

What Sells When: Analyzing Price and Time Patterns for Single  
Family Homes to Identify Best Practices for Aggregating REO  
Properties for Bulk Sales

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## Executive Summary

As the housing crisis has persisted, demand for rental housing has increased while homeownership rates have dropped to 15-year lows.<sup>1</sup> Over the course of the past few years, policy makers and market analysts have come to recognize that the shifting nature of demand for housing will require the transition of large numbers of single-family houses into the rental stock. Indeed, investors have already been buying up an increasing share of single family properties, rising to an estimated 27 percent of all home sales in 2011, up from 17 percent in 2010.<sup>2</sup> A recent study of REO properties in Fulton County found that 68 percent of low-value (<\$30,000) properties and 42 percent of moderate-value (\$30,000-\$99,999) properties likely sold to investors.<sup>3</sup> The combination of declining property values and rising rents makes rental of single family properties a potentially lucrative investment for the buyers.

Despite the high volume of foreclosed properties flowing into the market, however, the disposition process used by REO holders, including private servicers, Fannie Mae, Freddie Mac, and the Federal Housing Administration, have not substantially shifted their REO sales process away from a retail approach that seeks to sell each property one at a time, with little recognition that the sales process itself impacts the recoveries on future sales.

Using data from property listings and sales data from Gwinnett County, Georgia, for distressed and non-distressed properties first put up for public sale in 2010, this paper analyzes the behavior of properties over their full listing period, regardless of whether they ultimately sold, in an effort to inform a strategy that would maximize returns to REO holders and protect neighborhoods and communities against further price declines.

Key findings from our analysis include:

- Overall, properties listed as distressed sales (both REO and short sales) have similar structural attributes as non-distressed properties; the median REO is 10 percent smaller than the median non-distressed property, but the median short sale is slightly larger than average.
- Distressed listings were in communities with fewer neighborhood amenities, with short sale listings more similar to non-distressed listings.

- A higher share of REO were in low- and moderate-income Census tracts, as well as those with poverty rates at or above 10 percent, lower levels of educational attainment, and above average African American and Latino populations.
- Only 43 percent of non-distressed listings ultimately sell, compared to 84 percent of REO listings. This is an indication that REO, which are initially listed at significant discounts (averaging 33-50 percent, when analyzed by tract poverty levels) to non-distressed properties, are effectively crowding out traditional sales, likely by shifting local prices below the levels where owner-occupant sellers are willing or able to sell.
- The frequency and magnitude of price changes of unsold listings for distressed and non-distressed properties is similar, although the percent change in price is greater for REO because of the lower initial asking price.
- A binding agreement was reached within 90 days on nearly two-thirds of REO that sold; non-distressed sales took slightly longer to reach a binding agreement.

Based on the analysis for Gwinnett County, we believe that a bulk REO sales process should allow for a short traditional marketing period, after which point, the properties should be quickly put into a portfolio for bulk sale. Because many of the potential properties have similar characteristics, there is likely sufficient supply to offer would-be purchasers a defined “buy box” with only a short window to identify specific properties. This approach is different than the current auction process for REO, which typically occurs only after a lengthy marketing period, during which time the seller continues to accrue holding costs and property conditions deteriorate, further driving down recoveries and magnifying the losses to the REO holder.

In addition, we recommend that bulk transactions be recorded in a manner that reflects the non-traditional nature of the sale so that future appraisals of single transactions will not be adversely affected. Recommendations include recording one of the properties as having sold at the pool price and the remainder selling for one dollar. Alternatively, the pool could be combined under a master deed, which would also prevent future appraisals from using an investor’s pricing model as a substitute for a true arm’s-length, open-market transaction.

In 2009 and 2010, there were over 4.5 million foreclosure starts in the United States,<sup>4</sup> and delinquencies peaked in January 2010 at 10.97 percent of all active loans.<sup>5</sup> As of the end of 2010, 3.1 percent of mortgages in Georgia were in foreclosure, which includes loans from the time of referral to foreclosure through REO sale.<sup>6</sup> This paper examines the sales trajectory of properties listed for sale in Gwinnett County, Georgia, in 2010. The analysis includes both distressed sales and non-distressed sales in the suburban Atlanta county and examines how long properties remain on the market and if they ultimately sell or not. We find that while the overwhelming majority of REO sell, more than half of all non-distressed listings do not.

This paper opens with a discussion of the programmatic goals that have been identified by policy makers for shifting the current real-estate owned (REO) disposition process from a retail scale to a wholesale approach. Instead of listing each foreclosed property individually, as is currently done, REO sellers would pool properties for sale in bulk, with the expectation, if not obligation, that houses sold in this manner would remain off the for-sale market for a minimum period of time and be used as rental housing in the interim. We also discuss potential REO-to-rental initiatives and barriers to implementation, such that they exist.

We conclude, based on the analysis for Gwinnett County, that a bulk sales process could be beneficial if implemented after a short open marketing period. This would balance the desire to continue to offer owner-occupants access to REO but it would also eliminate leaving large numbers of unsold REO to crowd out non-distressed sales, potentially blight neighborhoods, or further lower house prices.

## **Policy Rationales for REO-to-Rental Programs**

The need for new REO disposition mechanisms has been known to policymakers for some time, and bulk sales to investors who would subsequently rent out the REO has gained significant traction for the potential to address multiple policy goals under the auspices of a single program. Policy goals for an REO to rental program include returning housing markets to normal function, rebalancing the nation's housing policy, increasing job creation, protecting communities from blight, bringing private capital back into the housing market, providing new affordable housing, and greening the existing single family stock.

First and foremost, an explicit REO-to-rental program would help rebalance supply and demand in both the ownership and rental segments of the housing market.<sup>7</sup> As a result of the housing and economic crises, there is an oversupply of would-be owner-occupied stock, as evidenced by a long period of

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elevated for-sale inventory levels, and a dearth of rental stock, as evidenced by low vacancy rates and rising rents. Effective demand for ownership is down, both because potential buyers may be fearful of buying into a declining market—catching the proverbial falling knife<sup>8</sup>—and because those who are interested in purchasing homes are failing to meet tightened underwriting standards.<sup>9</sup> At the same time, families who have lost their homes to foreclosure still need a roof over their heads, as doubling up with other family members is rarely a sustainable, long-term solution.<sup>10</sup> Research by the Federal Reserve Bank found that the majority of households that experienced a foreclosure ended up in single family houses in the same labor market, but often in denser, more urban neighborhoods.<sup>11</sup>

By moving existing stock from the ownership side to the rental side of the ledger, the supply and demand shocks can be much more rapidly addressed than is typically the case for real estate markets, which often have long development times for new supply. Thus, by rapidly shifting REO to meet rental demand, housing markets could more quickly reach their new equilibria.

Moreover, a new program to add to the rental stock meets the goal of policy makers seeking an affirmative rebalancing of housing policy away from the heavy emphasis on homeownership that had been the hallmark of the nation's housing policy for many years, in recognition of shifting demographics that portend increased rental demand even post-crisis.<sup>12</sup>

Policy makers also view the REO-to-rental program as an opportunity to create jobs through the repair of the properties moving through the program. In fact, the latest iteration of the Center for American Progress's REO-to-rental proposal renames the policy "Rehab-to-Rent," calling out the opportunity to "create new jobs and economic activity in depressed areas."<sup>13</sup> With a minimum holding period recommended for purchasers of the REO, buyers are incentivized to do substantive rather than cosmetic repairs to the properties.

Historically, many REO buyers were focused on short term returns from "flipping" properties either to an owner occupant or to another investor once it was rented out. Because the REO purchaser had minimal incentive to do more than replace carpets and repaint walls without addressing any underlying structural or building systems problems, many of these REO would soon end up back in foreclosure, as the new buyer often lacked the wherewithal to make the necessary repairs. In fact, the pervasive nature of the phenomenon in low-income communities hard hit by foreclosures led to the creation of the Asset Control Area pilot program in 1998. Under the ACA, non-profits would contract with HUD to purchase in

bulk all FHA REO in their target geographies. The homes would be rehabilitated to high standards, including repairing building systems to a minimum 10-year life, before being sold affordably.<sup>14</sup>

In the current REO-to-rental context, proposals have been floated to expand financing opportunities for investors through reopening FHA's 203(k) program or increasing the number of outstanding mortgages the GSEs would allow an individual investor to have. Advocates for these changes argue that the additional leverage would allow higher prices to be paid for the properties as well as allow small investors to buy REO that need significant capital investments that they otherwise could not make.<sup>15</sup>

A new REO-to-rental program could be a private-sector complement to the federal Neighborhood Stabilization Program, which has provided upwards of \$6 billion in three rounds of funding to localities and their non-profit partners to acquire REO in hard-hit communities, repair the properties, and then return them to productive use through selling or renting them as affordable housing.<sup>16</sup> Although President Obama has proposed \$15 billion for neighborhood stabilization in "Project Rebuild," and legislation has been introduced in both the House and Senate, there is little likelihood of its passage.<sup>17</sup> Moreover, the House of Representatives has voted on several occasions to eliminate NSP, along with other efforts to reduce foreclosures and stabilize housing markets.<sup>18</sup> Maryland has allocated \$14 million from its share of the National Mortgage Servicing Settlement for a statewide NSP-like initiative, but overall, the likelihood of additional money for NSP is small.

