## Gender Gap in Financial Literacy and Stock Market Participation: Evidence from Finland

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## Background

- Limited stock market participation has been of interest to scholars, as it is one reason for increasing wealth inequality (e.g. Campbell, 2006)
- Stock market participation has been even more limited in Finland compared to the US, although it has been increasing in the past decades
- At the same time, women are known to own stock even less frequently than men (e.g. Almenberg and Dreber, 2015)



## Aim of this paper

- We document that there is a gender gap in stock market participation between men and women in Finland
- We investigate what factors contribute to this gender stock market participation gap and whether it can be explained by these other factors
- Special attention is paid to financial literacy and trust to stock markets



# Reasons why women own shares less frequently than men

- Differences in gender roles
- Lower income of women
- Higher risk aversion (Halko, Kaustia & Alanko, 2012)
- Lower financial literacy (Van Rooij, Lusardi & Alessie, 2011; Almenberg & Dreber, 2015)
- Differences in trust to other people and stock market (Guiso, Sapienza & Zingales, 2008; Georgarakos & Pasini, 2011; Balloch, Nicolae and Philip, 2015)



## Financial literacy and stock market participation

- Previous results have suggested that the male and female differences in stock market participation disappear when taking into account financial literacy (Almenberg & Dreber, 2015; Kalmi, Lusardi and Ruuskanen, 2017)
- In this paper, we analyze this also be include subjective measures of financial literacy, interpersonal trust and trust in stock markets



#### Our data source

- New data collected in January 2023 on financial literacy in Finland: part of the data collection effort coordinated by the OECD
- Online survey with around 1800 usable answers



## Types of stock market ownership

- Popular stock market ownership has a relatively brief history in Finland
- Direct stock ownership became more common in the economic boom of the late 1980s
- Stock ownership by mutual funds became more common during mid-90s
- Share savings accounts (share trading is possible without tax consequences, as long as funds are kept within the account) were introduced in 2020 and have become popular



## There is a gender gap in all forms of stock ownership

	All	Men	Women
Direct stock	29.4	35.6	23.6
Mutual fund	32.8	36.5	29.3
Share savings account	17.8	21.9	14.0
Any of the above	43.3	49.8	37.3



## Gender gap in financial literacy

	All	Men	Women
Interest, % correct	49.2	57.8	40.8
Inflation, % correct	64.9	77.1	53.1
Risk, % correct	73.7	78.8	68.8
Big 3, mean	1.88	2.14	1.63



## Subjective financial literacy, means

 How would you rate your overall knowledge about financial matters compared to other adults in Finland on a scale from 1-7?

All	4.38
Men	4.55
Women	4.22



## Risk aversion, means

Do you consider yourself
as a risk averter or risk
taker? Scale 0-10, where
0= completely reluctant to
take any risk... 10= I like to
take risks

All	4.32
Men	4.79
Women	3.88



## Trust in people and in stock markets

- On a scale to 0-10, do you think that most people can be trusted or that you cannot be too careful? 0=cannot be too careful; 10: most people can be trusted
- How much do you trust the following institutions: stock market
- O= I don't trust at all
- ▶ 10=I trust fully

	Trust in people	Trust in stock markets
All	4.26	4.28
Men	4.42	4.55
Women	4.10	4.01



## Correlations between explanatory variables

	Big 3	Subjective FL	Risk taking	Interpersonal trust
Subjective FL	0.27			
Risk taking	0.05	0.09		
Interpersonal trust	0.13	0.11	0.13	
Trust in stock markets	0.15	0.21	0.21	0.30



## Regression analysis: baseline regression

Dependent variable: Stock market participation

Method: LPM

Male	0.096***
Age	-0.0033**
Middle income	0.304***
High income	0.422***
Secondary education	0.114***
University education	0.224***

N=1562; R2=0.20; \*\*=5%; \*\*\*1%. Models also includes indicators of employment status.



## Regression analysis: additional variables

Male	0.039	0.070**	0.067**	0.090***	0.054*	-0.016
Big 3	0.093***					0.074***
Subjective FL		0.071***				0.049***
Risk taking			0.017**			0.008
Interpersonal trust				0.012**		-0.002
Trust in stock markets					0.044***	0.038***

Note: the coefficients for income, education and employment status are suppressed.



### **Conclusions**

- There is a significant gap between stock market ownership between men and women in Finland
- This gap can be explained by the differences in financial literacy
- As an extension to the literature, we also highlight the roles of subjective financial literacy and trust in stock markets
- Risk aversion and interpersonal trust do not play a similar role in our results

