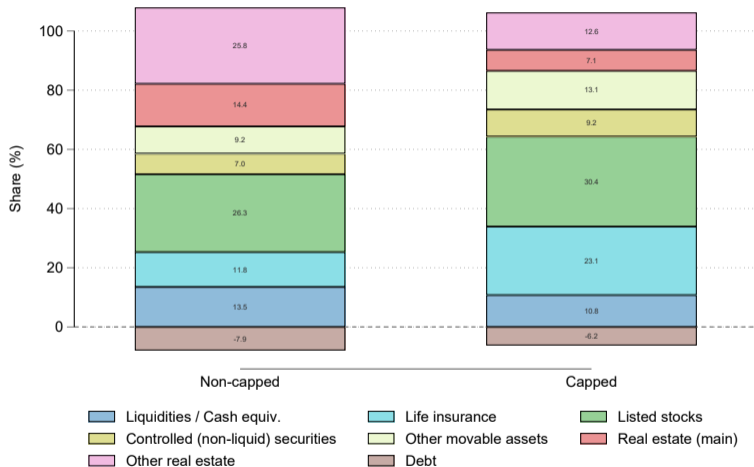
- A large share of assets held are liquid: if anything this share is higher among capped households.
- Note that capped households are on average much richer.

Above 100M€

Liquidities by wealth bin

Ratio of liquid assets over annual ISF bill (before capping)

Households ranked by size of WT bill

- We consider **the wealth tax before applying the capping**.
- Capped households have the same pre-cap WT coverage as liquid assets as non-capped.
- On av. 50 years among the wealthiest households.
- Very low prevalence of low ratios by wealth tax bill
  `See Distribution` `See post-cap`
- Similar proba to be owner-manager
  `Owner-manager`

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▷ **Responses to the one-year lift of the wealth tax cap**

One-off lift of the cap system in 2012: Context

- Before 2013, wealth tax cap was set at 85% of taxable income paid in income+wealth taxes.

- In 2012 (and 2012 only), the cap was cancelled.

- **Question :** did households who should have benefited from the tax cap liquidate some of their wealth during year 2012?
    - If that is the case, we should observe low returns because of discount on illiquid asset sales.

Identification approach

- **Most natural approach:** DiD by comparing households that were previously capped with those that were not.

- **Issue :** Many of those capped are so because their income is **temporarily** low
  - $\rightarrow$ strong reversion to the mean.

- Two types of taxes: 1/ taxes based on taxable income and 2/ wealth tax
  - $\Rightarrow$ only wealth tax puts you above the cap

- **Our approach :** intent to treat (ITT), comparison of households according to their ratio [pre-cap WT / maximum taxable income 2007-2010].
  - 'treated' : high ratio ($>$ 60 %)
  - 'control' : moderate ratio (bet. 30 and 60 %)

Large gap between treated and control groups on proba of being capped in 2012
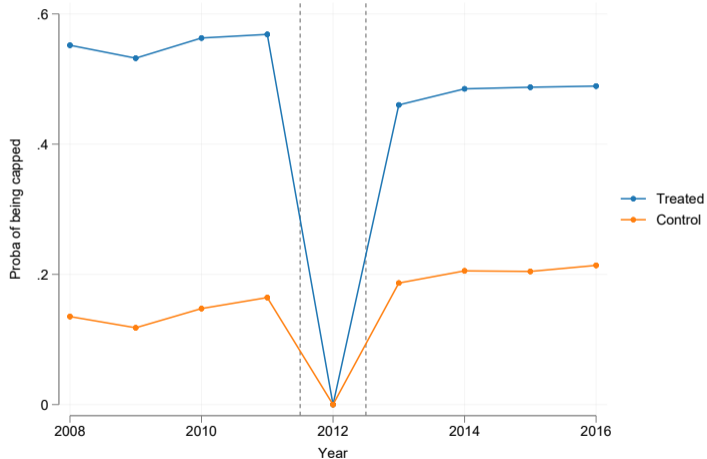
Differential drop in probability to be capped by around 32 pp in 2012.

Dummy cap regression

WT rate raw

WT rate regression

MR check

No significant gap in wealth growth for "un-capped" households in 2012-2013
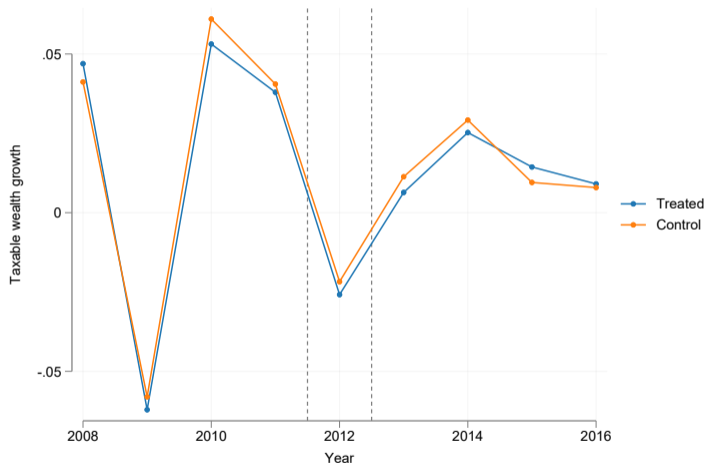
Very similar pattern of yearly returns to wealth.
No difference across groups in 2012.

Returns regression   MR check

Capital gains

▷ **Responses of capped households to the (quasi-)cancellation of the wealth tax**

The 2018 reform and the particular situation of capped households

- The 2018 French wealth tax reform reduces the tax base to net real estate wealth: cap becomes irrelevant for most.

- Capped households see the **marginal rate applied to their income fall sharply**.
  - The cap implies a high marginal tax rate on taxable income: 75%.
  - The wealth tax reform lowers this rate to the level of the marginal rate on the income tax schedule.

- The **rate reduction** is **particularly strong for income eligible for the flat-tax**.
  - The combined IFI-PFU effect increases the applied rate from 75% to 30% for capped households opting for the PFU in 2018.

- **Question:** How responsive are the different types of income to this reform?

Identification approach: similar to 2012

- **Most natural approach:** DiD by comparing households that were previously capped with those that were not.