Even if additional public funds were to materialize, however, the scope of the need is such that addressing the problem will require private sector participation. Although publicly announced private-sector commitments to acquire REO for rental purposes are still smaller than NSP funding has been to date, some analysts are anticipating the sector could grow over the next few years to become its own asset class, potentially attracting private capital through REIT structures.

Like the ACA before it, a significant part of the rationale for NSP was to protect communities from the blight and depressed property valuations that stem from nearby foreclosures. REO-to-rental, if designed well to avoid cherry picking properties, can put properties back into productive use more quickly than selling them off one at a time. The problem is not the properties that would sell quickly on the open market, rather it is those properties that would languish and drive down the value of neighboring homes. The effects of foreclosures can be felt across both distance and time, and the magnitude of the effect increases with the concentration of foreclosed properties.<sup>19</sup>

At the end of the day, however, with the exception of FHA, which has an explicit public purpose mandate, any institutional decisions about embarking on an REO-to-rental program will likely be driven almost exclusively by economic considerations (This should not be interpreted to mean that minimizing losses is unimportant to FHA; to the contrary, they are very concerned about maximizing REO recoveries, but they have more flexibility to pursue marginally profitable or cost neutral activities). Arguments for an REO-to-rental program from a servicer's perspective include minimizing holding costs, which can run anywhere from \$25 to \$100 per day. Moreover, even though servicers are the first to be paid and recover their costs when a property sells, they incur the carrying costs of advances to investors until that time. Rapid disposition of properties, particularly of those that would otherwise sit unsold, is of benefit to servicers, assuming the price is good.

Many servicers we have spoken with have the expectation that any bulk transaction must be discounted. It is not necessarily true that bulk requires a discount, however. Buyers on the open market are currently taking on aggregation risk and price their purchases accordingly; bulk sales eliminate that risk for the purchasers, which potentially raise the prices they are willing to pay. Moreover, should pools be assembled prior to listing individual properties for sale, servicers could set a reservation price below which they would be unwilling to sell and would then proceed to sell the properties through the normal disposition channels.

## **Current State of REO-to-Rental Programs and Proposals**

### **Fannie Mae and Freddie Mac**

In August 2011, the Federal Housing Finance Agency, in conjunction with the U.S. Department of Housing and Urban Development and the Department of the Treasury, released a formal request for information (RFI) on "new options for selling single-family real estate owned (REO) properties held by Fannie Mae and Freddie Mac (the Enterprises), and the Federal Housing Administration (FHA)."<sup>20</sup> While the RFI cast a broad net in looking for alternative disposition strategies, rental of the REO featured prominently in the request and has been the focus of FHFA disposition efforts since that date. The RFI itself was among the first public work products of a White House-coordinated interagency working group tasked with addressing REO issues.<sup>21</sup>

It should be noted, however, that the portfolio of properties being made available under the Fannie Mae pilot that emerged from the RFI is comprised predominantly of houses with a tenant already in place. Most of the occupants were renters at the time of foreclosure and were legally allowed to remain in the property under the Protecting Tenants at Foreclosure Act of 2009.<sup>22</sup> A small number of occupants are former owners who transferred title to Fannie Mae under a deed-for-lease arrangement, and 15 percent of the units are vacant.<sup>23</sup> Although occupied properties are less likely to suffer the same deterioration and vandalism that vacant properties see, they are also less likely to see substantial repairs or rehabilitation, since they are, *de facto*, inhabitable. Thus, the current pilot portfolio is unlikely to achieve the policy goal of increased employment in the residential construction sector.

Because the majority of properties are already in use as rental, the Fannie Mae pilot will not materially increase the supply of rental housing in the markets where properties are being offered; it is simply a transfer of ownership of existing rental units. Moreover, to the extent that buyers are allowed to run off the portfolio either over time or to immediately resell a subset of the properties, it may very well turn out that the currently vacant properties may never shift to rental use. (The vacant properties in the portfolio have also been sitting unused since before the portfolio was assembled, so as of the time of this writing, those properties have been vacant for at least four months, likely considerably longer. Since vacant properties deteriorate faster than occupied properties, the cost of restoring those houses to productive use, either as rental or as ownership properties, only increases with time.)

At this time, there is no effort to bring a Freddie Mac pool to market for REO-to-rental. It has been reported, however, that Freddie Mac is in the process of developing financing tools for private investors to use for the acquisition of REO, but specific details are not yet available.<sup>24</sup>

## **FHA**

While FHA participated in the RFI and was exploring the feasibility of an REO-to-Rental program, as of this writing, they are now focusing on selling delinquent notes prior to foreclosure. The shift away from REO to addressing the problem earlier in the life of the loan is part of a general trend towards earlier intervention and more aggressive modification and mitigation efforts, but it also reflects a significant change in the FHA's REO inventory. FHA's REO inventory peaked in March 2011 at 68,997 properties,<sup>25</sup> but by March of this year, it had fallen nearly in half to 35,613.<sup>26</sup> The decline in REO inventory is attributable to a slowing rate of conveyances flowing into FHA while the pace of REO sales has remained

relatively steady. Over the past year, FHA has typically sold 3-5,000 more properties each month than it has acquired.

FHA claims, which had been below 12,000 per month since October 2010, spiked to nearly 17,000 in March, which likely reflects the impact of certain requirements set by the National Mortgage Settlement. Therefore, while FHA's portfolio has fewer properties today than it did a year ago, we should also expect to see an increase in foreclosure activity and subsequent claims and conveyances once servicers complete mandatory reviews of loss mitigation activities under the scope of the settlement.

Should FHA choose to pursue an REO-to-Rental strategy for part of the properties conveyed to them, there are no statutory barriers to adopting bulk sales. Disposition of HUD-acquired single family properties is governed by 24 CFR Part 291, which stipulates in section 291.210(d): "HUD may seek to dispose of properties through bulk sales. Such sales will be upon such terms and conditions as the Secretary may prescribe."

Currently, as properties are conveyed to HUD, they are assigned to third-party contractors to handle the property management and disposition processes. If HUD wished to divert properties from the standard disposition process and hold them off market until they had enough properties in a given market to offer a bulk sale portfolio, they would still need to assign field service managers to maintain the properties. This would likely require replicating the existing infrastructure to handle the alternative dispositions. A more efficient execution would allow the existing assignment of properties to continue, but under the authority granted to the Secretary, a percentage of the REO would be held off market, which is already a possible outcome in the existing process. Once enough properties were held off market in a geography to reach critical mass for a bulk sale, the pool could be auctioned off or otherwise sold.

Existing sales procedures call for reanalyzing the disposition process every 30 days,<sup>27</sup> so it is theoretically possible to divert properties into a pool for bulk sale prior to first listing or at the time of reanalysis should a property fail to sell during the previous month. It may be easier, given existing contracts with listing agents for the marketing and sale of properties, to allow properties to be sold under the existing process but then sweep unsold properties into pools after a certain window has elapsed. Nevertheless, should the contracts come up for renewal, as they do from time to time, incorporating a clause explicitly

allowing properties to be diverted into bulk pools prior to making them available for public sale, should be explored.

### **Private Sector**

Private sector disposition can be divided into two segments, third-party servicing and portfolio activities. For servicers acting on behalf of investors, the ability to engage in bulk sales may be constrained by pooling and servicing agreements that stipulate that each property must be marketed individually. As with FHA, it may be possible to sweep properties into a bulk sale after a period of marketing without running afoul of contractual obligations. Note that the investors described here are specifically those with interests in private label securities. Large servicers who primarily service GSE mortgages have relatively few REO, since once a foreclosure is completed, i.e., the servicer takes title to the property, the servicer immediately transfers the property back to Fannie Mae or Freddie Mac for disposition, in accordance with the GSEs' servicing guidelines.

