

Housing Policy Debate >

Volume 20, 2010 - [Issue 4](#)

412 Views | 38 CrossRef citations to date | 0 Altmetric

Articles

The accumulation of lender-owned homes during the US mortgage crisis: examining metropolitan REO inventories

Dan Immergluck ✉

Pages 619-645 | Published online: 04 Oct 2010

🗨️ Cite this article 🔗 <https://doi.org/10.1080/10511482.2010.505872>

Sample our
Health and Social Care
Journals

>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

📄 Full Article 📊 Figures & data 📖 References 🗨️ Citations 📊 Metrics

📄 Reprints & Permissions

Read this article

🔗 Share

Abstract

A key concern among policymakers and community developers in recent years has been the extent to which lender-owned homes, often called real estate owned or “REO” properties, accumulate in different local housing markets during the mortgage crisis. This paper describes the accumulation of REO properties in 356 metropolitan statistical areas (MSAs) from August 2006 to August 2008. It examines differences in both changes and static levels of REO activity across MSAs and compares changes in REO levels to changes in home values over the same period. Special attention is paid to 12 large MSAs with substantial levels of REO as of August 2008. A model of REO volume at the metropolitan level is estimated that includes differences in state foreclosure legal processes and timing among the independent variables. Finally, cluster analysis is used to identify a simple typology of MSAs based on REO levels and home price changes.

Keywords:

foreclosure

mortgage

vacant/abandoned property

housing

Acknowledgments

I would like to thank the editor and anonymous reviewers for helpful comments on an earlier draft of this paper. I also want to thank the Community Affairs unit of the Federal Reserve Bank of Atlanta for supporting this work through its visiting scholars program. All opinions and any errors in this work remain solely my responsibility.

Notes

¹For examples of local government and nonprofit responses to vacant, foreclosed properties see www.stablecommunities.com or http://www.foreclosure-response.org/browse_map.html.

²Cutts and Merrill (2008) found that the proportion of properties in post-sale redemption that were redeemed was approximately 17 percent in the 2004 to 2006 period – which includes the peak of the national housing market – but declined towards the latter part of the period as housing markets began to weaken.

³While longer pre-foreclosure periods may be expected to reduce REO entrants, they may still risk problems of encouraging vacancy or abandonment, especially if borrowers abandon properties or reduce maintenance during the pre-foreclosure period.

⁴Servicers reporting data to LPS identify loans as grade “B” or “C”, common industry terminology for subprime loans, which constitute subprime loans, and these loans are identified in the data set. Prime and near-prime loans fall into the remaining category.

⁵In multistate MSAs, weights are developed based on the share of an MSA's housing units located in a state. If 70 percent of housing units in an MSA are located in state A and 30 percent in state B, for example, the MSA weight is equal to 70 percent of the state A weight plus 30 percent of the state B weight.

⁶If the entrance of well-seasoned loans is not controlled for, increased REO activity may merely reflect the expansion of the sample over time. At the same time, many loans were originated after August 2006. Therefore, merely restricting the REOs to those for loans originated by August 2006 would provide an overly conservative measure of REO activity and growth, especially given the poor loan performance of the many loans that originated after August 2006.

⁷Groups 1 and 2 combined accounted for 86 percent of all reported REO in the LPS data set as of August 2008 and for 64 percent of the increase in reported REO over the August 2006 to August 2008 period.

⁸In recent years many distressed borrowers had loans with interest rates well above the low prevailing market rates. When this happens, the effective, “mark-to-market” value of the loan increases. As a result, some borrowers faced both increases in the effective market values of their loans as well as declining market values of their homes, leading to rapidly escalating “mark-to-market” loan-to-value ratios.

⁹By “formerly hot” housing markets, I mean MSAs where prices increased steeply – with appreciation rates typically reaching well over 10 percent annually – over the 2002 to 2006 period, during the biggest national run up in housing values. “Weak market” MSAs are those where population growth was very low over this period and “relatively stable” markets are those where annual appreciation rates were generally under 10 percent annually over the 2002 to 2006 period, but had stable or increasing population levels.

¹⁰REO in the early part of the study period would be expected to be affected by unemployment conditions well ahead of August, 2006. Thus, August 2005 was chosen as the initial condition period for the unemployment rate because unemployment is expected to affect REO primarily via affecting foreclosure rates and entering REO.

¹¹The national unemployment rate in the construction sector, for example, increased from 6.7 percent in 2006 to 10.8 percent in 2008, and spiked to a nonseasonally-adjusted rate in January of 2009 of 18.2 percent, more than double the January 2006 level of 9 percent. All figures are from the US Bureau of Labor Statistics.

¹²In Ward's method, a common approach for minimizing in-cluster differences, the means for all (in this case only two) variables are calculated. For each observation, i , the squared Euclidean distance to the centroid of its respective cluster is calculated, and these squared distances are summed for all observations, as: $\sum (x_i - \bar{x})^2 + (y_i - \bar{y})^2$, where x and y are

the two clustering variables. The procedure begins with each observation constituting its own cluster. At this initial step, the sum of squared distances of all observations from their respective cluster centroids is zero, since each observation is its own respective centroid. At each successive step in the procedure, two clusters are merged so that they result in the minimum increase in the sum of squared distances of all observations from their respective centroids. The two variables used here were standardized to deal with problems of differences in scale and variance.

¹³Both Minnesota and Michigan, the two large states with the very long post-sale redemption periods, have relatively short pre-foreclosure periods, at an estimated 53 and 38 days, respectively.

Related Research Data

[Forced Sales and House Prices](#)

Source: Unknown Repository

[The external costs of foreclosure: The impact of single-family mortgage foreclosures on property values](#)

Source: Housing Policy Debate

[Neighborhood patterns of subprime lending: Evidence from disparate cities](#)

Source: Housing Policy Debate

[A Dynamic Look at Subprime Loan Performance](#)

Source: SSRN Electronic Journal

[Neighborhood Effects of Concentrated Mortgage Foreclosures](#)

Source: SSRN Electronic Journal

Linking provided by [ScholarSplorer](#)

Related research

People also read

Recommended articles

Cited by
38

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2026 Informa UK Limited [Privacy policy](#)

[Cookies](#) [Terms & conditions](#) [Accessibility](#)

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG

 Taylor and Francis
Group