Cross-Country Differences in Homeownership: A Cultural Phenomenon?

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Outline

Introduction

- Homeownership rates across countries are large and persistent
  - range from 35% in Switzerland to 80% in Spain
- The paper looks into the hypothesis that the cross-country differences are driven by cultural tastes.
  - Investigates the buying decision of international second generation immigrants in the USA (epidemiological approach)

Related Literature

- Transmission of Cultural Values:
    - *Seminal paper*: Caroll et al (1994)
    - *Definition*: A second generation immigrant is defined as an individual that is born, raised and resides in the US, whose father was born in one of 38 countries included in the sample. (follows from Guiso et al. (2006))
    - *Empirical Strategy*: Similar to Fernández and Fogli (2009), Alesina and Giuliano (2010) and Fernández et al (2004)
    - Other: Algan and Cahuc (2005), Osili and Paulson (2008), Ichino and Maggi (200), Kosse and Jansen (2013), Atkin (2015), Luttmer and Singhal (2011)
    - *Paper most related to*: Giuliano (2007)

- Determinants of Homeownership
    - Chiuri and Jappelli (2003), Georgarakos et al (2010), Earley (2004), Hilber (2007), Oxley (1984), Fisher and Jafee (2003), Hilber (2007), Andrews and Sanchez (2011)

Outline

Individual and Country Level Data

- March Supplement of the Current Population Surverys (CPS) from 1994 to 2014 (IPMUS database)
    - Includes the birthplace of each individual and his or her parents.
- This study includes second generation immigrants household heads that are at least 20 years old whose father immigrated from one of the 38 countries for which homeonsership rates are available.
    - European (28 countries), Asia (Japan, South Korea, Singapore), Australasia (Australia and New Zealand), America (Mexico, Canada, Chile) and the Middle East (Israel, Turkey).
    - 30,748 women and 33,238 men. Average age 58.
- Homeownership of this sample: 71.41% (second generation), 70.57% (father born in the USA)

Country Level Data

- Country homeownership rates are from PEW Research Center.
  - Variable: $\tilde{Z}_0$, rate of homeownership in 2011

Outline

Epidemiological Approach

- Capture cultural preferences of immigrants by an average value of a continuous variable assigned to the country of origin

$$HO_{imo} = \beta_o + \beta_1' X_i + \beta_2 \tilde{Z}_o + \delta_m F_m + \delta_t F_t + \epsilon_{imo}$$

- HO_{imo} homeonership status of second generation immigrant i, residing in m, with father migrating from o (a binary variable)
- X_i controls, F_m and F_t are dummy variables for metropolitan areas and time period, respectively.

Estimation

- Model is estimated by OLS
- Potential problems:
    - Systematic selection of migrants, Omitted variables, Measurement of culture,
- Robustness checks:
    - Estimation as Probit Model,
    - Seven sample size variations
    - three alternative regressions to account for house price effects in year and location
    - alternative robust standard errors

Results

Dependent Variable: Homeownership status of 2nd generation immigrant i			
	(1)	(2)	(3)
HO_{origin}	0.0583***	0.0432**	0.0450**
	(2.68)	(2.26)	(2.36)
sex (dummy)		0.0189***	0.0193***
	(2.68)	(2.26)	(5.44)
marital status (dummy)		0.156***	0.158***
		(40.64)	(41.02)
age		0.0231***	0.0227***
		(37.43)	(36.74)
age squared		-0.000143***	-0.000140***
		(-25.57)	(-24.78)
race categories		✓	✓
income categories		✓	✓
education categories			✓
metropolitan area (dummy)	✓	✓	✓
year (dummy)	✓	✓	✓
constant	0.672***	-0.381***	-0.381***
	(43.16)	(-17.21)	(-17.21)
N	61319	61319	61319
R^2	0.112	0.253	0.254
adj. R^2	0.044	0.247	0.248

Outline

Parent's Background

	Dependent Variable: Homeownership status of immigrant i			
	2nd generation			
	all (baseline) (1)	single (2)	married $\neq$ background (3)	married same background (4)
HO_{origin}	0.0450** (2.39)	0.0760** (2.44)	0.0230 (1.02)	0.145* (1.73)

	Dependent Variable: Homeownership status of immigrant i		
	2nd generation		1st generation
	all (baseline) (1)	married same background (2)	married same background (3)
HO_{origin}	0.0450** (2.39)	0.145* (1.78)	0.291*** (5.43)

Outline

Ethnical Density in the Metropolitan Area

	Dependent Variable: Homeownership status of immigrant i		
	(1)	(2)	(3)
density	-0.0273**	-0.0280**	-1.103***
	(-2.23)	(-2.28)	(-2.71)
HO_{origin}		0.0449**	0.00370
		(2.34)	(0.15)
density $\times$ HO_{origin}			1.511***
			(2.64)

Aggregate Regression

$$H_{io} = \beta_0 + \beta_1 HO_{origin} + \epsilon_{io}$$
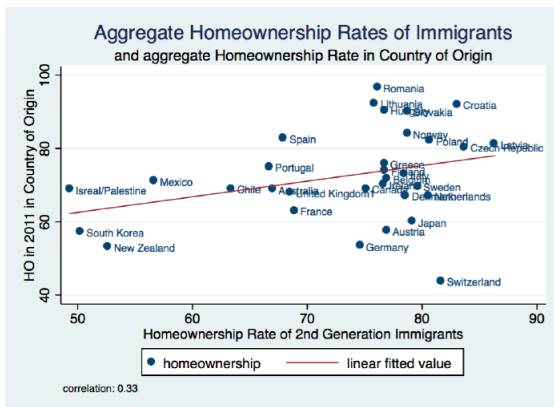
Second Generation Immigrants have been born and live in the US, while their father has immigrated from one of the countries in our sample.

Figure 1: Homeownership Rates

Regression

	Aggregate Homeownership Rate 2nd Generation Immigrants	
	(1)	(2)
HO_{origin}	0.270*	0.266*
	(1.96)	(1.88)
Average aggregate income		-0.000176
		(-1.06)
constant	53.12***	63.97***
	(4.93)	(4.13)
N	38	38
R^2	0.102	0.140
adj. R^2	0.077	0.091

t statistics in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Conclusions

- Cross-country differences in cultural preferences are an important explanatory factor for the observed persistent differences in homeownership rates across countries

- Study show that the aggregate homeownership rates in the fathers' country of origin has a significant impact on the home buying decisions of second generation immigrants.

- These results provide an interesting new perspective on the drivers of differing homeownership rates across countries.

- The results are also relevant for policy. In recent times, researchers and policy markers have understood that housing markets need serious attention to ensure financial stability. To develop effective monetary and macro-prudential policy for the control of housing markets, country heterogeneity needs to be taken into account. Hence, one needs to understand where the large and persistent cross-country differences in homeownership rates originate from. The impact and the effectiveness of the transmission of macro-prudential tools into the economy is influenced both by homeownership rates, and by the underlying reasons that drive these cross-country differences.

Discussion

- The model is a Linear Probability Model.
    - If predictions of homeownership status are in (0,1), estimate of β_2 is consistent but standard errors need to be adjusted
    - Implies the homeownership status of second generation changes by the same amount with a one percent increase in homeownership in the country of father's origin independently of which country that was

- The conclusions do not match the study.
    - Raw data indicates homeownership rates of US born and raised people are virtually the same whether the father was a migrant or US born.
    - Paper shows homeownership rates at father's country of origin (for 2011) have some explanatory power for the variation in homeownership status of US second generation citizens.
        - How big is this effect? Use Probit Marginal Effects.
        - What do these results tell us?