

# On the drivers of financial literacy

*Does intergenerational mobility matter?*

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# Motivation

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Financial skills are relevant...

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...but illiteracy is wide spread...

1/3 of population is literate  
(140 countries, Global Finlit survey)

48% reaches minimum target score (OECD/INFE)-G20 countries

53% reaches the minimum target score (OECD/INFE)-G20 countries

50% of US adults can answer to basic questions of financial literacy (P-Fin index)

2014

2017

2020

2022

...also among citizens in developed countries!



# Drivers of financial literacy

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Partly explored:

- **personal characteristics** (education, age, economic status, gender...)
- **context** (contribution systems, financial market deepening, national culture...)

[Jappelli (2010); Lusardi & Mitchell, (2014); Cupák, (2021); De Beckker et al. (2019)]

Most analyses use:

- **micro data** -> usually for single country analyses, high internal validity, hard to generalize
- **macro data** -> enlarge the picture but might not capture all heterogeneities within the countries



# What do we do?

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Combining micro and aggregate data from different countries we:

1. reconsider the importance of **personal characteristics**
2. explore the role of some **context factors**, with a special focus on **intergenerational mobility**



# The dataset

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**Sample:** international (harmonized) micro-level dataset

- 50+ adults in EU and Israel
- 5 waves with a total of 140.000 individuals (2004-2015)
- Rich array of personal characteristics:
  - economic and financial conditions, education, physical and mental health, wealth...
  - Numeracy questions related to personal finance used as proxy for financial literacy (Romiti-Rossi (2010), Christelis et al. (2010); Gousia (2016))



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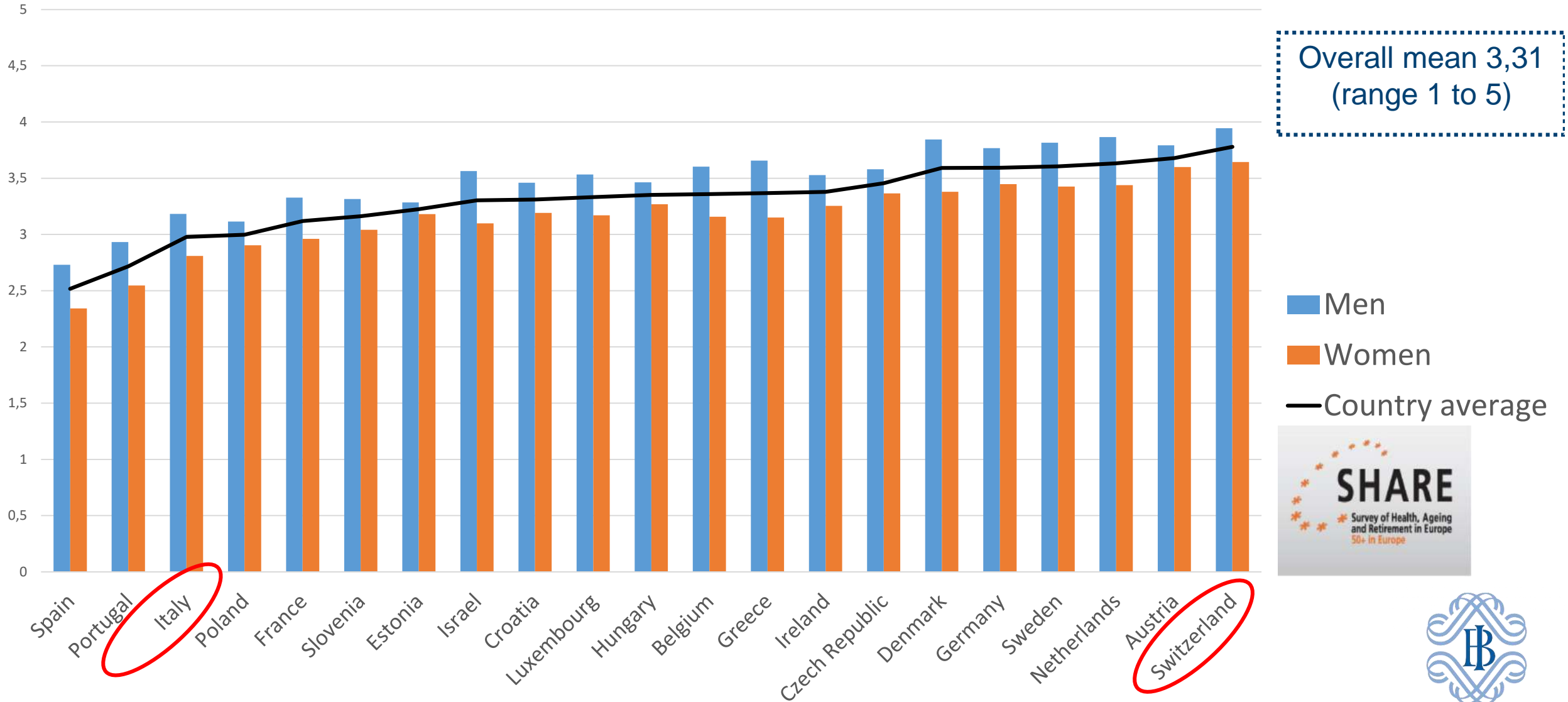


