Private Wealth Across European Countries: The Role of Income, Inheritance and the Welfare State

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Overview

- Contribution to wealth distribution in Europe (across countries and within countries) of inheritances and welfare state

- Use of microdata from the Households Finance and Consumption Survey (HFCS): harmonised survey(s) on households balance-sheets and other demographic and economic variables

Finding 1: positive correlation between inheritance and wealth

"Heir households hold substantially higher net wealth levels than their non-heir counterparts. This finding holds along different household types as well as along the entire net wealth distribution, controlling for a large set of socioeconomic characteristics of households."

Finding 1: positive correlation between inheritance and wealth

Figure 1: Effect of Inheritance
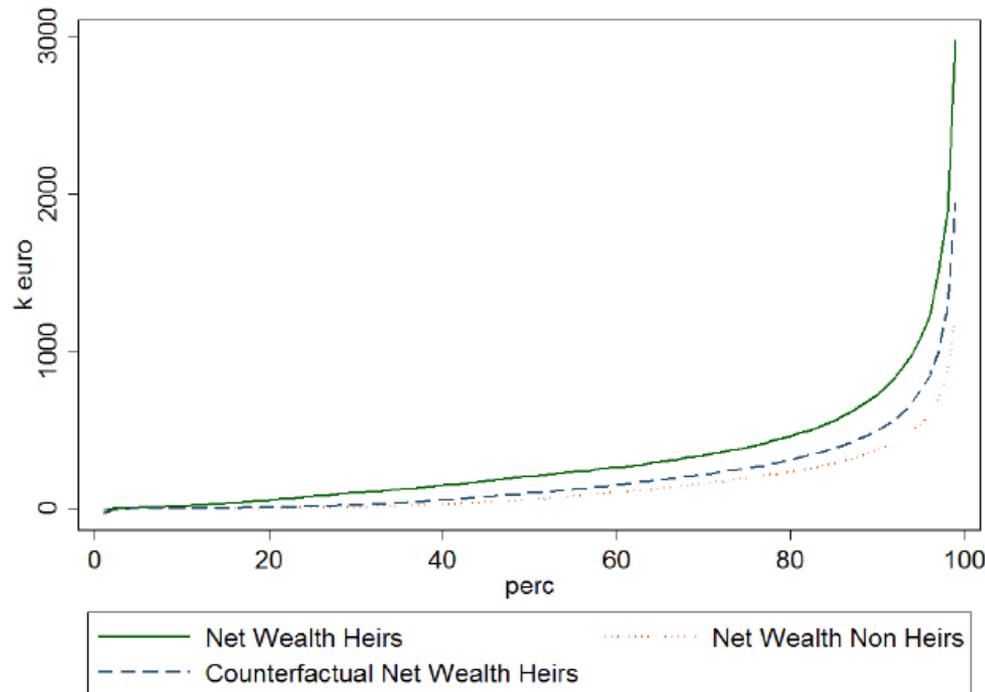
- Reweighted non-heirs constructed à la DiNardo, Fortin, Lemieux (1996) with covariates age, age-squared, gender, education, retirement, entrepreneur, income rank: non-heirs to match covariates of heirs

- Difference of 100,000 EUR at the median (on a median wealth of 210,000 EUR)

Finding 2: inheritance to lift wealth by 14 percentiles

"On average, an intergenerational transfer lifts a household by 14 net wealth percentiles, while an additional percentile in the income distribution is associated with 0.4 net wealth percentiles. Receiving an intergenerational transfer is therefore a higher contributor to net wealth, being equivalent to an income increase that leads to a new rank in the income distribution about 35 percentiles higher. This relative importance of intergenerational transfers versus income position varies from about 25 (Slovakia) to 52 (Austria) income percentiles being equivalent to an intergenerational transfer."

