Mortgage Foreclosure Timelines: What is the New Normal?

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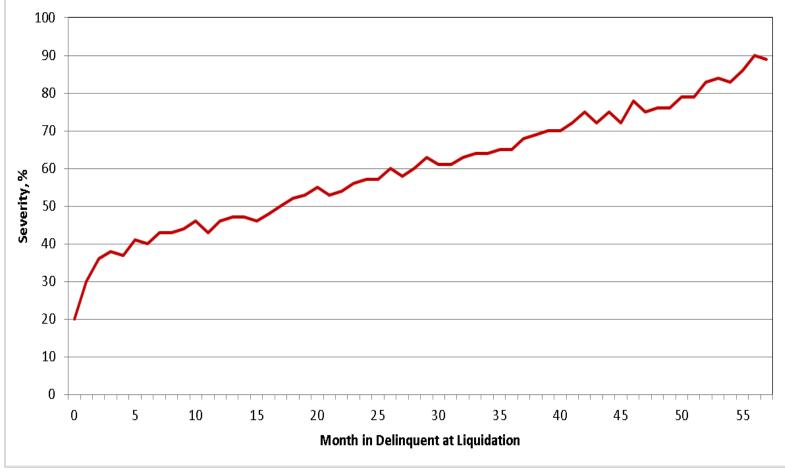
Further Disclaimer: All materials presented herein are from the Philadelphia Fed working paper, "The Cost of Delay" by Cordell, Geng, Goodman and Yang* using publicly available sources

*http://www.philadelphiafed.org/research-and-data/publications/working-papers/2013/wp13-15.pdf

Outline

- Since November 2008 foreclosure and REO liquidation timelines have extended to unprecedented lengths.
- Even after the National Mortgage Settlement in January 2012, foreclosure timelines do not yet exhibit evidence they are shortening to pre-crisis levels.
- The terms of the settlement indicate that timelines will lengthen, which will increase foreclosure costs.
- Evidence from our research shows extended timelines add significantly to loss given defaults (LGDs).
- Central issues: What is the "New Normal"? How should extended timelines be reflected in our severity modeling, particularly in a stress environment?

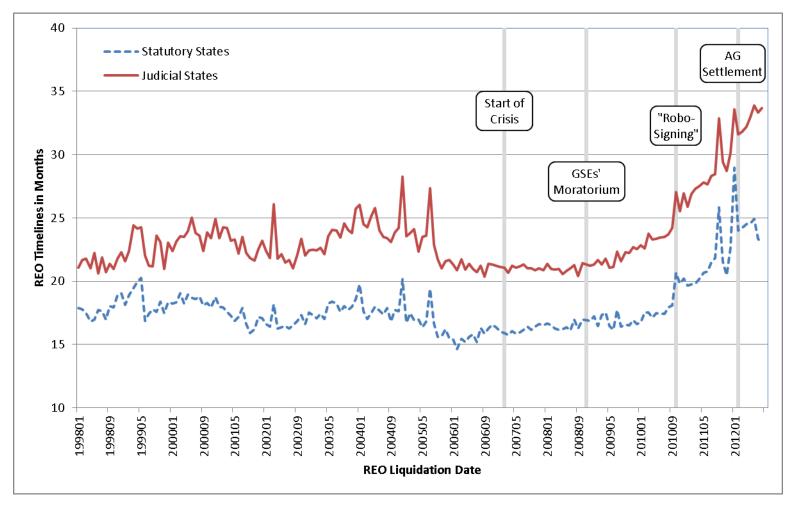
Longer Timelines Are Significantly Affecting Severities