**Context variables:**

- the Financial Soundness Indicators (IMF)
- the OECD Statistics data-warehouse
- Global database on the Intergenerational Mobility (World Bank)



# Financial literacy across countries





How important are personal characteristics?



# Baseline model

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OLS model with fixed effects (country, cohort and wave)

- Gender
- Education
- Employment status
- Age
- Income
- Financial responsibility

(statistically significant with expected signs)



# The Blinder-Oaxaca decomposition (BOD)

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C= any country in SHARE survey

T= top performer country (Switzerland)

$$FLIT\ GAP_C = FLIT_T - FLIT_C =$$

$$(E(Personal_T) - E(Personal_C))\beta_T + E(Personal_C)(\beta_T - \beta_C)$$



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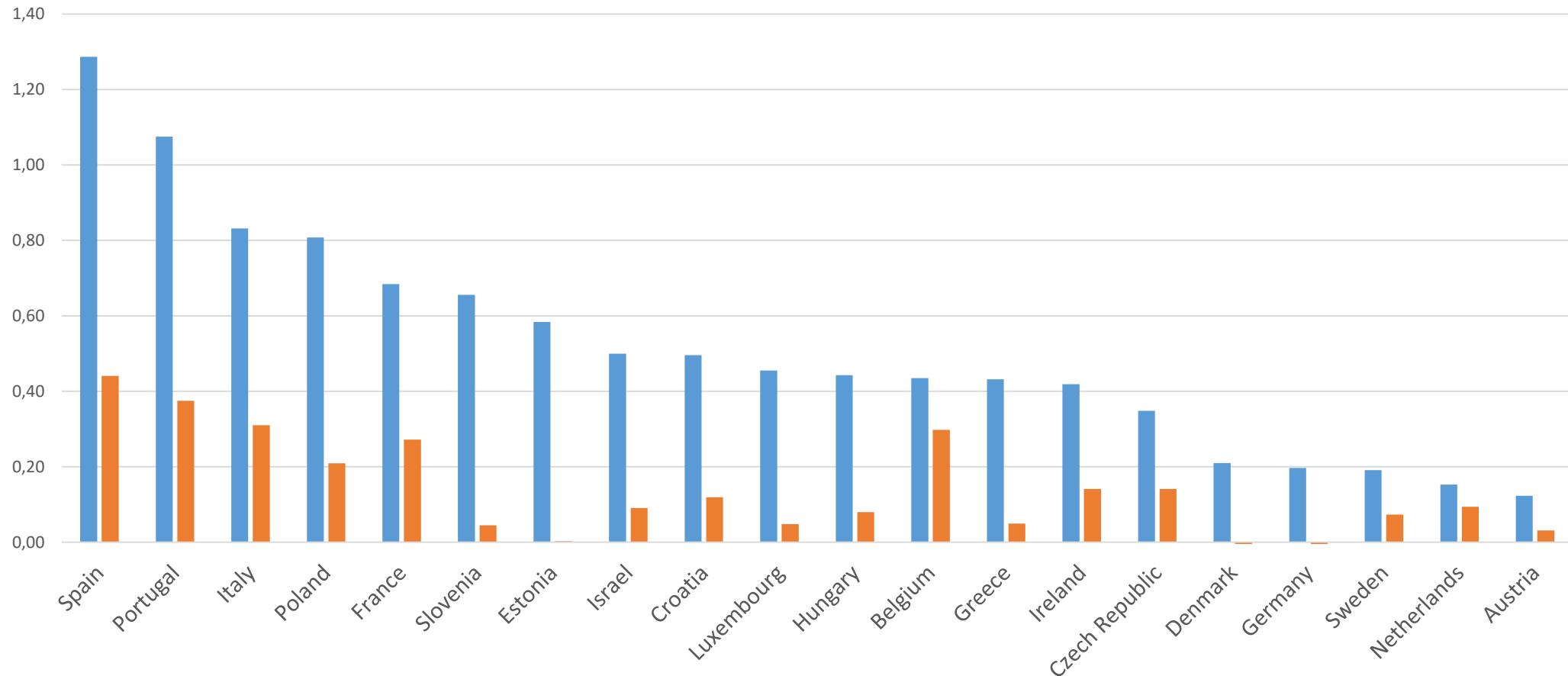
Gap due to differences in the **distribution** of personal characteristics between countries T and C

