

# Language Skills and Stock Market Participation: Evidence from Immigrants

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## Motivation

**Migration is an ongoing international phenomenon and prevails all over the world.**

- UN: 272 million international migrants in 2019 (244 million/2015)
- Oceania-21.2%, North America-16%, Europe-11% (International Migration Report)

**What is the key factors that influence immigrant integration ?**

- In this paper, we focus on one of these possible factors: Language skills.
- Language facilitates information acquisition and communication with native residents, thereby affecting immigrants' financial decisions, which are crucial elements for the socio-economic integration.
- To date, while there is a rich literature that examines the impact of language skills on labor market, health, and educational outcomes of immigrants (e.g., Bleakley and Chin, 2004, 2010), little is known about the role of language skills in financial decision making.

## Research Question

**Speak better, do better in financial market?**

**How language skills affect household decision making?**

- Information costs have been shown as the main reason why many individuals do not invest in either stocks or other financial assets. (Hong et al., 2004)
- A variety of abilities and skills have been found to be key determinants of portfolio choice. (eg: cognitive ability and financial literacy)
- Yet, the role of language skills in household decision making has not been explored.

This paper aims to fill this gap by empirically evaluating the effect of English proficiency on stock market participation of immigrants in the U.S. and Australia.

## What We Did

- Construct an instrument for English proficiency based on the "critical period hypothesis" of language acquisition (Lenneberg, 1967) to address the endogeneity concerns.
- Find strong evidence that language proficiency is a key determinant of stock market participation.
- Provide insights into the channels through which the language skill takes effects (reducing information gathering costs, fostering trust).

## Contribution

- Add to the rich literature on the determinants of stock market participation decisions.
- Enrich the burgeoning literature that examines the financial decisions of immigrants.
- Contribute to the literature on the economic consequences of language skills.

## Data, Variables and Methods

- Survey on Income and Program Participation (SIPP) : 2004
- Key variables: English proficiency (self-reported measure), stock ownership, stock share
- OLS regression

$$Y_{ijst} = \beta_0 + \beta_1 English_{ijst} + \beta_2 X_{ijst} + \beta_3 A_t + \beta_4 N_j + \beta_5 S_s + \beta_6 T_t + \beta_7 S_s T_t + \varepsilon_{ijst}$$