Unconditional Severity Rates By Number of Months to Liquidation

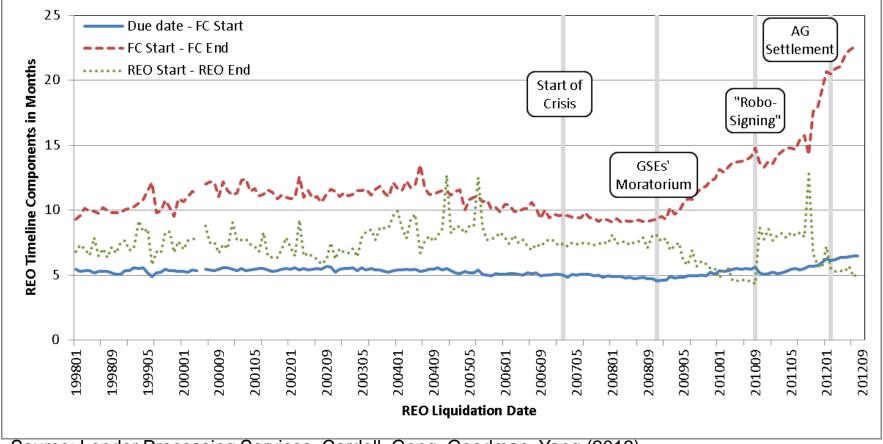
Source: CoreLogic ABS/MBS Data, Cordell, Geng, Goodman, Yang (2013).

REO Liquidation Timelines Have Extended to Historic Highs (REO Liquidation Timelines 1998--201209)



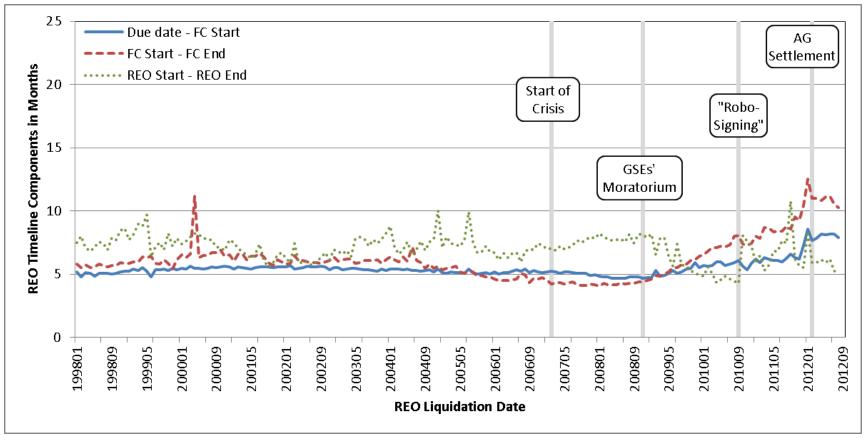
Lengthening is Mainly from Time in the Foreclosure Pipeline Timelines Are Much Longer in Judicial Foreclosure States

REO Liquidation Timelines Broken Out Into Component Parts Judicial States



Lengthening is Mainly from Time in the Foreclosure Pipeline Timelines Are Shorter in Statutory Foreclosure States

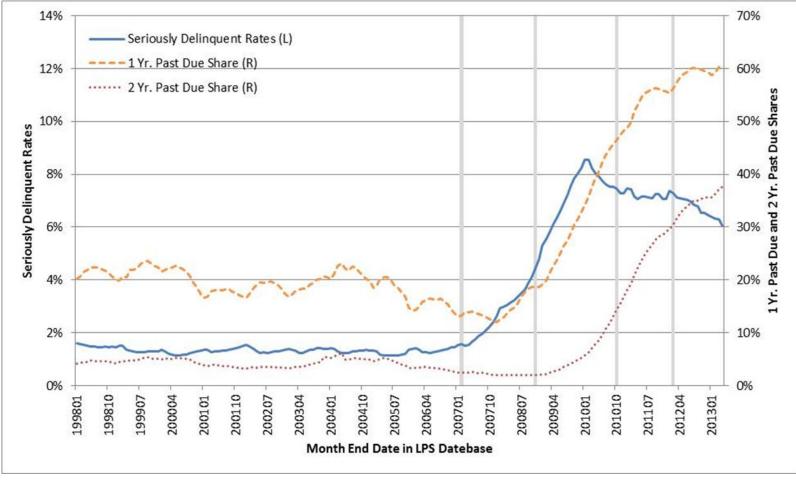
REO Liquidation Timelines Broken Out Into Component Parts Statutory States



