SYNOPSIS

Housing and Retirement Financing: Optimal Time to Buy a Residential Home
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Key words: Housing, Consumption investment strategy, Retirement savings, Monte Carlo simulation

Purpose of your paper: To investigate the optimal time to buy a residential home by looking at how purchasing home property at different ages affects an individual's pre-retirement consumption, retirement savings, and ultimately the lifetime utility level.

Synopsis: The family home is typically the single most important asset in household portfolios. Outright home owners can live rent-free, which provides a hedge against rental inflation. Wealth stored in housing can be unlocked through equity release products to improve retirement living standard or to fund health care and long term care. Given the importance of housing in retirement planning, a natural question that arises is when to become a home owner.

We examine this question by looking at how purchasing home property at different ages would affect an individual's pre-retirement consumption level, savings for retirement, and ultimately the utility level over the working life. The utility is derived from consumption and wealth at retirement. The wealth consists of liquid assets (cash and stocks), superannuation, and home equity. We use a vector autoregressive (VAR) process to model the dynamics of asset returns and labour income growth, and then perform Monte Carlo simulations on various scenarios. The consumption and asset allocation decisions are calibrated to the Household, Income and Labour Dynamics in Australia (HILDA) Survey data, reflecting an average Australian's decisions in his/her age group and housing tenure.

Our simulation results show that purchasing the property earlier during the working life often leads to a higher level of wealth at retirement due to a higher home equity value and more liquid assets. The home equity is higher because the earlier the property is purchased, the lower the mortgage balances at retirement. In terms of the liquid assets, the earlier the investor becomes a home owner, the lower the annual mortgage repayment amount because of a lower house price. In addition, the mortgage repayment is typically less the rental payment. The investor is therefore able to accumulate more liquid assets. Purchasing the property, however, also leads to several years of consumption cut after the property purchase because a significant proportion of liquid assets are transferred to the housing wealth (which is illiquid) after a large amount of down payment is made. The consumption cut contributes to the utility loss, and the earlier the property is purchased, the higher the discounted utility loss. On the other end of the spectrum is to keep renting during the working life. We find it unattractive both in terms of retirement wealth and utility level. Individuals who rent the property throughout the working life have to incur high rental costs. This not only constrains the spending on non-housing consumption, which results in a low utility level, but also slows down the wealth accumulation. The results are robust to different initial values of wealth, income, rental cost, and key parameter values.

In summary, we examine the question as to when to become a home owner by looking at the impact of purchasing the property at different ages on consumption, wealth, and ultimately the utility level. We conclude that purchasing the property early in life is preferred if one wants to enjoy more savings for retirement, while deferring the property purchase to 50's is more attractive if one wants to have a higher utility level.