**Coefficient effect**

Gap due to differences in the **influence** of personal characteristics between T and C



# The Blinder-Oaxaca decomposition

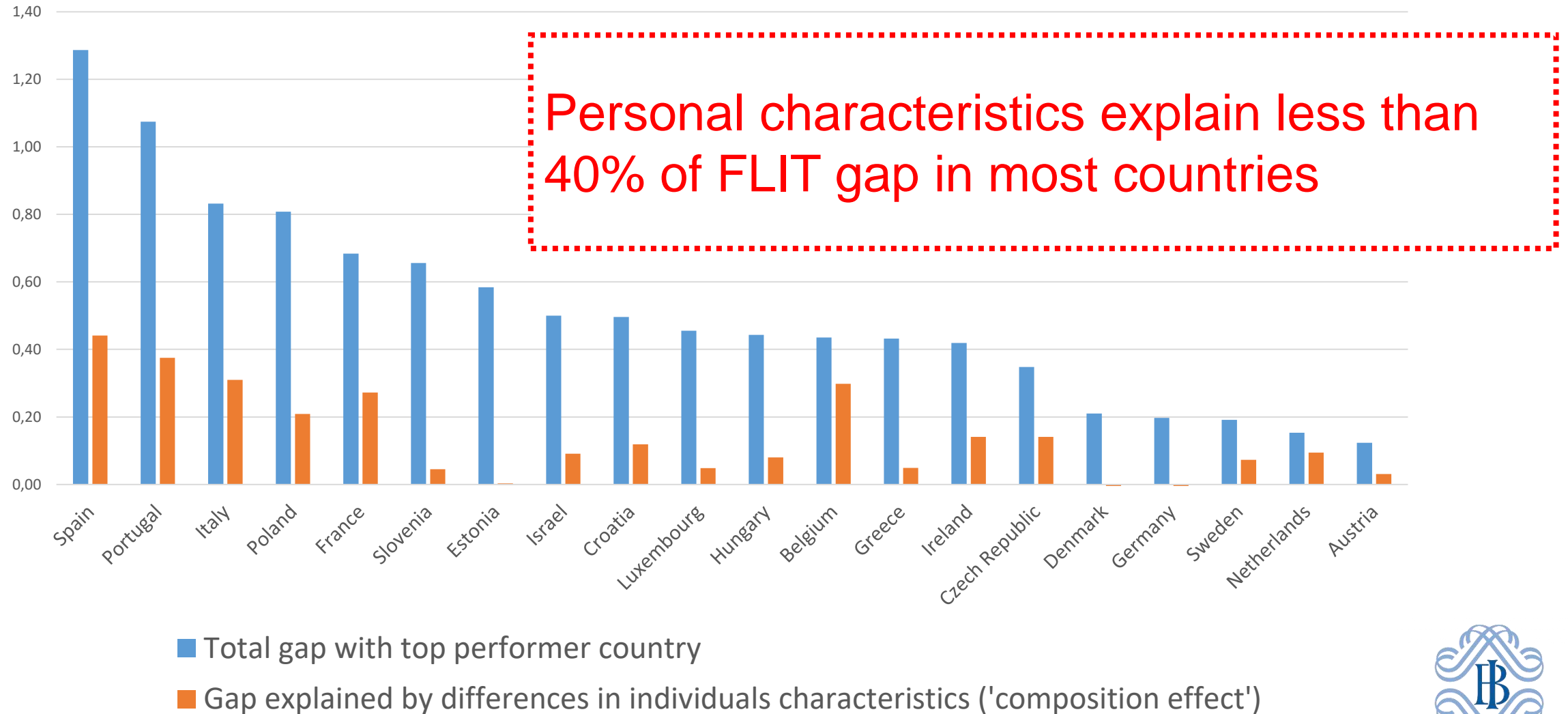


■ Total gap with top performer country

■ Gap explained by differences in individuals characteristics ('composition effect')