- **Issue :** Many of those capped are so because their income is **temporarily** low
  $\rightarrow$ strong reversion to the mean.

- **Our approach :** intent to treat (ITT), comparison of households according to their ratio [pre-cap WT / maximum taxable income 2013-2016].
  - Threshold was at 75% (vs 85% in 2012)
  - 'treated' : high ratio ($>$ 50 %)
  - 'control' : moderate ratio (bet. 20 and 50 %)

- **Year of treatment:** Reform decided in 2017, implemented on ISF 2018, but WT cap is **calculated on 2017 income**.
  - Highly manipulable income: possible reaction for 2017 income.
  - More constrained income (e.g. dividends): reaction in 2018.

Probability of being capped each year, by group
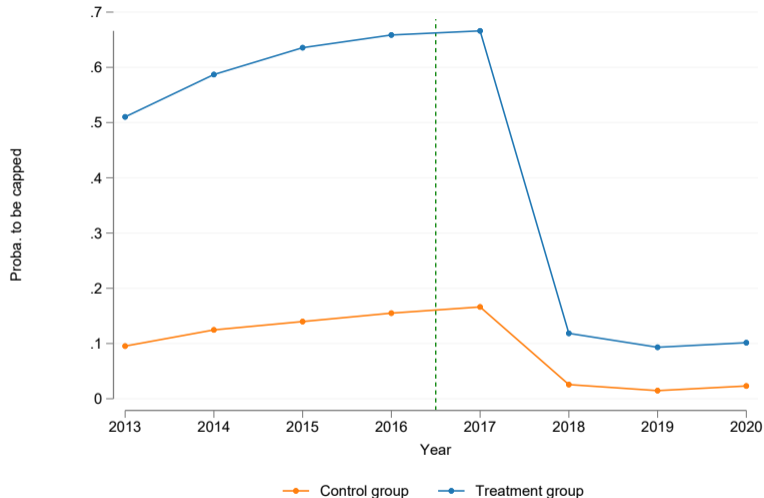
- Differential effect between groups of 30 percentage points in the probability of being capped. Regression

Taxable income (norm. by mean pre-reform TI), by group
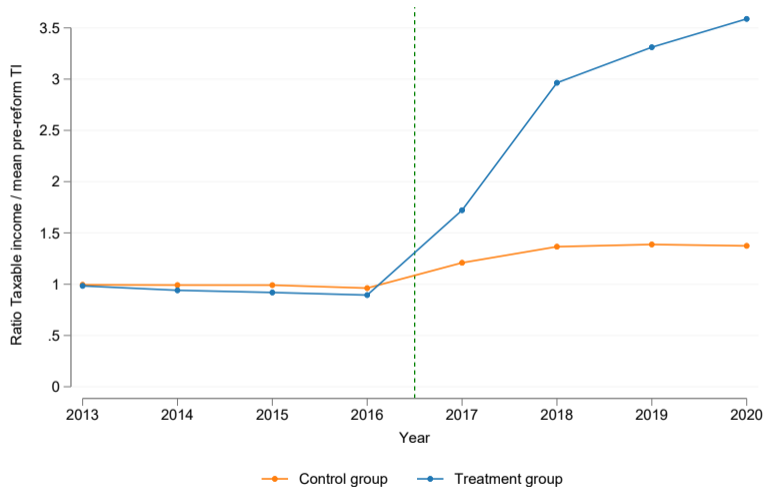
- Increase in taxable income
  = +200 % among treated.
  - ▸ Absolute level
  - ▸ Changing window: 1st stage
  - ▸ Changing window: 2nd stage

Taxable income (norm. by mean pre-reform TI), by group
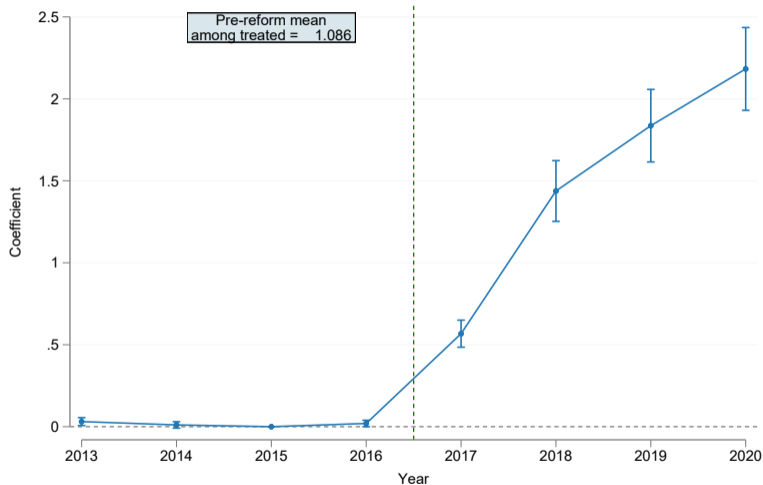
- Increase in taxable income
  = +200 % among treated.
  - ▸ Absolute level
  - ▸ Changing window: 1st stage
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Life insurance income (norm. by mean pre-reform TI), by group
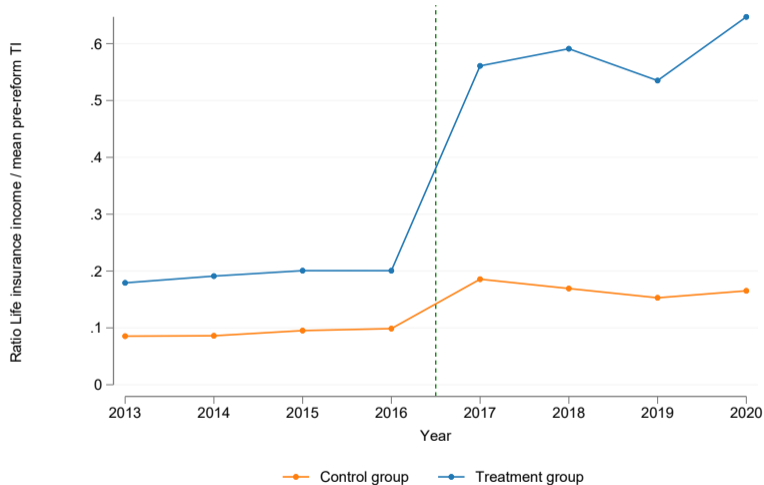
- Life insurance income : $\times$ 3 among treated households
- increase $\approx$ 30 % of taxable income pre-reform