With respect to servicers seeking to dispose of properties they own on their own balance sheets, however, no such limitations exist. Nevertheless, we have yet to see any true bulk sales activity by major servicers even for their own portfolios.

Based on conversations with would-be investors who have approached banks about bulk sales, we have found that while REO managers may be willing to do bulk sales, as proposals move outside the servicing shop and up the chain of command, there is more reticence to be the first institution out the door with a bulk deal, since there are no comparable sales against which to benchmark a potential deal. This is a classic chicken and egg problem. It is not clear how recent guidance from the Federal Reserve might change bank behaviors. The guidance, recognizing current market conditions, allows banks to rent out properties rather than actively market them for sale, potentially receiving CRA credit for doing so.<sup>28</sup> This guidance may open the door to the creation of tenanted portfolios, similar to what is currently on offer by Fannie Mae, with the notable difference that REO that would be rented out under the guidance would likely have been vacant. Thus, the policy would help towards the goal of increasing the supply of rental housing while keeping REO off the for-sale market. There is also historical precedent for this activity, as the Homeowners' Loan Corporation would routinely rent their REO when local conditions warranted.<sup>29</sup>

Some have looked to the renewed interest in short sales among servicers—the GSEs have also recently issued guidance on speeding up the short sale approval process—as an indication that foreclosures will

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decline and the anticipated wave of REO will not materialize. We disagree with that assessment, but even if a significant share of properties may be offered as short sales, the sheer volume of distressed mortgages means that high numbers of REO will continue to move onto the market. Nevertheless, the current lull in REO has made it more difficult to encourage large institutions—public as well as private—to invest in new disposition processes to address a future problem that may or may not materialize as they struggle to deal with all the challenges they currently face.

In short, despite significant private capital flowing into this sector and some talk by investors of the eventual creation of a new asset class as a financing vehicle to attract additional capital into the sector, sellers are not yet ready to put the infrastructure in place to approve bulk sales while the inventories are low and the sales pace in some markets has become rather brisk.

## **Sales Trajectory Analysis**

In order to understand how to assemble modest size portfolios of REO for bulk sale, it is necessary to understand current market dynamics so that the bulk sales process neither (further) adversely impacts hard-hit communities nor leads the sellers to incur additional losses. For the purpose of analyzing the relationship between distressed sales (including both REO and short sales) and typical market rate sales, this paper will focus on Gwinnett County, Georgia and describe the behavior of properties first listed for sale in 2010 from the time of listing through their ultimate resolution, which could be a sale or may be a withdrawal from the market or expiration of the listing.

### **Background on Gwinnett County**

Gwinnett County is a good candidate for analyzing how and when properties sell in the midst of the housing crisis for several reasons.

Even among non-judicial foreclosure states, Georgia statutes encourage very fast foreclosures. From the date of default, the foreclosure can be completed in as little as 30 days. Once default occurs, the servicer must send a letter with notice of intent to foreclose and schedule a sale at least 30 days in the future.<sup>30</sup> There is no statutory obligation to attempt any loss mitigation nor is personal service required. Additionally, once borrowers are in default, they have no right to cure the delinquency by paying the arrearages in full, and even after the foreclosure has been announced, there is no right of reinstatement if the borrower pays the outstanding amount.<sup>31</sup> The servicer must also publish an advertisement in the

local newspaper of record for four consecutive weeks prior to the sale. Moreover, the foreclosure regime remained unchanged during the study period, so the quality of properties flowing into REO would presumptively be constant over time.

In an effort to reduce avoidable foreclosures, some states and localities have lengthened their effective foreclosure timelines through implementing mediation programs or otherwise modifying foreclosure procedures. While well-executed mediation programs have proven very successful at preventing foreclosures, when agreements are not reached, the mediation programs can add anywhere from 60 to 180 days (or even more if active negotiations fail to generate a settlement) to the foreclosure timeline. The longer properties remain in foreclosure, the more likely they are to deteriorate, regardless of who the owner is. An owner at risk of losing his or her home typically lacks the funds to maintain the property and, late in the foreclosure process, has little incentive to do so. Once title has transferred to the servicer and the property moves to REO status, the servicer will engage third-party vendors to secure the property and prepare it for sale, but even then, the properties will continue to deteriorate because they are typically vacant.

Gwinnett is the second largest county (by population) in the Atlanta-Sandy Springs-Marietta, GA metropolitan statistical area and is in some ways a microcosm of the boom/bust cycle seen in many metropolitan areas across the country. While seasonally adjusted prices during the boom never saw the heights of places like Phoenix and Las Vegas, each of whose prices more than doubled at the market's peak, Atlanta's home prices peaked in April 2007 at 36 percent above January 2000 levels. According to the Standard and Poor's Case-Shiller Index, house prices in the Atlanta metro area have now fallen back to 1997 levels. Atlanta ranks twelfth in its decline since the peak out of the 20 metros surveyed by Case Shiller, putting it roughly in the middle of the pack. The relative level of price declines has implications for the broader applicability of the findings from this research, since in markets where prices have remained relatively strong, anticipated losses from REO are expected to be somewhat smaller, all else held equal.

Another good reason for studying Gwinnett County is that the Atlanta metropolitan area has been identified as a strong market in which to test REO-to-Rental rents.<sup>32</sup> Criteria for consideration as a strong market include slack ownership demand combined with strong rental demand.

While the Atlanta metropolitan area's homeownership rate was 65 percent in the first quarter of 2005, it reached 68.9 percent only one year later and stayed at or above 67 percent during the first quarter

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through 2011, dropping precipitously to 63.2 percent in the first quarter of 2012.<sup>33</sup> Gwinnett County, which is the subject of our analysis, had a homeownership rate of 70.4 percent as of the 2010 Census.<sup>34</sup> The rapid decline in homeownership rates is mirrored by increased demand for rental properties, as demonstrated by a strong drop in rental vacancies. The average annual vacancy rate in 2011 was only 11.6 percent, down sharply from 16.6 percent in 2009.<sup>35</sup>

The census vacancy figure, however, understates the tightness in the rental market. The census vacancy rate includes all manner of vacant properties, whether vacant and available for rent, which is what we are focusing on in this paper, or vacant for sale, or vacant and in process of foreclosure. Interestingly, the broad vacancy measure incorporates the reality that the distinction between for-sale and rental properties is far more fluid than housing market analysts typically acknowledge. Indeed the conceit of an REO-to-rental program still faces headwinds among certain policy makers, advocates, and regulators seeking to find an owner occupant for every foreclosed single family house.

With multifamily vacancy rates below 10 percent generally seen as an indication of a tight market, REIS reports Atlanta's multifamily vacancies have dropped for nine consecutive quarters and currently stand at 7.4 percent. Although rents increased only modestly in 2011, REIS predicts a 4.7 percent rise in effective rents this year, which would be the highest annual increase in more than a decade.<sup>36</sup>

Gwinnett County is the fastest-growing county in the Atlanta metropolitan area. Between 2000 and 2010, Gwinnett County's population rose by 37 percent, to just over 805,000 residents, making it the second most populous county in both the metropolitan area and the state after Fulton County. The county accounts for roughly 15 percent of the region's total population. It is a relatively diverse county, with non-Hispanic Whites accounting for only 44 percent of the population, compared to 51 percent of the metro area, 56 percent of Georgia, and almost 64 percent of the nation. Gwinnett's African-American population ratio (23.6 percent) is nearly twice the national ratio (12.6 percent), although it lags both the metro as a whole (33.6 percent) and the city of Atlanta (50.4 percent). Interestingly, there is a large Asian population in Gwinnett, with 10.6 percent of county residents identifying as Asian. This is more than double the national ratio of 4.8 percent and over three times the state share of 3.2 percent.<sup>37</sup> More than a quarter of the population is foreign born and nearly a third speak a language other than English at home.<sup>38</sup>

## Data

For this paper, we will be analyzing properties listed for sale in Gwinnett County in 2010. The First Multiple Listing Service's (FMLS) database reported that 15,054 single family homes were first listed for sale during 2010. Of these 15,054 properties, 9,115 were typical market sales, 3,886 were foreclosures, and 2,053 were identified as short sales.<sup>39</sup> While the starting point for our analysis is all properties listed with the local MLS in 2010, we should be clear that this is not a complete record of all property sales in Gwinnett County. Particularly when considering foreclosed properties, not all properties make their way onto the MLS. Excluded from the analysis are any properties that sold at auction at the courthouse to a third party or other properties that were not listed on MLS, including low-value properties that may have been bank walkaways or properties sold with tax liens.

