Soaring Spillover: Accelerating Foreclosures to Cost Neighbors $502 Billion in 2009 Alone; 69.5 Million Homes Lose $7,200 on Average

Over Next Four Years, 91.5 Million Families to Lose $1.9 Trillion in Home Value; $20,300 on Average

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NOTE: This is CRL's third report on the spillover impact of mortgage foreclosures. Our first report, issued in Jan. 2008, estimated that the 1.1 subprime foreclosures projected in CRL's 2006 "Losing Ground" study would cause a $202 billion decline in home values in their communities.[1] In August 2008, we updated our subprime foreclosure projection to 2.2 million and estimated that those foreclosures would cause a $352 billion total decline in property values.[2] This new report is based on new CRL projections of 2.4 million foreclosures for all loans (not just subprime) in 2009, and 9 million during 2009-2012. This report also reflects a somewhat more conservative methodology for calculating the spillover impact, as described below.

The constant barrage of news headlines on the economic crisis makes it easy to become numb to the financial pain American families are experiencing. However, the numbers paint a picture we cannot ignore. Foreclosures today are the highest ever seen in the modern mortgage market. While the problem started with subprime loans (which CRL predicted back in 2006[3]), it has now spread to "Alt-A" and prime loans as well. Today, 1 in 8 home loans (and 1 in 4 subprime loans) are either delinquent or in foreclosure.[4]

Projections of foreclosures have skyrocketed from CRL's 2006 estimate of 1.1 million subprime foreclosures to a January 2009 Goldman Sachs estimate of 13 million foreclosures on all types of loans through 2014.[5] Based on current market data, CRL now projects that some 2.4 million foreclosures will occur in 2009, and 9 million during 2009-2012.[6]

In addition to the devastating impact these foreclosures will have on the affected households, they will also cause a "spillover" effect by depressing the value of nearby homes—most owned by families who are paying their mortgages on time. Today, almost half of all home sales are foreclosures or "short sales" of properties sold at substantial discount.[7] This has resulted in lower property values for homeowners and a reduced tax base for communities.

We estimate that, in 2009 alone, foreclosures will cause 69.5 million nearby homes to suffer price declines averaging $7,200 per home and resulting in a $502 billion total decline in property values. These projections—representing only property value declines caused by nearby foreclosures, not other price drops associated with short sales or the slowdown in local housing markets—are based on CRL research combined with data from Credit Suisse, Moody's Economy.com, and the Mortgage Bankers Association.[8]

Background

When a home goes into foreclosure, the negative effects extend beyond individual families losing their homes to surrounding neighbors and the wider community. Published research by several researchers indicates that a foreclosure on a home lowered the price of other nearby

single-family homes.[9] Depending upon the geography and time period studied, the estimated impact of a foreclosure on nearby property values ranged from 0.6% to 1.6%.

For this analysis, CRL used a conservative estimate of a 0.744 percent home value decline for each foreclosure within 1/8 of a mile, based on a recent study by Harding, Rosenblatt & Yao (2008).[10] This is lower than the 0.9 percent decline used in our two previous spillover reports, which were based on a study by Immergluck and Smith (2006).[11] Harding *et al* find an average effect of foreclosure on an immediate neighbor of somewhat over one percent—similar to the 0.9 percent effect reported by Immergluck and Smith. However, Harding *et al* also find a sharper decline with distance and estimate that properties within zero to 300 feet on average experience a 1.3 percent decline in value, while properties within a 300-660 foot ring (660 feet = one eighth of a mile) have a 0.6 percent decline. Based on these statistics, we calculate that the average decline on a property within 1/8 of a mile of a foreclosure is 0.744 percent.[12]

Key Findings

We project that, nationally, foreclosures on home loans originated will have the following impact on the neighborhoods and communities in which they occur:

- **Foreclosures in 2009 will cause 69.5 million neighboring homes to experience a devaluation of $501.9 billion in total. This means homeowners living near foreclosed properties will see their property values decrease about $7,200 on average.**

- **Over the next four years, foreclosures will affect 91.5 million nearby homes, reducing property values $1.86 trillion in total, or $20,300 per household.**

These national results are the aggregation of CRL estimates of the foreclosure spillover impact for 56,777 census tracts or similar geographies.[13] In each geography assessed, the cost to neighbors is affected by three factors: the number of projected subprime foreclosures, the density of local housing units, and the current value of those homes. (See "Calculating the Spillover Effect" below for further details on our analysis.)