  ▶ Reg

  ▶ Distributional reg

Dividends (norm. by mean pre-reform TI), by group

- Increase in dividends = + 8% of pre-reform taxable income
- This is on top of the increase in dividends caused by the flat tax (PFU)

▸ Reg   ▸ Distributional reg

Pre-reform average capital gains, by group
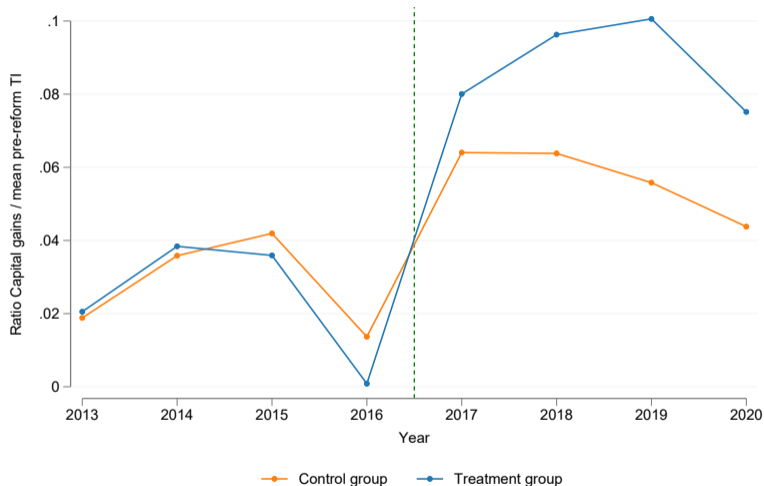
- increase ≈ 4 % of pre-reform taxable income.

  ▸ Labor income

Salaries + pensions (norm. by mean pre-reform TI), by group
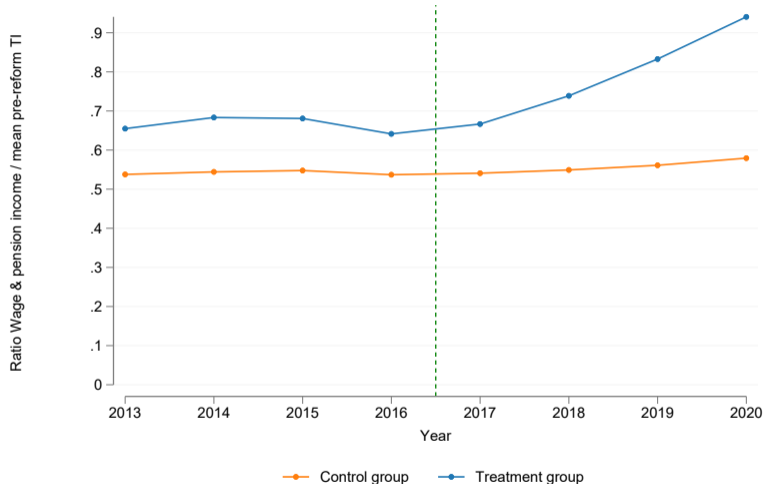
- gradual rise in wage and pension income
- $\approx$ 20 % of pre-reform TI in 2020
- increase possibly driven by owner-managers

Income tax (norm. by mean pre-reform TI), by group
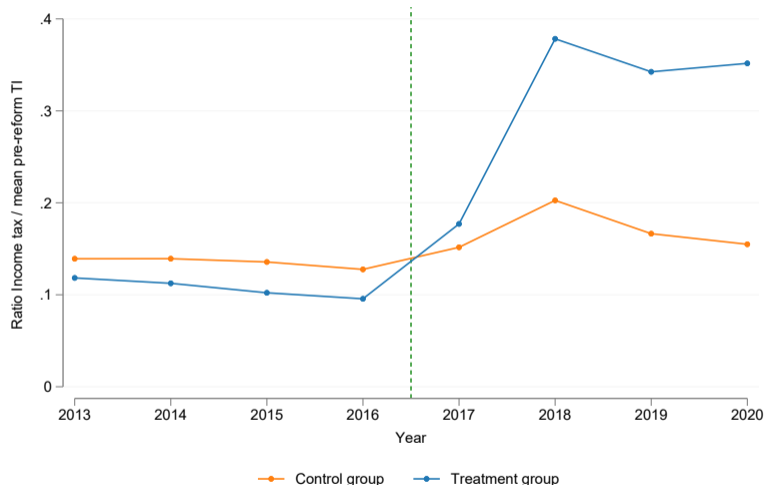
- Income tax rises from 10 to 35% of pre-reform TI
- Large income response implies that budgetary cost of capping 2× greater once income responses are accounted for.

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Conclusion

- The risk of asset over-liquidation due to the wealth tax seems limited.

- Many types of capital income are better captured by the wealth tax than the income tax.

- Paradox: the WT cap seems to limit the WT effectiveness precisely where it captures the contributive capacity better than the income tax.

- True cost of the cap for public finances was much higher than it seemed: avoidance of the WT implied lower income, hence lower taxes.

Backup slides

Portfolio composition of capped and non-capped wealth taxpayers, assets > 100**M**
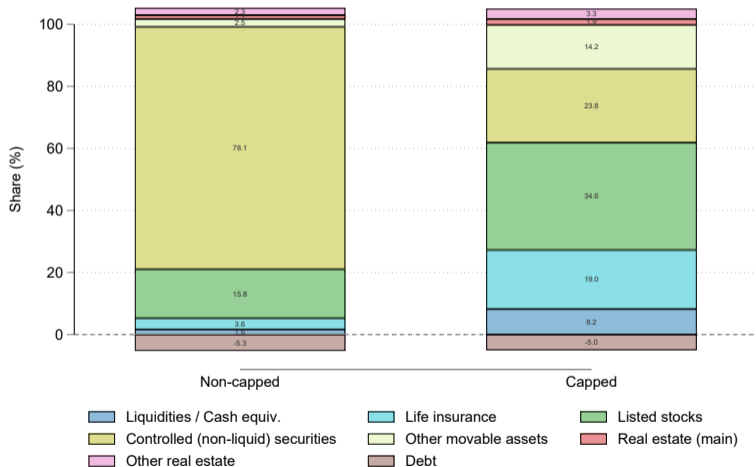
- The same holds when focusing on very wealthy households
- In fact, capped households hold significantly **more liquid** wealth

