Who gets the flow?
Financial globalisation and wealth inequality

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[1]The views are those of the author and do not necessarily reflect those of the Central Bank of Ireland.

Motivation

Over the past 50 years ...

... financial globalisation has bloomed

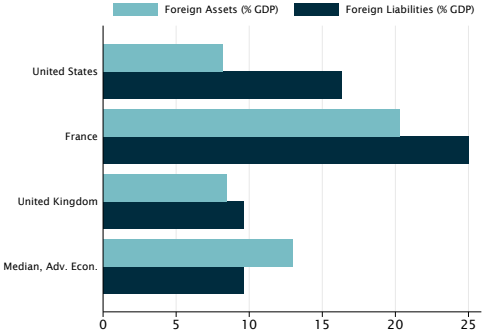

Figure 1: Changes in foreign positions, 1970=1

... wealth inequality has risen

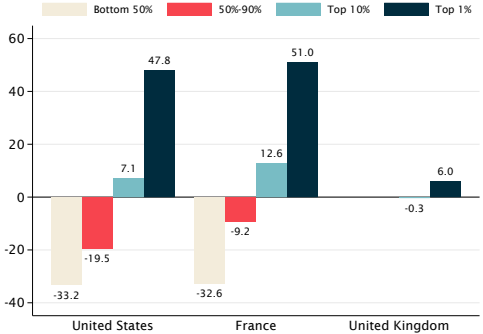

Figure 2: % changes in wealth shares since 1980

Top 1% reversal

This paper

Research Question

Does financial globalisation affect wealth inequality within countries?

Which countries? United States, France and United Kingdom | When? 1970-2019

- Proxy for financial globalisation: $\mathrm{IFI}_{i,t} = \frac{\mathrm{FA}_{i,t} + \mathrm{FL}_{i,t}}{\mathrm{GDP}_{i,t}}$

  Lane and Milesi-Ferretti (2003)

- Net wealth: assets - debt

  Piketty and Zucman (2014), Alvaredo et al. (2020)

Why is this relevant?

*"Wealth is a **crucial determinant** of what people can do at the beginning of their lives. It is imperative that in the future we monitor the evolution of **wealth in the same way that we have been monitoring the evolution of income**"*

Mario Draghi (2007)

- Understanding of wealth inequality drivers $\rightarrow$ socio-economic implication
- Policy implications $\rightarrow$ more targeted measures to reduce inequality

Literature

Literature

- Effect of financial globalisation on income inequality
  - Ambiguous effects
    ↓ Jaumotte et al. (2013), Delis et al. (2014) ↑ Mah (2002), Das and Mohapatra (2003), Ang (2010), Furceri and Loungani (2018), Li and Su (2020)
  - Net effect: level of financial depth, persistence of liberalisations, type of flow
    Bumann and Lensink (2016), Liu et al. (2020), Eichengreen et al. (2021)
- Drivers of wealth inequality
  - E.g., tax progressivity, portfolio & returns heterogeneity, savings, demographics, inheritances, mortgage debt, housing ownership
    Hubmer et al. (2021), Saez and Zucman (2019), Smith et al. (2021a), Smith et al. (2021b), Jakobsen et al. (2020), Fagereng et al. (2019), Mian et al. (2020), Auclert et al. (2021), Alvaredo et al. (2017), Morelli et al. (2021), Horan et al. (2020), Horan et al. (2021)

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- **My contribution:**
  - Wealth, rather than income, inequality Distributions
  - Cross-country analysis

Data & Empirical Strategy

Data

- United States, France, United Kingdom | 1970-2019

- **Wealth distribution**
  - *World Inequality Database (WID)*
    Alvaredo et al. (2018b), Alvaredo et al. (2020), FR: Piketty et al. (2018), Garbinti et al. (2021), US: Saez and Zucman (2016, 2020a), UK: Alvaredo et al. (2018a)
    Methodology
    - Longest time span and high quality
    - Data in quantiles: bottom 50%, 50%-90%, top 10%, top 1%
    - Some methodological limitations and estimation assumptions
      USA: alternative sources

- **Financial globalisation**
  - *External Wealth of Nations (EWN)*
    Lane and Milesi-Ferretti (2007), Lane and Milesi-Ferretti (2018)
  - International Financial Integration:
    Lane and Milesi-Ferretti (2003)

    $$\text{IFI}_{i,t} = \frac{\text{FA}_{i,t} + \text{FL}_{i,t}}{\text{GDP}_{i,t}}$$

