

Banks and Statistics: The Foreclosure Review

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Fall 2012

Theme - Foreclosures and Planning

- Foreclosures are necessary for the mortgage system to work. Should be rare under normal circumstances.
- During the US crisis banks and regulators were overwhelmed - policy was hastily implemented. Result was frustration and calls for "action."
- Review will (probably) lead to development of transparent, fair procedures.
- Review is extremely costly.
- Procedures should be developed and put in place before the next crisis! Especially important for a young and growing mortgage market as in Turkey

Foreclosures indicate something went wrong:

- bad planning,
- bad decisions, or
- bad luck.

But there is an important role for foreclosures in the mortgage based home financing system.

As a result of

- the rise and well-publicized increase in the foreclosure rate following the 2008 crash
- general public frustration with the economy, the banks, and the government following the bailouts
- perhaps an urge on the parts of regulators and lawmakers to "do something"

a massive review of foreclosures was initiated.

Frustration with Policy

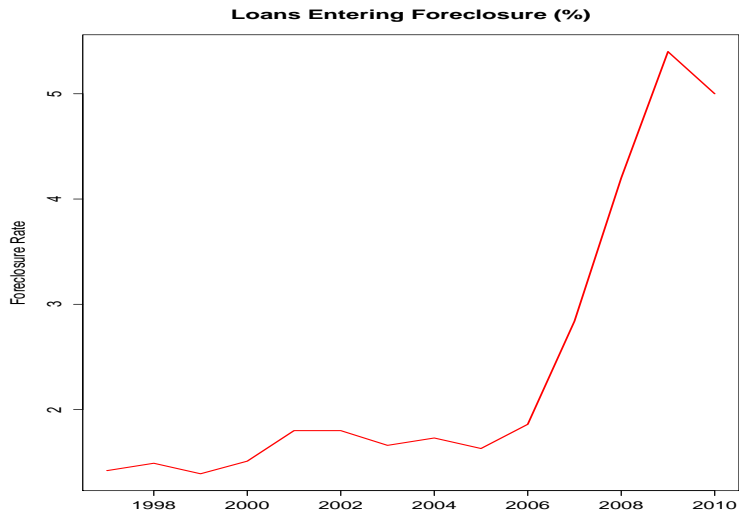


Steps: Interagency Review, Consent Orders, Engagement Letters for independent reviewers, Statistical reviews (ongoing). The letters were reviewed and the statistical reviews are monitored by the OCC.

Goals:

- To find out where errors in foreclosures were made and design a transparent, common system for future foreclosures.
- To identify those financially harmed by foreclosure errors and compensate them appropriately.

Foreclosures



FRS, OCC, FDIC, and OTS reviewed foreclosures at major servicers during Q4 2010.

Reviews were a judgment sample of files thought likely to be problem files.

Findings: 1) borrowers subject to foreclosure in the reviewed files were seriously delinquent on their loans.

2) servicers possessed original notes and mortgages and sufficient documentation to demonstrate authority to foreclose.

3) servicers generally attempted to contact distressed borrowers prior to foreclosure to pursue loss-mitigation alternatives.

So, what's the problem?

Weaknesses: 1) inadequate organization and staffing, especially as volume increased,
2) inadequate affidavit and notarization practices,
3) "some but not widespread" errors in fees (shockingly, "In nearly half of those instances, the differences - which were typically less than \$500 - were adverse to the borrower").

Conclusion: "the weaknesses at each servicer, individually or collectively, resulted in unsafe and unsound practices and violations of applicable Federal and state law and requirements."

Response: The agencies are requiring each servicer to retain an independent firm to review foreclosure actions that were pending from January 1, 2009, through December 31, 2010, to

- 1) identify borrowers that have been financially harmed by deficiencies identified in the independent review and
- 2) provide remediation to those borrowers where appropriate.

There are 14 affected servicers. The requirements are listed in Consent Orders from the OCC.

