ASSA Meetings CSWEP Sponsored Session Summary

January 6-9, 2011 Denver, CO

Session Title: New Developments in Housing Research

Chairs: Marsha J. Courchane, Charles River Associates, Amy Schwartz, NYU and Amy Crews Cutts, Freddie Mac

Does Cleaning Up Contaminated Sites Raise Housing Prices?

Shanti Gamper-Rabindran (University of Pittsburgh) and Chris Timmins (Duke University);

Discussant: Andrew Haughwout (Federal Reserve Bank of New York),

SUMMARY TO BE FILLED IN BY AMY SCHWARTZ

Owner-Occupied Housing: Life-cycle Implications for the Household Portfolio,

Marjorie Flavin (University of California, San Diego) and Takashi Yamashita (Nova Southeastern University);

Discussant: Marsha Courchane, Charles River Associates

Previous empirical work on portfolio composition over the lifecycle indicates that the portfolio share devoted to risky assets has a hump-shaped profile with respect to age. That is, as households accumulate wealth, they tend to invest an increasing fraction of their wealth in risky assets. Only at a very advanced age do households, on average, reduce the share of their portfolio held in risky assets. The hump-shaped age profile of risky asset holding has proven difficult to reconcile with standard models of portfolio allocation.

In this paper, the authors incorporate owner-occupied housing in a model of household consumption and portfolio allocation. Instead of assuming that the household can borrow and lend without limit at a riskless interest rate, they assume that the household's portfolio allocation decision is subject to a collateral constraint. Specifically, the household can borrow only in the form of a mortgage, and the size of the mortgage cannot exceed the house value. Solving for the optimal portfolios, the authors show that the collateral constraint induces a hump-shaped profile in the optimal share of stocks in the portfolio. For a given degree of risk aversion, the percentage of the financial asset portfolio held in the form of stocks is a decreasing function of the ratio of house value to net worth over most of its range. Young homeowners typically have house values several times as large as their net worth; over the course of the lifecycle, the ratio

of house value to net worth falls as the household accumulates wealth. Thus even when two households have the same degree of risk aversion, the model predicts that the older household with a lower ratio of house value to net worth will generally hold a greater percentage of its portfolio of financial assets in the form of stocks than a younger household. Using data from the Survey of Consumer Finances (SCF), the paper concludes by estimating the effect of the housing state variable on portfolio composition, and comparing the estimated effect with the predictions of the model. The empirical work supports the assertion that the apparent age effect on portfolio composition arises because the age of the household head acts as a proxy for the housing collateral effect.

Housing Prices and Marital Stability, Martin Farnham (University of Victoria), Lucie Schmidt (Williams College), and Purvi Sevak (Hunter College)

Discussant: Rajeev Darolia, Charles River Associates

House prices in the US and elsewhere have undergone dramatic swings over the past two decades, but --in spite of the fact that American families hold most of their wealth in housing-- little work has been done to examine the impact of changes in house prices on marital stability. The authors suggest that house-price increases could affect marital stability through a variety of mechanisms that may differ for renters and owners. When house prices rise, equity gains experienced by owners facilitate making down payments on separate homes that would enable increased divorce probabilities. At the same time -- assuming that house prices and rents are positively correlated -- increases in house prices mean that both owners and renters experience higher costs of living separately, which could reduce divorce probabilities. House-price increases may reduce financial stress—and therefore divorce probabilities—for owners; price increases should have the opposite effect on renters. We predict that house-price changes and divorce rates will be positively correlated for homeowners and negatively correlated for renters. In addition, responses may differ during booms and downturns if transaction costs of selling a house are higher in weak markets.

The authors use twenty years of data from the Current Population Survey March Supplement (CPS) and the Federal Housing Finance Agency to examine the relationship between MSA-level house-price changes and changes in the share of population that is divorced. Their findings suggest that changing house prices significantly affect the divorce share, and that these effects are asymmetric with respect to housing gains versus losses. In addition, they identify differential effects for groups that are more likely to be homeowners versus renters. Falling house prices are associated with significantly increased divorce shares among populations with high renting rates, and decreased divorce shares among populations with high ownership rates. These results suggest that housing transactions costs may play an important role in the relationship between house prices and marital stability.

Estimating the Willingness-to-Pay to Avoid Violent Crime: A Dynamic Approach,

Kelly Bishop and Alvin Murphy (Washington University);

Discussant: Tom Thibodeau, University of Colorado, Boulder

The property-value hedonic model, based on Rosen's seminal paper, has long been used extensively to estimate the implicit prices of housing and neighborhood attributes, as well as households' demand for these non-marketed amenities. Derived from the household's first order conditions from a residence location model, the hedonic model has long been considered to be both intuitive and tractable. A recognized drawback of the existing hedonic literature is that the models assume a myopic decision-maker. Given significant transactions costs associated with moving, households behave dynamically when choosing where to live and which/how much amenities to consume.

In this paper, the authors estimate a dynamic hedonic model, with the household's problem modeled as a two-part discrete-continuous decision. The added computational burden is reduced to a simple, first stage estimation. Results indicate that the aveage household is willing to pay $11.86 per year to avoid one additional crime per 100,000 residents. This translates to a willingness to pay of $417.98 per year to reduce total violent crime by 10% at the average level of violent crime (352.43 per 100,000 residents). There is some heterogeneity in this distaste for crime based on the observable characteristics of race and income. On average, white households have the strongest distaste for crime, while Hispanic households have the weakest; white households willing to pay $2.47 more than Hispanic households to avoid one additional crime per 100,000 residents. The authors find relatively large income effects with an additional $1,000 in income increasing willingness-to-pay by $0.05, all else equal. This translates to an income elasticity of 0.48 calculated at the mean income of $116; 596 (in 2000 dollars).The authors determine that the average household is willing to pay $472 per year for a ten percent reduction in violent crime. In addition, we find that the traditional, myopic model suffers from a 21 percent negative bias.