In addition to providing foreclosure status, the FMLS database served as the primary source for structural characteristics of the listed properties as well as neighborhood amenities. It also indicated the final status of each property and the date of the status change. The three possible end states for properties in the dataset are closed, withdrawn, and expired. Closed properties are those that sold, and we have both the date of the closing as well as the date of the binding agreement. As will be discussed below, the binding agreement date is ultimately more useful for our analysis than the final sales date. Properties that were withdrawn are those that were actively pulled from the market, as opposed to properties whose agents' listing contracts ended without a sale leaving an expired listing. Typical listing periods are three or six months, and it is not uncommon to find expiration dates of a year after the initial listing date. When properties expire, we often see them relisted for the same price and with the same agent, thus making the expiration of the listing contract essentially a non-event. Expired properties remain in the system, and agents may actively recruit sellers with expired listings to switch to them. Thus, the expired status is essentially an indication of an unsold property.

There were 106 listings that remained unsold as of December 31, 2011, with roughly half active and half identified as pending sale in the MLS database. This figure also includes eight distressed properties awaiting lender approval for a short sale. All of these properties are reported in the discussion below as "expired," which has been the catch-all category for properties that were not actively removed from the market by the seller or did not sell. By using 2010 listings and tracking price changes and sales activity throughout 2011, we were otherwise able to limit the number of properties whose ultimate status was

censored in the survival analysis. All properties can be tracked for at least a year, and, for those listed early in 2010, we have nearly two full years of data.

While our analysis of what sells where and when is limited to those properties first listed during 2010, those properties are not the only ones on the market at any given time. The 2010 listings are competing with properties already on the market since 2009, and, as properties linger unsold into 2011, they must compete with newer listings coming onto the market in the new year. To provide an accurate count of the number of active listings at any point in time, we relied on a private database of properties supplied by Altos Research. The Altos database includes property level observations of the current asking price and days on market on a weekly basis for all properties on the market in 2010 and 2011.

For Gwinnett County over the two year period, the database includes nearly 1 million observations. Of those, 300,000 of the observations related to properties listed in 2010. On a week-by-week basis, however, the average property sees no price or other status change. Observations that remained unchanged from the previous week, i.e., saw no price reduction, sale, or withdrawal from the market, were dropped. The final database consists of 33,967 observations, each of which reflects the point in time at which the property was first listed, the price changed, or marks the final observation in the dataset (coded as closed, withdrawn, or expired). An expiration followed by subsequent relisting only appears in the final dataset when the relisting also includes a change in price; in those circumstances, the activity is coded as a change, not a new listing, even if there is a gap of several months.

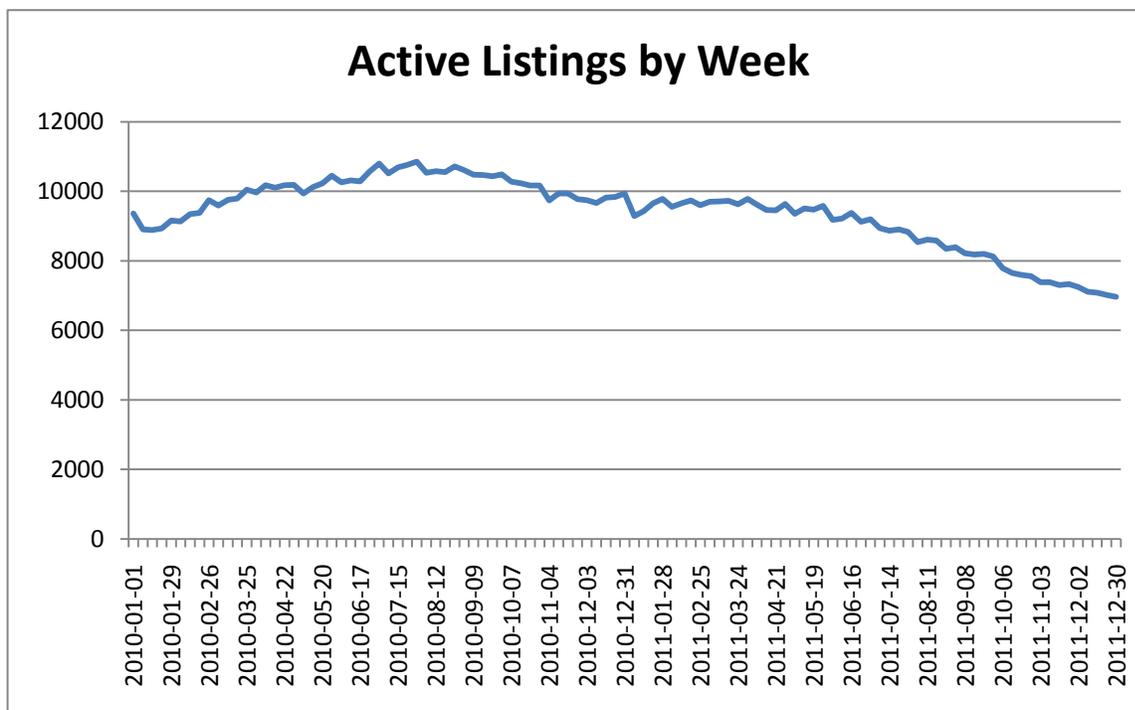


Figure 1. Source: Author's calculation based on Altos Research

The FMLS and Altos data were joined to create a single dataset that allows us to track the price trajectory of each property listed in 2010. Socioeconomic data at the census tract level was also appended to each observation where it was possible to identify the geographic location of the property. Properties that could not be geocoded based on the FMLS address were excluded from the final analysis. Approximately 5 percent of the original FMLS data were excluded for this reason.

Properties reported as expired or withdrawn that only had a single observation in the Altos database were also excluded from the analysis. There were 42 properties (24 expired and 18 withdrawn) that fell into this category. Properties that were reported as having sold were kept in the dataset even if they had a single listing observation. In those cases, the additional observations were created to establish observations with the FMLS-reported listing date and price and the date of binding agreement and final sales price.

In addition, it was necessary to scrub the joint dataset to eliminate dual listings (i.e., properties with either multiple FMLS numbers or multiple Altos property IDs) where it was unclear if the second listing was a flipping transaction or just a relisting after being off the market. Where it was possible to track properties consistently over time, even when the FMLS number changed, such properties were retained

in the dataset. For example, a property may have been withdrawn and subsequently relisted, perhaps by a new broker, and given a new MLS number, but because the property's address remained constant, it was possible to track the property completely through its lifecycle.

Properties where the Altos weekly price dataset only contained observations from 2011, even when the FMLS data indicated an original listing in 2010, were dropped because price movements in 2010 were missing. Similarly, properties where the Altos data indicated days on market greater than 1 as of January 1, 2010, but where the FMLS data reported a first listing date during 2010, were excluded as well. These were 2009 listings that expired and were relisted as "new" in the FMLS database at some point in 2010.

### **Comparing REO and Non-distressed Listings**

From a purely structural standpoint, there is relatively little that distinguishes foreclosed homes from those listed as typical market sales. For the county as a whole, the median year of construction of properties listed for sale in 2010 was 1995, and market rate sales were the same. The median REO property was two years younger, while the median short sale was three years younger than the median listed property. Regardless of REO status, the median number of bedrooms was four for listed properties in each distress category. REOs typically lacked a half bathroom, which could be found in both market rate and short sale properties. Similarly, the median REO property was only modestly smaller (138 square feet) than the median listed property in the county. The median market rate property was 2,162 square feet, as compared to the county median size of 2,100 square feet for all listed properties. Interestingly, the median short sale property was slightly larger (by 24 square feet) than the median market rate property. The median lot size in each category was one-third to one-half of an acre.

