

# Wealth inequality in Finland and Sweden, 1750-1900

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Finland paper: Erik Bengtsson, Anna Missiaia, Ilkka Nummela and Mats Olsson

Sweden paper: Erik Bengtsson, Anna Missiaia, Mats Olsson and Patrick Svensson

# Contribution

We provide new estimates of wealth and its inequality in Finland and Sweden in 1750, 1800, 1850 and 1900

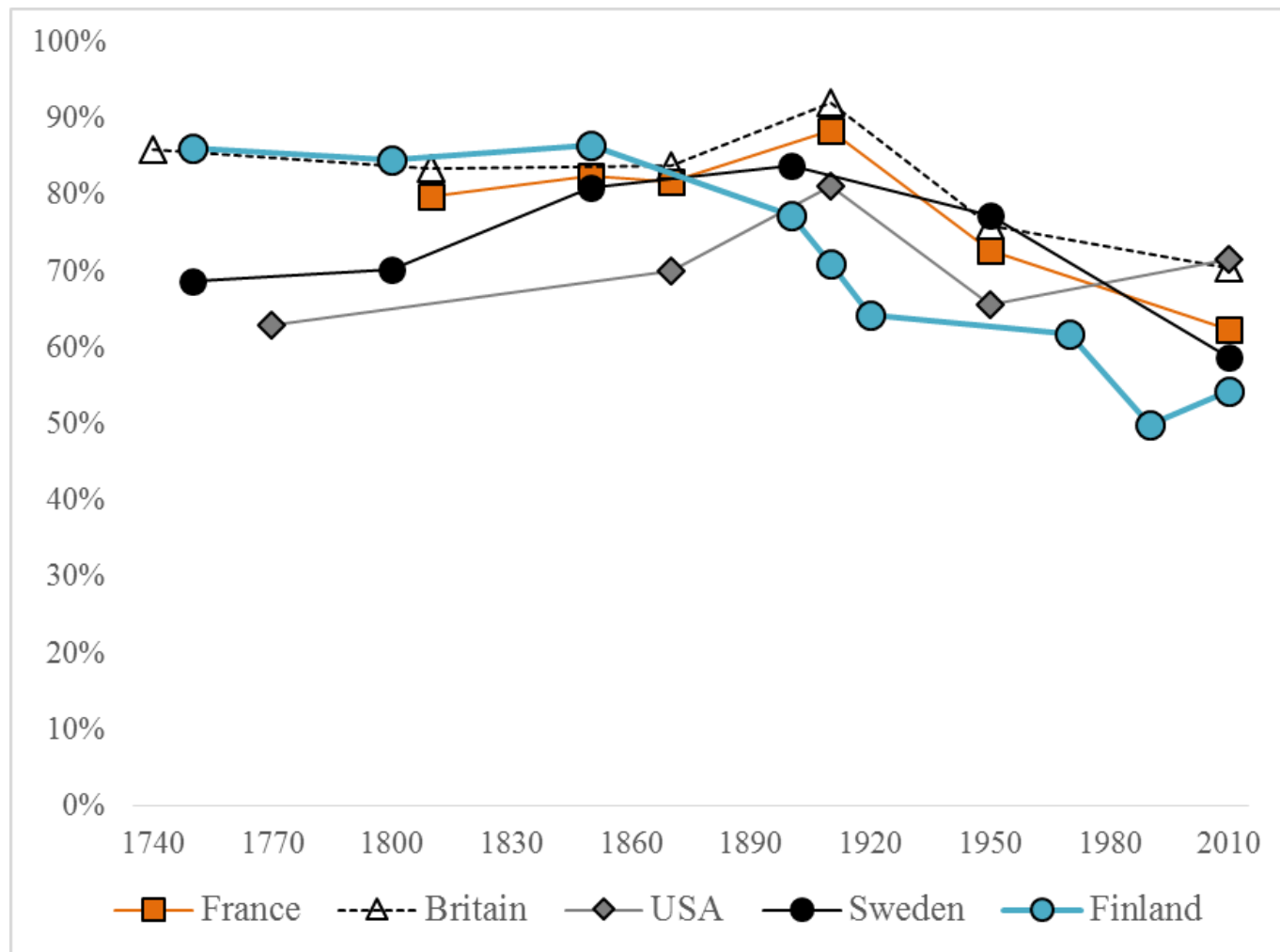
Sweden paper: published in the *Economic History Review*

