The Gender Gap in Financial Literacy:

Does Ideology Matter?

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Abstract

Using survey data for ten Eastern European countries, we conduct a cohort-based analysis of how communist ideology affects the gender gap in financial literacy. We show that gender equality in financial literacy does not decrease as the communist legacy re-

cedes.

Keywords: Financial literacy, Gender gap, Communism, Cohort analysis

JEL classification: A20, D14, G53, J16

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1 Introduction

All over the world, women are on average less financially literate than men. The extent of this gender gap varies considerably across countries, but is consistently smaller in countries which previously had communist regimes than in countries which did not (Cupák et al., 2018). A growing literature discusses whether communism had a lasting effect on economic outcomes (Laudenbach et al., 2020), preferences (Fuchs-Schündeln and Schündeln, 2020), and gender equality (Lippmann and Senik, 2018; Lippmann et al., 2020). Given the emphasis communist regimes placed on gender equality, it has been hypothesized that the low gender disparities in financial literacy in post-communist countries might indeed be a legacy of communism (Cupák et al., 2018).

In this paper, we investigate whether there is a lasting effect of communism on the gender gap in financial literacy using unique, consistently collected data that allows us to conduct a cohort-based analysis for ten former communist countries. We define two cohorts: individuals who lived under communism ("communist" cohort) and individuals who did not ("post-communist" cohort).

We test the following hypotheses: (1) The gender gap in financial literacy is smaller for the communist cohort (and thus larger for the post-communist cohort). (2) For the communist cohort, any differences in financial literacy between men and women cannot be explained by differences in socio-economic characteristics (which would be expected if communism had achieved its goal of gender equality, e.g., with respect to educational attainment or labor-force participation). (3) For the post-communist cohort, the role of socio-economic characteristics in explaining the gender gap increases.²

We reject these hypotheses: The gender gap is *not* smaller for the communist cohort than for the post-communist cohort; instead, it is larger or the same across cohorts. Furthermore, the gender gap for the communist cohort can be explained in large part by socio-economic factors, which is not the case for the post-communist cohort.

¹We use the term "communist" throughout, but note that several of the countries are former "socialist republics."

²One can argue that during life under communism financial literacy was not a necessary skill. Still, there is evidence of a communist legacy regarding greater gender equality in many aspects of economic life that has changed significantly under capitalism (Fuchs-Schündeln and Schündeln, 2020). There is no reason to assume that this legacy would selectively fall away in terms of financial literacy.

Previous research has shown that the gender gap in financial literacy is influenced by financial decision-making within the household (Fonseca et al., 2012), women's self-confidence (Bucher-Koenen et al., 2017, 2021), stereotypes (Driva et al., 2016; Bottazzi and Lusardi, 2021), and cultural aspects (Rink et al., 2021). We contribute to the literature by presenting cohort-based evidence on the gender gap in financial literacy, which allows us to separate the effect of ideology from other social, economic, or political differences, both within and across countries.

2 Data

We use data from the *OeNB Euro Survey*—a repeated cross-sectional survey of individuals in ten (formerly communist) Eastern European countries.³ Our data, drawn from seven survey waves between 2012 and 2019, comprises a total of 67,016 observations, and is representative of the countries' populations in terms of age, gender, and region. A key advantage of our data is that the survey methodology and questions are harmonized both across countries and across survey waves. We measure financial literacy by computing a score equal to the number of correctly answered financial-literacy questions. The score ranges from 0 to 4—with each question covering one of the following aspects: (1) interest rates, (2) inflation, (3) risk diversification, and (4) exchange rates.⁴

3 Empirical Analysis

Is the gender gap in financial literacy smaller in the communist cohort than in the post-communist cohort? We define the "communist" cohort as individuals aged 16 or older in 1989 and the "post-communist" cohort as individuals aged 15 or younger in 1989.⁵ Figure 1 shows that, with the exception of Bulgaria, the post-communist cohort has a smaller gender gap in financial literacy than the communist cohort (triangles below the dots). The post-communist

³See https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html for more information on the survey. Our analysis includes Albania (AL), Bosnia and Herzegovina (BA), Bulgaria (BG), Croatia (HR), the Czech Republic (CZ), Hungary (HU), North Macedonia (MK), Poland (PL), Romania (RO), and Serbia (RS); we refer to them as "Eastern European" countries.

⁴The score includes the three standard financial-literacy questions (Lusardi and Mitchell, 2014) and a question on exchange-rate risk. Our results do not change when we use only the three standard financial-literacy questions.

⁵Our results are robust to alternative age cutoffs.

cohort is also generally more financially literate than the communist cohort (triangles to the right of the dots).

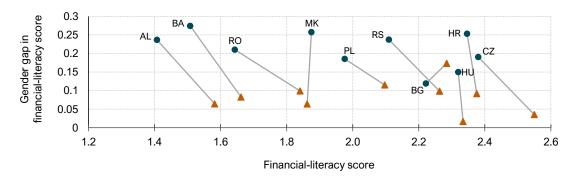


Figure 1: Financial literacy score and gender gap between cohorts. *Note*: Dots indicate communist cohorts and triangles indicate post-communist cohorts.

