# Real Assets, Real Inequality: The Heterogeneous Impact of Inheritance on Wealth Mobility

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September 5, 2025

## Roadmap

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## Why study inheritances and wealth mobility?

- Wealth inequality has re-accelerated in advanced economies (OECD (2021)).
- Inheritances are frequent, and unevenly distributed (Nolan et al. (2021)).
- Are transfers equalizing or disequalizing? Depends on the metric (absolute vs. relative) (Boserup et al. (2016)).
- This paper: micro panel evidence on how asset type and value change shape mobility.

## Key contributions

- Panel analysis (2009–2022) using repetitively surveyed households.
- ② Two outcomes: Absolute mobility  $\Delta$  Net Wealth; Relative mobility  $\Delta$  rank in national wealth distribution.
- Oisaggregate transfers: Real vs. Financial assets; 10 asset types.
- Identification of <u>heterogeneous effects</u>: by macro-type, specific asset, and below/above median value.

## Household Finance and Consumption Survey

- Four survey waves: 2009–2011, 2013–2015, 2017–2018, 2020–2022 (harmonized by ECB).
- Countries in estimation: Belgium, Cyprus, Germany, Spain.
- Panel sample:  $\sim$ 2,983 repetitive HHs per wave ( $\sim$ 11,932 obs. total).
- Imputations: 5 implicates; Rubin's rules for pooled inference.
- Values deflated with HICP; incomes equivalized.

#### Inheritance variables

- Receipt dummy: any inheritance/gift by any HH member (outside current HH).
- Total value: sum of up to three reported transfers (net of tax).
- Asset types (10): Money; Dwelling; Dwelling Use; Land; Business; Securities & Shares; Valuables; Life Insurance; Vehicles; Other.
- Grouping: Financial (Money, Securities & Shares, Life Insurance) vs. Real (others).

#### Outcome definitions

#### Absolute mobility:

$$\Delta W_{i,t} = W_{i,t} - W_{i,t-1}$$

#### Relative mobility:

$$\Delta R_{i,t} = R_{i,t} - R_{i,t-1}$$

IHS used for monetary variables:

$$\operatorname{arcsinh}(x) = \ln \left( x + \sqrt{x^2 + 1} \right).$$

#### **Controls**

- Lagged wealth, income, HH size
- Age (& square), education, labor status
- Gender, marital status
- HH FE  $(\alpha_i)$ , Year FE  $(\lambda_t)$ , Country FE  $(\mu_c)$

## Baseline specification

$$\mathsf{Mobility}_{i,t} = \boldsymbol{\beta}' \, \mathsf{Inheritance}_{i,t} + \boldsymbol{\gamma}' \, \mathsf{X}_{i,t} + \alpha_i + \mu_c + \lambda_t + \varepsilon_{i,t}$$

- FE estimates emphasized; OLS reported for comparison.
- Monetary variables transformed with IHS; interpretation via elasticities.
- Multiply imputed data; robust SEs in OLS and clustered at HH level in FE.

#### Aggregate inheritance: extensive & intensive effect

Table: Aggregate Effects of Inheritance on Wealth Mobility: Receipt Dummy & Total Value

	Absolute	Absolute Mobility		Mobility				
	(1) OLS	(2) FE	(3) OLS	(4) FE				
Panel A: Received I	nheritance D	ummy						
Received Inheritance	0.9259*** (0.0872)	0.2722** (0.1125)	25.6295*** (3.4328)	18.3045*** (5.2935)				
Panel B: Total Inheritance Value (€)								
Inheritance Value	0.0772*** (0.0070)	0.0232** (0.0097)	2.2989*** (0.3102)	2.0102*** (0.5081)				
Controls	Yes	Yes	Yes	Yes				
Observations	8,904	8,905	8,904	8,905				

Notes: Panel A uses the receipt dummy as regressor, while Panel B uses the IHS-transformed total value of transfers. Standard errors are robust (OLS) and clustered at the household level (FE). , , and denote significance at the 10%, 5%, and 1% levels.