    Chart
    - Caveat: cross-border data
      Coppola et al. (2021), Bénétrix and Sanchez Pacheco (2021), Sanchez Pacheco (2022)

Empirical model

$$\Delta W^{q}_{i,t} = \alpha + \beta \Delta \text{IFI}_{i,t-1} + \boldsymbol{\Gamma \Delta X_{i,t-1}} + \eta_i + \theta_t + \varepsilon_{i,t}$$

- $W^{q}_{i,t}$ is the share of wealth owned by quantile q in country i and year t
- $\text{IFI}_{i,t-1}$ is the index of International Financial Integration
- $X_{i,t-1}$ is a set of controls Data Sources
- Country (η_i) and decade (θ_t) fixed effects
- Potential issues:
  - Trends/spurious correlation $\rightarrow$ variables in annual changes
  - Endogeneity $\rightarrow$ 1y lagged values
  - Confounders and OVB $\rightarrow$ controls (based on literature)

Empirical model: baseline results

	Dependent variable: Δ Wealth Share$_t$			
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%
Δ IFI$_{t-1}$	-0.002***	-0.003	0.004***	0.006***
	(0.000)	(0.002)	(0.000)	(0.001)
Δ Real GDP per capita$_{t-1}$	-0.016	-0.022	0.009	0.222*
	(0.044)	(0.028)	(0.134)	(0.073)
Δ Debt to GDP ratio$_{t-1}$	-1.501*	-5.855**	-1.750	2.378
	(0.182)	(0.164)	(7.579)	(6.343)
Δ Short-term interest rate$_{t-1}$	-0.021	0.025	-0.053	-0.001
	(0.020)	(0.023)	(0.066)	(0.040)
Δ Long-term interest rate$_{t-1}$	0.035	0.077	-0.269	-0.148
	(0.018)	(0.021)	(0.162)	(0.155)
Δ TFP$_{t-1}$	1.728	4.388	-21.588	-11.343
	(0.882)	(4.639)	(20.717)	(9.651)
Δ Trade openness$_{t-1}$	0.012	-0.047	-0.004	-0.038
	(0.004)	(0.023)	(0.020)	(0.016)
Δ OADR$_{t-1}$	-0.172	0.200	0.297	0.430
	(0.034)	(0.201)	(0.242)	(0.200)
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	96	96	137	137
R^2	0.291	0.242	0.201	0.236

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Clustered SE.

- Following an annual average increase in the IFI (+12.8pp):
  - **$1.6 tn** $\uparrow \Delta W^{top1\%}$ (+30%)
  - **$1 tn** $\uparrow \Delta W^{top10\%}$ (+8%)
- Coefficients contribution to change in top 1% since 1980:
  - **14%** for United States, **43%** for France

Specification checker

Channels & Robustness

(I) Decomposing the IFI

Eichengreen et al. (2021): Different types of flows have different distributional effects

$$IFI^{PE}_{i,t} = \frac{PE^{A}_{i,t} + PE^{L}_{i,t}}{GDP_{i,t}}$$

$$IFI^{FD}_{i,t} = \frac{FD^{A}_{i,t} + FD^{L}_{i,t}}{GDP_{i,t}}$$

$$IFI^{FDI}_{i,t} = \frac{FDI^{A}_{i,t} + FDI^{L}_{i,t}}{GDP_{i,t}}$$

$$IFI^{D}_{i,t} = \frac{D^{A}_{i,t} + D^{L}_{i,t}}{GDP_{i,t}}$$

PE = Portfolio Equity, FD = Financial Derivatives, FDI = Foreign Direct Investments, D = Debt. Composition