REO properties were less likely to offer certain property features or amenities than market rate or short sale properties. For example, only 2.6 percent of REO properties featured an in-ground pool, compared to 3.5 percent of short sales or 4.2 percent of market rate sales (REO were only marginally less likely to have an above ground pool, however). While more than four out of five REO homes had a two-car garage or larger, the 81.5 percent figure for REO lags the market rate number by more than 6 percentage points. REO lots were also less likely to be marketed by the selling agent as being on a corner, wooded, or in a cul-de-sac. Wooded lots are negatively correlated with lots under one-third of an acre, which is a reasonable expectation, since the small lot size would not allow for many trees after accounting for the average 2,100-square-foot house. REO properties were also less than half as likely as

market rate properties to offer views, although only about 3 percent of all properties were marketed offering this amenity.

REO properties differ from market-rate properties in their likelihood of having attractive neighborhood amenities. Overall, nearly 57 percent of REO properties are listed as having no neighborhood amenities, compared to under 45 percent of all properties. Conversely, REO properties are less than half as likely as the average listed property to be in a community offering three or more amenities. Pools, playgrounds, and homeowners' associations often come together. Unsurprisingly, golf course communities tend to offer clubhouses and homeowners' associations (although the vast majority of communities with clubhouses do not offer golf).

Approximately one-third of all homes listed for sale in 2010 are in a community that offers either a neighborhood pool, with roughly a quarter offering a park or a playground. Among REO, however, only about 20 percent have access to a pool, with fewer than 12 percent having a park or playground. Nearly half of all listed homes belong to some type of homeowners' association, although only 38.4 percent of REO properties have this amenity. Although gated and golf course communities are only a small share of the listed properties (2.8 and 2.9 percent, respectively), only 1.8 percent of REO were in gated communities and 1.6 percent were in communities with golf courses.

	Listed Property Averages	Market Rate	REO	Short Sale
<b>Structural Attributes</b>				
<b>Year Built (median)</b>	1995	1995	1993	1998
<b>Size (median SF)</b>	2100	2162	1962	2186
<b>Bedrooms (median)</b>	4	4	4	4
<b>Baths (median)</b>	2.5	2.5	2	2.5
<b>Lot size</b>	1/3-1/2 acre	1/3-1/2 acre	1/3-1/2 acre	1/3-1/2 acre
<b>Property features</b>				
<b>In-ground pool</b>	3.6%	4.2%	2.6%	3.5%
<b>Above-ground pool</b>	0.9%	0.9%	0.8%	1.1%
<b>2-car garage (or larger)</b>	85.8%	87.6%	81.5%	87.1%
<b>Corner lot</b>	8.5%	9.2%	7.0%	8.6%
<b>Wooded lot</b>	28.8%	34.5%	19.1%	24.8%
<b>Cul-de-sac lot</b>	22.1%	25.2%	14.5%	24.7%
<b>Views</b>	3.1%	3.8%	1.5%	3.0%
<b>Neighborhood Amenities</b>				
<b>Homeowners Association</b>	48.6%	52.7%	38.4%	52.3%

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<b>Park or Playground</b>	23.3%	28.9%	11.6%	23.5%
<b>Neighborhood Pool</b>	33.1%	38.6%	20.7%	35.2%
<b>Clubhouse</b>	14.4%	18.3%	6.6%	13.9%
<b>Golf</b>	2.9%	3.6%	1.6%	2.7%
<b>Gated Community</b>	2.8%	3.2%	1.8%	3.3%
<b>No Amenities</b>	44.6%	39.7%	56.9%	40.4%
<b>1-2 Amenities</b>	33.0%	32.5%	32.2%	37.0%
<b>3+ Amenities</b>	22.3%	27.8%	10.8%	22.5%
<b>Socioeconomic Data</b>				
<b>Low Poverty Tract (&lt;11%)</b>	68.7%	72.0%	62.2%	67.7%
<b>Moderate Poverty Tract (11-20%)</b>	25.9%	23.4%	30.0%	28.0%
<b>High Poverty Tract (&gt;=20%)</b>	5.5%	4.6%	7.7%	4.4%
<b>Median Tract Income</b>				
<b>&lt; 75% of County Median</b>	9.9%	8.4%	14.0%	7.7%
<b>75-125% of County Median</b>	54.3%	50.1%	59.4%	61.4%
<b>125%&gt; of County Median</b>	35.9%	41.5%	26.6%	30.8%
<b>Bachelors Degree or Above (35% is county average)</b>				
<b>&lt;25%</b>	14.0%	11.1%	19.5%	14.9%
<b>25-45%</b>	64.8%	62.4%	67.2%	70.1%
<b>45%&gt;</b>	21.2%	26.4%	13.2%	15.0%
<b>African American &gt; 23.6%</b>	40.1%	35.7%	46.5%	46.0%
<b>Asian &gt;10.6%</b>	40.7%	42.9%	38.5%	35.9%
<b>Hispanic &gt;20.1%</b>	26.2%	22.0%	35.9%	24.5%

When looking at socioeconomic data, REO properties were more likely to be located in census tracts with lower incomes and higher poverty rates, as well as lower educational attainment and a higher than average share of African Americans and Hispanics. Given the correlation between race and ethnicity and high-cost lending, the higher rates of REO in those census tracts are to be expected. In addition, unemployment rates among minorities is also higher than among whites, so even if the initial loan terms were sustainable on their face, the prolonged economic downturn is more likely to have hurt those borrowers' ability to continue the debt service on their homes.

Overall, Gwinnett County has a poverty rate of 11 percent, compared to 15.7 percent for the state. Unsurprisingly, the distribution of poverty is not uniform throughout the county. Out of 113 census tracts in Gwinnett County, 50 tracts are at or above the county average, with 19 reporting poverty rates in excess of 20 percent.<sup>40</sup> For the purpose of our analysis, we have categorized all tracts with below average poverty rates as "low poverty," above average poverty rates but below 20 percent poverty as "moderate," and any tract with poverty rates of 20 percent or above as "high poverty." Seventy-two

percent of market rate properties were located in low poverty tracts, compared to 62.2 percent of REO. Thirty percent of REO were in moderate poverty tracts, and 7.7 percent were in high poverty tracts.

Looking at income more broadly, half of all market rate properties were in tracts where the median income was between 75 and 125 percent of the county median, with more than 41 percent in tracts with incomes above 125 percent of county median. By comparison, even though a higher share of REO are in tracts with medians between 75 and 125 percent of the county median, REO are also more than a third less likely to be in a high income tract. Approximately one in seven REO are located in tracts with median incomes below 75 percent of the county median.

We know income is correlated with educational attainment,<sup>41</sup> so it is to be expected, based on the distribution of poverty rates and incomes across tracts and the location of REO in the county, that a higher share of REO are in tracts with fewer college graduates. Nearly 20 percent of REO are in tracts where fewer than a quarter of all adults (age 25+) have a degree from a 4-year college. Market rate properties are twice as likely as REO to be in tracts where 45 percent of adults have a bachelor's degree or above.

Four in ten properties listed for sale were in tracts with above average African American populations, but 46 percent or more REO and short sales were in those tracts, compared to less than 36 percent of market rate listings. Similarly, although only 26.2 percent of listings were in tracts with above average Hispanic populations, 35.9 percent of REO were in those tracts.<sup>42</sup> Conversely, tracts with above average Asian American populations had a slightly lower than average share of REO listings.

## **Final Outcomes**

The final dataset includes a total of 10,763 properties, of which 6,281 (58 percent) are market rate transactions. 3,035 properties (28 percent) are REO, and the final 1,447 (13 percent) are short sales. While the Altos data allows us to consistently track price changes over the marketing period of a property, the FMLS data allows us to determine the final status of the house. Much of the focus and analysis to date on REO disposition among policy makers has been on what the losses and recoveries have been on REO. These analyses typically include those properties whose losses have already been finalized but may not include those properties that remain unsold at the time of the analysis. The FMLS dataset we are analyzing includes not only all sales of properties initially listed in 2010 but also those that remained unsold as of the end of 2011. Including unsold properties in the analysis allows us to

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provide a much clearer picture of the REO landscape and the effect such properties may be having on the broader housing market.

Of the market rate listings, fewer than half of the properties (43 percent) ultimately sold during the analysis period. A plurality of the listings (45 percent) expired without a sale, and 12 percent were actively withdrawn from the market without a subsequent relisting. The picture for REO listings is very different, as 84 percent of those properties ultimately sell. Only 12 percent expire unsold, and only 4 percent were withdrawn from the market. The sales rate for short sales is similar to that of the market rate listings (42 percent), but short sales also have a much higher withdrawal rate (20 percent) than either REO or market rate listings. This may reflect an expiration of the time allotted by the servicer to attempt a short sale. At that point, the property would be actively removed from the market even if the listing agreement had not expired. (It is entirely likely that a homeowner and agent might enter into a listing contract that extends beyond the amount of time allowed by the servicer under an optimistic expectation that the servicer might subsequently extend the short sale period.)