Finding 2: inheritance to lift wealth by 14 percentiles

Table 4: Pooled Net Wealth Position Regressions

	OLS	OLS II	OLS III	OLS IV
Inheritance	17.915***	14.083***	13.810***	13.467***
	(0.568)	(0.566)	(0.542)	(0.576)
Income position	0.398***	0.351***	0.303***	0.386***
	(0.009)	(0.010)	(0.010)	(0.011)
Female		-3.036***	-2.220***	-1.172*
		(0.571)	(0.716)	(0.669)
Age		1.163***	0.793***	0.764***
		(0.092)	(0.124)	(0.120)
Age squared		-0.007***	-0.004***	-0.004***
		(0.001)	(0.001)	(0.001)
Tertiary education		4.942***	5.955***	4.879***
		(0.654)	(0.616)	(0.615)
Retired		2.655***	2.898***	3.614***
		(0.730)	(0.676)	(0.611)
Entrepreneur		16.280***	15.277***	14.002***
		(0.917)	(0.869)	(0.823)
Controls		X	X	X
Household Type FE			X	X
Country FE				X
N	41501	41476	41476	41476

- Regress wealth percentile on income percentile and inheritance dummy

- Same set of controls as for DFL approach above + households class (Fessler, Lindner, Segalla, 2014) + country fixed effects

- **Inheritance to increase wealth by 14 percentiles**; shift in income percentile to shift wealth by 0.3 to 0.4 percentiles

Finding 2: inheritance to lift wealth by 14 percentiles

Table 5: Country Level Net Wealth Position Regressions

	AT	BE	CY	DE	ES	FR	GR	LU	MT	NL	PT	SI	SK
Inheritance	17.230***	8.890***	15.570***	17.083***	11.327***	11.598***	13.984***	12.224***	12.920***	8.129**	12.593***	13.501***	5.547***
	(1.437)	(1.191)	(1.898)	(1.365)	(0.966)	(0.659)	(1.435)	(1.750)	(1.735)	(3.910)	(1.065)	(2.377)	(1.355)
Income position	0.329***	0.338***	0.395***	0.459***	0.392***	0.428***	0.347***	0.454***	0.252***	0.111***	0.347***	0.240***	0.225***
	(0.032)	(0.030)	(0.038)	(0.027)	(0.021)	(0.014)	(0.022)	(0.034)	(0.043)	(0.043)	(0.022)	(0.052)	(0.043)
Female	-1.558	-1.083	-4.186*	-2.165	0.093	-0.843	-5.963***	-3.416	2.651	-0.022	-2.803**	3.797	0.409
	(1.915)	(1.819)	(2.230)	(1.769)	(1.545)	(0.770)	(1.785)	(2.709)	(2.296)	(3.004)	(1.220)	(2.734)	(1.831)
Age	0.897***	1.422***	1.133***	0.329	1.006***	0.899***	0.690***	0.792		0.491	1.100***	0.521	0.964***
	(0.250)	(0.345)	(0.409)	(0.277)	(0.252)	(0.170)	(0.262)	(0.526)		(0.746)	(0.278)	(0.525)	(0.373)
Age squared	-0.006**	-0.010***	-0.009**	-0.001	-0.005**	-0.005***	-0.006**	-0.004		0.001	-0.008***	-0.002	-0.007*
	(0.003)	(0.003)	(0.004)	(0.003)	(0.002)	(0.002)	(0.003)	(0.005)		(0.007)	(0.003)	(0.005)	(0.004)
Tertiary education	1.570	7.664***	2.319	4.602***	8.255***	4.760***	5.833***	5.041**	7.217***	3.696*	11.811***	9.538***	12.733***
	(1.377)	(1.397)	(1.931)	(1.376)	(1.281)	(0.802)	(1.599)	(2.021)	(1.956)	(2.231)	(1.578)	(2.628)	(1.522)
Retired	2.585*	10.217***	3.574	4.895**	4.248**	5.366***	4.840**	4.802	7.541**	-4.198	0.889	15.306***	-5.254*
	(1.457)	(3.293)	(3.866)	(2.035)	(1.683)	(1.013)	(2.041)	(3.157)	(2.977)	(3.602)	(1.492)	(4.331)	(3.078)
Entrepreneur	21.727***	16.696***	19.006***	8.409***	16.317***	21.335***	11.553***	15.694***	28.914***	15.267**	24.052***	23.477***	10.424***
	(2.619)	(2.524)	(2.067)	(1.532)	(1.810)	(1.134)	(1.830)	(3.623)	(3.287)	(7.296)	(1.614)	(3.698)	(2.576)
Controls	X	X	X	X	X	X	X	X		X	X	X	X
Household Type FE	X	X		X	X	X	X	X	X	X	X	X	X
N	2380	2327	1237	3562	6192	14999	2970	949	843	1298	4398	343	2056

Finding 3: negative correlation between welfare state and wealth

"Welfare state expenditures are substitutes for private wealth accumulation. The more insurance the state provides against the contingencies of life, the less need the households have to accumulate wealth for precautionary reasons. That translates to relatively lower average net wealth holdings for households in countries with higher welfare state expenditures."