Finland paper: work in progress

This presentation: attempt to summarize

- What we do (sources, dataset)
- Main result(s)
- Main argument(s)

## Top decile share of private wealth, 1740-2010



Note. Sources are USA 1774 and 1870 from Shammas (1993, p. 424) and Piketty (2014) for 1910–2010, Britain 1740–1870 from Lindert (1986, Table 4) and from Piketty (2014) for 1910–2010, France from Piketty et al (2006), Sweden from Bengtsson et al (2017) for 1750–1900 and from Piketty (2014) for 1910–2010. Finland 1910–2010 from Roine and Waldenström (2014).

# Contribution

## What did we know about long-run inequality in these countries?

- Top income shares in Sweden 1903- from Roine and Waldenström (2008)
- Top wealth shares in Sweden 1873-77 and 1906- from Roine and Waldenström (2009)
- Finland: only pre-20th c data dodgy estimates based on 1800 wealth tax (Jutikkala 1953, Soltow 1981)

## Why wealth?

- These are agrarian economies pre-1900.
- Urbanization rate in Sweden 1850 10 %, 1900 21 %; Finland 6 and 13 %
- Subsistence production important; wealth better indicator of economic standing than incomes

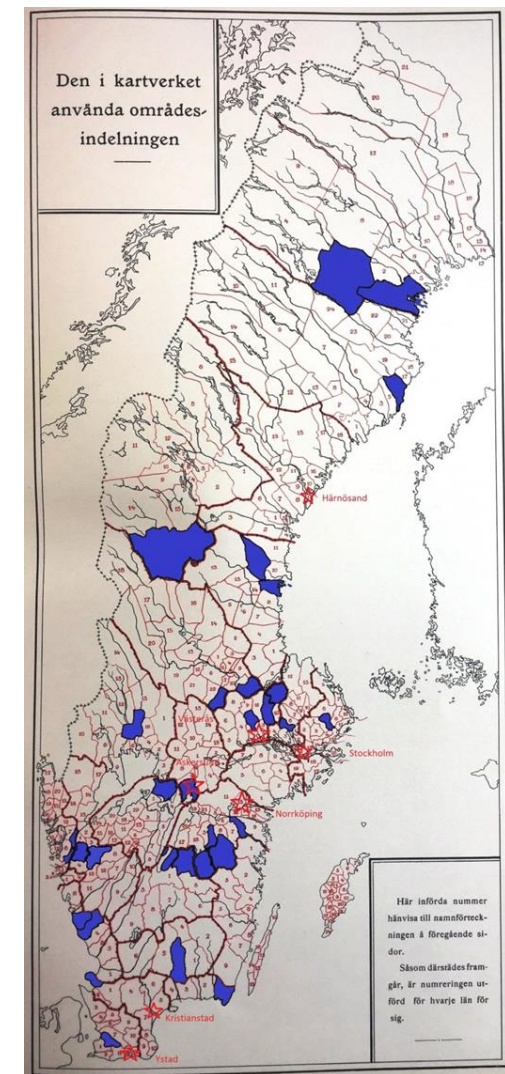
# Empirical approach, dataset

## Sweden dataset

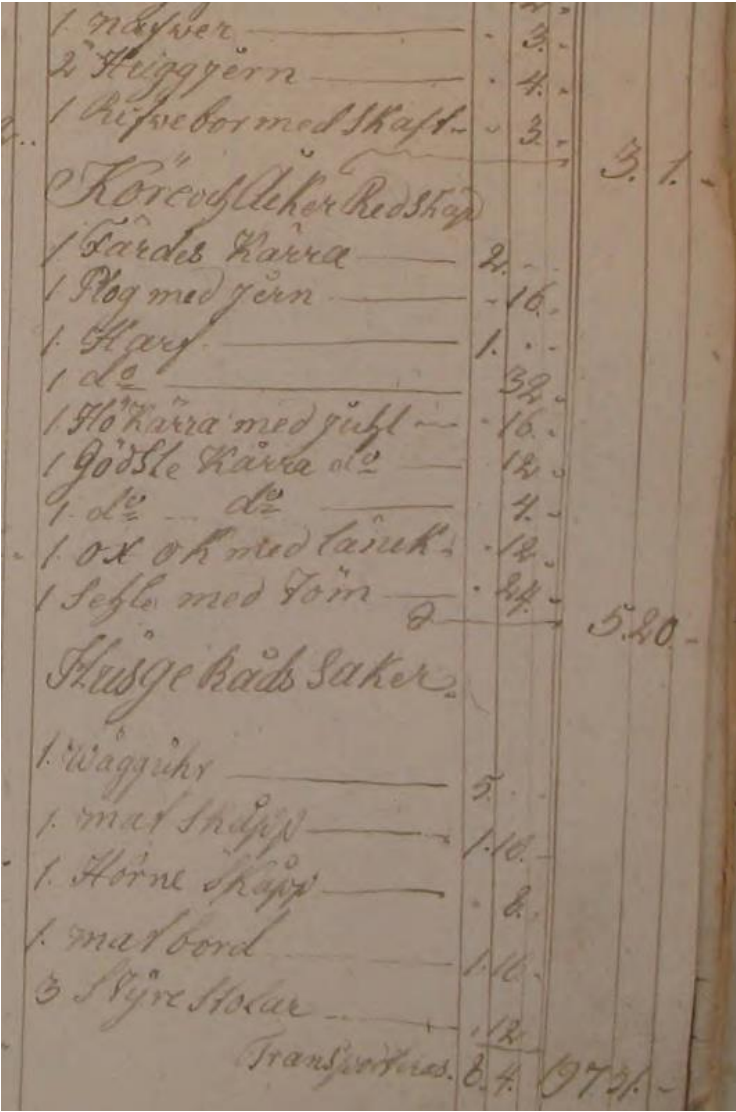
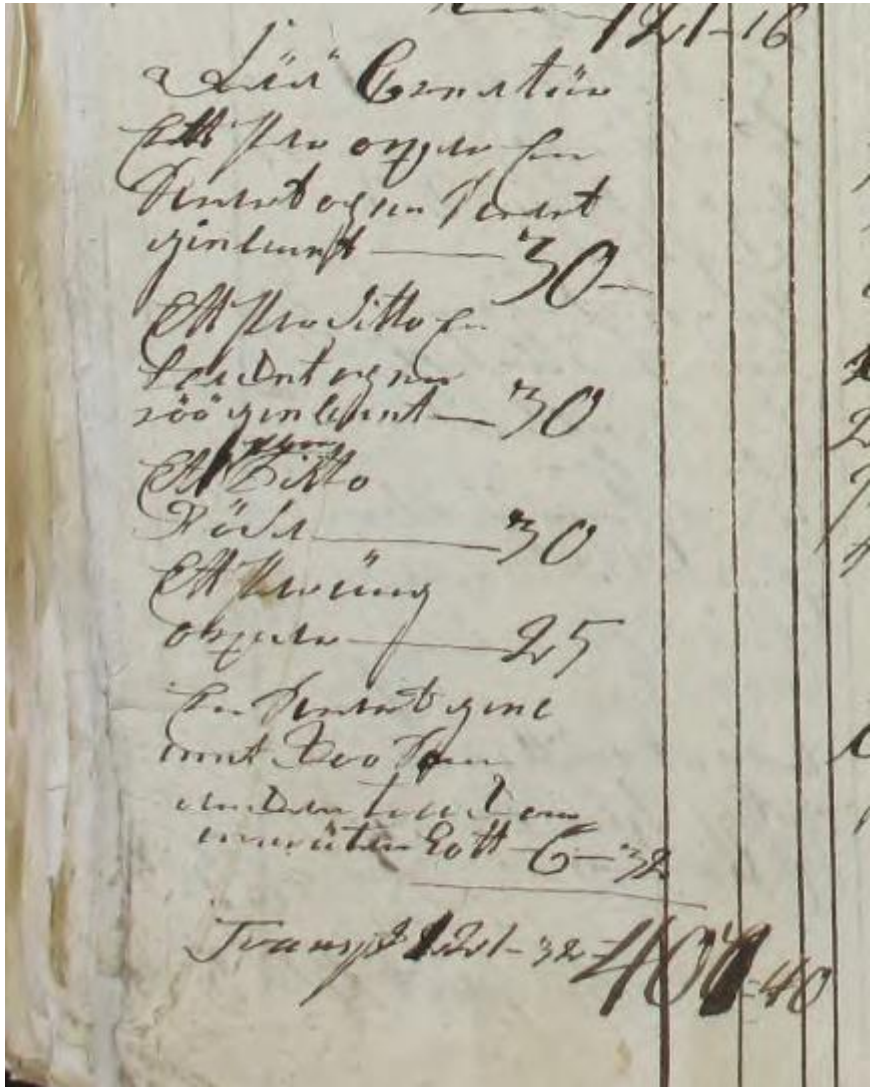
- 5000+ probate inventories 1750, 1800, 1850, 1900
- random sampling of judicial units (härad/hundreds)
- 7 towns/cities and 32 rural areas
- Over-sampling of the top = nobility