There is an apparent relationship between outcomes and distress. More than three-quarters of all expired listings were from market rate listings. As hinted above, this may reflect servicers' desire to keep delinquent mortgages moving through the foreclosure process. Thus, we see relatively few expired short sales, since we would expect any properties that were unsuccessfully marketed as short sales to move into REO status. Similarly, since owners of REO are motivated to sell, there is little reason for them to allow listings to expire without attempting to further market them. Further investigation is warranted (well beyond the scope of this research and not identifiable with the data collected for this analysis) to identify whether expired REO are the properties that ultimately become so distressed that they become blights on their communities. The expired REO may also have subsequently sold at an auction, which would not have been reflected in the MLS data.

Withdrawing a property from the market requires an active decision to no longer offer the property for sale. It is unsurprising, therefore, that 64 percent of withdrawals are for market rate listings. These withdrawals are likely reflections of homeowner efforts to test the market and, upon receiving either no offers or unacceptably low offers, decisions to pull the property back. One quarter of withdrawals are short sales, with the remaining 11 percent REO. Reasons for short sale withdrawal were discussed above, but REO withdrawal may reflect a decision to move from traditional marketing practices to an auction process to clear out unsold properties (It is not clear, however, why those properties would be actively withdrawn instead of simply waiting for the active listing period to expire).

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Most interesting, however, is the distribution of sales by distressed status. Gwinnett County sales were almost evenly split between market rate listings and REO. Short sales accounted for 10 percent of all closings, while market rate sales were 46 percent of the total to REOs' 44 percent stake. This very high rate of distressed sales is an indication that the market as a whole is far from recovery. Nationally, 28 percent of all sales were classified as distressed in April 2012, with 17 percent of all sales coming from REO.<sup>43</sup>

## Listings by price

Overall, fewer than 3 percent of all properties were originally listed for under \$50,000. The relative absence of such extremely low-value properties from the dataset should not be taken as an indication that these properties do not exist, rather their absence may reflect a shift in disposition strategies for those properties such that they never make their way onto the MLS. Within the extremely low-value properties for which we have data, however, 80 percent are distressed listings, and seven out of eight are REO. While there may be private sales of non-distressed properties in this price range that also would be excluded from the MLS, it is more likely that properties in this price range are distressed. A servicer's approach to extremely low-value properties may include donation to nonprofits post-foreclosure or could possibly include a so-called "bank walkaway" prior to foreclosure, should the foreclosing entity determine that the foreclosure and disposition costs for those properties would yield net negative returns.

As properties move through the sales process, however, prices typically decline. Thus, we find that an increased share of properties—5.5 percent—fall below \$50,000 by the end of the listing process. Unlike in higher price points, extremely low-value properties nearly always sell, but this can be attributed to the high ratio of REO, which also are much more likely to sell than non-distressed listings. Non-distressed properties whose prices ultimately fall below \$50,000 also sell, however. Of the 146 properties in this category, 119 sold. The 82 percent sales rate mirrors the REO rate and is nearly double the overall share of non-distressed listings that close.

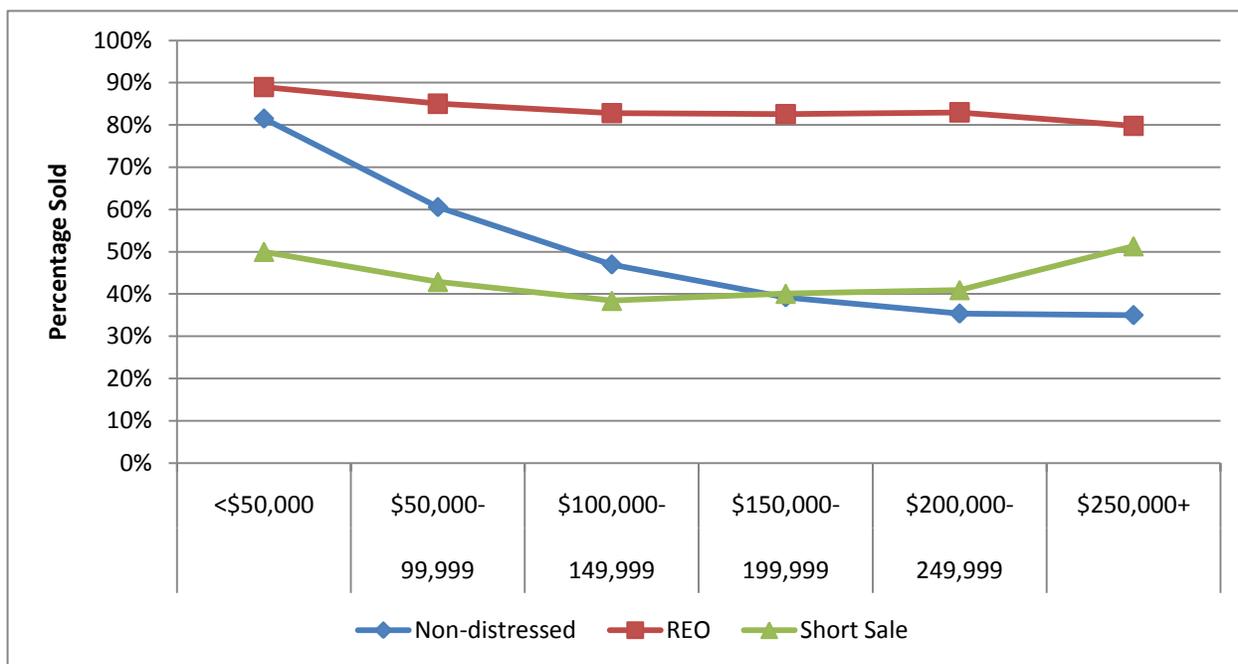
REO also dominate the low-value listings, defined as properties priced between \$50,000 and \$100,000. This price range accounts for 16 percent of the original listings and 21 percent of the final prices. Properties in this price range are overall less likely to sell (only 70 percent of listings close), but this reflects the shifting mix of non-distressed to distressed sales. Whereas 85 percent of REO ultimately priced in this range sell, only 61 percent of non-distressed properties do.

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For all price points above \$100,000, non-distressed listings exceed the number of REO. In the \$100,000-\$150,000 range, however, when short sales and REO are counted together, they slightly outnumber the non-distressed listings when considering original listing prices.

It is important to recognize that while the share of REO that ultimately sell remains relatively high across all price points, we find that there is a significant drop-off in the percentage of non-distressed listings that sell. As indicated above, extremely low- and low-value properties generally sell even absent distress, but we find that above \$100,000, fewer than half of all listed non-distressed properties sell. Moreover, as prices increase, the likelihood of a sale declines further, with only slightly more than one in three non-distressed properties listed at or above \$200,000 ultimately selling. This seems to provide clear evidence that REO are crowding out traditional, non-distressed sales.

(The prices indicated in the chart reflect the final observed price for a property; in the case of a sale, it is the final sales price, but for properties either withdrawn or expired, the price represents the asking price at the time of withdrawal or expiration.)



REO differ from non-distressed sales not only in their likelihood of selling but in their pricing as well. Our findings are consistent with the literature that identifies an REO discount that is magnified by a neighborhood’s likelihood of foreclosure.<sup>44</sup> In tracts with poverty rates under 20 percent, REO were listed at 67 percent of non-distressed sales, on average. In high poverty tracts, the initial asking price for

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REO was only 50.2 percent of non-distressed prices, on average. While these figures show a steeper discount than most previous studies found, we lack data on property condition, so it is possible that REO properties in our dataset are in worse condition than those in other studies. This is somewhat unlikely, however, given the short foreclosure timelines in Georgia and relatively young age of the stock. Previous literature, however, has indicated that discounts are sensitive to market cycles, so the generally steeper discount present in our data is consistent with those findings.

Surprisingly, 45.7 percent of withdrawn properties were pulled from the market without a change in asking price, and among non-distressed sales, that figure topped 50 percent. Roughly another quarter of properties saw only a single price change before being withdrawn.

