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Abstract

The aim of this paper is to analyze whether parent's decision about owning one's own dwelling may be an important determinant of the future homeownership decisions of their children in Spain. To address this issue, we use data from the Survey of Living Conditions (2011). Our results confirm the intergenerational transmission of homeownership in Spain, in such a way that the probability that the respondent own their home is determined, although not exclusively, by their parent's homeownership decision during their teenage years.

Keywords: Homeownership, Intergenerational transmission, Spain.

JEL Codes: D12, R21, Z13

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1. INTRODUCTION

In the last decade, there have been strong variations in housing prices which have raised concerns regarding the working of housing markets at the international level. It is well known that a great part of housing price variations can be explained in terms of demand factors (Case and Shiller, 2003; Himmelberg et al., 2005); however, no much of prior research have focused on studying housing demand in the specific case of Spain, which presents a strong peculiarity in the housing market. The relationship between labor income and the probability of being homeowner has been extensively analyzed in the economic literature, showing a general negative effect of income uncertainty on homeownership trends (Diaz-Serrano, 2005; García and Hernández, 2008). Nevertheless, despite possessing one of the highest unemployment and temporary work rates among the European countries, Spain is a country where owner-occupancy strongly predominates. While other countries show a marked preference for renting, in Spain there is a distinguishing cultural importance of property. Thus, understanding to what extent culture transmitted through parent attitudes foster homeownership, is of interest in this context.

Homeownership symbolizes not only the achievement of stability and economic success, but also it may have important implications for life satisfaction, as well as social and educational outcomes for children (Aaronson, 2000; Green and White, 1997; Haurin and Kamara, 1992; Rohe et al., 2013). Previous researchers have studied the factors that may affect homeownership decisions focusing on income uncertainty (Diaz-Serrano, 2005; García and Hernández, 2008), housing price (García and Hernández, 2008), immigration status (Amuedo-Dorantes and Mundra, 2013), rental market regulation, innovations in mortgage markets and household characteristics (Dupont et al., 2011) and culture transmitted horizontally (Marcén and Morales, 2019), among others. Our paper is also related to a new literature focused on examining the intergenerational transmission of socio-economic characteristics in Spain. Using methodologies quite analogous to ours, there are recent papers showing the vertical transmission, that is, from parents to their children, of smoking (Duarte et al., 2016), poverty (Ferrando et al., 2019), housework time (Giménez et al., 2018), well-being (Molina et al., 2011) and unemployment status (Morales, 2019). However, to our knowledge, there is no existing literature focused on studying the possible effect of culture transmitted from parents to their children on the Spanish housing market.

In our empirical strategy, we use data from the Survey of Living Conditions (2011) provided by the Spanish Statistical Institute, which is the latest year providing information about the household characteristics when individuals were teenagers. We study the transmission of homeownership over two generations by analyzing whether the parent's decision about living in an owner-occupied dwelling may affect the probability of their children of being homeowners in the future. We find that there is a positive and statistically significant relationship between living in an owner-occupied dwelling when individuals where teenagers and the probability of being homeowner during adulthood. Our results are unaffected after controlling for unobservable characteristics by regions, including region fixed effects, and using different subsamples. We can interpret our findings as evidence of the intergenerational transmission of homeownership status in Spain.

2. EMPIRICAL STRATEGY

In our empirical strategy, we use the parents housing tenure choice when individuals where teenagers as our measure of family culture in terms of homeownership. If there is no vertical transmission of homeownership in Spain, parents' decision about being homeowners or not, should have no impact on the future homeownership status of their children. On the other hand, if culture transmitted through parents to their children does play a role in the homeownership decision, we would expect to detect a relationship between the parents' behavior and that of their children during their adulthood. To test this issue, we estimate the following Probit model:

$$Probit(p_{ik}) = \beta_0 + \beta_1 H P_i + X_{ik} \beta_2 + \delta_k + \varepsilon_{ik}$$
(1)

Where p_{ik} is the probability of individual *i* of being homeowner. Our variable of interest, HP_i , is a dummy variable that takes value 1 when parents were homeowners when individual *i* was a teenager, and 0 otherwise. The vector X_{ik} includes individual characteristics, such as gender, age, and level of education. Controls for unobserved characteristics of the areas where our individuals live are added by using region fixed effects, denoted by δ_k .