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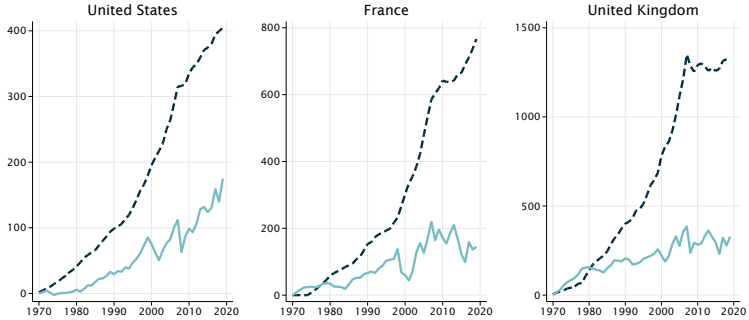
	Dependent variable: Δ Wealth Share$_t$			
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%
Δ IFI$^{PE}_{t-1}$	-0.004	-0.024**	0.027**	0.032**
	(0.001)	(0.002)	(0.005)	(0.007)
Δ IFI$^{FD}_{t-1}$	-0.005	-0.006	0.007*	0.009**
	(0.002)	(0.011)	(0.002)	(0.002)
Δ IFI$^{FDI}_{t-1}$	-0.000	-0.000	-0.008	-0.005
	(0.002)	(0.008)	(0.014)	(0.013)
Δ IFI$^{D}_{t-1}$	-0.002	0.007	-0.004	-0.002
	(0.001)	(0.005)	(0.004)	(0.005)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	96	96	137	137
R^2	0.313	0.271	0.221	0.266

Notes: Clustered standard errors. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

(II) Flows accumulation or valuation effects?

$$\text{IFI}_{i,t} - \text{IFI}_{i,t-1} = \underbrace{\text{Flow}_{i,t}}_{\text{Inflows+Outflows}} + \underbrace{\text{SFA}_{i,t}}_{\text{Valuation}}$$



Percentage of GDP at time t. Source: author's calculation, External Wealth of Nations (EWN), International Monetary Fund (IMF).

(II) Flows accumulation or valuation effects?

	Dependent variable: Δ Wealth Share$_t$			
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%
Flow$_{t-1}$	-0.001	-0.000	0.013*	0.012*
	(0.001)	(0.000)	(0.004)	(0.004)
SFA$_{t-1}$	-0.000	-0.003	-0.002	-0.000
	(0.000)	(0.003)	(0.003)	(0.004)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	96	96	137	137
R^2	0.259	0.242	0.223	0.249

Notes: Clustered SE in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

- Flow component driving the IFI implied change in wealth inequality in the panel setting (US might be a special case)
- Bauluz et al. (2022): volume component (savings flows) are an unequalising force, while capital gains equalise the distribution of wealth.

(II) Triggers of valuation effects

- Drivers/proxies valuation effects:
  - **Exchange rate**: **NEER** (BIS)
    - GFC FX valuation: US second biggest loser, UK biggest winner
      Bénétrix et al. (2015)
  - **Share prices** (OECD)
    - Top → financial assets
      Kuhn et al. (2020), Smith et al. (2021b), Diwan et al. (2021)
  - **House prices** (BIS)
    - Bottom → housing
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Δ IFI$_{t-1}$	-0.002**	-0.001	0.004	0.006**
	(0.000)	(0.000)	(0.001)	(0.001)
Δ NEER$_{t-1}$	0.002	0.021	0.001	-0.004
	(0.001)	(0.009)	(0.019)	(0.015)
Δ Share Price $_{t-1}$	0.004	-0.011	0.006	0.005
	(0.002)	(0.003)	(0.012)	(0.013)
Δ House Price$_{t-1}$	0.006	0.028	-0.028*	-0.004
	(0.003)	(0.010)	(0.008)	(0.018)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	96	96	137	137
R^2	0.343	0.295	0.201	0.234

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. An increase in the NEER is an appreciation of the local currency.

- Results robust to international asset prices

(III) Inequality in crisis times

- Fall in asset prices + rise in bankruptcies rates $\rightarrow$ inequality $\downarrow$
- Harder for the working class to regain lost wealth $\rightarrow$ inequality $\uparrow$

$$\Delta W^{q}_{i,t} = \alpha + \beta \Delta \text{IFI}_{i,t-1} + \delta \text{Crisis}_{i,t-1} + \zeta(\text{Crisis}_{i,t-1} \times \Delta \text{IFI}_{i,t-1}) + \boldsymbol{\Gamma \Delta X_{t-1}} + \eta_i + \theta_t + \varepsilon_{i,t}$$

- $\text{Crisis}_{i,t-1}$ is a country-specific dummy for the length of a systemic banking crisis compiled by Laeven and Valencia (2020)[2]

[2] United States: 1988, 2007-2011. France: 2008-2009. United Kingdom: 2007-2011.