Why?

Julie Williams, First Senior Deputy Comptroller and Chief Counsel, OCC 2011 Congressional testimony: "the examinations [IR] also found that there were critical deficiencies and shortcomings in foreclosure governance processes, foreclosure document preparation processes, and oversight and monitoring of third party law firms and vendors at each of these servicers. *These deficiencies constitute unsafe and unsound banking practices, which also resulted in violations of foreclosure laws, regulations, or rules.*"

Why?

Julie Williams, “By emphasizing timeliness and cost efficiency over quality and accuracy, examined institutions fostered an operational environment that is not consistent with conducting foreclosure processes in a safe and sound manner.”

There is a tradeoff here. Perhaps the reviews will lead to the right balance.

Why?

John Walsh (Acting Comptroller, Sept. 2011 and other talks)
The improper practices in foreclosure processing and mortgage servicing ... *have major safety and soundness implications for banks*, in addition to their financial consequences for troubled homeowners and the economy.

This independent review sets out to identify borrowers who suffered financial injury as a result of errors, misrepresentations, or other deficiencies in the foreclosure process.

... the full effect, full cost, and full benefit of remediation will be known only at the end. ... we haven't been able to announce a big dollar figure to capture the severity of our enforcement actions.

Why?

But it will be costly. The OCC review sampled 2800 loans (all "seriously delinquent"), and took 3 months and 100 experienced examiners: The COs cover 4.5M mortgages.

AC Walsh: "But however expensive and difficult compliance may be, these standards must be met. The processing scandal eroded public confidence not just in the fairness of the foreclosure process, but in the competence of our nation's banks. It subjected the industry to widespread criticism, including from members of Congress, the media, the judges who hear foreclosure cases, and consumer advocates."

Comments: Safety and soundness? Reputational damage ...

Clear impetus to do something - responding to criticism - urge to demonstrate "the severity of our enforcement ..."

Long run importance: industry and regulatory agreement on the need for uniform, well-understood, foreclosure processing mechanisms and standards.

Calls for more regulation



Julie Williams: "...the independent review will achieve identification of harmed borrowers covered by the look-back period through two distinct means:

- 1) a public complaint process which will provide in-scope borrowers... with the opportunity to have their complaint reviewed by the independent consultant; and
- 2) a sampling of loans to uncover, for example, borrowers in high risk segments...."

The COs are essentially identical (detail diffs: eg WF refs 8,900,000 loans, HSBC 340,000).

Servicers must put together a plan for a new process in which (basically) no errors occur.

We focus on Article VII (the "look-back" provision):

"... the Bank shall retain an independent consultant ... to conduct an independent review of certain residential foreclosure actions regarding individual borrowers with respect to the Bank's mortgage servicing portfolio." Coverage is 2-years, 1/2009-12/2010.

The review will determine whether:

- (a) the foreclosing party had properly documented ownership of the promissory note and mortgage
- (b) the foreclosure was in accordance with state and federal law
- (c) a foreclosure sale occurred when an application for Loss Mitigation was under consideration; when the loan was performing in accordance with a modification; or when the loan had not been in default long enough to authorize foreclosure
- (d) with respect to non-judicial foreclosures, the procedures followed were in accordance with the terms of the mortgage loan and state law;

- (e) a delinquent borrower's account was only charged permissible (by law and loan terms and reason) fees
- (f) the frequency that fees were assessed was excessive
- (g) Loss Mitigation Activities were handled correctly

And the **Big One**:

- (h) whether any deficiencies identified in the Foreclosure Review resulted in financial injury to the borrower.

This is the key. What is financial injury?

These do differ across servicers and independent reviewers (including E&Y, PWC, PFG, D&T and more).

Typically there is a proposed stage 1 stratified sample emphasizing groups of foreclosures thought more likely to incur exceptions.

Sample sizes are obtained by arguments varying in quality.

Particular strata are examined at a 100% rate (eg SCRA).