## Aggregate inheritance: extensive & intensive effect

- Overall: significant, positive for both absolute and relative mobility.
- Extensive (FE):  $\sim$ 31% increase in absolute mobility;  $\sim$ 18 rank positions gained.
- Intensive (FE):  $\sim$ 0.23% increase in absolute mobility;  $\sim$ 2 rank positions gained.
- Interpretation: transfers matter for both levels and distributional position.

#### Disaggregate inheritance: real vs. financial assets

Table: Effects of Inherited Real and Financial Assets on Wealth Mobility

	Absolute Mobility		Relative Mobility		N		
	(1) OLS	(2) FE	(3) OLS	(4) FE			
Panel A: Inherited Asset Dummy							
Real Asset	0.958*** (0.098)	0.251* (0.134)	28.10*** (3.75)	28.35*** (6.04)	8,905		
Financial Asset	0.347*** (0.092)	0.109 (0.108)	6.71 (4.34)	-0.43 (6.52)	8,905		
Panel B: Inherited Asset Value (€)							
Real Asset	0.072*** (0.014)	0.039* (0.020)	3.18*** (0.60)	3.12*** (0.92)	2,191		
Financial Asset	0.030** (0.014)	0.013 (0.015)	1.34* (0.72)	0.06 (0.91)	1,597		
Controls	Yes	Yes	Yes	Yes			

Notes: Panel A uses the receipt dummies of real or financial assets as regressor. Panel B uses their IHS-transformed value (€). Standard errors are robust (OLS) and clustered at the household level (FE). \*, \*\*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

#### Disaggregate inheritance: real vs. financial assets, by median value

#### Table: Effects of Inherited Assets on Wealth Mobility, by Median Bracket

Panel	Asset Type	sset Type Asset Value		Absolute Mobility		Relative Mobility	
			(1) OLS	(2) FE	(3) OLS	(4) FE	
Panel A	A: Inherited Asset	t Dummies					
	Real Asset	≤ €80,000	0.863*** (0.168)	0.264 (0.247)	20.92*** (6.03)	12.91 (10.04)	7,210
	Real Asset	> €80,000	1.390*** (0.160)	0.505** (0.251)	40.34*** (6.23)	39.50*** (10.42)	7,210
	Financial Asset	≤ €25,000	0.274 (0.257)	0.076 (0.257)	6.63 (8.27)	-14.25 (11.92)	6,619
	Financial Asset	> €25,000	0.524*** (0.092)	0.229 (0.167)	27.01*** (9.33)	4.49´ (13.90)	6,619
Panel I	B: Inherited Asset	t Value (€)					
	Real Asset	≤ €80,000	0.000 (0.079)	-0.041 (0.091)	1.59 (3.51)	8.83 (8.03)	474
	Real Asset	> €80,000	0.213 (0.205)	0.234*** (0.068)	18.14** (8.70)	26.61* (13.55)	415
	Financial Asset	≤ €25,000	0.633* (0.332)	0.847* (0.486)	19.28** (9.73)	27.81** (13.44)	286
	Financial Asset	> €25,000	0.324** (0.134)	0.123 (0.136)	32.75 (19.57)	16.07 (28.96)	241
Control	ls		Yes	Yes	Yes	Yes	

Notes: Panel A reports coefficients for dummies of inherited assets, by median bracket. Panel B reports IHS value change effects. Standard errors are robust (OLS) and clustered at the household level (FE). \*, \*\*, and \*\* indicate significance at the 10%. 5%. and 1% levels, respectively.

#### Disaggregate inheritance: real vs. financial assets

- Real assets drive the results: significant across specifications; larger marginal effects.
- Financial assets: generally insignificant in FE at means.
- Median split: large real inheritances matter most; small financial transfers help poorer HHs.