Among properties that ultimately sold, 8.4 percent sold for the original asking price, and 39.8 percent had only a single price change prior to sale. Approximately one in six properties' final sales price matched the current asking price, and almost half of those sales were for the initial asking price. The shares of REO and non-distressed sales that sold for the original asking price are not substantially different from each other, at 8 percent and 9.25 percent, respectively.

The table below shows the percentage change between the original asking price and the final observed price, broken out by sales type, disposition status, and original price. The percentiles in the table reflect the distribution by price change, not the distribution of the list prices. Because for most properties the price changes are negative, the lower percentiles correspond to greater discounts. While the median property in each price range that sold showed similar discounts to original list, the difference in the size of the discount was greater for lower value properties in the 25<sup>th</sup> and 10<sup>th</sup> percentiles. This finding holds true for both REO and non-distressed listings among sales and expired listings.

<b>Properties Originally Listed Below \$125,000</b>									
	<b>Non-distressed</b>			<b>REO</b>			<b>Short Sale</b>		
	Sold	Expired	Withdrawn	Sold	Expired	Withdrawn	Sold	Expired	Withdrawn
<b>10th percentile</b>	-41.6%	-23.1%	-25.6%	-40.7%	-31.8%	-28.9%	-39.4%	-29.9%	-34.1%
<b>25th percentile</b>	-24.7%	-13.8%	-14.7%	-24.9%	-21.4%	-21.7%	-24.2%	-19.2%	-21.8%
<b>50th percentile</b>	-8.7%	-2.6%	-4.8%	-9.6%	-10.5%	-4.8%	-9.7%	-3.5%	-6.4%
<b>Properties Originally Listed Above \$125,000</b>									
	<b>Non-distressed</b>			<b>REO</b>			<b>Short Sale</b>		
	Sold	Expired	Withdrawn	Sold	Expired	Withdrawn	Sold	Expired	Withdrawn
<b>10th percentile</b>	-24.3%	-11.3%	-13.5%	-30.3%	23.3%	-28.7%	-37.6%	-28.1%	-30.7%
<b>25th percentile</b>	-16.0%	-6.3%	-6.8%	-18.8%	-17.5%	-17.1%	-26.2%	-18.8%	-19.2%
<b>50th percentile</b>	-8.6%	-0.8%	0.0%	-9.3%	-6.5%	-10.0%	-13.8%	-7.3%	-7.7%

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## Price Changes over Time

It is important to understand not only where a property is initially listed but how the price changes over time as it sits unsold.

The median time between price changes is relatively constant both across distress indicators as well as over the listing period. Monthly re-pricing of listed properties seems to be the industry norm, although the first price change after listing typically happens five to six weeks after listing rather than four to five weeks later, which is the median time between changes for subsequent price adjustments. Not surprisingly, perhaps, non-distressed listings fall towards longer waits for adjustments while REO listings fall to the shorter end of the range. This small difference in median time between price adjustments may reflect the interaction or nature of the relationship between the listing agent and the seller; agents' authority to re-price properties is different for REO than for non-distressed sales. Whereas agents have a defined process for submitting requests to change prices when marketing REO and can expect a quick turnaround for an approval or denial, engaged homeowners may slow the price adjustment process through extended discussions or negotiations with their agents.

Price changes were typically multiples of \$5,000 or within \$100 of a multiple. This leads us to believe that there is less precision in the asking price of a property than one might otherwise assume. It is important for the price to be reasonable, but since the final price is likely to emerge as a result of negotiation between buyer and seller rather than a take-it-or-leave-it offer, there is little value in being very precise in recalculating prices. Rather, we view price changes as a signal to the market of a willingness to negotiate. Among properties that sold after a price change, 57 percent of binding agreements were reached within 30 days of the price change; 75 percent of agreements were reached within 60 days.

Overall, fewer than 18 percent of sales were for the published asking price at the time the sales agreement was reached. Consistent with the signaling theory, short sales were slightly more likely to sell for the final asking price, which may reflect the listing agent's ability to claim less flexibility to negotiate than in non-distressed or even REO sales or, alternatively, may reflect a recognition of the cumbersome nature of short sale approvals, such that time it would take to get approval for a small discount to the asking price would not be worth the hassle.

While appraisals may rely on comparable sales to determine value, properties compete against other listings, not past sales, to attract buyers. Therefore, as properties are re-priced downward over time, they potentially put a ceiling on asking prices for similarly situated properties. While we did not test this hypothesis, it is important to consider the effects of price changes on different segments of the market.

## Time on Market

Time on market is an important metric for determining the value of bulk sales, since if all properties sold instantaneously, concerns about shadow markets and supply imbalances would be non-existent. In order to treat properties that sold the same as those that came off the market without a sale, we adjusted the time on market to use the date of the final binding agreement prior to sale rather than the closing date itself. The rationale for this is that once an agreement is reached, the property is effectively off the market, even if the closing itself is delayed because of inspections, financing challenges or other scheduling issues. This puts sales on an equal footing with withdrawals and expirations, since the dates for the latter two categories reflect an immediate removal from the market; there is no scheduling issue when withdrawing a property, for example.

Using the actual closing date rather than the date of the binding agreement skews the total length of the sales process outwards by a median of 36 days. Interestingly, there was no significant difference in the length of time between a binding agreement and the closing as a function of REO status; the median REO closing took place 35 days after the binding agreement was reached. The median short sale closing period was a week longer than non-distressed transactions.

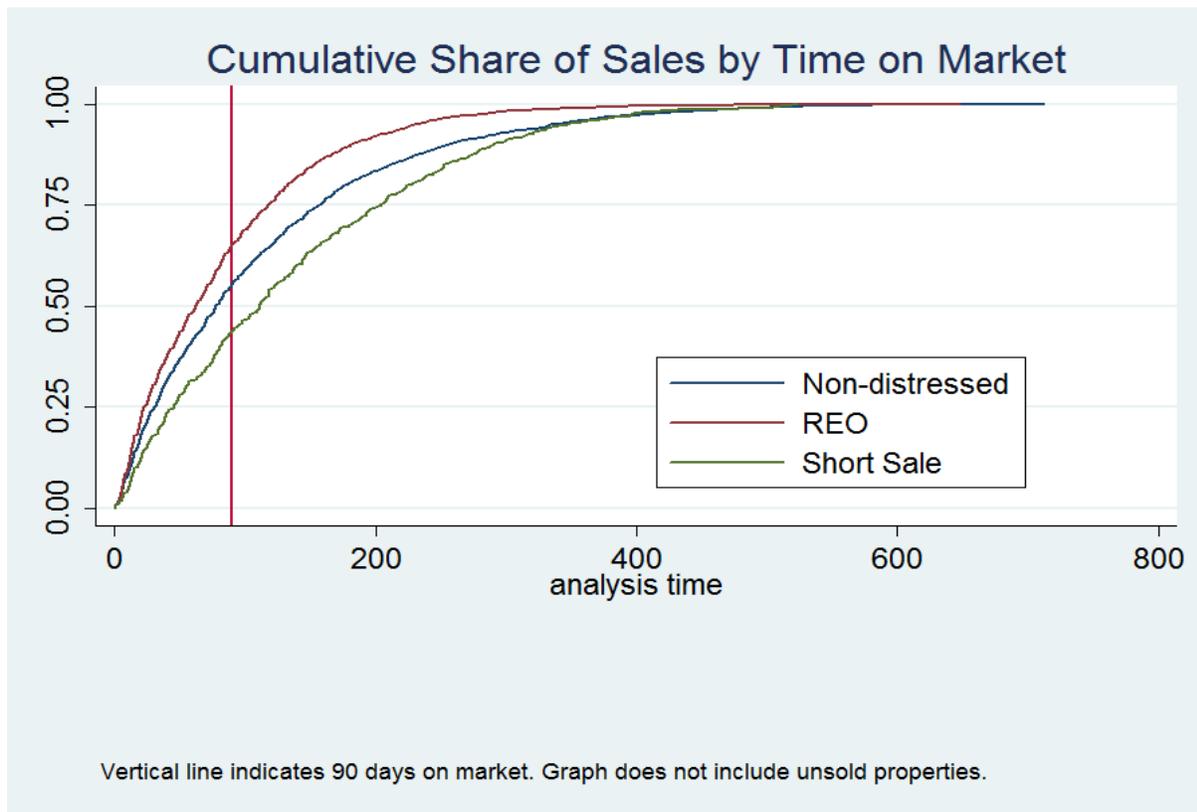
<b>Median Days on Market</b>			
	Closed	Expired	Withdrawn
<b>Non-distressed</b>	115.5	162	105
<b>REO</b>	98	119	91.5
<b>Short Sale</b>	159	176	143.5
<b>Median Days on Market or Until Agreement</b>			
	Closed	Expired	Withdrawn
<b>Non-distressed</b>	77	160	105
<b>REO</b>	61	98	91
<b>Short Sale</b>	109.5	176	137.5