## Finland dataset

- 27 100 probate inventories 1653-1915 collected in 1985-1989 by Ilkka Nummela – 17 279 used in present paper
- No deliberate sampling strategy, but comprehensive towns vs. rural etc
- Nobility only covered 1820-65 (due to archive fire)



# Swedish-Finnish probate inventories (1)



- 1734 law made probate inventory at death mandatory. Used for
  - Splitting inheritance
  - Re-payment of debts
  - Payment of small (0.25%) tax
- Very comprehensive, include real estate, clothing, animals, tools, jewelry, furniture, etc. etc.

Left: cattle owned by Anders Christiansson, Bara hundred, 1800

Right: farming tools and utensils owned by Anders Andersson in Kullings hundred, 1800

# Swedish-Finnish probate inventories (2)

		Arv	Co
<u>Sångkläder</u>			
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
2. 7.	1. 7.	1. 7.	
		12	2. 1.
<u>Linkläder</u>			
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
		16	3.
<u>Musgerad.</u>			
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
1. 7.	1. 7.	1. 7.	
		6	5. 1.
		1. 14	

Textile worker widow  
in 1751.

Total fortune 22 daler  
kopparmynt

Consisting of:  
tattered bed linen, old  
clothes, and some  
utensils. Nothing  
more.

# Swedish-Finnish probate inventories (3)

värderades i följande ordning:

	skronor öre	skronor öre			
<u>Kantanta medel.</u>					
Kärl lödofallet befunnas		400 99			
<u>Guld och silver</u>					
1 guldlur	15 -				
1 urkedja, fransk guld	10 -				
1 ordenskedja af guld med ordnar	40 -				
1 silversked	2 25				
1 - -	15 -				
Silverse silfverjettoner	14 -	96 25			
<u>Nyrsilver:</u>					
1 kaffehamar	3 -				
1 gräddhamar	50				
2 brödkargar	3 -				
1 strösked	1 -				
1 säskhed	1 -				
1 förtäggarslef	1 -				
1 dussin matgafflar	7 20				
1/2 - - matskedar	3 60				
1/2 - - dessertskedar	2 40				
13 teskedar	2 60				
1 kristallglas med nyrsilverfot	5 -	30 30			
<u>Linnen:</u>					
1/2 dussin servietter	5 40				
5 dukar	7 -				
6 brickdukar	1 -				
24 handdukar	4 30				
18 kötskanddukar	2 70				
10 par lakan	15 -				
13 örngott	5 40				
1 dussin små servietter	1 20	43 50			
Transport		570 04			
			<u>Pängkläder:</u>		570 04
			Myrtagas till		200 -
			<u>Pängkläder:</u>		
			Myrtagas till		20 -
			<u>Husgeråd:</u>		
			Lilla rummet:		
			1 klädd liggsoffa med madrass	20	
			1 byrå	5	
			1 bokhylla	3	
			1 bokskåp	40	
			2 klädda stolar	15	
			1 trästol	50	
			1 klädt fönsterbord	2	
			1 väggspiegel	1	
			2 ljusstakar	3	
			1 ampel	2	
			1 luft gardiner med behör	3	
			1 rullgardin	1	
			1 soffkudde	50	
			1 spejlsnöre	25	
			1 Staffli	1	97 25
			<u>Salen:</u>		
			1 klädd soffa	15	
			6 rottingstolar	6	
			1 matbord	10	
			2 fönsterbord	7	
			2 bokskåp	150	
			1 väggur	15	
			1 ljuskrona	12	
			1 byrå	1	
			2 borddukar	2 50	
			2 luften hvita gardiner	5 -	
			Transport	223 30	887 29


Beginning of inventory of Nils Fredrik Sander, Stockholm, 1900.

Cash, gold, silver, linen, etc.

Inventories for wealthy people can be 50+ pages, with attached proofs of stock ownership, tax information for real estate, etc.

# Swedish-Finnish probate inventories (4)

Landownership. These are the farms held by count Thure Bielke (1900), in just one parish, Trosa.

Den statsligtliga	Egendomen	Stämman	Antal	Lynskatet		man ghet.
				jordbruksfastighet	annan fastighet	
<u>Kälöbo Herad</u>						
<u>Trosa socken</u>						
Gveshoffjägare: P. Sukarvona och Grefve T. Bjelke	Thureholm, sat.		2	125000		
	Roko, fr.		2	2300		
	Bresäter, "		2	32100		
	St. Fänstugan, lgh.		-	2000		
	Fälbergsvik, fr.		4	3500		
	Kunga, sk.	1	2	13400		
	St. " "	2	2	15200		
	St. " "	3	4	6200		
	St. " "	4	4	6200		
	St. " "	5	4	15200		
Käno, fr.		2	5200			
Laguo, "		12.5	22000			
						
Betalt med fl. ppr. En krona 50 öre Huv. öfverhoffjägare: P. Sukarvona på begäran						



# Two adjustments

Probate inventories disproportionately capture

1. wealthier groups, and
2. the old

We adjust:

1. For underrepresentation of the poor by weighting up observations from under-represented groups
2. for age with inverted mortality multiplier

Robustness of estimated private wealth: wealth per head in 1850 <10 per cent difference with Waldenström's (2016) estimate with very different data; in 1900 1 per cent difference

# Main results. 1: Sweden

- Sweden is more unequal in 1750 and 1800 than we might expect
  - Cf. Piketty (2014): ‘Sweden was not the structurally egalitarian country that we sometimes imagine’.
- Increasing inequality 1750-1900
  - But it’s not a Kuznets process!  
Increasing inequality within the rural sector very important
  - bottom-driven 1750-1850 (proletarianization)
  - top-driven 1850-1900 (polarization within the elite)