## Identification

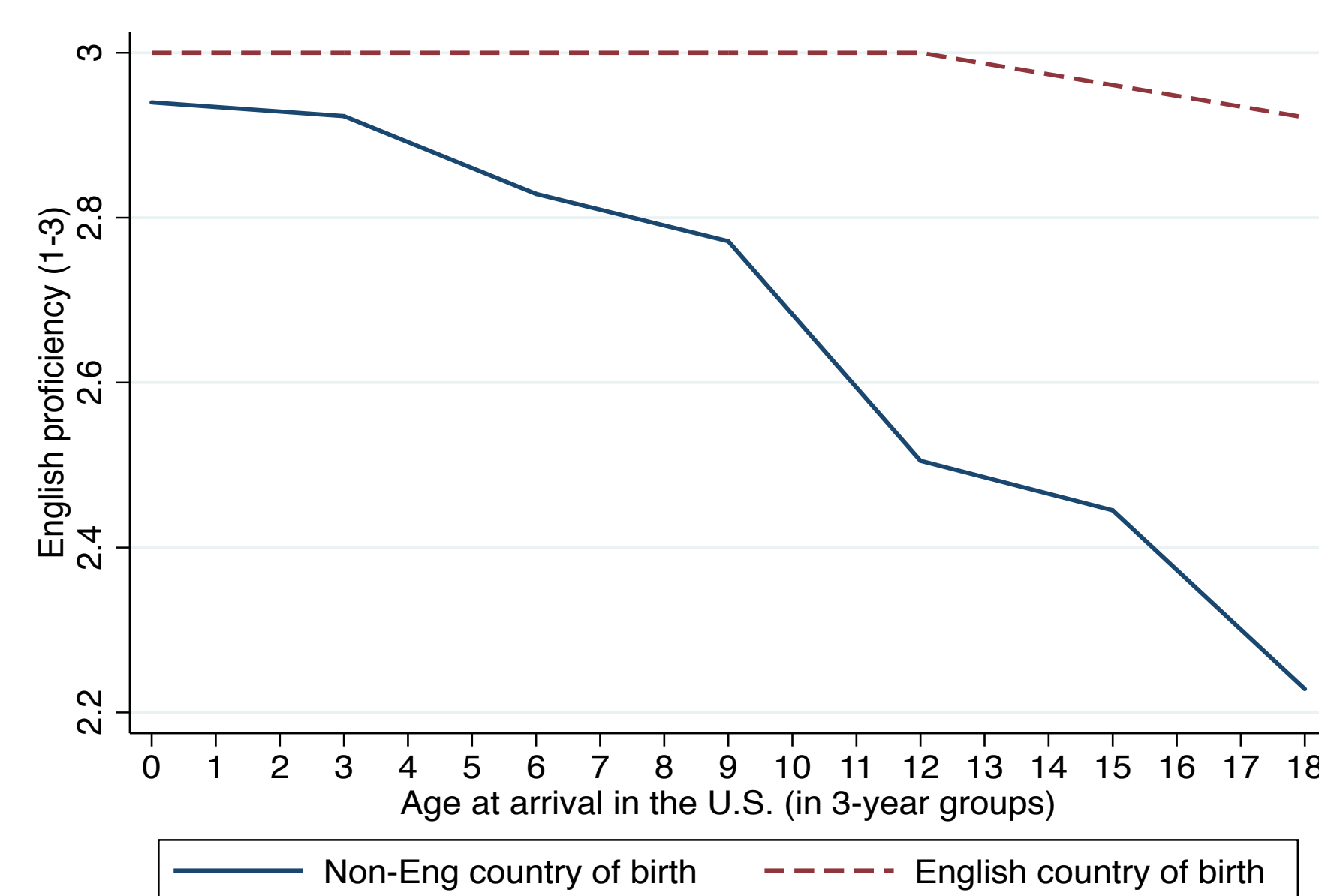
Instrument variable (Bleakley & Chin, 2004)

$$IV = \text{Max}(0, \text{age at arrival} - 9) * \text{NEC country of birth}$$

- "Critical period hypothesis" of language acquisition (Lenneberg, 1967)
- Younger children learn languages more easily than adolescents and adults.

	English speaking country	Non-English speaking country
Age at arrival < critical age	Good	Good
Age at arrival > critical age	Good	Poor