# The Blinder-Oaxaca decomposition



# Exploring context factors: a look at the role of intergenerational mobility





# Intergenerational mobility (IGM)

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**Intergenerational mobility** is *the extent to which an individual's position on the economic scale is independent of the position of his or her parents (World Bank)*



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- Key aspect of fair societies: indicates whether efforts and skills are rewarded
- Mobility across generations can be beneficial for economic activity and the development of human capital (Guell et al., 2018)



# Intergenerational mobility (IGM)

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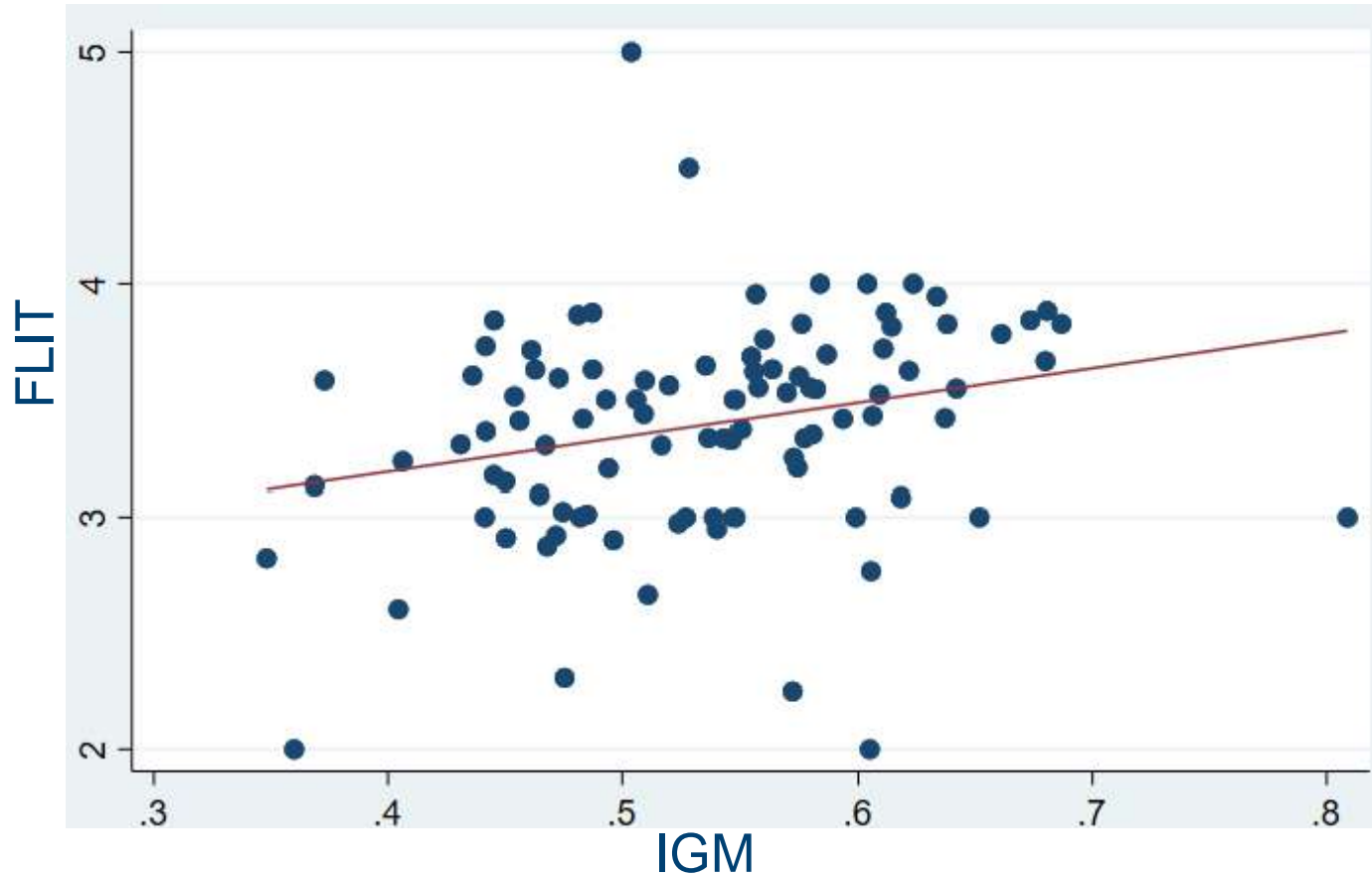
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**We extend this literature by verifying whether intergenerational mobility encourages individual motivation and financial awareness**