Stage 1 is used to guide partitioning of the population data into groups for stage 2 processing. More below.

Stage 1 is also used, with adjustment for sampling weights, to estimate the rate of operational exceptions - useful for establishing uniform standards.

All of the engagement letters, consistent with the CO, commit the reviewers to work with the OCC staff, including monthly progress reports.

The starting point is a list of foreclosed mortgages, with enough information to form the stage-1 stratified sample.

In some cases, this "population data set" is populated with additional information likely to be useful in classification.

In others, this information is being collected, raising the question of what information to collect. Information for a full determination of harm is difficult to collect.

Example: Attorney information, bankruptcy information, complaints, foreclosure information including dates of steps in foreclosure, loss mitigation information, loan information (documentation, type, term, LTV, originator), property information (single family, occupied, location).

In one case the first-stage has 65 strata and a total sample size of about 17000. These files are being reviewed for exceptions a-g. This is not a computer review. Reviewers typically need new information.

Example: There is a list of 52 documents, ranging from the mortgage itself to things like "evidence of required State Notification on pre-foreclosure notices" or "documents and notes relating to litigation."

Stage 1 Strata and Sample Sizes

Sample size is chosen to achieve a particular reliability (power) for a specified precision (alternative). One independent firm is using, after consultation with the OCC, a "95%, 3%, 3%" approach, in which size in a stratum is determined by requiring that a 95% confidence interval for an estimated rate is $\pm 3\%$ when the population rate is 3%, leading to a first stage sample size of 124. There are 62 judgmental strata. In addition, there are groups selected for 100% review: SCRA cases, bankruptcy cases, and complaints. Total: $\sim 17K$. These are being analyzed to determine stage 2 file review procedures.

Stage 1 Strata and Sample Sizes

A key procedure here is the size zero test that a binomial rate is zero. Common usage is 95% reliability at a 0.03 precision, requiring a sample size of 100. At least one independent firm plans to use this procedure in stage 2 to test strata developed from stage 1, and thus to determine which strata require further analysis and review. More on this decision procedure below ...

Stage 1 Strata and Sample Sizes

Another firm uses this calculation to determine stage 1 sample sizes (100 obs in each stratum). Meaning (from the EL): "This means that 95% of the time the true unknown statistical sampling error rate will be within 3% of the statistical sampling error rate estimated from the sample, so if no statistical sampling errors are found in the sample, then the population error rate will be at most 3% with 95% confidence."

A surprising further interpretation: "If the statistical sampling error rate in the sample is 4%, the population error rate could be as low as 1% or as high as 7% with 95% confidence."

Stage 1 Strata and Sample Sizes

Despite these differences, a 2-stage procedure is sensible in each case and stratification is done in consultation w/ experts including well-informed OCC staff.

The next task is to establish file review procedures and to proceed to the stage 1 analysis.

Stage 1 is used to estimate the rate of various exceptions - important for designing process improvements and safeguards. (Weighting using sampling rates will be important.)

Stage 1 also guides the stage 2 analysis - with the goal of identifying harmful exceptions in the population dataset (harder)

Determining exceptions (a-g) in Stage 1

To determine exceptions (a) [improper documentation]:

1) test documents against requirements of state law. Test whether the plaintiff is the same as the payee and the owner.

Examine (manually) court proceedings, the note, endorsements, the mortgage, the title report.

What is "robo-signing?"

Determining exception (h): Harm

Engagement letters are a little vague here.

“Senior level Foreclosure Review team members will make a determination if any Errors resulted in Financial Injury to the borrower.”

“... will adhere to relevant OCC guidance as issued [date] and as may from time to time be modified”

Guidance includes 22 examples, including robo-signing if it led to the borrower paying fees or entering foreclosure.