Loans Are Sitting in Delinquency Much Longer

Share of Seriously Delinquent Loans

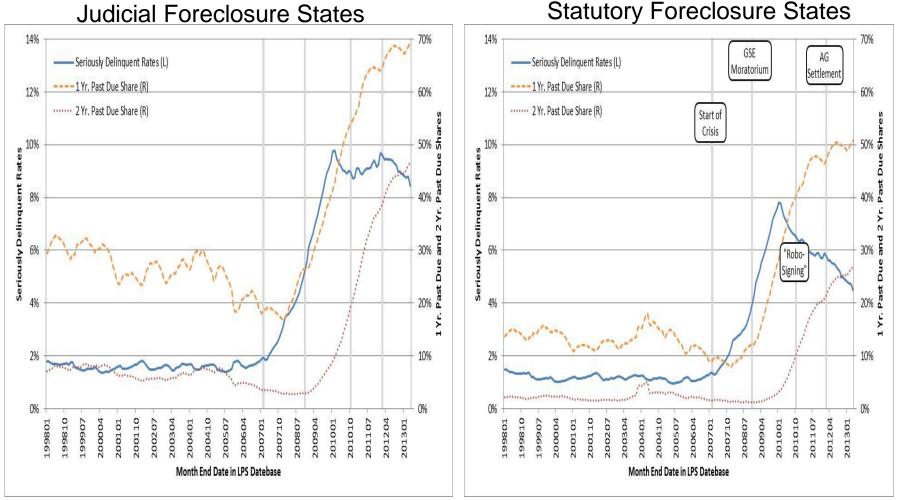
And Share of Seriously Delinquent Loans More than One and Two Years Delinquent 1998: 201304



The Problem Exists for Both Judicial and Statutory States

Share of Seriously Delinquent Loans

And Share of Seriously Delinquent Loans More than One and Two Years Delinquent 1998: 201304

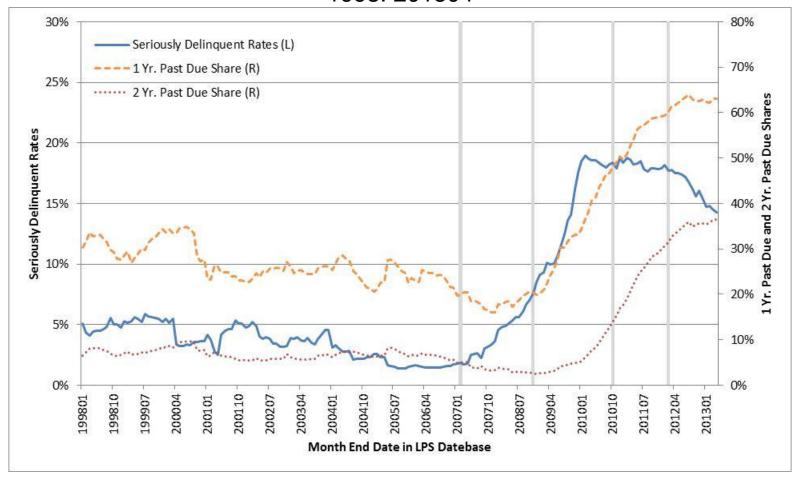


Source: Lender Processing Services, Philadelphia Fed RADAR Group.

Loans in Bank Portfolios Exhibit the Same Patterns

Share of Seriously Delinquent Loans

And Share of Seriously Delinquent Loans More than One and Two Years Delinquent Bank Portfolio Loans 1998: 201304



Source: Lender Processing Services, Philadelphia Fed RADAR Group.

Forecasted Timelines Are Even Longer When Adjusted for "Censoring"