# Intergenerational mobility and financial literacy correlate positively



IGM =  $1 - \text{corr}(\text{years of schooling of an individual and of her parents})$

IGM (x-axis) refers to conditions experienced by individuals in adolescence and early adulthood

FLIT (y-axis) is observed at the age of 50 or more (country-cohort level data)

**IGM experienced** by cohorts of individuals correlates with **financial literacy** observed for the same cohorts **at the age of 50 or more**

# A closer look at intergenerational mobility in education (IGM)

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## Concerns

- [Reverse causality]
- Country level confounders
- Personal level confounders

## Solutions

- [Timing: intergenerational mobility experienced by individuals (ex ante); literacy observed when individuals are 50 years or more (ex post)]
- Cohort x country effects
- Huge array of personal level controls
- Differences in *exposure* to variation in IGM: women and individuals from disadvantaged background

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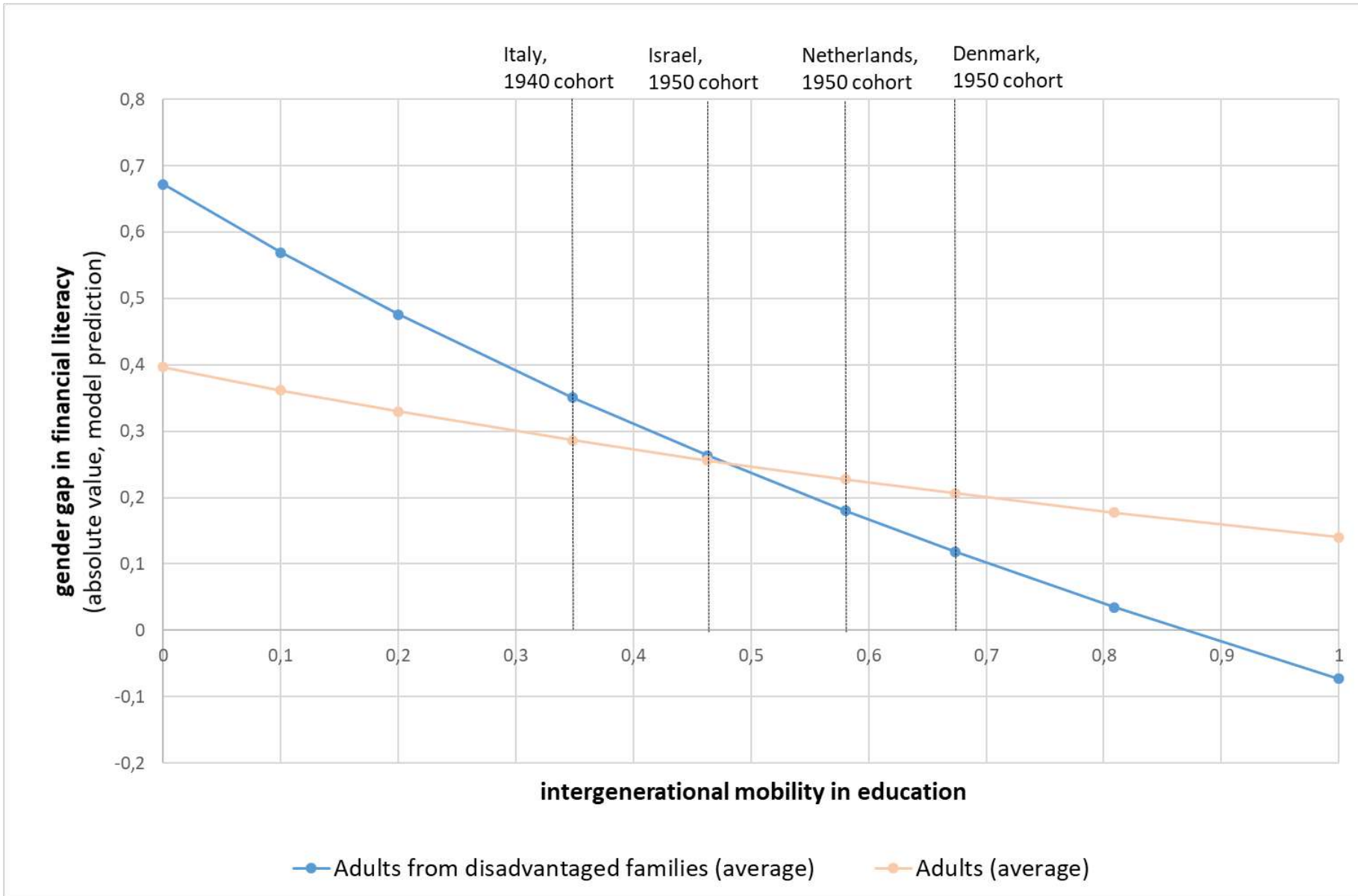
# Results