3. DATA

In our analysis, we use data from the Survey of Living Conditions (SLC) of 2011 provided by the Spanish Statistical Institute, which is the last year providing information about the household characteristics when individuals were teenagers. The Survey of Living Conditions provides rich information that allows us to identify owner-occupied housing individuals encumbered or not by a mortgage, and those who are homeowners by free transfer like, for example, by inheritance. In this setting, we are capable to define our dependent variable without including those individuals who are homeowners without taking the decision of being or not, that is, homeowners by inheritance. To capture our main explanatory variable, we use data from the Intergenerational Transmission of Poverty included in the SLC which allows us to capture parents' attitudes related with their housing tenure choice when individuals were teenagers. Our main sample contains 15,574 observations of individuals aged 26 to 60.

Table 1 presents the summary statistics for the main variables by region. The first column shows large variations in the proportion of homeowners across the Spanish regions, ranging from 62% in Melilla to 92% in Asturias, Cantabria and País Vasco. In any case, our data reveals that around 87% of the individuals are homeowners, showing that the proportion of individuals who live in owner-occupied dwellings strongly outweighed those living in rented dwellings. The second column includes the proportion of parents who were homeowners when individuals where young. By simply looking at both columns, we can deduce, although not in all regions, a clear relationship between the homeownership behavior of individuals in our sample and that of their parents. Fewer differences are observed in terms of gender composition and our sample appears to be quite balance, since 48% of adults are men. The raw data also reveals slight dissimilarities across regions in the level of education, and the age of the individuals: 17 % have completed primary school, 49% have completed secondary school, 32% have a university degree, and the median age of individuals in our sample is around 43 years old.

4. RESULTS

Table 2 presents the estimated coefficients for Eq. (1). As can be seen in column 1, the estimates for the education level controls are consistent with the existing empirical results, since higher levels of education are related to greater probabilities of homeownership. Surprisingly, the effects of age and gender result to be not statistically significant in our estimations. With respect to our variable of interest, living in an owner-occupied dwelling during adolescence is related to a higher probability of being homeowner in the future. Our findings point to parents' housing tenure choice being an important factor, even after controlling for unobservable characteristics by including

region fixed effects in column 2. We find that having parents who are homeowners increases the probability of being homeowner by around 12%. Although we use a gender balanced sample, we have divided the sample by gender to explore the possibility that gender issues could be driving our results. As can be seen in columns 3 and 4, in both samples the effect of culture is detected suggesting that our results do not depend on gender issues.

To reinforce our results, we also run some robustness checks in the rest of the columns. As can be seen in column 5, our results are maintained when we exclude those individuals who are immigrants from our sample. The set of individual characteristics has been enlarged in column 6. As Constant et al. (2009) show, being married and having children under the age of sixteen can affect the probability of homeownership. Thus, we include controls for whether individuals are currently married or parents, and we also control for other characteristics which can affect housing affordability, such us employment status and households' risk of poverty. While the economic variables have the expected impact showing that income uncertainty decreases the probability of being homeowner, no effect appears to be discerned in the case of marital status and parenthood. In any case, the effect of our variable of interest is still detected after controlling for all these characteristics. In column 7, we have included a variable considering whether individuals lived in a household in risk of poverty when young. This analysis is necessary since it is possible to argue that we are capturing the intergenerational transmission of poverty in addition to, or instead of capturing the intergenerational transmission of homeownership. It is reassuring that our results do not change after this inclusion. We can conclude the same when we add additional controls for the regions in column 8. We introduce GDP per capita, female labor force participation, the unemployment rate and the property prices index.¹ It is worth noting that the inclusion of this set of observable characteristics, which can also influence the homeownership status (Clark et al., 1997), does not alter our estimates. Thus, since individuals in our sample appear to be sensitive to their parents' behavior, we can interpret our results as evidence of the existence of the intergenerational transmission of homeownership decisions in Spain.

5. CONCLUSIONS

¹Data come from the Spanish Statistical Institute.

The aim of this paper is to show how homeownership attitudes in Spain can be transmitted vertically, that is, from parents to their children. While other countries show a marked preference for renting, Spain is the model of what can be denoted as "the culture of homeownership". Thus, understanding to what extent culture transmitted through parent decisions foster homeownership may has important implications for the design of public housing policies. We find that individuals' housing tenure choice may be partly determined by their parents' previous decisions about homeownership. Specifically, our results show that those individuals living in own-occupied dwellings during childhood are much more likely to become homeowners in the future. All in all, despite the limitations of the data, this study must be considered as first evidence of the effect of the intergenerational transmission of homeownership decisions in Spain.