Finally, our findings understate the total foreclosure "spillover" impact because we only include counties located in Metropolitan Statistical Areas (MSAs). A typical MSA comprises a core urban area with a population of 50,000 or more, together with adjacent communities that are economically or socially linked to that core area. Approximately 76 percent of the U.S. population lives in an MSA.[14]

Fueling The Economic Downturn

Lower home values mean families have less home equity. Homeowners who had counted on using their home equity to finance their retirement, cover tuition costs, start a small business, or pay medical bills in many cases no longer have this option. And they often can't get a loan from a bank for these purposes either, as high foreclosures have caused a "credit crunch" as many lenders have scaled back lending to use their capital for loan losses.

This loss of household wealth also has eroded consumer confidence, which—combined with the credit crunch and lower consumer spending—has led to today's economic recession. And the downward spiral continues as job losses and the stock market decline caused by the recession are reducing household wealth further and making even more families vulnerable to losing their homes.

Finally, the combination of lower property values and recession has decimated state and local tax bases and revenue. The shortfall in state revenues through 2011 is estimated to total $350 billion or higher.[15]

Calculating the "Spillover" Effect

To assess the impact of foreclosed subprime loans on neighboring homes, we first allocated our estimated 2.4 million foreclosures and 9.0 million foreclosures during 2009-2012 by state. Within each state, we allocated foreclosures by census tract, based on foreclosure rates obtained from the Mcdash Analytics database for first lien mortgages secured by single family house, condo, townhome, or multifamily home and the number of mortgages at the census tract level from HMDA 2004 to 2007 (1st lien mortgages only).[16] We then obtained data on the local housing unit densities and median house prices for each census tract.[17] Assuming that the predicted foreclosures within each census tract are evenly distributed throughout the tract, we calculated the number of houses expected to be within an eighth of mile of each foreclosure. We then estimate that each foreclosed property will cause the value of these neighboring homes to decline by 0.744 percent.[18]

Conclusion

By any measure, the epidemic of home losses is severe, and will not only harm the families who lose their homes, but also nearby homeowners who suffer drops in their property values and communities who suffer the impact of lower tax revenues. With millions of foreclosures predicted to occur in the next few years, it is imperative that policymakers take action to assist homeowners struggling today and enact common-sense regulations to ensure this disaster does not happen again.

Table 1: Foreclosure Spillover Impact by State

	Spillover Impact of 2.4MM Foreclosures in 2009			Spillover Impact of 9.0MM Foreclosures in 2009-2012		
State	Number of Neighboring Homes Experiencing Devaluation	Decrease in House Values from Foreclosure Effect ($ millions)	Average Decline in Home Value	Number of Neighboring Homes Experiencing Devaluation	Decrease in House Values from Foreclosure Effect ($ millions)	Average Decline in Home Value
Alabama	449,062	$483.5	$1,077	948,411	$1,788.7	$1,886
Alaska	79,765	$168.0	$2,106	124,028	$621.3	$5,009
Arizona	2,061,079	$13,984.9	$6,785	2,261,220	$51,734.3	$22,879
Arkansas	184,535	$164.3	$890	442,075	$607.9	$1,375
California	11,379,799	$169,456.0	$14,891	12,249,824	$626,870.0	$51,174
Colorado	1,343,372	$4,252.8	$3,166	1,581,158	$15,732.5	$9,950
Connecticut	736,082	$2,086.5	$2,835	1,126,426	$7,718.3	$6,852
Delaware	182,775	$554.8	$3,035	292,609	$2,052.3	$7,014
District of Columbia	274,653	$6,176.7	$22,489	281,838	$22,848.6	$81,070
Florida	7,341,423	$89,571.0	$12,201	8,028,664	$331,351.0	$41,271
Georgia	1,850,583	$3,553.5	$1,920	2,823,007	$13,145.5	$4,657
Hawaii	274,275	$4,049.1	$14,763	359,505	$14,979.8	$41,668
Idaho	242,403	$479.7	$1,979	337,094	$1,774.8	$5,265
Illinois	3,618,332	$34,150.9	$9,438	4,283,681	$126,335.3	$29,492