$$FLIT_{i,c} = \beta Personal_{i,c} + \gamma IGM_{i,c} + \delta IGM_{i,c} * Group_{i,c} + Cohort_i * Country_c$$

Dep var: Financial literacy (range 1-5)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
IGM	0.564*** (0.173)						
FEMALE	-0.224*** (0.006)	-0.397*** (0.076)	-0.540*** (0.020)	-0.311*** (0.025)	-0.302*** (0.026)	-0.224** (0.071)	-0.275*** (0.029)
FEMALE*IGM		0.370** (0.125)	0.584*** (0.076)			-0.209 (0.134)	-0.022 (0.076)
LOWBACK-1				-0.528*** (0.065)		-0.530*** (0.067)	
LOWBACK-1*IGM				1.166*** (0.375)		0.558* (0.219)	
LOWBACK-2					-0.643*** (0.080)		-0.404*** (0.048)
LOWBACK-2*IGM					1.093** (0.254)		0.584*** (0.067)
FEMALE*LOWBACK-1*IGM						1.075** (0.237)	
FEMALE*LOWBACK-2*IGM							0.980*** (0.081)
Baseline controls	YES	YES	YES	YES	YES	YES	YES
Cohort FE	YES						
Country FE	YES						
Cohort*Country FE		YES	YES	YES	YES	YES	YES
Wave FE	YES	YES	YES	YES	YES	YES	YES
R2-squared	0.21	0.21	0.24	0.25	0.25	0.25	0.25
Observations	129981	129975	39329	39329	39329	39329	39329



# Results in a graph





- We conduct an analysis of the drivers of financial literacy exploiting a large cross-country micro-level dataset.
- In addition to personal characteristics, context factors can play a role in enhancing the development of financial skills.
- Intergenerational mobility in education can incentivize financial awareness. Individuals who experienced high-mobility are more literate than their peers once they become older. The effect is sizable especially for women and people from disadvantaged backgrounds.



- Results in line with Kearney and Levine (2014) who show that income inequality can offset individual motivation and “aspirational” effects coming from educational wage premium.
- Promoting equality of opportunities and mobility across generations is not only ethically desirable but can also enhance (socially) valuable complementarities in the development of human capital and stimulate financial awareness of vulnerable citizens.