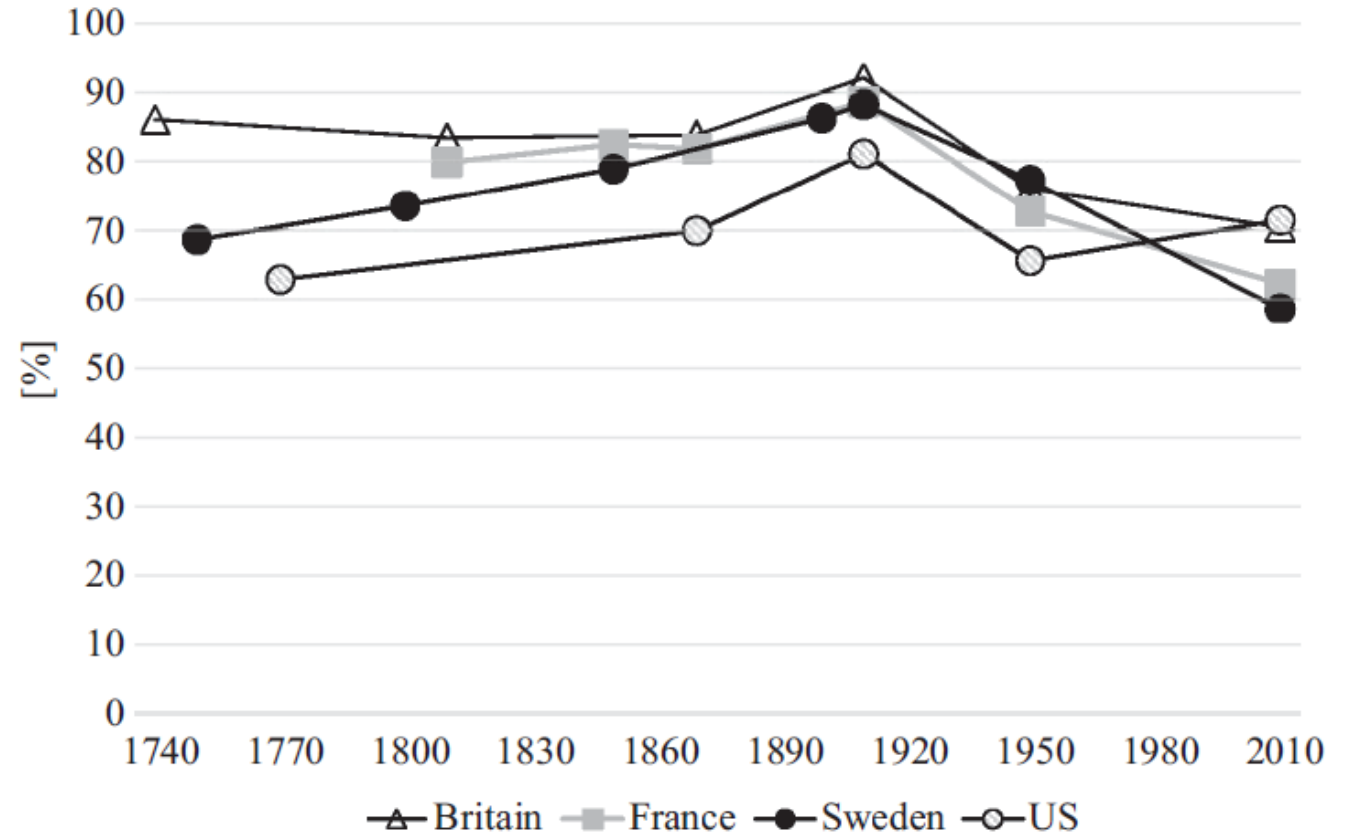


Table 3. *Wealth inequality in Sweden, 1750–1900*

	1750	95% conf.	1800	95% conf.	1850	95% conf.	1900	95% conf.
Top 1%	43.00%	37.3–48.7	39.70%	37.8–41.7	41.50%	38.4–44.6	57.60%	54.1–61.0
Top 10%	68.70%	65.4–71.9	73.60%	72.6–74.7	78.90%	77.6–80.1	86.20%	85.0–87.3
Gini coefficient	0.79	0.765–0.809	0.84	0.831–0.844	0.87	0.863–0.878	0.91	0.904–0.919

Source: Calculations based on probate inventories dataset; see n. 32.

# Sweden 1750-1900: Kuznetsian and non-Kuznetsian processes

Rapidly growing inequality 1750-1850: top decile's share grows from 69 % to 79%; Gini from 0.79 to 0.87

What happens?

