Toxic Neighbors
Foreclosures Negative Spillover Effects on No-Default Neighbors

As the mortgage crisis continues, governments at all levels are considering ways to design homeowner-rescue and foreclosure-prevention policies. Very soon a new congress will be debating how many taxpayer dollars will be spent on bailing out Fannie Mae and Freddie Mac. Why? Haven’t we all paid enough? Shouldn’t we just let housing prices free fall until the market corrects itself and let the companies that made these bad loans suffer the consequences?

The answer to these questions partially depends on the costs of foreclosed homes to no-default home owners. Foreclosed homes and short sales sell at discounts relative to similar homes sold by owners able to make their monthly payments. But foreclosed and short-sale homes are toxic neighbors because they have a negative impact on the value of all the homes around them. They do this for three reasons. First, they cause blight. Delinquent mortgage and foreclosure processes reduce the incentive of homeowners to invest in their properties. Some homes suffer neglect, abandonment and vandalism. All of these things reduce the attractiveness of the neighborhood to potential buyers. Second, home-valuation techniques rely heavily on the price of recent sales of neighboring homes. If many recent sales involve foreclosed or short-sale homes sold at a discount, all other homes on the market in the neighborhood will see a decline in their values, creating further negative equity and more foreclosures. Finally, foreclosures dump even more inventory onto the market, increasing the total supply of available homes. Given stable demand, prices of all similar properties will be lower.
Clark County Single-Family Home Market
The housing market, the same as most other markets for goods and services, has a natural long-run equilibrium based on supply and demand. In other words, based on household formation rate, population growth rate, cost of construction, and “normal” appreciation rate, in the long run home prices follow a “natural” path. As depicted in the graph above, between 1987 and mid-2000, the Case-Shiller Home Price Index for Clark County was stable with an average annual increase of about 4%. From mid-2000 to mid-2003, price increases accelerated to about an annual average of 8%. Between mid-2003 and mid-2006, the housing “bubble” took over, and the per square average home price rose from $129 to $235. Thereafter, the average price started to decline, crossed the natural equilibrium path of $125 around the end of 2008, and continued declining to $101 by mid-2010. Current prices are about $25 per square foot below the equilibrium path.

Clark County, Nevada, like many places in the nation, is currently going through the scenario outlined in the introduction. Between 2000 and the end of 2007, the population of Clark County had increased by about half a million and housing stock increased from 500,000 to 731,000 with the median house price going from $155,000 to $310,000. Since the beginning of 2008, Clark County has been also among the hardest-hit economies and housing markets. From January 2008 to June 2009, a whopping 66.6% of all housing sales were on foreclosed/REO properties. Short sales accounted for another 9.8%. Only 23.6% of all home sales involved no-default properties.

Foreclosure Discounts
The raw data from homes sold from January 2008 to June 2009 show that prices per square foot of no-default sales declined by about 25%. The average prices of short sales and foreclosed sales declined by 40% and 43%, respectively. Netting out the effect of many factors, such as 35 property and neighborhood characteristics, we found that short sales and foreclosed homes suffer 10% and 22% price discounts relative to similar no-default home sales, respectively.

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**Negative Spillover Effect on Neighbors**

But what about the impact of these distressed properties (e.g., foreclosed and short sales) on neighbors and communities. To estimate such effects for each no-default home in the “neighborhood,” we include the number of foreclosed and short-sale neighbors and purge out, through statistical techniques, the effects of:

1. The monthly time trend variable to pick up the effects of the overall market-price trend of the broader market (Clark County, NV).

2. The time that a property stays in the market before it is sold.

3. The “neighborhood” specific past average price, i.e., average of home prices sold within the past 6 months and 0.5 of a mile, and

4. 35 house characteristics and neighborhood characteristics.

Then, we apply this method to 4,659 no-default homes sold between July 2008 and end of June 2009. The overall results are depicted in the graph below.

This graph shows no-default home-price discounts due to the number of foreclosed neighbors (red line). It also shows the total discount effect if we attribute the overall market-level declining price trend to foreclosures (blue line). Each additional foreclosed home has an incremental negative effect until we reach about 40 foreclosed neighbors. At this point, these foreclosed homes drive down the price of nonforeclosed homes by about 20%. If we attribute all of the market declines in nonforeclosed homes prices to foreclosures, the overall effect is a 33% price reduction within one year (July 2008 to June 2009). We note that at about 40 foreclosures in the neighborhood, the “tipping point” takes place and foreclosed home prices dominate the market. That is, at this point nonforeclosed homes sell at the same prices as foreclosed homes. For an average price home ($292,000) in our sample with an average number of foreclosed neighbors (19 homes) and average time trend discount (14.8%), we find losses of about $78,000. This means a total of $366 million is lost on no-default homes in one year. Netting out the effect of foreclosed sales, short sales do not result in additional negative spillover.
Implications and Conclusions
These findings have several implicit and explicit implications for business and public policy-makers who are attempting to deal with such a crisis.

1. The existence of foreclosure externality may be a good reason to call for both private, i.e., lenders, and public policies to prevent and to mitigate foreclosures. For example, lenders can implement a speedy process to mitigate default loans, including the principal and the monthly payments, in return for a share of future home-price appreciations. Loan modification assures a continued flow of income to investors, reducing the stress on the financial sector and an already fragile economy, foreclosures do not. Similarly, local, state, and federal governments may take measures to allow speedy loan modifications for primary residences and to prevent risky lending practices in the future.

2. Even within a city, due to variations in the numbers of foreclosures among neighborhoods, as is shown in the map on page 1, the size of the negative spillover effect of foreclosure is not the same for all neighborhoods. Heterogeneity amongst neighborhoods produces differential effects, a finding that may be considered when making policy decisions.

3. Short sales do not cause deterioration of neighborhood quality, but in the absence of effective deficiency judgment, the borrower will have no incentive to maximize the short-sale price. Absent an explicit statement in a short-sale agreement between the borrower and the lender, Nevada laws allow for deficiency judgment. The lender has six years to pursue the difference between the loan balance and the proceeds of the short sale. In case of foreclosure, the lender is allowed to file for a deficiency judgment up to six months after the foreclosure is finalized. Such a differential legal treatment between short sales and foreclosures may discourage borrowers from seeking a short-sale solution over a foreclosure option. Given the absence of negative neighborhood spillover effects and potentially lower carrying, transaction, and legal costs to lenders, equalization of the allowable deficiency judgment period may be a sound public policy.

In closing, we don’t know the depth of the housing problem in the U.S. But if our estimates, in one of the hardest-hit communities in the nation, show an upper bound on the extent of homeowner losses from toxic neighbors, our estimates suggest that, between July 2008 and June 2009, the average home owner in a nonforeclosed property lost $78,000 in value due to their toxic neighbors. Any public policy and/or private sector plan that costs less than $78,000 to these homeowners, eliminates the spillover effect from toxic homes, and speeds up the return of home price to its long-run path is a good buy.

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