| Actual and Censored-Adjusted REO Liquidation Timelines By Time of Default | | | | | | | | | | | | |
|---|--|--|----------------------------------|---|---|---|--|--|--|--|--|--|
| Judicial States | Uncenso | red Data | Censor | ed Data | Combined Data | | | | | | | |
| | | Avg REO | | Avg Duration | % Of | Estimated | | | | | | |
| Default | | Timeline | | as of 201209 | Censored | Timelines | | | | | | |
| Period | Counts | (in months) | Loan Counts | (in months) | Loan | (in months) | | | | | | |
| Period 1 (2005 -Jan07) | 18,941 | 25 | | | 0% | 27 | | | | | | |
| Period 2 (Feb07-Oct08) | 196,539 | 27 | 35,156 | 57 | 15% | 32 | | | | | | |
| Period 3 (Nov08-Aug10) | 248,894 | 26 | 244,311 | 40 | 50% | 39 | | | | | | |
| Period 4 (Sep10-Jan12) | 44,647 | 18 | 288,595 | 21 | 87% | 44 | | | | | | |
| Period 5 (Feb12-Sep12) | 1,238 | 9 | 172,030 | 10 | 99% | 44 | | | | | | |
| | | Uncensored Data | | | | | | | | | | |
| Statutory States | Uncenso | red Data | Censor | ed Data | Combine | ed Data | | | | | | |
| Statutory States | Uncenso | red Data Avg REO | Censor | ed Data Avg Duration | Combine % Of | ed Data Estimated | | | | | | |
| Statutory States Default | Uncenso | | Censor | | | | | | | | | |
| | Uncenso Counts | Avg REO | Censor Loan Counts | Avg Duration | % Of | Estimated | | | | | | |
| Default | | Avg REO Timeline | | Avg Duration as of 201209 | % Of Censored | Estimated Timelines | | | | | | |
| Default Period | Counts | Avg REO Timeline (in months) | | Avg Duration as of 201209 | % Of Censored Loan | Estimated Timelines (in months) | | | | | | |
| Default Period Period 1 (2005 -Jan07) | Counts 31,585 | Avg REO Timeline (in months) 19 | Loan Counts | Avg Duration as of 201209 (in months) | % Of Censored Loan 0% | Estimated Timelines (in months) 16 | | | | | | |
| Default Period Period 1 (2005 -Jan07) Period 2 (Feb07-Oct08) | Counts 31,585 388,476 | Avg REO Timeline (in months) 19 20 | Loan Counts 10,137 | Avg Duration as of 201209 (in months) 57 | % Of Censored Loan 0% 3% | Estimated Timelines (in months) 16 18 | | | | | | |
| Default Period Period 1 (2005 -Jan07) Period 2 (Feb07-Oct08) Period 3 (Nov08-Aug10) | Counts 31,585 388,476 674,307 | Avg REO Timeline (in months) 19 20 20 | Loan Counts 10,137 112,753 | Avg Duration as of 201209 (in months) 57 39 | % Of Censored Loan 0% 3% 14% | Estimated Timelines (in months) 16 18 20 | | | | | | |

Estimating the Components of Time-Related Liquidation Costs

- 1. Property Taxes: If borrower not paying, servicer must pay property taxes
- 2. Principal and Interest Advances (or accrued interest for portfolio loans)
- 3. Hazard Insurance: Lender must pay this; forced place insurance costs high
- "Excess Depreciation": Property maintenance costs after a property is in REO and the property is vacant (e.g., mowing the lawn, fixing the roof); also includes time-dependent <u>direct</u> foreclosure costs
- 5. Economic cost of carrying a non-earning asset
- #1 is directly observable
- For bank portfolio loans, #2 is the amount of interest accrued, generally for the first 90 days; for PLMBS they are reimbursable and not a cost.
- For portfolio loans, #5 can be estimated from the weighted avg. COFs.
- #3 and #4 is estimated with the proprietary model from Amherst (2010, 2011)

Time-Related Costs Have Increased Significantly

| Comparison of Timeline Costs, Pre-Crisis and Latest Period | | | | | | | | | | |
|---|--------------------------------|--------|----------|------------------------------------|--------|----------|------------|--|--|--|
| | Pre-Crisis (2005 - 2007/01) | | | Latest Period (2012/02-2012/09) | | | Total | | | |
| | | | | | | | | | | |
| | | Ins. & | Total | | Ins. & | Total | Change | | | |
| | | Excess | Timeline | | Excess | Timeline | Periods | | | |
| Foreclosure Law | Тах | Dep. | Cost | Тах | Dep. | Cost | 1 to 5 | | | |
| Judicial States | 6% | 11% | 17% | 11% | 19% | 30% | 13% | | | |
| Statutory States | 3% | 5% | 8% | 4% | 7% | 12% | 3% | | | |
| Highest - NY | 9% | 12% | 21% | 16% | 23% | 39% | 19% | | | |
| Lowest - AR | 1% | 5% | 6% | 1% | 8% | 10% | 3% | | | |
| All States | 4% | 7% | 11% | 7% | 12% | 19% | 8% | | | |
| Note: This table presents the calculated timeline costs as percentage of unpaid balance | | | | | | | | | | |
| Source: Cordell, Geng, Goodman, Yang (2013), Table 4. | | | | | | | | | | |

Central Questions: What is the New Normal? How Do We Model Time-Related Costs in a Stress Environment?