Determining exception (h): Harm

Example: To determine whether improperly assessed fees caused financial harm requires determining whether the borrower paid the fees. Were they deducted from any amount due to the borrower after a foreclosure sale? This requires consultation of the files of the local foreclosure attorney. Also requires that the borrower had equity in the property so some amount was due after the sale (and the fees were deducted from this amount).

How many foreclosees had equity?

Point: finding a fee error (not easy) is easier than finding whether it caused harm.

Very preliminary: There appear to be many cases with at least one exception a-g.

Fee errors seem more frequent than expected on the basis of the Interagency Review.

Expensive: Verifying absence of an exception requires assembling a full set of documents.

Exceptions can be found with partial documentation, but not the full extent of exceptions.

Best next steps?

Set aside the difficulty in determining exception causing harm. This is ongoing.

How can stage -1 be used to determine which records in the master file to examine closely?

Suggestions: 1) use a classifier to identify cases with exceptions/no exceptions.

2) use a provisional definition of "harm" to create the classifier.

Error Rates and Probability Adjustments

Since HE is not a deterministic function of observed covariates, there will always be classification error.

Suppose that there are no covariates and the first-stage HE rate is 0.05. A reasonable classifier for Stage 2 will classify all observations as non-HE.

Suppose the population in the second stage has an HE rate of 0.01. Then, the probability that an observation classified as non-HE is in fact HE is 0.01. This rate cannot be reduced, although all HEs could be found by a census.

Note that the expected error rate based on the first-stage estimate is 0.05. Adjustment of the first-stage f_i to reasonable probabilities is important.

Preliminary Stage 1 Classification results

Using a target variable that sorts data into clean and dirty, where dirty means 13+exceptions.

This is probably much more prevalent than actual HEs

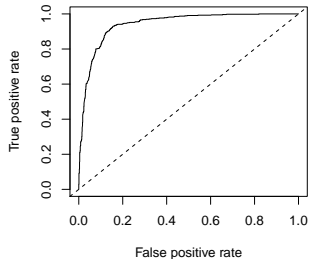
Table : Logit2 classification in sample

	CLEAN	DIRTY
0	1056	99
1	118	459

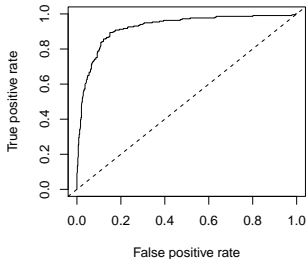
Table : Logit2 classification validation sample

	CLEAN	DIRTY
0	436	43
1	51	174

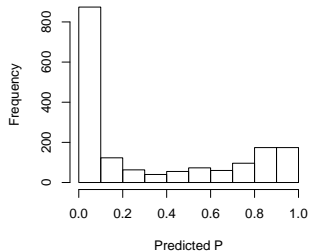
ROC for Logistic2 – Dev



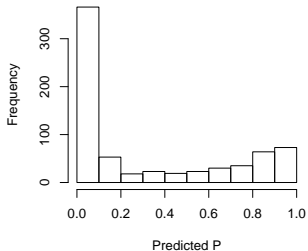
ROC for Logistic2 – Val



Hist. of P – Logistic2 Dev



Hist. of P – Logistic2 Val



There are 13 categorical explanatory vars and 1 continuous. What SVM Kernel?

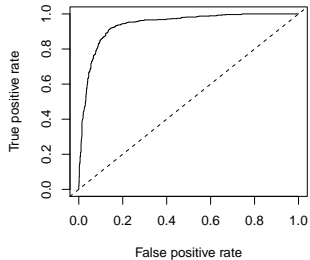
Table : SVM-Radial classification development sample

	CLEAN	DIRTY
CLEAN	1064	93
DIRTY	110	465

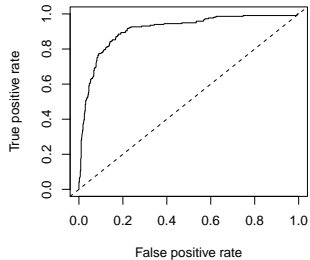
Table : SVM-Radial classification validation sample