	Spillover Impact of 2.4MM Foreclosures in 2009				Spillover Impact of 9.0MM Foreclosures in 2009-2012		
State	Number of Neighboring Homes Experiencing Devaluation	Decrease in House Values from Foreclosure Effect ($ millions)	Average Decline in Home Value		Number of Neighboring Homes Experiencing Devaluation	Decrease in House Values from Foreclosure Effect ($ millions)	Average Decline in Home Value
Indiana	1,344,662	$1,633.1	$1,215		1,904,624	$6,041.5	$3,172
Iowa	317,552	$323.8	$1,020		565,479	$1,197.7	$2,118
Kansas	402,244	$420.7	$1,046		668,950	$1,556.2	$2,326
Kentucky	521,729	$605.2	$1,160		857,834	$2,238.7	$2,610
Louisiana	497,571	$708.2	$1,423		936,151	$2,619.8	$2,798
Maine	109,483	$206.9	$1,890		218,171	$765.2	$3,507
Maryland	1,603,118	$8,451.8	$5,272		1,971,842	$31,265.8	$15,856
Massachusetts	1,578,224	$10,218.5	$6,475		2,260,670	$37,801.8	$16,722
Michigan	2,511,134	$5,497.8	$2,189		3,227,395	$20,337.9	$6,302
Minnesota	1,116,300	$3,478.1	$3,116		1,505,378	$12,866.7	$8,547
Mississippi	195,269	$175.0	$896		458,361	$647.4	$1,412
Missouri	1,066,438	$1,588.0	$1,489		1,597,889	$5,874.4	$3,676
Montana	55,270	$71.8	$1,299		132,241	$265.6	$2,008
Nebraska	269,313	$290.7	$1,079		423,158	$1,075.4	$2,541
Nevada	938,285	$14,717.2	$15,685		995,753	$54,443.8	$54,676
New Hampshire	147,465	$301.2	$2,043		295,195	$1,114.3	$3,775
New Jersey	2,646,917	$17,913.5	$6,768		3,234,032	$66,266.9	$20,490
New Mexico	308,477	$568.4	$1,843		461,179	$2,102.7	$4,559
New York	5,295,621	$65,340.7	$12,339		6,420,239	$241,715.4	$37,649
North Carolina	1,042,806	$1,401.4	$1,344		2,227,064	$5,184.4	$2,328
North Dakota	46,329	$46.9	$1,012		111,742	$173.3	$1,551
Ohio	2,827,700	$4,657.2	$1,647		3,853,373	$17,228.6	$4,471
Oklahoma	540,764	$510.8	$945		836,097	$1,889.6	$2,260
Oregon	818,698	$2,487.1	$3,038		1,089,889	$9,200.7	$8,442
Pennsylvania	2,455,378	$6,627.5	$2,699		3,640,624	$24,517.4	$6,734
Rhode Island	331,175	$1,520.3	$4,591		409,167	$5,624.1	$13,745
South Carolina	573,661	$949.4	$1,655		1,130,236	$3,512.3	$3,108
South Dakota	42,876	$40.6	$947		99,924	$150.2	$1,503
Tennessee	826,063	$1,043.4	$1,263		1,456,250	$3,860.0	$2,651
Texas	4,313,240	$5,403.1	$1,253		6,596,254	$19,987.8	$3,030
Utah	581,348	$1,549.4	$2,665		712,255	$5,731.8	$8,047
Vermont	24,920	$38.5	$1,545		61,199	$142.5	$2,328
Virginia	1,656,450	$7,053.0	$4,258		2,209,005	$26,091.1	$11,811
Washington	1,543,854	$5,267.9	$3,412		2,104,655	$19,487.8	$9,259
West Virginia	98,853	$93.9	$950		244,538	$347.4	$1,421
Wisconsin	844,117	$1,530.2	$1,813		1,383,078	$5,660.5	$4,093
Wyoming	29,505	$37.6	$1,274		76,577	$139.0	$1,815
United States	**69,540,947**	**$501,900.6**	**$7,217**		**91,516,008**	**$1,856,685.9**	**$20,288**