(III) Inequality in crisis times

	Dependent variable: Δ Wealth Share$_t$			
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%
Δ IFI$_{t-1}$	-0.001*	-0.001	0.004	0.007*
	(0.000)	(0.000)	(0.001)	(0.002)
Crisis$_{t-1}$	-0.186	-0.398	0.611**	0.407**
	(0.160)	(0.170)	(0.081)	(0.073)
Crisis$_{t-1}\times$ ΔIFI$_{t-1}$	-0.003*	-0.005	-0.002	-0.004
	(0.000)	(0.003)	(0.006)	(0.005)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	96	96	137	137
R^2	0.354	0.262	0.211	0.242

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dummy for systemic banking crisis cover the entire length of each crisis.

- Baseline results not driven by crises
- Following a crisis: top shares ↑

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Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
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- Baseline results not driven by crises
- Following a crisis: top shares ↑
- Following a crisis, an increase in IFI will increase wealth inequality by decreasing even more the bottom 50% wealth share
  → mismatch in recovery timing
  Blanchet et al. (2022) time to recoer pre-tax incomme after GFC: 12 years bottom 50% vs 4 years on average

Additional channels and robustness

- Financial globalisation $\rightarrow$ wealth returns $\downarrow$ $\rightarrow$ wealth inequality $\uparrow$ Go
- Financial globalisation $\rightarrow$ gross savings $\uparrow$ $\rightarrow$ wealth inequality $\uparrow$ Go (no evidence)

- Results robust to:
  - Specification of controls Go
  - Alternative sources for wealth inequality in the US (sign) Go
  - *De-jure* indices of financial globalisation Go
  - Foreign assets and liabilities separately Go

Conclusion

Concluding remarks

- Does financial globalisation affect wealth inequality within countries?
  - **Yes**
  - $\uparrow \Delta \text{IFI}_{t-1}$ 1pp $\Rightarrow \uparrow \Delta W_t^{top1\%}$ 0.006pp, $\uparrow \Delta W_t^{top10\%}$ 0.004pp
  - Following an annual average increase in the IFI (+12.8pp): **$1.6 tn** $\uparrow \Delta W^{top1\%}$ (+30%), **$1 tn** $\uparrow \Delta W^{top10\%}$ (+8%)

- **Key takeaways**
  - Portfolio equities and financial derivatives key functional categories
  - Although large valuation gains, flows are key drivers
  - Wealth gap widening following banking crises (IFI strengthening this result)

Thank you!

Any feedback is highly appreciated

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Top 1% over a century

Back

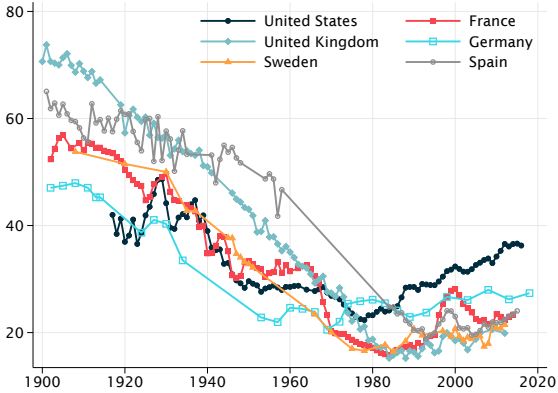

Figure 3: Top 1% wealth shares, percentage of total net wealth

See Waldenström (2021) for definitions and details on data sources. Sources: France: Garbinti et al. (2021), Piketty et al. (2006); Germany: Albers et al. (2020); Spain: Martínez-Toledano (2020); Sweden: Roine and Waldenström (2009), Lundberg and Waldenström (2018); United Kingdom: Alvaredo et al. (2018a); United States: Saez and Zucman (2016), Saez and Zucman (2020b).

Wealth and Income distributions

Back

Figure 4: Distribution of Gini coefficients, all years

1995-2019 (1970-2019 for United States and France). Source: World Inequality Database (WID).

Wealth distribution: methodology (Alvaredo et al., 2020) Back

- **DINA** distributional wealth series distributed to **all individuals.**
- The value of national wealth is expressed at **market value** as a benchmark (vs "book values").
- Estimation
  - Wealth distribution is rarely observed directly in administrative tax data. Also, the coverage of wealth surveys is more limited, and the issues regarding the top of the distribution are more critical.
  - **Indirect method** that combine various sources in order to measure wealth. The **preferred method** is the **Mixed Income Capitalization-Survey (MICS)** method, which combines capitalized income flows from tax data with survey-based estimates for assets that do not generate taxable income.
  - The best method depends on the type of data available.