Why is the gender gap *not* smaller for the communist cohort than for the post-communist cohort? Figure 2 plots the differences in financial literacy between the post-communist and the communist cohort separately for women (vertical axis) and men (horizontal axis). Among women, the post-communist cohort is more financially literate than the communist cohort in all countries (diamonds above the horizontal line). For men, this is the case in seven countries (diamonds to the right of the vertical line). There are two reasons why the gender gap has decreased for the post-communist cohort: (1) Women's financial literacy has increased more than men's (AL, BA, CZ, RO, RS, PL). (2) Women's financial literacy has increased while men's financial literacy has decreased (HR, HU, MK). Only in Bulgaria, has the gender gap increased slightly.

How does the gender gap between cohorts change when we account for differences between men and women in demographic and socio-economic characteristics? The regression results in Table 1 (column 1) confirm the descriptive results: There is no evidence that the gender gap widens as the communist experience fades. 6

Column 2 indicates that self-confidence, proxied by the number of financial-literacy questions answered with "don't know," could be one factor driving our result. Post-communist women

⁶We confirm this finding repeating regressions for each country separately and also using the *Deutsche Bundesbank Panel on Household Finances* for Germany: The gender gap in East Germany does not increase for the post-communist cohort.

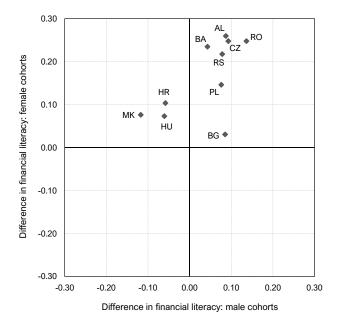


Figure 2: Gender-specific differences in financial literacy between cohorts. *Note*: The figure shows the differences in financial literacy between women (vertical axis) and men (horizontal axis). The difference is obtained by subtracting the average financial literacy of the communist cohort from the average financial literacy of the post-communist cohort.

are significantly less likely to reply "don't know" than communist women (see also Bucher-Koenen et al., 2021).

Table 1 Regression analysis

	(1) Financial-literacy score $(0-4)$	(2) Number of questions on financial-literacy answered with "don't know" (0-4)				
Female	-0.086***	0.103***				
	(0.013)	(0.012)				
Post-communist	-0.030	0.069***				
	(0.022)	(0.018)				
Female x Post-communist	0.013	-0.054^{***}				
	(0.018)	(0.016)				
Control variables	√	√				
Time FE	✓	\checkmark				
Country FE	✓	\checkmark				
N	67,016	67,016				
Mean DepVar	2.05	0.65				
R^2	0.16	0.23				

Note: Control variables: age, age squared, marital status, education, income, main income earner, financial decision-maker, employment status, risk attitude, and the share of questions in questionnaire answered with "don't know". Standard errors in parentheses are adjusted for clustering at the primary-sampling-unit and time level. * p < 0.10, ** p < 0.05, *** p < 0.01.

Which fraction of the gender gap in financial literacy can be explained by differences in observable characteristics between men and women? On average across all cohorts, there is a significant gap in financial literacy between men and women in all ten countries (Table 2, top panel). For the communist cohort (middle panel), the gap between men and women is statistically significant for all countries. With the exception of Hungary and Serbia, at least half of the gender gap can be explained by observable characteristics. For the post-communist cohort (bottom panel), differences in financial literacy between men and women are not significant in most countries. In the countries where the difference is (weakly) significant, it is mostly attributable to the unexplained component, i.e., the gender gap has narrowed for the post-communist cohort due to a reduction in the explained component. These results contradict our hypotheses. Although communist regimes promoted gender equality, e.g., with respect to education, differences in socio-economic characteristics play a crucial role in explaining the gender gap for the communist cohort, and less so for the post-communist cohort.

Conducting several robustness checks, we find no evidence that crisis experience affects the financial literacy of men and women differently. We further find no evidence that younger women catch up in financial literacy by improving in one aspect in particular. Instead, Table 1 suggests that younger women have caught up through an increase in self-confidence.