Share of liquid assets in gross wealth of capped and uncapped households
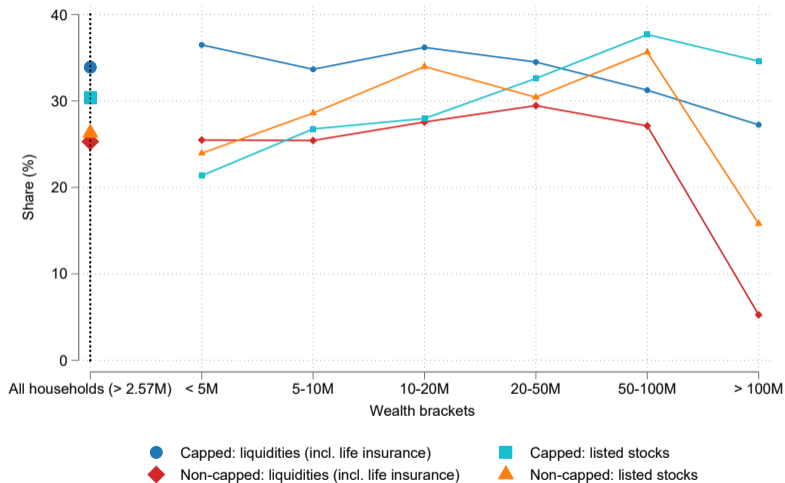
- Capped individuals hold more liquidity and listed securities on average.
- This difference holds true at all wealth levels for liquidity, beyond €20 million in wealth for listed securities.
- Extremely marked differences beyond €100 million.

Distribution of ratio of liquid assets over precap ISF bill

Fraction of households (rked by WT bill) with liquid wealth / wealth tax above different thresholds
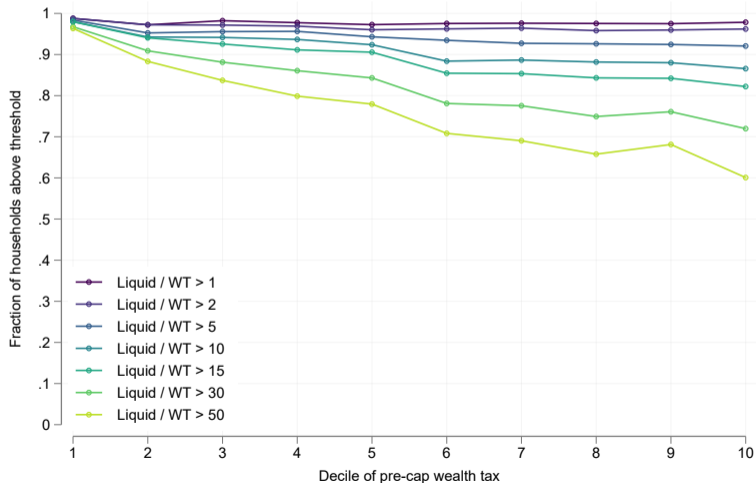
- We consider **the wealth tax before applying the capping** among capped households.
- Coverage (liquidities/tax) is similar for capped/non capped
- Average coverage by bin is typically very high (> 50 years)

Ratio of liquid assets over annual ISF bill (after capping)

Households ranked by size of ISF bill
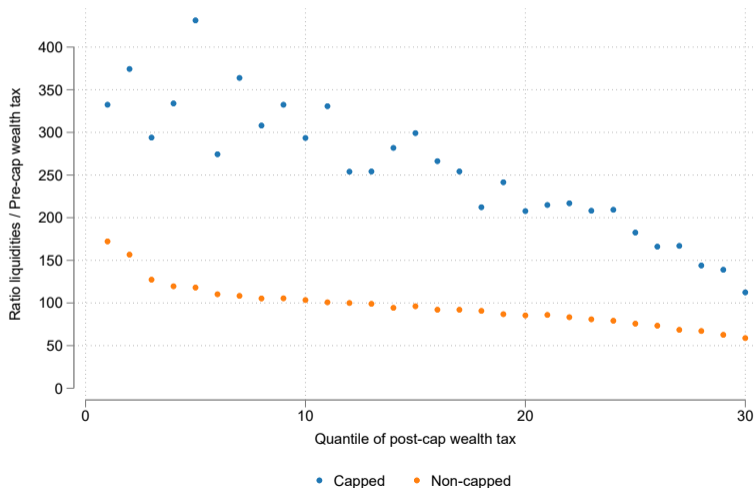
- The capped households have between 100 and 350 years of **effective ISF** in liquid assets.
- This is still higher than the number of years of effective ISF held by non-taxpayers.

Probability to be shareholder or manager of a company

Households ranked by taxable wealth
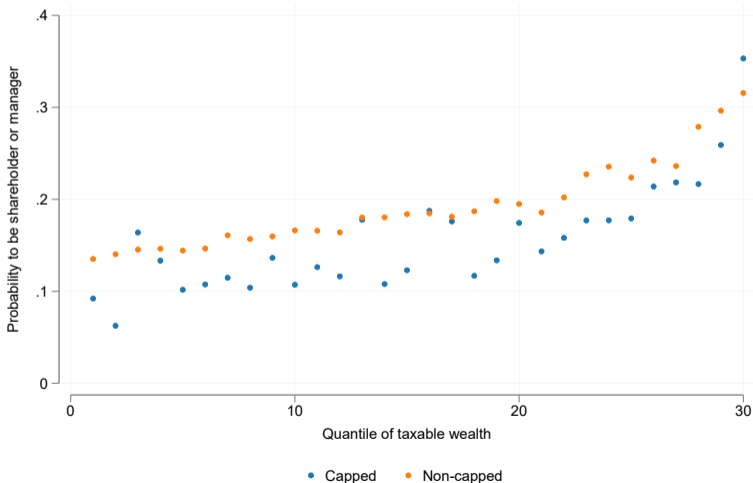
- The capped households have between 100 and 350 years of **effective ISF** in liquid assets.
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Large gap between treated and control groups on proba of being capped in 2012