Notes

[1] *Subprime Spillover: Foreclosures Cost Neighbors $202 Billion; 40.6 Million Homes Lose $5,000 on Average.* Center for Responsible Lending. (January 18, 2008).

[2] *Updated Projections of Subprime Foreclosures in the United States and Their Impact on Home Values and Communities.* Center for Responsible Lending. (August 2008).

[3] Ellen Schloemer, Wei Li, Keith Ernst, & Kathleen Keest, *Losing Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners*, The Center for Responsible Lending, (December 2006).

[4] *Fourth Quarter 2008 National Delinquency Survey*. Mortgage Bankers Association. (March 2009).

[5] Jan Hatzius & Michael A. Marschoun, *Home Prices and Credit Losses: Projections and Policy Options*, Goldman Sachs Global ECS Research (January 13, 2009).

[6] CRL's estimate of 2.4 million foreclosures in 2009 is estimated based on annualized run rate of foreclosure starts reported in 3Q 2008 MBA National Delinquency Survey, grossed up to reflect entire mortgage market (MBA covers 80%). The 9.0 million foreclosures projected for 2009-2012 comes from Credit Suisse, specifically Rod Dubitsky, Larry Yang, Stevan Stevanovic and Thomas Suehr, *Foreclosure Update: Over 8 Million Foreclosures Expected,* Credit Suisse (December 4, 2008).

[7] Lawrence Yun. *Economists' Commentary: Existing Home Sales in February [2009]*. National Association of Realtors. (March 23, 2009). Available at http://www.realtor.org/research/economists_outlook/commentaries/commentary_ehs032309

[8] Our analysis also utilizes research by Harding, Rosenblatt, and Yao that shows an average 0.744 percent decline in home values for properties within 1/8 mile of a foreclosure. Harding, John P., Rosenblatt, Eric and Yao, Vincent W. *The Contagion Effect of Foreclosed Properties.* (July 15, 2008). Available at http://ssrn.com/abstract=1160354

[9] Studies reviewed include the following:

- Immergluck, Dan and Geoff Smith. "The External Costs of Foreclosure: the Impact of Single-Family Mortgage Foreclosures on Property Values." *Housing Policy Debate*, 17(2006): 57-79.
- Harding, John P., Rosenblatt, Eric and Yao, Vincent W, "The Contagion Effect of Foreclosed Properties" (July 15, 2008). Available at http://ssrn.com/abstract=1160354
- Lin, Zhenguo, Eric Rosenblatt and Vincent W. Yao. "Spillover Effects of Foreclosures on Neighborhood Property Values." *Journal of Real Estate Finance and Economics*, forthcoming (2008). Available at http://www.springerlink.com/content/rk4q0p4475vr3473/
- OFHEO. "Highlights - Part 2: Foreclosures and House Prices." OFHEO News Release, 29 Nov, 2007: 11-17.
- Rogers, William H., and WilliamWinter, 2009. "The Impact of Foreclosures on Neighboring Housing Sales." *Forthcoming, Journal of Real Estate Research*.
- Calomiris, Charles W., Stanley D. Longhofer, and William Miles. "The Foreclosure–House Price Nexus: Lessons from the 2007-2008 Housing Turmoil," Unpublished manuscript presented at 2008 AREUEA mid-year meeting, 4 July 2008.