	CLEAN	DIRTY
CLEAN	443	49
DIRTY	44	168

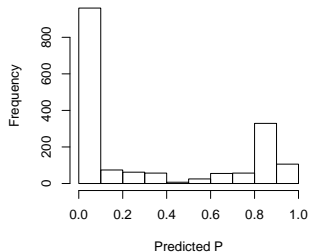
ROC SVM-Radial – Dev



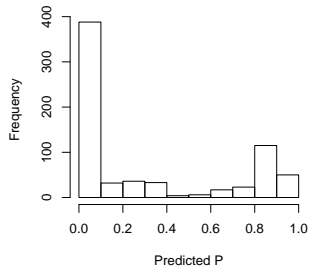
ROC SVM-Radial – Val



Hist. of P – SVM-Radial – Dev



Hist. of P – SVM-Radial – Val



In the first stage we will identify files that should clearly be inspected at the beginning of stage 2.

These inspections generate data.

This is a chance to improve the initial classification for the remaining files and identify additional covariates.

The model should be periodically reestimated.

Should the information value of new data be considered in identifying files for inspection?

A Decision-Theoretic Approach

Suppose that the probabilities p_i are available. There is a tradeoff between the cost of inspecting a file and the cost of missing an HE. Let c_t be the cost of inspection. The cost of classifying any file for inspection is then c_t .

There are subsequent additional costs associated with HEs, but these are not being minimized.

The cost of classifying a non-HE file as non-HE is zero.

The cost of classifying an HE file as non-HE is c_m

Classification Losses

	classed HE	classed non HE
really HE	c_t	c_m
not HE	c_t	0

The Decision Rule

The loss from classifying the i^{th} observation with associated probability p_i as an HE is $p_i c_t + (1 - p_i) c_t = c_t$. The loss from classifying it as non HE is $p_i c_m$.

Decision rule: classify file i as a possible HE if $p_i > c_t / c_m$.

This rule makes sense. If $c_t = 0$, so testing is free, test everything.

If $c_t > c_m$, so testing costs more than missing an HE, test nothing

...

What are the costs?

c_t is a marginal cost. It is exactly the cost of inspecting a file in enough detail to determine whether an HE has occurred.

c_m is more difficult to tie down.

From one point of view the appropriate cost is the financial harm from the HE, since this is a cost that will be mitigated, but will not be mitigated if the misclassification stands.

The COs focus on “financial injury to the borrower or the mortgagee” and requires “reimbursing or otherwise appropriately remediating borrowers for impermissible or excessive penalties, fees, or expenses, or for other financial injury ...”

What are the costs?

c_m is a transfer. In public economics, transfers of $X\$$ from party a to party b are valued by $w_b X\$ - w_a X\$$, where w_a and w_b are weights assigned by society (a judge?, an agreement?, a legislature?, a CO?)

If $w_a = w_b$ the transfer has no value.

Party a consists of shareholders and customers of the mortgage servicer and party b consists of the foreclosee (with HE).

Setting c_m equal to the likely amount of the transfer would be conservative in the sense of probably overstating the social cost of missing an HE by setting $w_a = 0$.

What are the costs?

The cost of inspection will vary with the completeness of the file, but it involves manual review with a long checklist. An average of 1200\$ is a reasonable estimate.

Fee errors are usually small. Other monetary remedies are still under discussion, but 3000\$ may be considered appropriate for a group of harmful exceptions, with an amount of 6000\$ for a rarer group of exceptions.

Suppose 3000\$ is an average. Then $c_t/c_m \approx 0.4$. Few files will have to be inspected.

Robustness?

Costs: American Banker article (quotes 11/1/12)

... the cost of running the reviews has spiraled out of all proportion to their potential benefits.