Wealth distribution – United States

Back

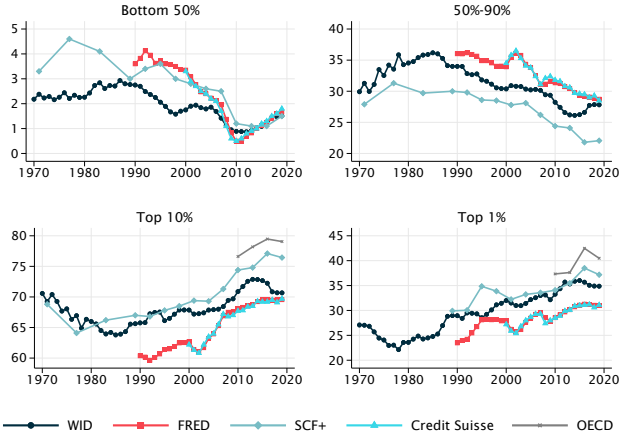

Figure 5: Net wealth shares, % of total, latest available

Notes. Sources: WID, FRED, Credit Suisse Global Wealth Report, Kuhn et al. (2020) and OECD.

International Financial Integration (IFI) Back

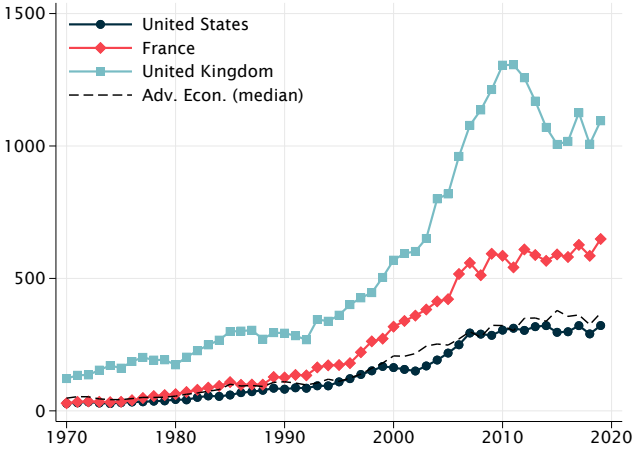

Figure 6: IFI, percent of GDP

Data Sources and Description

Back

Variable	*Description*	*Source*
Wealth shares	Shares of net personal wealth, equal-split among all adult individuals	World Inequality Database (WID)
	Alternative sources for the United States	FRED, Credit Suisse Global Wealth Report 2021, Kuhn et al. (2020), OECD Wealth Database.
International Investment Positions	External assets and liabilities, and related sub-components	External Wealth of Nations (EWN)
Capital flows	Financial account, credit and debit entries	International Monetary Fund (IMF – BOP)
GDP and GDP per capita	Nominal and real national GDP in US Dollars and local currency	International Monetary Fund (IMF), World Bank (WB)
Debt to GDP	Public debt to GDP ratio	Abbas et al. (2010) updated October 2020, International Monetary Fund (IMF – WEO)
Short term interest rates	Nominal, percent	OECD (EO), Jordà et al. (2017) release R.6, IMF (IFS) for EMEs
Long term interest rates	Nominal long-term government bond yields (10-year), percent	Organisation for Economic Co-operation and Development (OECD – MEI), retrieved via FRED
Total Factor Productivity	TFP at constant national prices	Feenstra et al. (2015), retrieved via FRED
Imports and Exports	Including both goods and services, nominal	Jordà et al. (2017) release R.6
OADR	Old Age Dependency Ratio: share, population >65 yo over population aged 15-64 yo	World Bank (WB), retrieved via FRED
Banking crises	Systemic banking crises, full length	Laeven and Valencia (2020)
NEER	Nominal Effective Exchange Rate, trade weighted	Bank for International Settlements (BIS), retrieved via FRED
Share prices	Share price index, all shares, 2015=100	Organisation for Economic Co-operation and Development (OECD – MEI), retrieved via FRED
House prices	Nominal residential property prices, index 2010=100	Bank for International Settlements (BIS), retrieved via FRED
Wealth returns	Nominal returns, by type of asset, local currency	Jordà et al. (2017), Jordà et al. (2019) release R.6
Gross savings	Gross savings (% GDP, Y-C-NT)	World Bank (WB)
Gross investments	Gross fixed capital formation (% GDP)	World Bank (WB)
Consumption	Final consumption expenditure (% GDP)	World Bank (WB)
Household consumption	Households and NPISHs final consumption expenditure (% GDP)	World Bank (WB)
Government consumption	General government final consumption expenditure (% GDP)	World Bank (WB)
Fernández et al.	Overall capital restrictions index (all asset categories, 1995-2017)	Fernández et al. (2016)
Chinn-Ito	Chinn–Ito index of financial openness (1970-)	Chinn and Ito (2008)
Abiad et al.	Index of financial reforms (1973-2005)	Abiad et al. (2010)
Quinn	Quinn index of capital account openness (1970-2007)	Quinn (1997)
KOF	Index of *de-jure* financial globalisation (1970-)	Dreher (2006), Gygli et al. (2019)