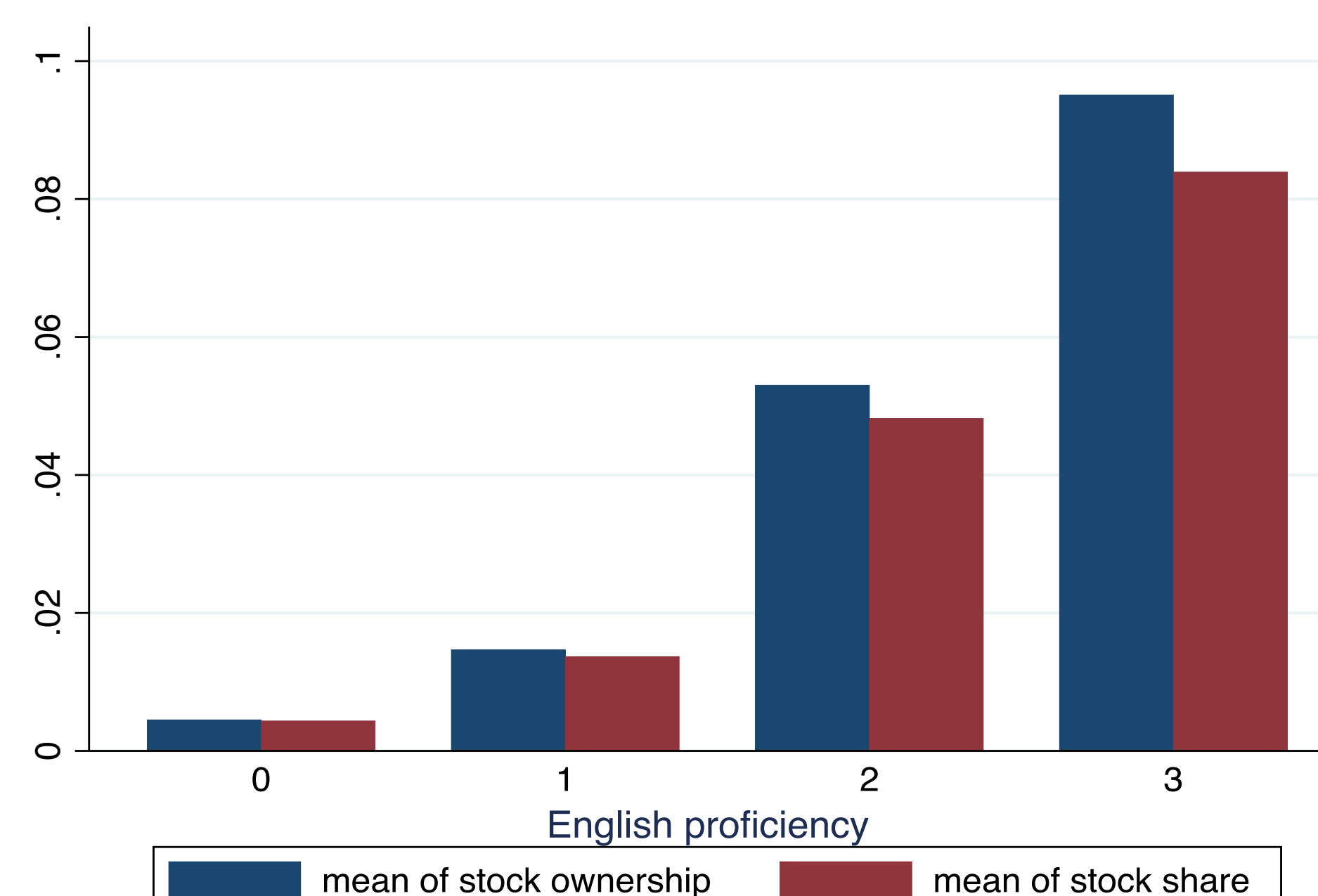
- Critical age:



Two additional sample restrictions:

- childhood immigrants : arrived in the U.S. at age 18 or before
- minimum age : 22

## Results



## (1) English proficiency and stock market participation

- OLS regressions

	Stock ownership		Stock share	
	(1)	(2)	(3)	(4)
English proficiency	0.024*** (0.008)	0.008** (0.003)	0.022*** (0.007)	0.007** (0.003)
Controls	Yes	Yes	Yes	Yes
Country-of-birth FE	Yes	Yes	Yes	Yes
Age-at-arrival FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE*Year FE	Yes	Yes	Yes	Yes
Number of countries	87	87	87	87
Observations	6,553	6,553	6,553	6,553
R <sup>2</sup>	0.167	0.271	0.166	0.256

- 2SLS regressions

	Stock ownership	Stock share
	(1)	(2)
English proficiency	0.131*** (0.047)	0.145*** (0.047)
Controls	Yes	Yes
Country-of-birth FE	Yes	Yes
Age-at-arrival FE	Yes	Yes
State FE	Yes	Yes
Year FE	Yes	Yes
State FE*Year FE	Yes	Yes
Number of countries	64	64
Observations	1,641	1,641
First-stage regression		
Max(0, age at arrival-9)*NEC country of birth	-0.105*** (0.017)	-0.105*** (0.017)
F-statistic	36.25	36.25

## (2) This effect is due to the following channels

- Reducing information gathering costs
- Fostering trust

## (3) Robustness

- Specification check
- Subsample analysis
- Alternative instruments
- Evidence from Australia

## Conclusion

- Having a good command of English significantly increases immigrants' propensity to take financial risks.
- The relationship between English proficiency and stock market participation passes through both the information channel and trust channel.

Policy implications :

- Giving support to immigrants to learn and improve their English language skills may help them better integrate into the host country.
- Financial institutions should take measures to facilitate language access in the marketplace for limited English proficient consumers.

## Contact

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