Finding 3: negative correlation between welfare state and wealth

Table 6: Multilevel Regressions

	Null	HH-Lev	Pension	PensionRE	Social	SocialRE	Labor	LaborRE
Inheritance		1.397***	1.397***	1.337***	1.397***	1.346***	1.361***	1.397***
		(0.041)	(0.041)	(0.138)	(0.041)	(0.134)	(0.126)	(0.041)
Income		0.345***	0.345***	0.432***	0.346***	0.433***	0.431***	0.345***
		(0.015)	(0.015)	(0.087)	(0.015)	(0.087)	(0.088)	(0.015)
Pension expenditure			-0.170***	-0.151**				
			(0.065)	(0.069)				
Social expenditure					-0.071**	-0.064**		
					(0.034)	(0.033)		
Labor market policy							-0.134	-0.000
							(0.142)	(0.165)
Controls		X	X	X	X	X	X	X
Random Coefficients				X		X		X
Var Country	.636	.299	.182	.005	.210	.005	.008	.299
Var Households	18.230	14.977	14.977	14.868	14.977	14.869	14.870	14.977
ICC	.0336	.0196	.0121		.0138		.0005	
N	41501	41496	41496	41496	41496	41496	41496	41496

- Multilevel regression, with income and wealth in logs (inverse hyperbolic sine transform) and random coefficients.

- Same controls + welfare state controls in % GDP (allowing for random coefficients in some specifications)

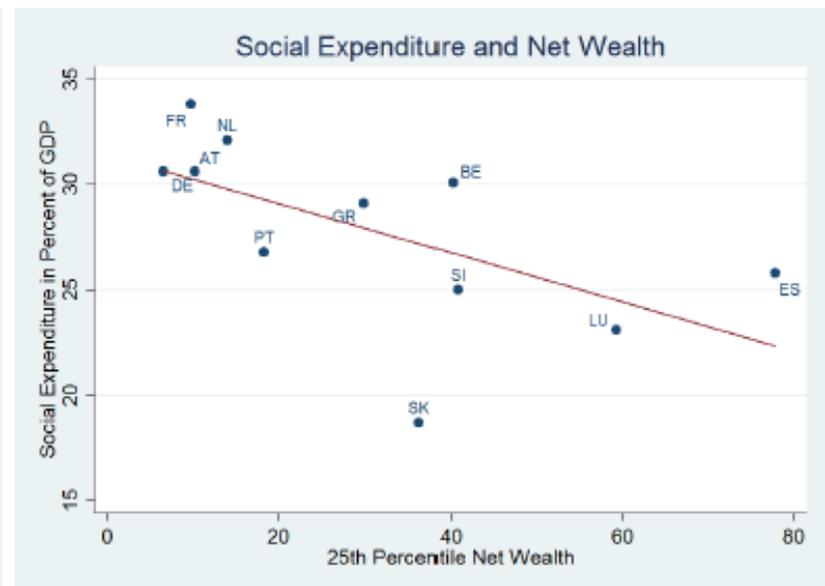- **Pension expenditure increase by 1% reduces wealth by 15%**

Finding 4: substitution effect of welfare state stronger for the poorest

"The substitution effect of welfare state expenditures with regard to private wealth holdings is significant along the full net wealth distribution, but is relatively lower at higher levels of net wealth. Given an increase in welfare state expenditure, the percentage decrease in net wealth of poorer households is relatively stronger than for households in the upper part of the wealth distribution. This finding implies that given an increase of welfare state expenditure, wealth inequality measured by standard relative inequality measures such as the Gini-coefficient will increase."