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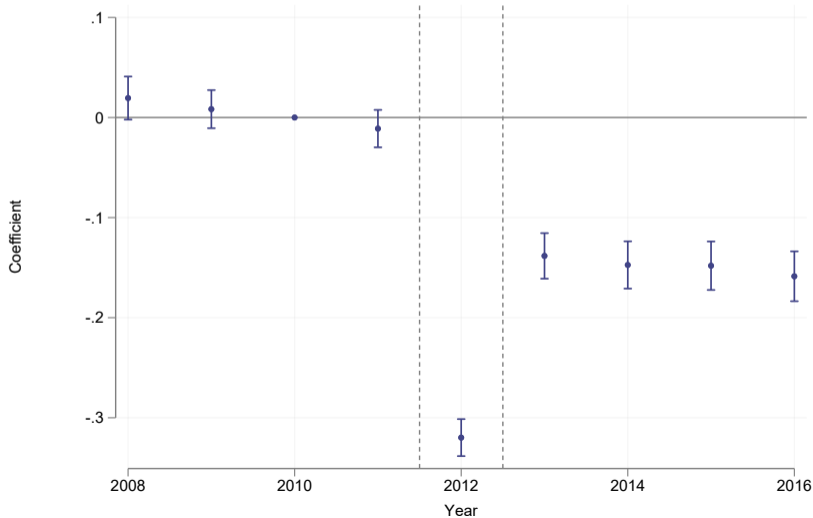
Mean reversion check for proba of being capped in 2012
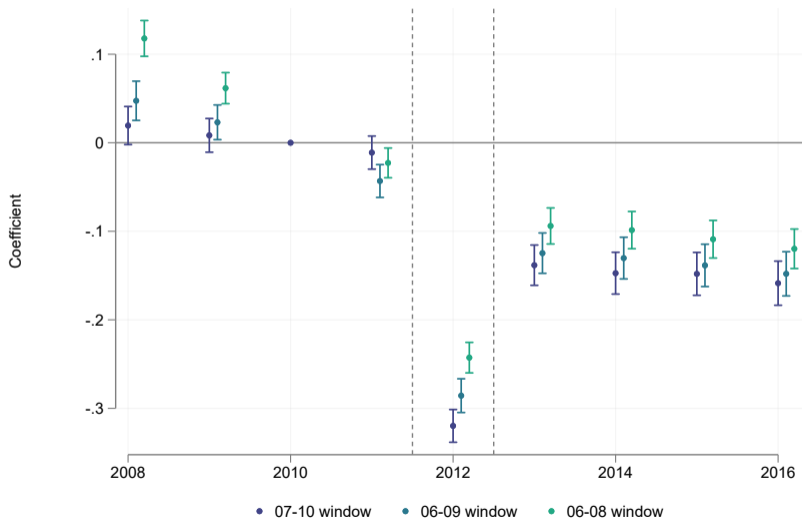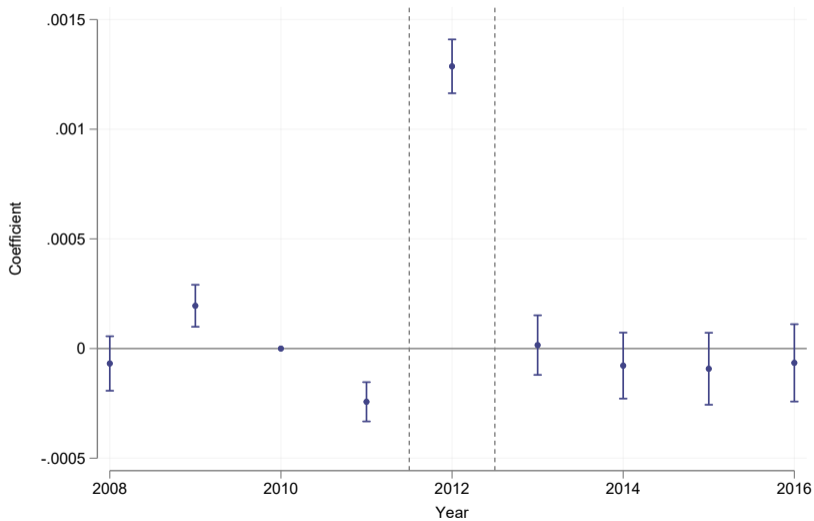
No gap between treated and control groups on wealth returns in 2012
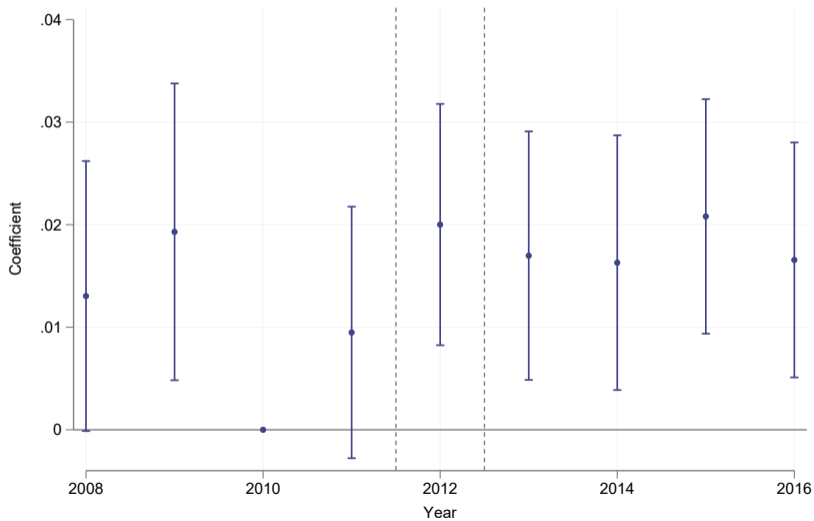
Mean reversion check for wealth returns in 2012
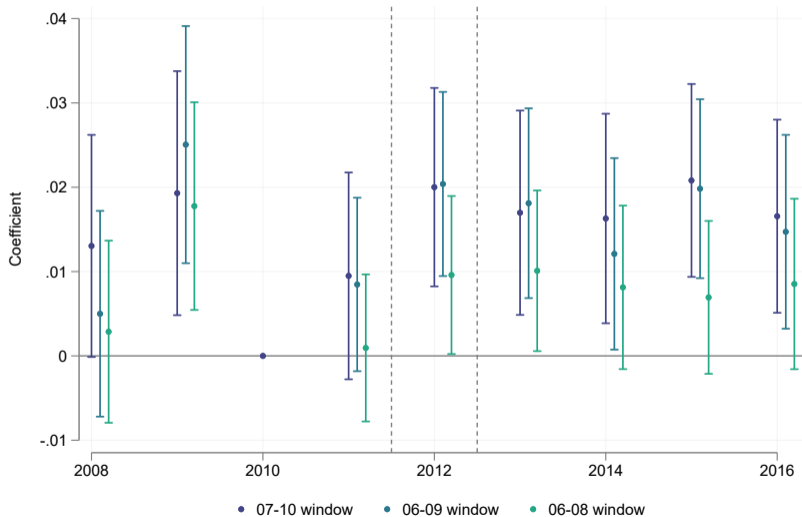
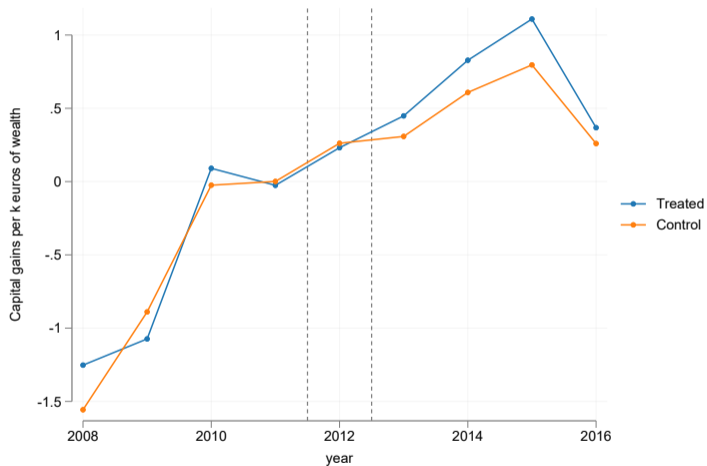# Increase in effective wealth tax rate of treated group vs control
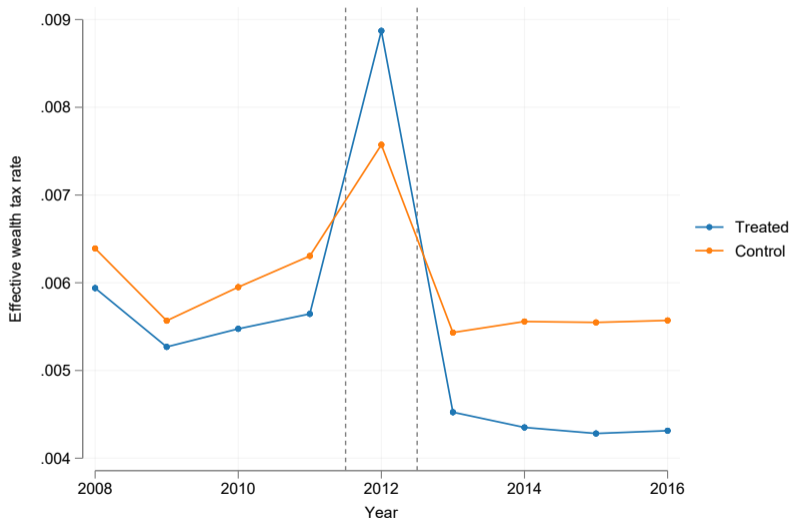
Increase in effective wealth tax rate of treated group vs control

