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Renting vs buying a home: A matter of wealth accumulation or of geographic stability?☆

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ABSTRACT

I study the housing tenure decision in the context of a spatial life cycle model with uninsurable individual income risk, plausibly calibrated to match key features of the US housing market. I find that the relatively low ownership rate of young households is mainly explained by their high geographic mobility. Downpayment constraints have minor quantitative implications on ownership rates, except for old households. I also find that idiosyncratic earnings uncertainty has a significant impact on homeownership rates. Based on these results, I argue that the long term increase in ownership rates observed over the period 1993–2009 was not necessarily due to mortgage market innovations and the relaxation of downpayment requirements, as is often argued. Instead, it was simply an implication of US demographic evolution, most notably the decline in interstate migration and, less importantly, population ageing. The model predicts that an increase in the income risk (i.e. higher income inequality) has a positive impact on geographical mobility of young households, which means that young homeowners are less affected by the labour market inefficiency associated with homeownership.

1. Introduction

A common explanation for low ownership rates among young households is the presumed high downpayment constraint that young adults face when they buy their first homes. Although most quantitative studies on housing assume relatively high minimum downpayment requirements[2] (20% or 25%), they are not very successful in matching the U.S. life cycle ownership curve, especially for young households. It is also interesting to note that the majority of housing tenure decision models in the literature over-predict the difference in ownership rates between young and older agents (Iacoviello and Pavan, 2013; Li and Yao, 2006).

According to the 2011 American Community Survey, households hold 37% of their total assets in real estate, of which home equity represents 55%. Hence, understanding these issues is important for both researchers and policy makers. Indeed, a realistic characterization of tenure decision mechanisms over the life cycle is crucial for obtaining accurate analysis

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[2] Compared to what data on downpayment reveals: 14.2% according to U.S. Census 2009 American Housing Survey, and 13.76% according to lendingtree 2011.

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and assessment of applied policies, social security reforms, public programs for promoting home-ownership, and welfare impacts for different age cohorts.

Another related issue has to do with asset holdings more generally. One of the key patterns of consumption and asset holdings over the life cycle is that young agents tend to have few liquid assets and hold most of their wealth in consumer durables. Indeed, according to the Wealth and Asset Ownership survey of 2009 (United Census Bureau), renters[3] hold on average $135,000 in rental property equity, representing 25% of the average value for owners. Hence, it is very likely that renters, who are mainly young households, hold significant investments on different types of assets. Thus, the relatively low homeownership rates among young households cannot be explained only by the downpayment constraint.

As mentioned earlier, many researchers have argued that this phenomenon is simply a direct consequence of two important features characterizing the housing market: A high downpayment requirement combined with a minimum housing quantity constraint. According to this hypothesis, young households, who generally have relatively low income, cannot easily afford the required downpayment to purchase a house.

However, this explanation is not in line with empirical evidence and several housing market facts. First, as I already mentioned, relatively wealthy young households are very likely to rent rather than own a house despite the fact that they have enough cash to meet the downpayment requirement. Second, the high minimum downpayment requirement of 20–25% commonly assumed in the literature, is not consistent with U.S. housing market financial data: While it is true that real estate experts and mortgage bankers recommend a downpayment of 20%, the effective downpayment paid by most American homeowners is much lower than that. In fact, more than 14 million (out of a total of 71 million owner-occupied homes covered by the 2009 survey) were bought with no downpayment. Moreover, according to the 2009 American Housing Survey, the effective average downpayment was around 14.2%. According to Arslan et al. (2015), the average downpayment ratio during the 2001–2005 period was 21.1%. However, we should not forget that the minimum downpayment requirement should be set at lower value that the average. According to the same survey, the median is less than 10% and 77% of owner occupied homes were bought with downpayments less than 20%. High downpayment assumptions are usually justified by existing norms on downpayment requirements, such as the Qualified Residential Mortgage.[4] Yet, lenders often have programs that are flexible for different types of borrowers and banks can offer loans with smaller downpayments and higher interest rates. There is also private insurance that can be purchased by borrowers in order to obtain lower downpayments.

Based on all these facts, it seems unlikely that the low ownership rates among young households are exclusively due to high downpayments requirements, especially, if we take into consideration the flexibility of the U.S. housing market regarding home prices. Indeed, according to the most well-known American real estate website *Realtor*, it is possible to buy a house for $30,000 or less. As reported in the 2009 American Housing Survey, 22% of owners have houses bought for less than 1.5 times their current income, and around 15% of owner-occupied houses were bought for less than the national average income. While Iacoviello and Pavan (2013) assume a minimum house price set to 1.5 times the average annual pre-tax household income, several other researchers have simply estimated this parameter to match data targets (Chambers et al. (2009b) and Silos (2007)).

Besides this housing market evidence, there is also no clear conclusion about the quantitative and empirical importance of the impact of downpayment constraints on home ownership. Fisher and Gervais (2010) and Kiyotaki et al. (2011) argue that the relaxation of downpayment requirements was quantitatively small and had only modest implications for the housing market. Christopher et al. (2012) argue that the main trigger of the housing boom is the overly optimistic expectations of both borrowers and investors about house price, not the innovations in the financial market. On the other hand, several other researchers have found that borrowing constraints play an important role in explaining the low ownership rates among young households (Chambers et al., 2009a; Iacoviello and Pavan, 2013).

Finally, we can conclude that housing tenure decision models had limited success in revealing the real reasons behind the low home-ownership rates among young households and in replicating the actual U.S. life cycle home-ownership curve. Indeed, most previous work on housing tend to over-predict the differences in rates between young and old households.[5]

In this paper, I study the housing tenure decision in an equilibrium life cycle model with uninsurable individual income risk, plausibly calibrated to match key features of the U.S. housing market, the earnings distribution and life cycle mobility rates. This framework is closely related to Hugget (1996)'s life cycle model. I explicitly distinguish owned from rented housing by modeling its collateral role and its illiquidity and I allow for an endogenous housing tenure decision. In the baseline version of the model, I introduce mobility shocks to capture geographical instability which can be thought as a potential reason why many young, rich households in the U.S. prefer to rent. As expected, the data shows that mobility rates are negatively correlated with age.[6]

Given that my model incorporates several potential channels through which the housing tenure decision mechanism can be affected, I investigate alternative popular explanations that have been proposed to explain the relatively low home

[3] Renters holding rental propriety investments.

[4] The Qualified Residential Mortgage (QRM) is a requirement that allows the borrower to have the best rate on the mortgage since the loan will be exempt from the Dodd–Frank Wall Street Reform that requires financial firms to retain 5 percent of the credit risk when they sell loans to investors (skin in the game).

[5] Halket and Vasudev (2014), Chambers et al. (2009b).

[6] See Fig. 1.