As indicated in the graph below, based on the hazard model we constructed based on structural attributes, property characteristics, neighborhood amenities, and tract-level demographics and market activity, REO are predicted to sell faster than non-distressed sales while short sales linger slightly longer before selling. While this may seem counter-intuitive to many who have seen the impact that vacant and abandoned REO have on communities, these findings are consistent with search theory, on the presumption that non-distressed sellers may have higher reservation prices than REO sellers and the frequency with which acceptable offers come may, by extension, be somewhat lower. Clauretie and

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Daneshvary elaborate on the relationship between time on market and prices, and they also indicate that REO sellers’ reservation prices may be lower because of liquidity needs, a desire for lower carrying costs (which non-distressed sellers tend to ignore unless they are trying to sell one home to buy another), or unattractive or deteriorating property conditions.<sup>45</sup>

Roughly two-thirds of all REO listed that ultimately sell reach a binding agreement within 90 days. As can be seen below, however, the slope of the curve flattens significantly above that point and is nearly horizontal by the 6-month mark. This indicates that while most properties sell relatively quickly, those that linger on the market unsold are likely to do so for quite some time.



Hazard model variables	
Significant Variables	Impact on Listing Time
<b>Lot Size</b>	(<1/3 acre is baseline)
1/3-1/2 Acre	Longer
<b>Listing Month</b>	(January is baseline)
May-December	Longer

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<b>Age</b>	(Built 2000-2008 is baseline)	
<b>New Construction</b>	Shorter	
<b>Older</b>	Longer	Note: 1940s NS
<b>Number of Active Listings</b>	Shorter	
<b>125 AMI+</b>	Longer	
<b>Educational Achievement</b>	(High College+ is baseline)	
<b>Low</b>	Longer	
<b>Medium</b>	Longer	
<b>Asian Population</b>	Shorter	
<b>Hispanic Population</b>	Shorter	
<b>African American Pop.</b>	Longer	
<b>Renter Share</b>	Shorter	
<b>REO Status</b>	Shorter	
<b>Short Sale Status</b>	Longer	
<b>List price</b>	Longer	

There were several interesting findings from the hazard model with respect to the effect of certain variables on the expected time to sell. REO status was highly significant and had the largest hazard ratio, i.e., contributed the most to the prediction of time to sell.

None of the structural attributes were significant at a 95-percent confidence interval. Both shortened the marketing time. There is a seasonal effect found for properties listed after May. This may be attributed to the fact that the spring is typically seen as the peak buying season, so listings after April will have missed that window. December listings sell only slightly faster than November listings, as both may be competing for early spring buyers (although both months' listings sell much slower than January's).

Using properties built in the previous decade prior to the bust as a baseline, it is to be expected that older properties sit on the market longer, since they are more likely to need more repairs than newer houses.

More expensive properties sit longer on the market, and this may also reflect the lower reservation price that sellers of lower priced properties may have. Similarly, properties in wealthier Census tracts (identified as having median incomes above 125 percent of county median) and tracts with higher levels of college graduates also sell slower. (There is a modest correlation between high educational achievement and median tract income, but neither is strongly correlated with listing price.) Properties in tracts with above average shares of African Americans sell slower than those with below average shares, while both higher than average Hispanic and Asian American populations are indicators of faster sales.

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While in some suburban and exurban markets, Hispanics were significant buyers of new properties under the drive-until-you-qualify phenomenon, there is only weak correlation between Hispanic population and properties built between 2000-2008 and almost no correlation to new properties.

## **Bulk Sales Recommendations**

Based on our analysis of time to sell and what properties ultimately do sell, our recommendation for REO sales is to minimize to the extent possible the potential crowding out effect where REO successfully sell but non-distressed properties are far less likely to do the same. Given that many REO do sell quickly, however, we recognize that for a large subset of foreclosed properties, the current disposition process is working. This makes changing institutional behavior more difficult, even as the faster selling properties are to some degree cross-subsidizing the carrying costs of slower selling properties. Nevertheless, as more REO move from the shadow inventory onto the market, we should expect more crowding out to take place and relatively greater price declines to be observed.

With that in mind, we propose letting properties come on market for no more than 90 days before sweeping unsold properties (or a percentage thereof) into bulk pools. To minimize the time between moving properties off market and the sale of the pool, pools could also be constructed on a forward flow basis given a specific “buy box” of minimum standards.

Also, given what we know about how appraisals work, where comparable sales factor heavily into subsequent pricing decisions and expectations, bulk reo sales should be seen as an opportunity to reduce appraisal infection. In markets with relatively few REO, appraisers may be able to use only non-distressed sales as comparables for other non-distressed properties. In markets with high foreclosure rates, however, REO valuations are important, as the REO are often treated as legitimate comparables, given that any non-distressed sale is effectively competing with the REO. As we see in Gwinnett County, not only do the non-distressed properties compete with REO, they often lose out. The effect of REO on future sales, therefore, can be quite significant and can last for several years.<sup>46</sup>

If structured properly, bulk REO sales can minimize the impact that REO sales typically have on local markets, but done incorrectly, especially if there is a discount for bulk and the pool is highly concentrated in a particular geography (or no consideration is given to buyers’ management capacity), the bulk sales can have a devastating impact by overwhelming future appraisals.

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A bulk sale is not a typical market transaction, and as such, properties that transfer ownership through a structure should not be seen as a fair comparable to standard transactions. This is especially the case where a pool is acquired for a certain price and then values are then assigned to each property based on the buyer's valuation model to reach the aggregate price. This is, in effect, mark to model recordation. Since there will likely be no transparency around which properties are being sold in bulk, there is no way for an appraiser to be able to exclude individual properties that were part of a portfolio from a comparable sales appraisal.

We therefore recommend using the closing and recordation processes to eliminate the likelihood of future appraisal infection by selling and recording one of the properties in the pool for the price of the entire pool and then selling the rest of the properties for \$1 each. Since neither the \$1 sales nor the single sale at a multiple of tens or even hundreds of times market value would be viewed by a future appraiser as an arms-length transaction, the REO prices would have little to no impact on subsequent transactions.

Alternatively, the pool could be sold with a single recordation listing multiple parcels on a master deed, similar to the way in which condominiums or homeowners associations are recorded. Individual properties, when sold out of the pool, would then be recorded separately and the master deed amended accordingly, removing that parcel from the master. This strategy can also be used to ensure minimum holding periods or affordability by including those provisions in the master deed. Any efforts to sell before the holding period expires or above affordable prices would be flagged in a title search.

The first sales method may only work for properties held in banks portfolio or by the GSEs or FHA, since it may require sole ownership by the seller. In a pool of properties being sold by a servicer on behalf of third parties, it is not clear that the proceeds from the high priced property could flow back to parties with interests only in the \$1 properties. This may not be a problem with the second proposal, as the investors, with interests in specific properties, could be granted a pro rata share of the proceeds from the sale of the master based on the fixed valuation of their ownership stake in the whole.

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- <sup>15</sup> In the interest of full disclosure, Enterprise Community Partners is the recipient of HUD funds to provide technical assistance to NSP grantees. Enterprise is also a founding member of the National Community Stabilization Trust, which administers HUD’s National First Look Program and has facilitated the streamlined transfer of over 6,700 REO from servicers, FHA, and the GSEs to NSP-funded entities.
- <sup>16</sup> “Bill Summary & Status - 112th Congress (2011 - 2012) - H.R.3502 - THOMAS (Library of Congress)”, n.d., <http://thomas.loc.gov/cgi-bin/bdquery/z?d112:h.r.3502:>
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- <sup>23</sup> Adam Tempkin, “Freddie Mac Pitches REO Plan to Mortgage-bond Investors | Reuters,” *Reuters*, February 17, 2012, <http://www.reuters.com/article/2012/02/17/freddie-mac-reo-idUSL2E8DH6VH20120217>.

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- <sup>37</sup> U.S. Bureau of the Census, 2010 Census.
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- <sup>43</sup> <http://www.realtor.org/news-releases/2012/05/april-existing-home-sales-up-prices-rise-again>
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