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Region	Proportion of homeowners	Proportion of parents homeowners	Age	Man	Primary school	Secondary school	University degree	Observations
Andalucía	0.90	0.81	43.51	0.48	0.22	0.47	0.28	1,897
Aragón	0.87	0.80	44.11	0.50	0.14	0.52	0.34	722
Asturias	0.92	0.72	44.17	0.48	0.12	0.54	0.33	646
Illes Balears	0.78	0.76	43.19	0.48	0.21	0.52	0.25	476
Canarias	0.87	0.83	43.46	0.47	0.20	0.47	0.28	738
Cantabria	0.91	0.84	44.40	0.45	0.09	0.58	0.33	483
Castilla y León	0.89	0.83	44.74	0.51	0.16	0.51	0.32	952
Castilla-La Mancha	0.87	0.89	43.29	0.51	0.17	0.55	0.27	874
Cataluña	0.79	0.78	43.38	0.50	0.20	0.44	0.31	1,655
Comunitat Valenciana	0.91	0.87	42.89	0.48	0.13	0.56	0.30	1,274
Extremadura	0.92	0.84	44.22	0.49	0.23	0.48	0.26	571
Galicia	0.91	0.80	43.93	0.48	0.21	0.46	0.31	964
Madrid	0.82	0.81	43.42	0.47	0.10	0.46	0.43	1,533
Murcia	0.92	0.88	42.69	0.50	0.23	0.54	0.20	592
Navarra	0.90	0.83	43.77	0.48	0.16	0.40	0.43	498
País Vasco	0.92	0.84	44.19	0.48	0.10	0.41	0.49	828
La Rioja	0.86	0.85	43.76	0.49	0.16	0.53	0.31	539
Ceuta	0.83	0.67	41.14	0.48	0.22	0.54	0.20	174
Melilla	0.65	0.44	42.09	0.46	0.20	0.43	0.23	158
Mean	0.87	0.81	43.60	0.48	0.17	0.49	0.32	
Std. Dev.	0.33	0.39	9.55	0.50	0.37	0.50	0.47	

 Table 1: Summary statistics

Notes: The sample contains 15,574 observations of individuals aged 26 to 60.

Table	2:	Main	results

Dependent								
variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Probability of								
HP	0 526***	0 511***	0 545***	0 477***	0 747***	0 497***	0 480***	0 518***
111	(0.041)	(0.042)	(0.060)	(0.058)	(0.045)	(0.042)	(0.044)	(0.042)
Age	0.002	0.006	-0.009	0.021	0.069***	-0.000	0.007	0.005
8-	(0.018)	(0.018)	(0.025)	(0.025)	(0.020)	(0.019)	(0.018)	(0.018)
Age ² /100	0.030	0.026	0.039	0.012	-0.056**	0.030	0.024	0.027
C	(0.021)	(0.021)	(0.030)	(0.029)	(0.024)	(0.023)	(0.021)	(0.021)
Man	-0.010	-0.012			-0.008	-0.007	-0.008	-0.012
	(0.037)	(0.038)			(0.041)	(0.038)	(0.038)	(0.038)
Primary school	0.387***	0.338***	0.212	0.473***	0.044	0.251**	0.324***	0.356***
	(0.113)	(0.115)	(0.170)	(0.151)	(0.153)	(0.115)	(0.114)	(0.116)
Secondary school	0.646***	0.608***	0.448***	0.784***	0.210	0.408***	0.557***	0.626***
	(0.108)	(0.111)	(0.162)	(0.145)	(0.152)	(0.110)	(0.110)	(0.110)
University degree	0.817***	0.796***	0.575***	1.035***	0.210	0.509***	0.729***	0.813***
	(0.111)	(0.114)	(0.165)	(0.152)	(0.153)	(0.114)	(0.115)	(0.114)
Currently						-0.706***		
household						(0, 0, 40)		
at fisk of poverty						(0.049)		
Maineu						(0.047)		
Children						(0.048)		
Cilitateit						(0.047)		
Unemployed						-0.274***		
enempioyea						(0.051)		
Parents'						(0.001)	0.004	
household							-0.234***	
at risk of poverty							(0.061)	
Unemployment								-2.971
rate								2.271
CDD								(10.343)
GDP pc								-0.005
Droparty prices								(0.014)
index								-0.009**
mdex								(0.005)
Female labor								(0.000)
force								-0.046***
participation								
								(0.011)
			Marg	inal effects				
HP	0.129***	0.122***	0.133***	0.112***	0.109***	0.113***	0.115***	0.125***
D 1 N 7	0.010	0.010	0.014	0.013	0.007	0.009	0.010	0.010
Region fixed effects	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Observations	15,574	15,574	7,550	8,024	13,931	15,574	15,574	15,574

Note: The sample, obtained from Spanish Living Conditions Survey 2011, consists of immigrants aged 26 to 60. Estimates are weighted. Robust standard errors, clustered by country of origin, are in parentheses. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.