## Shadow Inventory: Holding Down Home Values in Multiple Ways

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National real home prices have dropped back to levels last seen in 1999. Nominally, they have fallen 31 percent from their peak in April 2006 if we include distressed sales and 22 percent if we exclude them (CoreLogic<sup>®</sup>, 2011). At the same time, mortgage interest rates are at generational lows. The combination of cheap houses and cheap money makes homes more affordable now than they have been in decades. So why do home sales prices continue to fall? One could suggest reasons such as unemployment and tight credit, but the shadow supply of available properties is one key factor. American consumers know the basic law of supply and demand and can see that, although the number of months of listed inventory is near historic averages right now, vast numbers of homes wait on the sidelines. These coming sales include unlisted repossessed homes, homes associated with the 8.1 percent of mortgages delinquent as of March 31, 2011, according to Mortgage Banks Association survey, and some growing fraction of the 10.9 million homes with underwater owners (CoreLogic®, 2011) who would have sold by now if they could have paid off their mortgages. In her testimony to the U.S. Senate Subcommittee on Housing, Transportation, and Community Development on September 20, 2011, Laurie Goodman of Amherst® Securities Group, LP, predicted that upwards of 1.4 million units of distressed housing will hit the market annually for the next 6 years (Goodman, 2011). These "sales on the way" are additive to the normal economic rates of offerings and are therefore likely to exceed even normal demand rates. Actual demand, however, will probably fall short of normal in response to the tightest underwriting practices since at least 1995.1

The expected supply and demand imbalance, however, is only the first weight on pricing from shadow inventory. After all, shadow inventory is a substantial share of the whole market, perhaps one-fifth, according to Goodman (2011). What happens to the values of homes on their way to ultimate foreclosure? Just as potential buyers are wary of investing in a losing asset, underwater owners, and delinquent owners in particular, are reluctant to invest in their homes because they will not realize a return upon sale. The longer a home is delinquent, the longer the disinvestment period. Without proper maintenance, the condition of the home worsens and it becomes harder to

<sup>&</sup>lt;sup>1</sup> That was the year when credit scores were first collected regularly, enabling such a comparison.

sell. Gerardi et al. (2011a) estimated that the ultimate value of a foreclosed property falls by about 0.5 percent for each month of delinquency before foreclosure. By sheer numbers, the lower values of the shadow inventory bring down average prices for the housing stock as a whole.

This erosion of value through underinvestment may well be the bulk of the explanation for the so-called foreclosure stigma price effect, a mysterious price discount long presumed due to the desperation of foreclosed property owners and the hesitation of buyers to live in foreclosure-haunted homes. The data that drive stigma theories are the same data that drive the different House Price Index estimates above—a battered index for the market as a whole, but a somewhat less beatendown index for nondistressed sales, as if two separate housing markets can exist side by side. By controlling for the home condition recorded in realtor listings, Clauretie and Daneshvary (2009) estimated that the stigma discount is far smaller than the simple average price differences would indicate. And if we assume that realtors likely downplay the full adverse condition of their listed properties, then the stigma effect would shrink further. Indeed, Harding, Rosenblatt, and Yao (2012) do not find any significant foreclosure discount, as measured by a failure of most buyers of foreclosed homes to realize abnormal profits upon reselling their homes. If resellers cannot make excess profits, then the homes must have been sold at prices reasonably near their market values.

Beyond these effects lies an additional and less obvious devaluating force from shadow inventory, what Gerardi et al. (2011b) call "the broken window effect." The poorer maintenance and condition of the shadow inventory are either eyesores or harbingers of a neighborhood in decline, harming the salability of nearby homes. Several papers have appeared recently that document this so-called *contagion effect*. Using a sample ending in 2007, Harding, Rosenblatt, and Yao (2009) found that foreclosed homes in bank portfolios cause about a 1-percent loss in value to nondistressed homes selling within 300 feet, but the value loss begins at least 1 year before foreclosure and builds steadily until the bank takes over the home and resumes maintenance. Gerardi et al. (2011b) found a 3.2-percent negative contagion effect in a 2007–2009 sample. The contagion effect is greater if the bank appraiser considers the neighboring foreclosure home to be in poor condition. Again, the contagion effect does not spring suddenly into life with default. Gerardi et al. (2011b) also find the effect before foreclosure, with each seriously delinquent (SDQ) loan (SDQ = 3 or more months delinquent) lowering neighboring property values by 2.8 percent.

The longer a home is delinquent, the longer maintenance is deferred. Extended delinquency lowers the value of the delinquent home and that of its neighbors. Because of administrative and political logjams, but also because of humanitarian efforts to help delinquent borrowers, time in delinquency has risen rapidly in the last several years, astonishingly so in some states. Nationally, the share of Fannie Mae loans that are SDQ rose about 7 times from December 2006 to December 2010, and the share of loans 12 or more months late rose twentyfold. In California and Florida, the SDQ rates rose about twenty-fivefold, but the rate of loans at least 12 months delinquent rose hundredfold. Of course, in 2006, it was easy to sell homes in these states—almost anybody could sell a delinquent home in less than 1 year and pay off their mortgage—so comparing 2010 to 2006 might be misleading. But from December 2008 to December 2010, the rate of home loans delinquent for more than 1 year rose by a factor of six in Florida, and now more than one-half of the SDQs in that state have been delinquent for at least 1 year. The delinquency contagion effect might have been ignorable in the past in Florida, but now it is a rare sale that is not near a delinquent property.

In summary, we have identified three ways in which shadow inventory hurts home prices and retards economic recovery. Shadow inventory creates gloom about future supply/demand imbalance, it destroys value directly through maintenance failure, and it harms neighboring home values through the broken window effect. Other avenues of adverse effect likely exist, however, such as economic uncertainty and complexity in urban planning. Endogeneity effects, such as falling prices from contagion causing an increase in foreclosures, surely exist. Shadow inventory plays a pernicious role in the housing and economic recessions, and delays in resolution do not mitigate its effects.

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