Specification check: robustness to controls (Beta)

Back t-stat Back (robust)

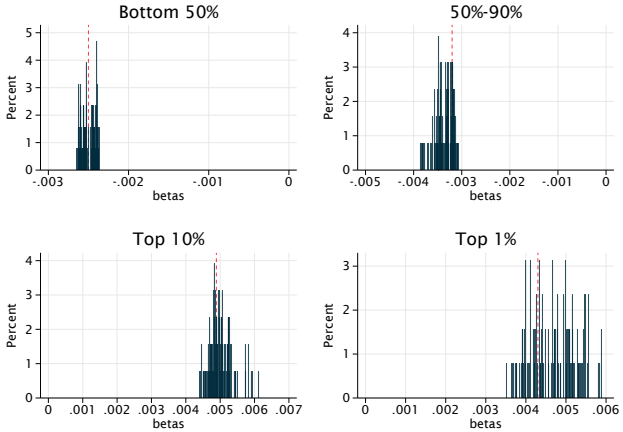

Figure 7: Coefficients resulting from 128 permutations of the baseline model

Betas of individual regressions of the wealth share against all possible combinations of regressors. The red dashed line is the coefficient of the model including all controls and country fixed effects. Due to technical reasons, the permutations exclude decade fixed effects.

Specification check: robustness to controls (T stat)

Back Back (robust)

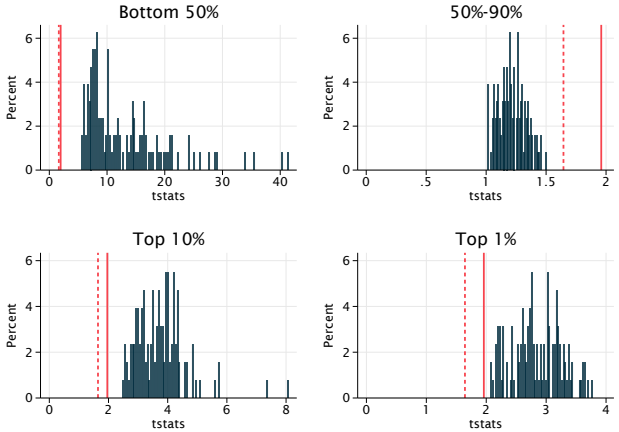

Figure 8: T statistics resulting from 128 permutations of the baseline model

t statistics of individual regressions of the wealth share against all possible combinations of regressors. The red solid line is the critical value for 95% statistical significance (1.96), while the red dashed is 90% (1.645). Due to technical reasons, the permutations exclude decade fixed effects.

Composition of external assets and liabilities

Back

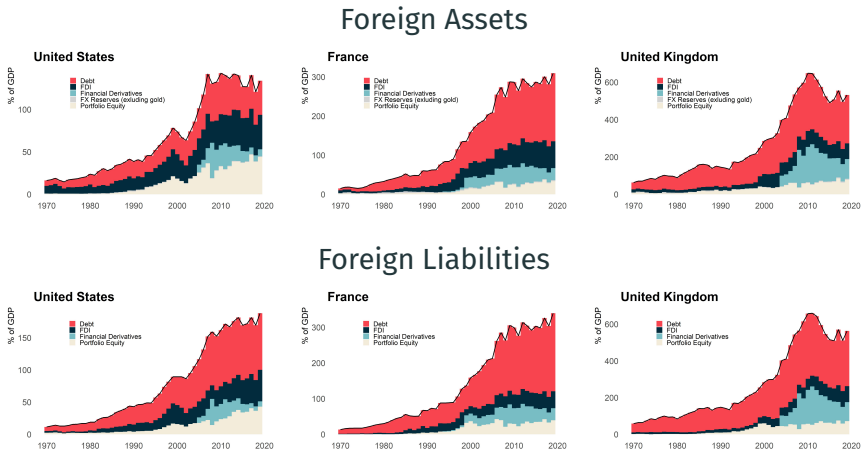

Figure 9: Composition of external assets and liabilities

Notes. Data are expressed as percentage of national GDP. Source: External Wealth of Nations (EWN).