Table 2 Blinder–Oaxaca decomposition: Gender gap in financial literacy

	AL	BA	BG	HR	CZ	HU	MK	PL	RO	RS
Panel (a): Overall										
Mean (males)	1.606*** (0.020)	1.685*** (0.022)	2.340*** (0.022)	2.478*** (0.022)	2.517*** (0.023)	2.391*** (0.023)	1.952*** (0.021)	2.119*** (0.024)	1.812*** (0.020)	2.299*** (0.021)
Mean (females)	1.532*** (0.020)	1.505*** (0.021)	2.196*** (0.021)	2.333*** (0.019)	2.399*** (0.023)	2.319*** (0.020)	1.808*** (0.019)	1.948*** (0.023)	1.663*** (0.019)	2.148*** (0.021)
Difference	0.073** (0.028)	0.180*** (0.030)	0.143*** (0.030)	0.145*** (0.029)	0.117*** (0.032)	0.072^* (0.031)	0.144*** (0.028)	0.170*** (0.034)	0.148*** (0.028)	0.151*** (0.030)
Explained	0.053*** (0.013)	0.075*** (0.014)	0.085*** (0.022)	0.034* (0.015)	0.134*** (0.026)	-0.020 (0.018)	0.071*** (0.016)	0.093*** (0.021)	0.069*** (0.016)	0.038* (0.018)
Unexplained	0.020 (0.030)	0.105*** (0.031)	0.058 (0.034)	0.111*** (0.030)	-0.016 (0.038)	0.092** (0.033)	0.073* (0.030)	0.077^* (0.035)	0.080** (0.029)	0.113*** (0.032)
N	6,864	6,480	6,617	6,765	7,046	6,827	6,501	6,606	6,821	6,489
Panel (b): Communist cohorts										
Mean(males)	1.551*** (0.029)	1.667*** (0.030)	2.304*** (0.029)	2.498*** (0.029)	2.479*** (0.030)	2.418*** (0.030)	2.003*** (0.028)	2.088*** (0.035)	1.747*** (0.026)	2.273*** (0.029)
Mean (females)	1.406*** (0.030)	1.416*** (0.027)	2.196*** (0.027)	2.311*** (0.026)	2.290*** (0.030)	2.317*** (0.026)	1.790*** (0.024)	1.880*** (0.032)	1.561*** (0.024)	2.070*** (0.029)
Difference	0.146*** (0.042)	0.252*** (0.041)	0.108** (0.040)	0.188*** (0.039)	0.189*** (0.043)	0.101* (0.040)	0.213*** (0.037)	0.208*** (0.047)	0.186*** (0.036)	0.203*** (0.042)
Explained	0.118*** (0.025)	0.158*** (0.024)	0.101** (0.032)	0.094*** (0.023)	0.211*** (0.038)	0.011 (0.024)	0.117*** (0.024)	0.152*** (0.032)	0.120*** (0.022)	0.048 (0.029)
Unexplained	0.028 (0.046)	0.094* (0.044)	0.007 (0.046)	0.094* (0.042)	-0.022 (0.053)	0.090* (0.044)	0.096* (0.040)	$0.056 \\ (0.051)$	$0.066 \\ (0.038)$	0.155*** (0.046)
N	2,937	3,559	3,920	3,675	3,976	4,119	3,892	3,517	4,133	3,464
Panel (c): Post-communist cohorts										
Mean (males)	1.650*** (0.028)	1.708*** (0.032)	2.388*** (0.034)	2.453*** (0.033)	2.568*** (0.035)	2.351*** (0.035)	1.880*** (0.031)	2.151*** (0.033)	1.921*** (0.033)	2.328*** (0.030)
Mean (females)	1.618*** (0.026)	1.623*** (0.032)	2.197*** (0.034)	2.361*** (0.028)	2.534*** (0.033)	2.319*** (0.032)	1.836*** (0.030)	2.036*** (0.034)	1.817*** (0.029)	2.239*** (0.030)
Difference	0.032 (0.038)	0.085 (0.045)	0.191*** (0.048)	0.092* (0.043)	0.034 (0.048)	0.032 (0.048)	0.044 (0.043)	0.115* (0.048)	0.104* (0.044)	0.089* (0.043)
Explained	0.013 (0.017)	-0.026 (0.019)	$0.058 \\ (0.033)$	-0.028 (0.020)	0.054 (0.037)	-0.049 (0.028)	0.012 (0.023)	0.021 (0.029)	$0.009 \\ (0.025)$	0.016 (0.022)
Unexplained	0.019 (0.040)	0.112* (0.046)	0.133* (0.052)	0.120** (0.044)	-0.020 (0.057)	0.081 (0.052)	0.031 (0.046)	0.094 (0.049)	0.095* (0.048)	0.073 (0.046)
N	3,920	2,909	2,692	3,075	3,062	2,700	2,604	3,085	2,665	3,024

Note: Results from a two-fold Blinder-Oaxaca decomposition. Dependent variable: financial-literacy score (0/4). Predictors: see Table 1. Due to the low number of observations, we exclude students from the subsample of communist cohorts, and retirees from the subsample of post-communist cohorts. Robust standard errors in parentheses.

4 Conclusion

Using survey data for ten former communist countries, we study the gender gap in financial literacy across cohorts. Our results show that the communist cohort—who arguably lived in a society with more egalitarian gender roles—does not exhibit a smaller gender gap in financial literacy than the post-communist cohort, who did not live under a communist regime. In fact, younger women do not fall behind their male peers after the regime change from planned to market economy (as Bucher-Koenen et al. (2017) conjectured) but rather catch up, thereby reducing the gender gap.

Does this mean that the communist ideology does not explain why gender differences are smaller in former communist countries than in capitalist countries? Most likely, the contrary is true. The communist legacy of gender equality may partially explain why on average the gender gap in financial literacy is smaller in former communist countries than in capitalist countries. In fact, the narrowing gender gap for younger cohorts in former communist countries may even suggest that younger women are taking advantage of a more egalitarian starting position. As Lippmann et al. (2020) argue, gender equality will increase in an environment where the general mindset is supportive of equality.

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