Housing Wealth

Abstract: This article describes housing wealth and the role it plays in household finance.

Housing wealth, or residential real estate, is the combination of land and structures for the purpose of providing shelter or housing services. Housing plays a dual role as a durable good that provides shelter and as an asset that complements other sources of wealth in the portfolios of households.

In principle, if housing was perfectly divisible, no transaction costs were associated with it, capital markets were perfect, and financing frictions were absent, individuals would optimally choose housing services (through a rental market) independent of the amount of housing wealth in their portfolios. In reality, most households, at least in the United States, choose to enjoy housing services through ownership of their residences. The result is that housing becomes a major component of the portfolios of households in many developed countries. At the turn of 21st century, the median household in the United States – according to income - tied about two-thirds of its wealth to residential real estate. In aggregate, the share of housing is slightly smaller than that of other assets, but, due to the extreme concentration of non-housing wealth, wealth lies largely in housing for a large percentage of the population. Its weight in the households' portfolios

has a clear life-cycle pattern: young homeowners leverage themselves to purchase homes that result in large housing-to-net-worth ratios. As people age, their earnings increase, resulting in a larger accumulation of financial assets and decreasing the housing-to-wealth ratio. At retirement, financial assets are depleted at a faster rate than housing wealth is decreased, resulting in a minor increase in the ratio.

The interpretation of housing as a bundle of land and structures allows a calculation of changes in housing prices into changes in the price of land and changes in the price of structures. Davis and Heathcote (2007) report that changes in the price of residential land account for most of the low and business-cycle frequency changes in house prices and that the price of residential structures moves quite differently than that of land. Land prices increased significantly in real terms over the second half of the 20th century, as a result causing an increase in the importance of housing in the aggregate wealth portfolio, according to Skinner (1994). Much economics research has focused on understanding the interplay between changes in housing wealth and the consumption, savings, and portfolio decisions of households. For example, two reasons exist to explain why housing wealth plays a relevant role in decisions made by households. First, existing frictions in housing markets – for instance, in financing a house or in search of buying and selling properties – cause most households to make optimal housing consumption and investment decisions jointly through the purchase of a single property. Imposing this constraint on optimal portfolios has problematic implications for the mix of financial assets held by households. Second, changes in housing wealth have profound effects on households' consumption and savings decisions. These effects are the result of a direct change in

perceived wealth or the result of changing the tightness of borrowing constraints if housing wealth is used as collateral.

As an asset, residential real estate is risky, with fairly volatile prices. Using data from the Panel Study of Income Dynamics (PSID) on self-reported property values and accounting for taxation and maintenance costs, Flavin and Yamashita (2002) calculated statistical returns to homeownership in the United States. The mean return over their sample period (1968-1992) was 6.6% per year (by comparison, the mean return for stocks was 8.2%), the standard deviation was 14% (relative to 24% for stocks), and housing was essentially uncorrelated with either stocks or bonds. As a result, from a portfolio perspective, it is optimal to hold some residential real estate because it helps diversify the risk present in financial assets. However, the solution to this portfolio problem is complicated for households that, due to frictions, choose one single house, which determines the consumption of housing services and the quantity of housing in the portfolio. Flavin and Yamashita (2002) show that within a mean-variance frontier framework, housing and its financing change the risk and return trade-off that households face. Households with positive housing-to-wealth ratios see a drop in the weight of riskless assets relative to risky bonds and stocks. In fact, the non-negativity constraint in the riskless asset positions is binding for households with large housing-to-wealth ratios. This fact helps explain cross-sectional data on the composition of financial assets over the life cycle of individuals. Cocco (2005) studies portfolio choice in the presence of housing, also finding important implications for the weight of financial assets in households' portfolios and explaining the observed positive correlation between stockholding and leverage.

The literature also has focused on the response of household consumption to changes in housing prices. The increase in consumption observed during periods of rising housing prices can be the consequence of a larger wealth effect, a relaxation of borrowing constraints for constrained homeowners, or simply because both variables depend on unobserved rises in expected income. Campbell and Cocco (2007) use United Kingdom household level data to estimate how consumption responds to changes in house prices. They find that the elasticity of consumption to house price for individuals changes by age. The consumption of young households does not react to house price changes, while the elasticity for older homeowners is positive and significantly different from zero. Li and Yao (2007) also find similar distributional effects of house price changes for different age groups using a structural model calibrated to U.S. data. They find that in the face of rising house prices, the consumption of young individuals should respond negatively because it takes more savings to achieve a required down payment. As retirees downgrade the size of their housing holdings (to some extent), the positive capital gains allow them to increase their consumption. Middle age individuals see their welfare roughly unchanged.

Campbell and Cocco also find evidence that increases in house prices relax borrowing constraints. The introduction of home equity lines of credit (HELOC) has facilitated the use of housing wealth for smoothing consumption over the lifecycle. Introduced at the beginning of the 1980s, HELOCs are loans that use equity holdings in real estate as collateral, and they have become increasingly important, particularly in periods of rising

house prices. These instruments provide flexibility in transforming illiquid real estate

wealth into liquid assets. As housing wealth is widely used as collateral, changing house

prices can affect the ability of households to share risk in the face of idiosyncratic labor

market risk. The amount of housing wealth relative to non-housing wealth in an economy

becomes a candidate to explain some empirical failures of equilibrium asset pricing

models. Lustig and Van Nieuwerburgh (2005) use this explanation to construct an

economy in which a decrease in the amount of collateralizable housing wealth leaves

households more exposed to labor market risk as borrowing constraints are more likely to

be binding. The model helps explain why some empirical regularities are inconsistent

with the standard consumption-based, asset-pricing model. For instance, the ratio of

housing wealth to non-housing wealth helps predict stock returns at low frequencies.

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