(IV) Wealth returns

Back

Greenwald et al. (2021) Returns ↓ wealthy saving ↑ (financial) wealth inequality ↑

- Did financial globalisation affect returns?
  Jordà et al. (2017), Jordà et al. (2019)

	Wealth	Equity			Housing				Bond
	(1) TR	(2) TR	(3) DR	(4) CGR	(5) TR	(6) CGR	(7) RR	(8) RYR	(9) TR
Δ IFI$_{t-1}$	-0.027	-0.103***	-0.007***	-0.096***	-0.004	-0.003	-0.001	-0.001	-0.015
	(0.011)	(0.007)	(0.000)	(0.008)	(0.008)	(0.009)	(0.001)	(0.001)	(0.027)
R^2	0.341	0.187	0.748	0.168	0.495	0.493	0.804	0.818	0.247
Δ IFI$^{FE}_{t-1}$	-0.068	-0.221*	-0.017*	-0.204	-0.025	-0.026	0.001	0.002	-0.100**
	(0.031)	(0.070)	(0.004)	(0.074)	(0.015)	(0.010)	(0.006)	(0.005)	(0.013)
R^2	0.342	0.184	0.751	0.164	0.496	0.495	0.804	0.817	0.258
Δ IFI$^{FD}_{t-1}$	-0.020	-0.059	-0.001	-0.058	-0.007	-0.008	0.002	0.002	-0.042
	(0.009)	(0.021)	(0.001)	(0.021)	(0.010)	(0.010)	(0.001)	(0.001)	(0.035)
R^2	0.269	0.321	0.598	0.323	0.443	0.460	0.856	0.894	0.277
Δ IFI$^{FD1}_{t-1}$	-0.027	0.019	-0.003	0.022	-0.042	-0.033	-0.009	-0.008	-0.064**
	(0.036)	(0.177)	(0.001)	(0.176)	(0.024)	(0.021)	(0.004)	(0.004)	(0.011)
R^2	0.329	0.168	0.734	0.150	0.502	0.498	0.821	0.831	0.252
Δ IFI$^{D}_{t-1}$	-0.018***	-0.026	-0.001	-0.025	-0.024*	-0.020*	-0.003	-0.003	-0.014
	(0.002)	(0.021)	(0.001)	(0.021)	(0.007)	(0.006)	(0.001)	(0.001)	(0.006)
R^2	0.352	0.172	0.735	0.154	0.533	0.523	0.836	0.840	0.251
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	144	144	144	144	144	144	144	144	144

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. TR = total return, DR = dividend return, CGR = capital gain return, RR = rent return, RYR = rent yield return. Percent returns.

(V) Savings, Investments and Consumption

Back

Mian et al. (2020), de Ferra et al. (2021) → Savings driver of income inequality

- (1) Did financial globalisation affect savings, investments, and consumption?

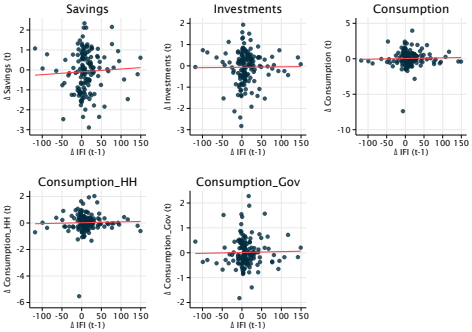

Figure 10: Correlations, no controls

Notes. All measure are scaled by GDP. Source (S,I,C): World Bank.

	Δ Dependent variable (all scaled by GDP, time t)				
	(1) Savings	(2) Investments	(3) Consumption	(4) Cons HH	(5) Cons Gov
Δ IFI$_{t-1}$	0.0038	0.0022	0.0003	0.0015	-0.0013
	(0.002)	(0.002)	(0.004)	(0.002)	(0.002)
Controls	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓	✓
Observations	140	143	144	144	144
R^2	0.261	0.345	0.243	0.118	0.384

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Gross savings and investments. Data are from the World Bank .