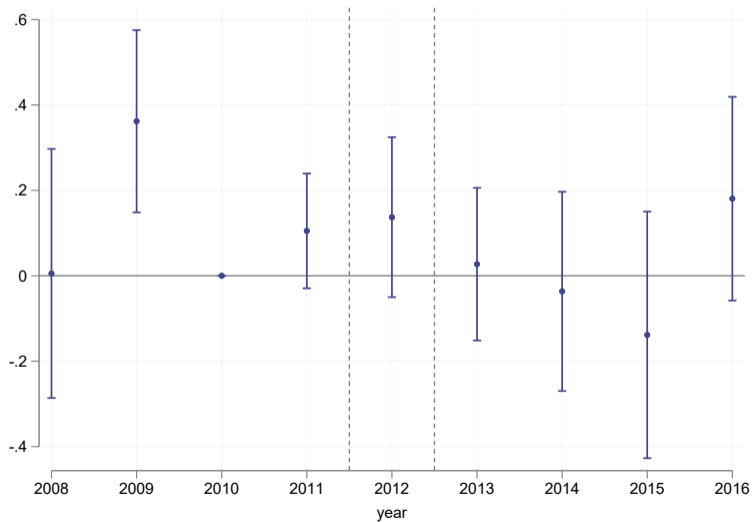# No significant gap in wealth growth for "un-capped" households in 2012-2013
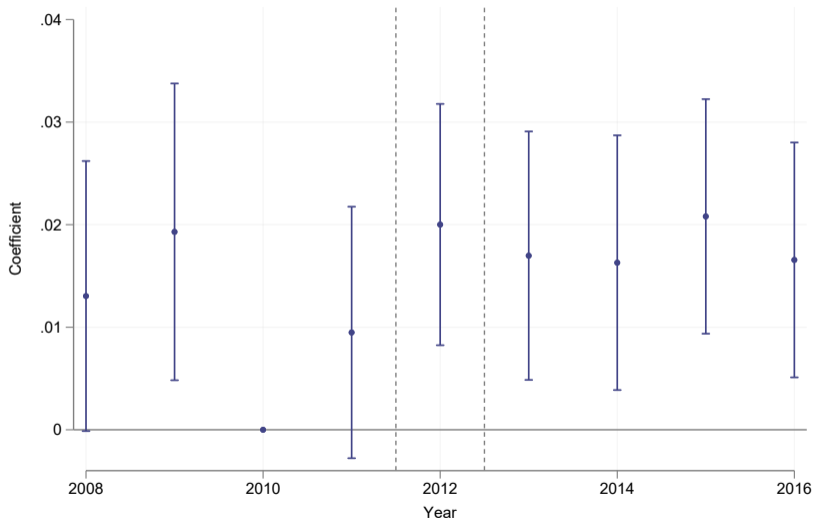
No significant gap in capital gains for "capped" households in 2012-2013
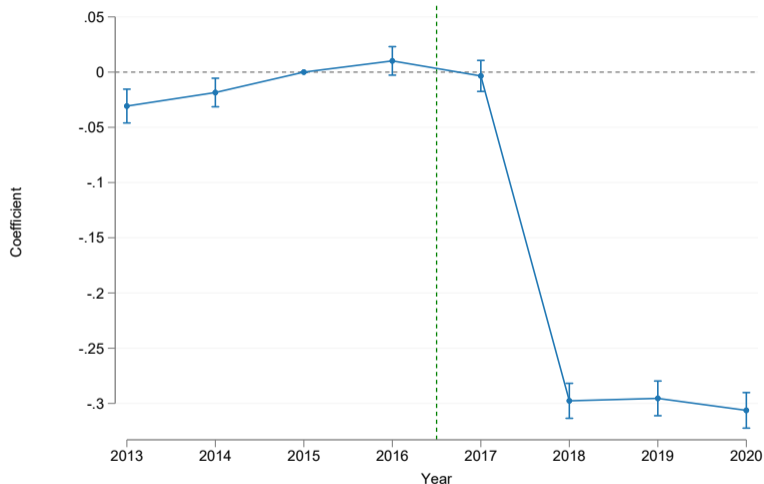