[10] See note 2.

[11] Immergluck, Dan and Geoff Smith. "The External Costs of Foreclosure: the Impact of Single-FamilyMortgage Foreclosures on Property Values." *Housing Policy Debate*, 17(2006): 57-79.

[12] We determined the relative area encompassed by each ring, and found the inner circle (0-300 feet) is 25/121ths of the area encompassed by the outer ring (300-660 feet). Therefore, the expected decline for the entire 1/8 mile circle (both rings) is calculated as 25/121 * 1.3% expected home value decline (.269) plus 96/121 * 0.6% expected home value decline (.476) = .744.

[13] Specifically, Block Numbering Areas (BNAs), which are geographic entities similar to census tracts and delineated in counties (or the statistical equivalents of counties) without census tracts. In 2005 HMDA data,

there are total of 387 MSAs. For these MSAs, there are total of 1,158 counties and 53,293 census tracts. In 2006 HMDA data, there are total of 387 MSAs. For these MSAs, there are total of 1,158 counties and 53,245 census tracts. Combining both years yields 56,777 census tracts.

[14] Metropolitan statistical areasare geographic entities defined by the U.S. Office of Management and Budget for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics. For more details, see http://www.census.gov/population/www/estimates/metroarea.html

[15] Iris J. Lav and Elizabeth McNichol. *State Budget Troubles Worsen.* Center for Budget and Policy Priorities. (March 13, 2009 update). Available at http://www.cbpp.org/cms/?fa=view&id=711

[16] All the mortgages were outstanding by the middle of 2008. For any of the mortgages, if it was in foreclosure process, or if it had at least three late payments for the past 12 months by the middle of 2008, the mortgage was projected to foreclose eventually. If an area covered by a 5-digit Zip code had at least 100 loans in the database, then for this area, the number of mortgages projected to foreclose was divided by the total number of outstanding loans to yield a foreclosure rate. If an area covered by a 5-digit Zip code had less than 100 loans in the database, then its foreclosure rate was estimated from a larger area covered by a zip code of fewer digits which should have at least 100 loans. One census tract could be in multiple zip codes. Foreclosure rates for census tracts were weighted averages of zip code level foreclosure rates weighted by allocation factors of the census tract to zip codes. The number of mortgages at census tract level was aggregated from HMDA 2004 to 2007 (1_{st} lien mortgages only). It was then multiplied its foreclosure rates to give us the number of foreclosures for each census tract. In our database, there are total of 7.3 million mortgages expected to foreclose based on the above criteria. We then divided our national projections of 2.4 million foreclosures in 2009 and 9.0 million in 2009-2012 to calculate "scale factors", which were then applied to the McDash/HMDA estimated foreclosures for each census tract.

[17] Housing units and median house values at census tract level are from the Summary File 3 database of 2000 Census. Housing units was further updated to 2007 numbers by using Census 2007 Survey estimates at county level.Median house value was further updated to 2Q2007 value by using OFHEO HPI at MSA level for metro areas and at state level for rural areas.

[18] For a census tract, let A be the area size in square miles, B be the number of foreclosed subprime loans, C be the number of housing units, and D be the median house price. Let $G=64A/\pi$. Then the number of neighboring homes experiencing devaluation is given by

$$H = \begin{cases} C, \text{if } B \geq G \\ C \times B \div G, \text{if } B < G \end{cases} \qquad (1).$$

The dollar amount of decrease in house value/tax base from foreclosure effect is given by

$$I = 0.009 \times C \times D \times B \div G \qquad (2).$$