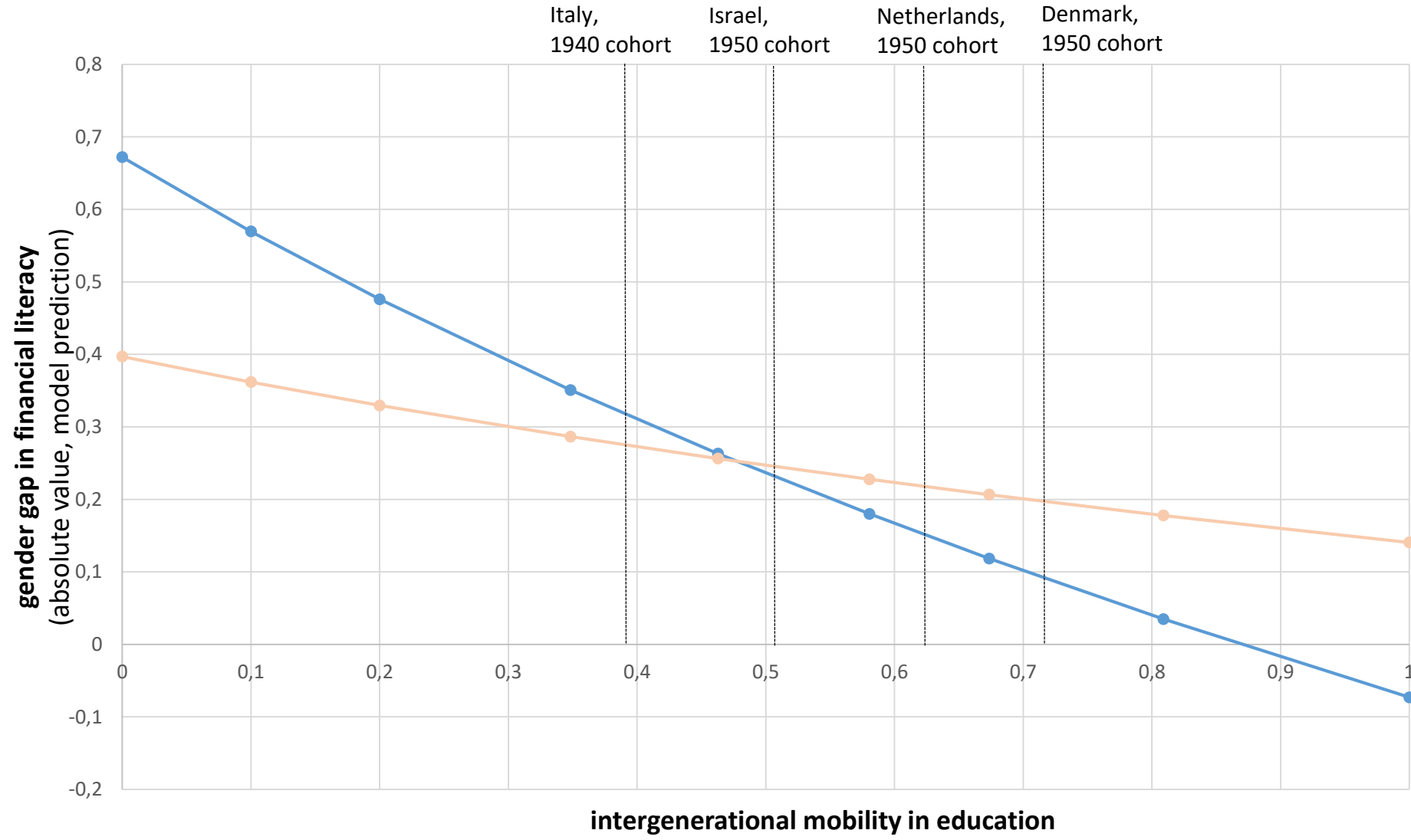


# Thanks !

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—●— Adults from disadvantaged families (average)      —●— Adults (average)

# Intergenerational mobility correlates with coefficient effect of BOD

$$\text{Coefficient effect}_{c,t} = \alpha + \beta X_{c,t} + \text{Wave}_t$$

	GDP	CONTR. RATE	START. BUSINESS	STKMKT CAP	TIME. CONTRACTS	LAB. FORCE	IGM	LEAVEHOME AGE
<i>Dep. var:</i>								
Coefficient eff. ("Impress. years")	-0.266*** (0.051)	-0.017 (0.039)		-0.048 (0.056)		-0.047 (0.033)	-0.0604** (0.0255)	
Coefficient eff. (Time of interview)	-6.05e-06*** (1.93e-06)	0.000280 (0.00598)	-0.00678 (0.00418)	-0.000321 (0.00120)	0.000166* (8.33e-05)	-0.0119* (0.00597)	-0.0777* (0.03935)	0.0347*** (0.00924)
Wave FE	YES	YES	YES	YES	YES	YES	YES	YES

The gap in financial literacy between a country and the top performer is lower for higher levels of IGM