No difference in 2012, some in 2013 but not significant.

K gains regression

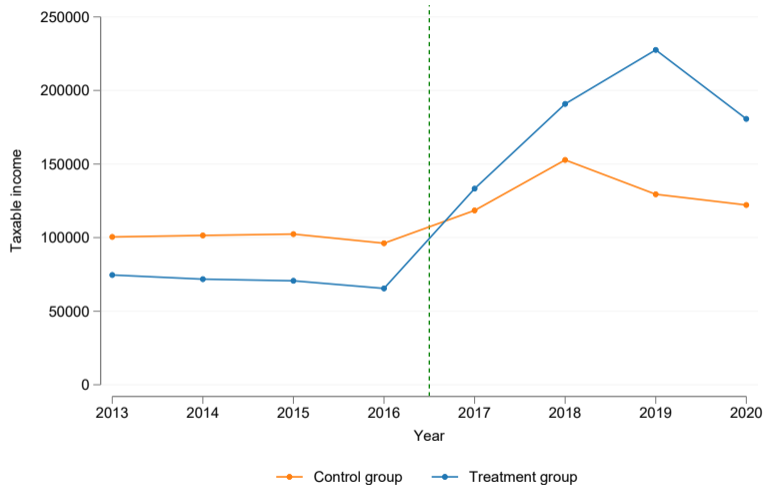# No significant gap in capital gains for "un-capped" households in 2012-2013

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# Probability of being capped each year, by group

- Differential effect between groups of 30 percentage points in the probability of being capped.
- Controls for vingtiles of wealth x year, decile of age x year, departement x year, # shares x year.

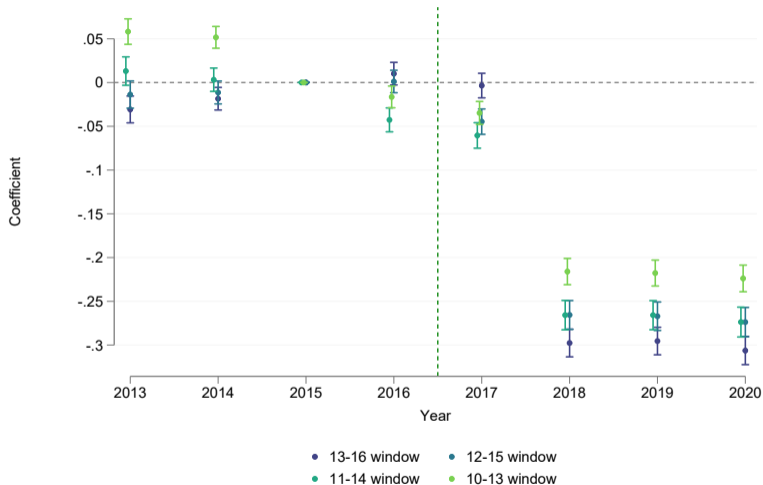# Absolute level of taxable income, by group

- a near tripling in absolute value of declared income

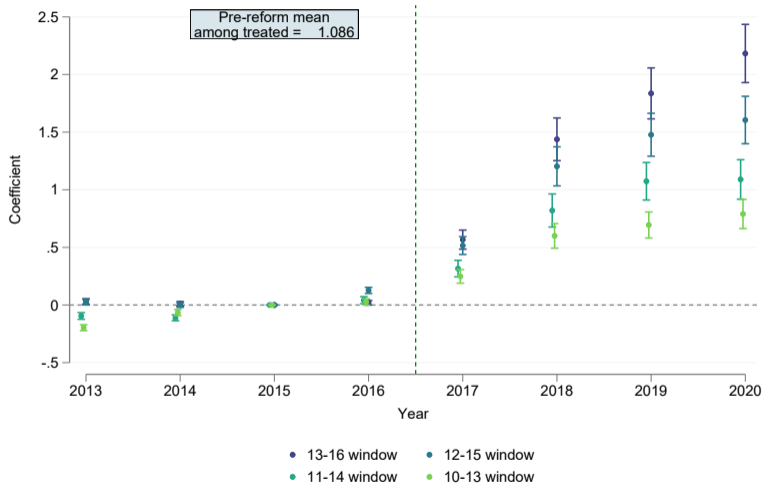# Log of taxable income, regression coefficients
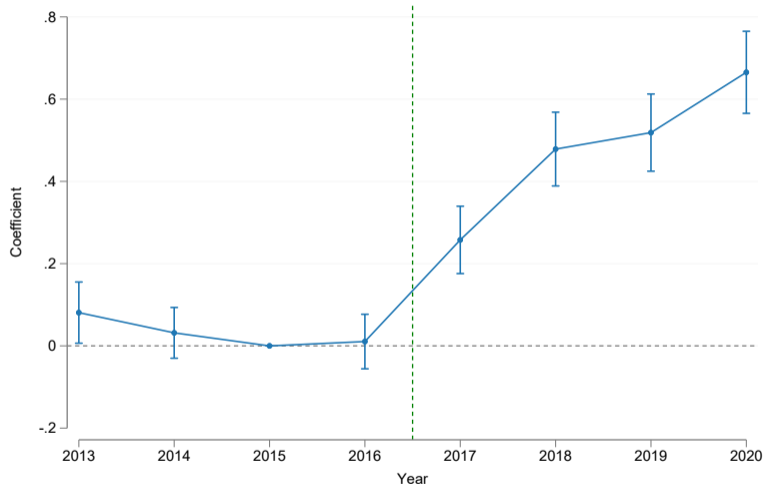
- a 50 log points increase in taxable income
- Implied ETI = 1.7