Bankruptcy filings by ResCap [a former GMAC servicer] ... state that the company will pay consultant PricewaterhouseCoopers \$12,500 to review each of 20,000 loans for a total cost of \$250M dollars. Yet ResCap expects to pay only \$35 million to \$60 million to harmed homeowners.

...the OCC has offered no reason not to use ResCap's filings as a proxy for the costs of its peers.

Average cost is much higher than marginal cost!

"The cost of the review for banks is not among the OCC's concerns," Deputy Comptroller for Large Banks Morris Morgan wrote in response to emailed questions.

"The OCC has two primary objectives," he wrote. "One is to determine what was broke and to fix it. The second one is to ensure eligible borrowers receive a fair and impartial review ... Servicers will need to bear the necessary costs."

Consumer advocates have blasted the reviews as lacking in independence.

Independence has been controversial in the foreclosure reviews since their start. The regulators gave banks the responsibility of selecting independent consultants to review the foreclosures [subject to OCC approval].

The complaint is that the banks are involved in providing and interpreting their data.

Isn't this inevitable and even reasonable?

Updated Preliminary Results

Based on a sample likely to have more exceptions than the population - including all SCRA, most bankruptcies, most complaints:

Harm (provisionally) falls into High/Medium/Low. High extremely rare; Medium very rare, Low perhaps 7% in this risky sample. Most H/M associated w/ SCRA or bankruptcy. Others w/ loan modifications. Have found all (?) SCRA, most (?) bankruptcy. Going forward?

What are loan modifications?

Often a restructuring is preferred to a foreclosure - foreclosures are costly. Some issues w/ securitization.

Treasury under TARP started a program of loan modifications w/ incentives for servicers: HAMP. Started in Feb 2009.

HAMP servicer guidelines now run 214 pages. A new program, implemented quickly by servicers.

Many exceptions and perhaps most Low harms are associated with HAMP errors.

Where are we Now?

We are still advertising for more complaints to review!

Advertisement run 11/18/2012, Press-Enterprise [Newspaper],
Riverside CA

Lists 27 mortgage servicers saying” Was your home in the
FORECLOSURE PROCESS in 2009-2010 and was your mortgage
loan serviced by one of the companies listed?

If so, you can request a review, and (in bold caps) *”If an error is
found,you could receive a payment...up to \$ 125,000 plus equity.”*

Servicers are required to investigate complaints ...

Dodd-Frank (HR 4173 848 pages) establishes the CFPB. Enabling legislation (sec 1011, p. 589) "There is established in the Federal Reserve System, an independent bureau to be known as the Bureau of Consumer Financial Protection, which shall regulate the offering and provision of consumer financial products or services under the Federal consumer financial laws."

Not just existing rules: "implementing the Federal consumer financial laws through rules, orders, guidance, interpretations, statements of policy, examinations, and enforcement actions;"

A specific task of the CFPB to ensure that mortgages become easier and safer for consumers. To that end CFPB released Notices of Proposed Rulemaking.

"the Bureau is now (8/23/12)proposing a rule with new, combined forms: Integrated Mortgage Disclosures Under the Real Estate Settlement Procedures Act (Regulation X) and the Truth In Lending Act (Regulation Z)"

These new forms with instructions run to 343 pages in the Federal Register. Simplicity?

Progress?

By comparison, The 1864 Banking Act, establishing the US Banking system, was 29 pages.

The Federal Reserve Act 1913 was 32 pages.

The Banking Act that separated investment and commercial banking after the Wall Street Crash (Glass-Steagall) was 37 pages.

Are we improving regulation?

Are there lessons for Turkey's young and expanding mortgage market? Yes.

- Banks, regulators, and consumer advocates should agree on a transparent, simple, and efficient system for foreclosures.
- Foreclosures should be rare (this is in everyone's interest) but when they occur it should be quickly with minimal losses and following a known process.
- Simplicity is crucial. When regulations run to thousands of pages, inconsistencies, errors and legal disputes are inevitable.