- Urbanization constant: 10 per cent
- Agricultural share of GDP doesn't decrease so much: 50→43 %
- But rural Gini grows from 0.72 to 0.83.
- Farmers' share of population down from 50 % to 32 %
- Farmers' Gini from 0.57 to 0.77
- In other words, most of the inequality increase occurs within rural society

1850-1900 more Kuznetsian. Gini increases from 0.87 to 0.91, P99 share from 42 to 58 %

- urbanization doubles (10→21 %)
- Bourgeois share of wealth increases from 31 to 57 % (Nobility down from 10 to 5 %; farmers down from 49 to 28 %)
- P99 grows by 16 percentage points but P90 only 7 p.p. = polarization within the elite

# Main results. 2: Finland

- Very high inequality 1750-1850
  - Unexpected, given how poor the country was
- Decreasing inequality 1850-1900/1910
  - Speaks against the Kuznets Curve
  - Our explanation: farmer ownership of the forest, which grew in value
    - Importance of asset classes – cf. Kuhn Schularick Stein
  - Speaks against theories where only malign factors decrease inequality
  - Robust for our lack of nobles 1800 and 1900, and changing geographical composition of dataset
- ”Unequal poverty and equal industrialization”

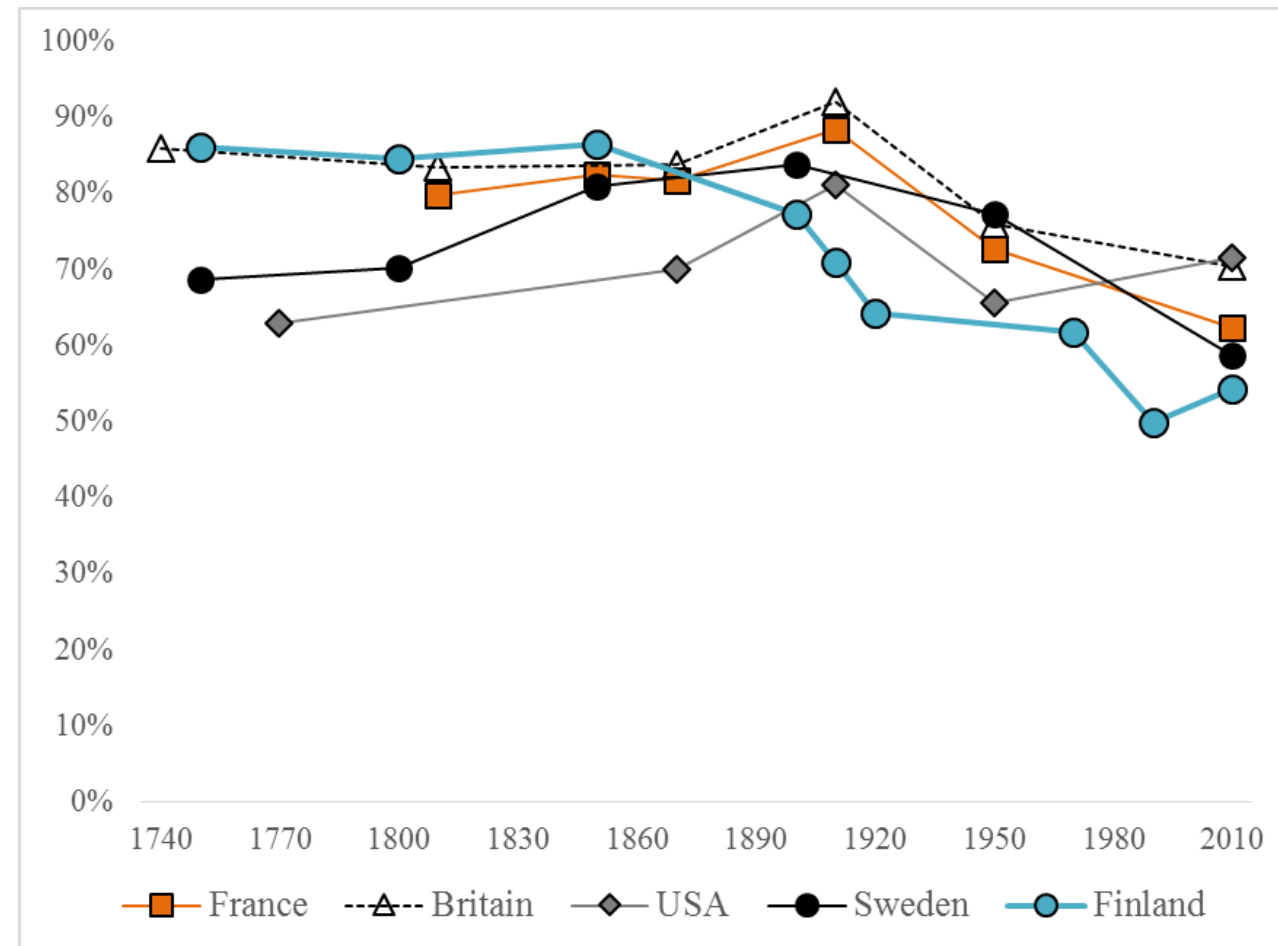


Table 3. Wealth inequality in Finland and Sweden, 1750–1900.

		1750		1800		1850		1900	
		Level	95% CI	Level	95% conf.	Level	95% conf.	Level	95% conf.
Finland	Top 1%	53.66%	52.4–54.8	55.19%	53.4–57.0	55.68%	53.3–58.0	32.74%	31.6–34.0
	Top 10%	86.18%	85.7–86.7	84.52%	83.8–85.2	86.57%	85.8–87.3	77.37%	76.9–77.9
	Gini coefficient	0.89	0.883–0.890	0.90	0.896–0.904	0.92	0.911–0.920	0.86	0.86–0.865
Sweden	Top 1%	43.0%	37.3–48.7	39.7%	37.8–41.7	41.5%	38.4–44.6	57.6%	54.1–61.0
	Top 10%	68.7%	65.4–71.9	73.6%	72.6–74.7	78.9%	77.6–80.1	86.2%	85.0–87.3
	Gini coefficient	0.79	0.765–0.809	0.84	0.831–0.844	0.87	0.863–0.878	0.91	0.904–0.919