# Changing time window used to build treatment: First stage

- First stage is not very sensitive to time-window used

# Changing time window used to build treatment: Taxable income

Pre-reform mean among treated = 1.086

- 13-16 window
- 11-14 window
- 12-15 window
- 10-13 window

- Very large income responses whatever the time-window we use

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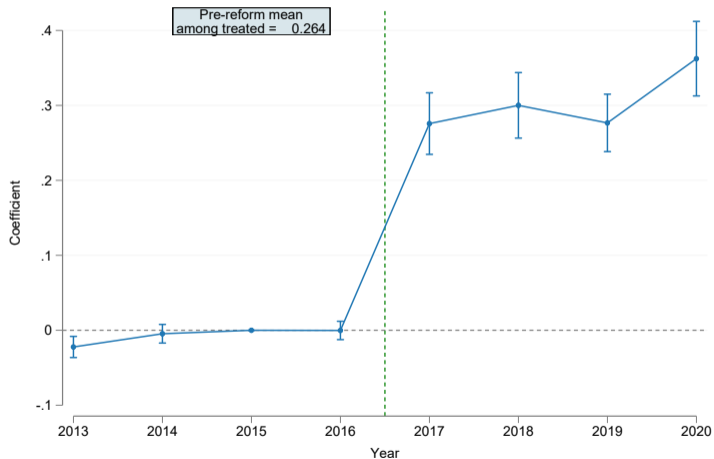# Dividends divided by average pre-reform taxable income each year, by group

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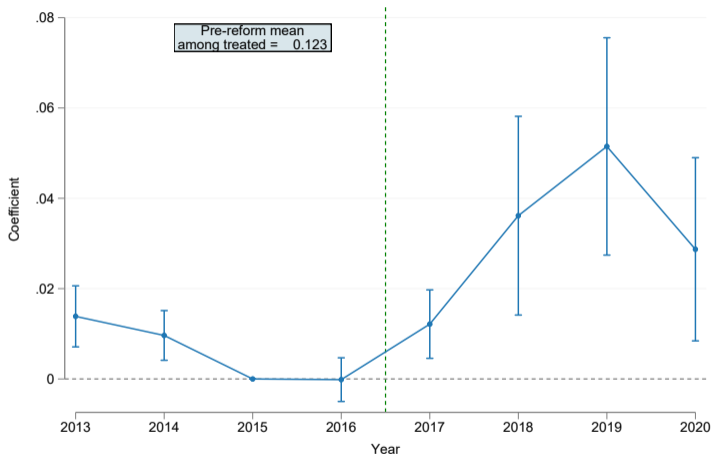
Dividends relative to average pre-reform taxable income, distributional regression coefficients

Pre-reform average among treated
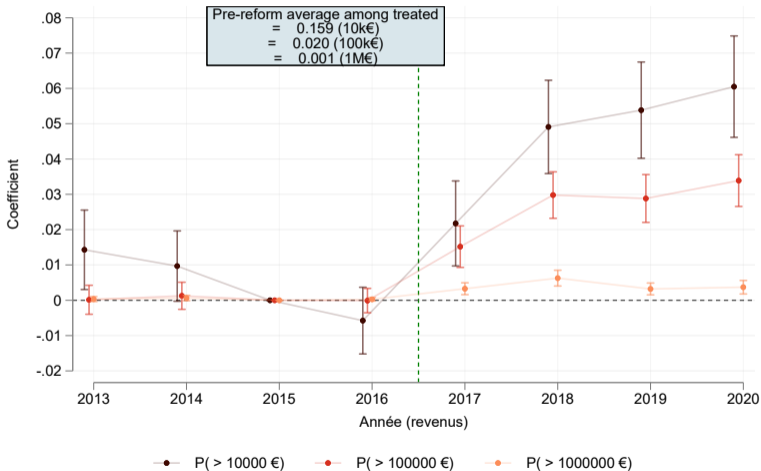=   0.118 (10k€)
=   0.025 (100k€)
=   0.002 (1M€)
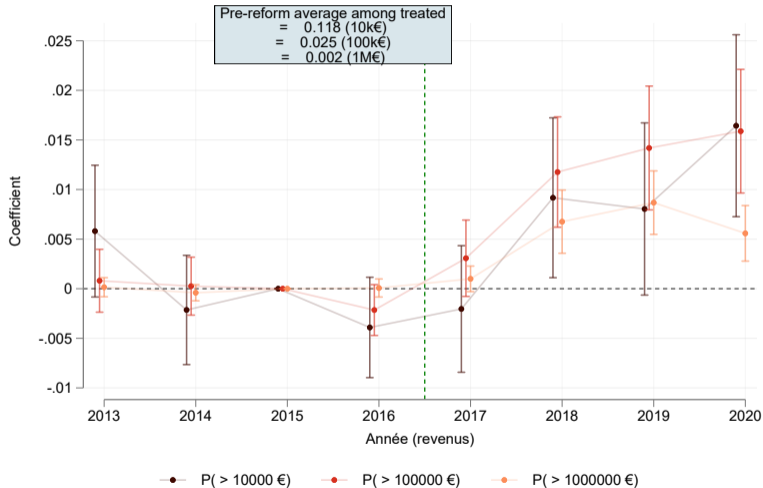
- Tripling of the probability of receiving more than €1 million in dividends.

Life insurance income compared with average pre-reform taxable income, by group

Life insurance income compared to average pre-reform taxable income, distributional regression coefficients

- Probability of receiving more than 100k€ of life insurance income: × 2.5.