(V) Savings, Investments and Consumption

Back

Mian et al. (2020), de Ferra et al. (2021) → Savings driver of income inequality

- (2) Does savings drive wealth inequality? From which direction?

	Dependent variable: Δ Wealth Share$_t$			
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%
Δ IFI$_{t-1}$	-0.002**	-0.003	0.005	0.006**
	(0.000)	(0.001)	(0.002)	(0.001)
Δ Gross Savings/GDP$_{t-1}$	-0.039**	-0.138**	-0.041	0.066
	(0.001)	(0.007)	(0.239)	(0.126)
Δ IFI$_{t-1}$ × Δ Gross Savings/GDP$_{t-1}$	0.001***	0.000	0.003	-0.000
	(0.000)	(0.003)	(0.004)	(0.001)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓
Observations	91	91	132	132
R^2	0.314	0.246	0.204	0.237

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Gross savings from the World Bank.

Robustness | Alternative sources, United States

Back

- **Sign** of coefficients is robust
- WID data provide the **longest sample**

	$\Delta W_t^q = \alpha + \beta \Delta IFI_{t-1} + \gamma \Delta X_{t-1} + \theta_t + \varepsilon_t$				
	(1) Bottom 50% ↓	(2) 50%-90% ↓	(3) Top 10% ↑	(4) Top 1% ↑	N
WID (Benchmark)	-0.002	-0.007	0.013*	0.020***	48
FRED	-0.000	-0.016*	0.018**	0.006	29
Credit Suisse	-0.0002	-0.0001	0.0004	-0.0105	19
SCF+	-0.007***	-0.022	0.029*	0.012	12
Controls	✓	✓	✓	✓	
Decade FE	✓	✓	✓	✓	

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors. Each line represent a different regression as specified in the equation on top of the table, in which a different data source for wealth shares is used each time. The coefficient reported is the one associated with the explanatory variable ΔIFI_{t-1}. The country sample is the United States.

Robustness | *De-jure* indices of financial globalisation

Back

- Overall capital restriction index (1995-2017)
  Fernández et al. (2016)
- Chinn-Ito financial openness (1970-2019)
  Chinn and Ito (2008)
- Index of financial reforms (1973–2005)
  Abiad et al. (2010)
- Quinn index of capital account openness (1970-2007)
  Quinn (1997) Quinn et al. (2011)
- KOF index of de jure financial globalisation (1970-2020)
  Dreher (2006) Gygli et al. (2019)

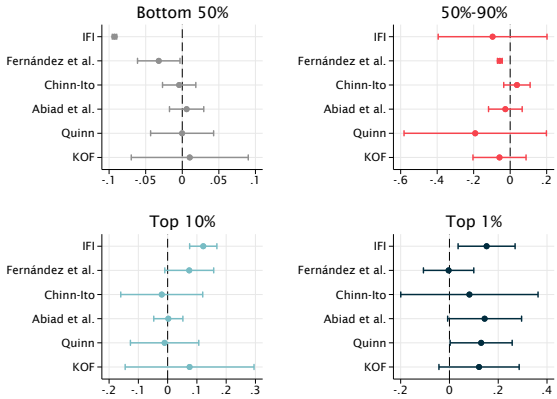

Figure 11: Comparison of coefficients

Coefficient of individual regressions of the wealth share against each (standardised) index of financial globalisation. 90% confidence bands.

Robustness | Foreign assets and liabilities separately

Back

	Dependent variable: Δ Wealth Share$_t$							
	(1) Bottom 50%	(2) 50%-90%	(3) Top 10%	(4) Top 1%	(5) Bottom 50%	(6) 50%-90%	(7) Top 10%	(8) Top 1%
Δ FA/GDP$_{t-1}$	-0.003***	-0.006	0.009**	0.014***				
	(0.000)	(0.004)	(0.002)	(0.001)				
Δ FL/GDP$_{t-1}$					-0.004**	-0.005	0.006**	0.011***
					(0.000)	(0.003)	(0.001)	(0.001)
Controls	✓	✓	✓	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	96	96	137	137	96	96	137	137
R^2	0.281	0.243	0.204	0.240	0.300	0.242	0.199	0.230

Notes: Clustered standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The Bottom 50% and 50%-90% include United States and France, while the top 1% and 10% include United Kingdom as well. The panel is unbalanced as the latest observation for the United Kingdom is 2012.