## Disaggregate inheritance: individual asset dummies

#### Table: Effects of Individual Asset Dummies on Wealth Mobility

	Absolute	Mobility	Relative Mobility		
	(1) OLS	(2) FE	(3) OLS	(4) FE	
Dwelling	0.6335***	0.4899**	30.5122***	37.6366***	
	(0.1334)	(0.2420)	(8.7438)	(12.6879)	
Dwelling Use	0.2701	-0.7721	13.7775	2.5646	
	(0.7141)	(0.6217)	(19.7179)	(27.3614)	
Land	0.9566***	-0.0278	24.4425***	17.1804	
	(0.2337)	(0.3026)	(7.9151)	(13.6333)	
Money	0.2799**	0.3398**	5.0618	-7.5323	
	(0.1135)	(0.1559)	(7.2050)	(11.1372)	
Business	-0.1164	-0.6429	-6.5075	2.9140	
	(0.2579)	(0.7329)	(37.3695)	(33.0786)	
Securities & Shares	0.0895	-0.0919	9.0298	23.7408	
	(0.1887)	(0.1652)	(19.2109)	(22.8704)	
Valuables	-0.1745	-0.3377	-99.3637**	-49.7267	
	(0.5590)	(0.6049)	(40.5792)	(54.6821)	
Life Insurance	0.5209	-0.0219	132.5814	126.0317	
	(0.5584)	(0.8145)	(117.1177)	(207.3077)	
Other Assets	0.8192*	0.8046	-29.0887	-25.0100	
	(0.4452)	(0.8519)	(38.8023)	(38.3840)	
Vehicles	-0.6953	-0.8862	14.3920	22.6229	
	(0.7589)	(0.7412)	(32.4475)	(44.7786)	
Controls	Yes	Yes	Yes	Yes	
Observations	7,231	7,231	7,231	7,231	

Notes: Standard errors are robust (OLS) and clustered at the household level (FE). \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

## Which asset types matter?

- Dwelling consistently significant:  $\sim$ 58% increase in absolute mobility; rank gains.
- Land: some significance in OLS, mixed in FE.
- Money: positive for absolute mobility on receipt.

## Disaggregate inheritance: individual asset value, by median value

Table: Effects of Individual Asset Value (€) on Wealth Mobility, by Median Bracket

Asset Type	Asset Value	Absolute Mobility		Absolute Mobility Relative Mobility		N
		OLS	FE	OLS	FE	
Dwelling	≤ <b>€</b> 70,000	0.68 (0.46)	-0.10 (0.22)	-2.01 (11.13)	-89.56 (54.02)	123
Dwelling	>€70,000	0.64*** (0.22)	0.40*** (0.07)	5.11 (27.96)	6.31 (22.36)	107
Land	≤€35,000	0.08 (0.25)	0.17* (0.08)	6.49 (7.14)	41.77** (15.73)	74
Land	>€35,000	-0.23 (0.49)	0.10 (0.09)	6.28 (18.46)	19.73 (13.41)	68
Money	≤€20,000	0.65* (0.39)	1.42* (0.83)	23.28** (9.30)	41.52*** (15.54)	236
Money	>€20,000	0.25 (0.13)	0.01 (0.09)	36.39* (18.03)	23.44 (38.76)	208
Controls		Yes	Yes	Yes	Yes	

Notes: Each cell reports the effect of IHS-transformed inheritance value, by asset type and median bracket. Standard errors are robust (OLS) and clustered at the household level (FE).

\*. \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

## Heterogeneity by value bracket

- ullet Real assets: effects from above-median inheritances o favors wealthier heirs.
- Financial assets: small transfers strongly affect low-wealth households.

## Policy implication

- Rebalance taxation toward high-value real property.
- Given housing centrality and strong marginal impacts of small financial transfers for low-wealth households, this could yield several benefits:
  - Fewer luxury homes bought by foreign investors to park money would sit empty.
  - Lower local land prices and deposits needed to access a mortgage improve housing affordability.
  - Increased savings for low-wealth households to meet daily needs.

## **Takeaways**

- Inheritances increase wealth mobility on average, but who benefits hinges on asset type and value.
- Real assets, especially dwellings above the median, drive gains skewed toward richer heirs.
- Small financial transfers materially lift poorer households.
- Absent policy, patterns likely exacerbate inequality over time.

## Thanks!

Questions?

#### References I

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