# Farmers-driven equalization? Finland 1850-1900

- inequality decreased especially by the middle of the distribution catching up on the top: top decile's share decreases more (10.7%) than Gini (7.3%)
- Farmers' wealth as % of average Finn increases 1850-1900 from 98 % to 179 %
- Theil decomposition shows growing between-class component 1800-1850, but decreasing 1850-1900

## Why?

- Two major shocks to the Finnish economy. One, use of steam power in saw mills after 1857. Two, growth of new Russian capital St Petersburg = market for Finnish produce
- In Sweden, corporations dominated ownership & use-rights of the forests. In Finland, farmers dominated.
- Alapuro (1988): “differences between manors and wealthy peasant farms nearly disappeared”

# Further work

## Sweden

- Paper on nobility – revise and resubmit, *Scandinavian Journal of History*
  - Importance of landed wealth versus "capitalist" wealth such as stocks and bonds
  - Differences between titled and untitled nobles
  - In 1900 average noble is 19 times wealthier than average Swede. But 40 % of nobles are below the mean – a polarization within the noble group
- Paper on farmers – work in progress
  - Regional differences in wealth accumulation 1750-1900, depending on soil quality and proximity to markets (cities, ports)
- Extension for Stockholm and other cities back to 1650 and 1700 – in progress
  - Development from early modern "Great power", warfare state, to something very different post-1719
  - Development of a mercantile capitalist city, key node in Baltic trading network & dominating Swedish exports

## Finland

- Regional study
  - Poor east vs rich west?
  - Changing trade patterns with transfer from Sweden to Russia in 1809; growth of St Petersburg; new railroads & canals
  - Role of different regional inequalities in shaping Finland's political economy & politics?

Further possibilities?