Finding 4: substitution effect of welfare state stronger for the poorest
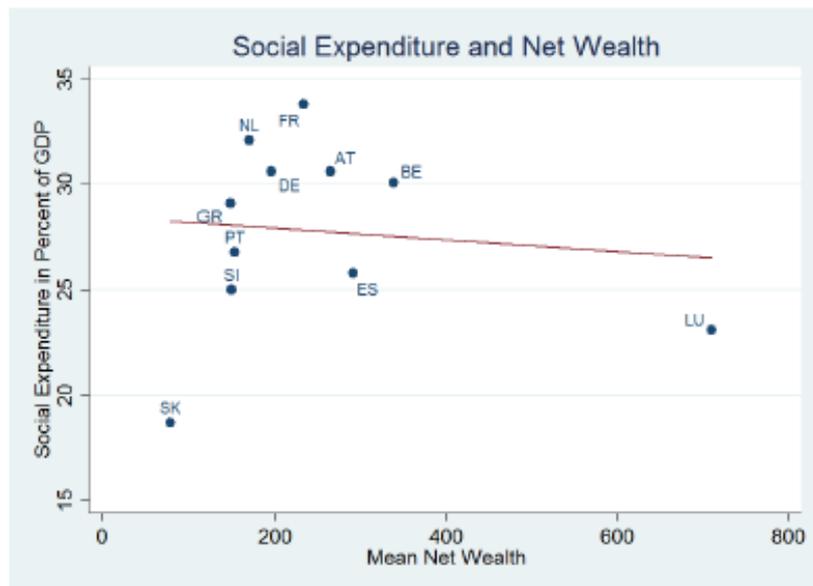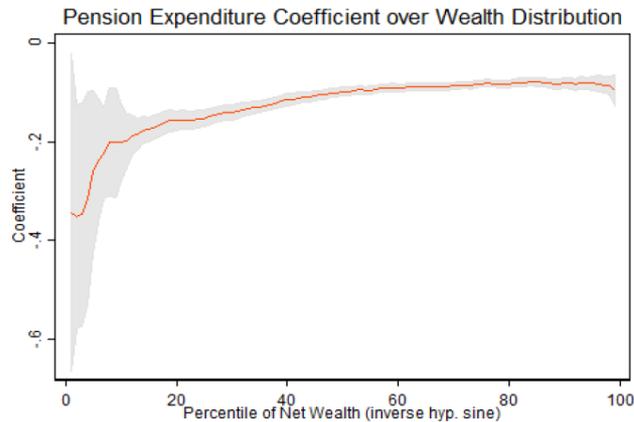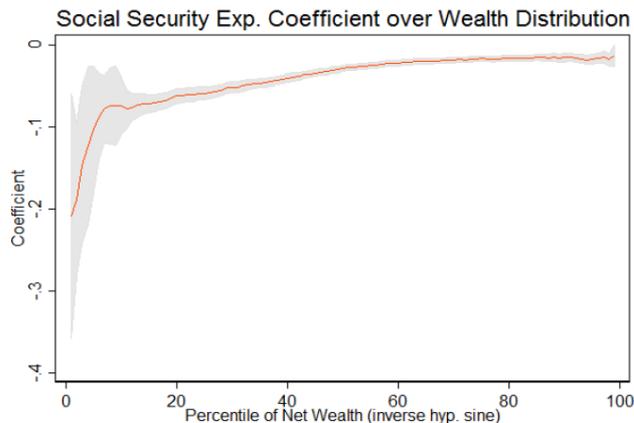

(a) Mean

(b) P25

Finding 4: substitution effect of welfare state stronger for the poorest

Figure 3: Effects along the Net Wealth Distribution

(a) Pension (OLS-estimate: -0.142 (0.011))

(b) Social (OLS-estimate: -0.044 (0.004))

- Regressions per percentile with same specifications as the multilevel model

- At P10, 1 percentage point change in pensions decreases wealth by 20%

- For subsequent percentiles, elasticity decreases, but remains above 10%

- Results consistent with "displacement effect" literature

Questions /comments

- Authors might want to further elaborate on some technical choices:
    - Why modelling impact of inheritance in ranks, but impact of welfare state in percentage changes? How do the results in the multi-level model for elasticity of income (0.3 to 0.4) and inheritance (1.4) match with the corresponding percentile position sensitivities in the rank model?
    - Why abandoning the multi-level structure when doing percentile regressions?

- Trivial comment: global results are hardly surprising for social expenditure. Financial assets results from exchanges of cash out-flows today for future cash in-flows, exchanges formilized with legal contracts. Social security provides a similar framework for cash-flows exchanges, but: (i) enforced by government via social contributions and benefits; (ii) with elements of income distribution; (iii) without the same legal certainty and not given rise to assets in the system