

Predicting Strategic Defaults on US Mortgage portfolios

For Credit Scoring and Credit Control XII Conference

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Agenda



- » **Defining Mortgage Strategic Default**
- » Value and Use Cases
- » Predicting Mortgage Strategic Default
 - » Modeling Results
 - » Profiling and Insights

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Challenges Surrounding Strategic Default



- » Traditional risk scores were not designed to capture strategic defaulters and their behaviour.
- » Strategic default is a new type of consumer credit behaviour that lenders have less experience in treating.
- » To completely identify strategic default requires full information about consumer's income, assets and debts, which can be difficult to achieve.

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Defining Strategic Default



- » Conceptually:
 - » A consumer who can afford to continue paying their mortgage, but decides to default in response to (or in anticipation of) reaching negative home equity
- » More concretely:
 - » Mortgage delinquency (90+ days past due)
 - » Staying current on non-mortgage-related tradelines
 - » Loan-to-Value has exceeded some threshold
 - » (for example, 90% or 100%)

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Value of Predicting Strategic Default Behavior



Current

Distressed

Charged-off

- Act early to prevent delinquency
- Better understand portfolio valuation – adding risk of strategic defaulting to traditional risk
- Work with consumer to reverse course and continue paying possibly through modified terms
- Create collection segmentation strategies to be more effective while constrained by limited resources
- Retrospective analysis and insight

Consumer Education: Emphasize importance of maintenance of good credit and obligation to fulfill terms of payment

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Use Case



- » Current: Separate goods from strategic defaulters
- » Distressed (30+ days delinquent): Separate those with affordability issues from strategic defaulters

FICO 8 Mortgage Score										
Strategic Default Score	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Most likely SD	Likely to have affordability issues; May need to consider strategic default			Likely to strategically default						
...				Intermediate strategic default risk						
...				Least likely to default, whether strategically or otherwise						
...										
Least likely SD										

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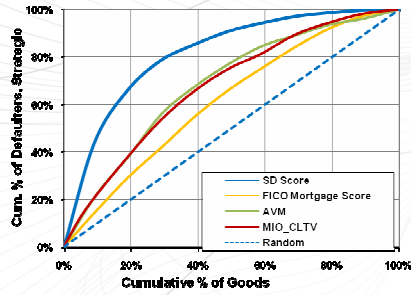
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How well can we predict Strategic Default?



Current

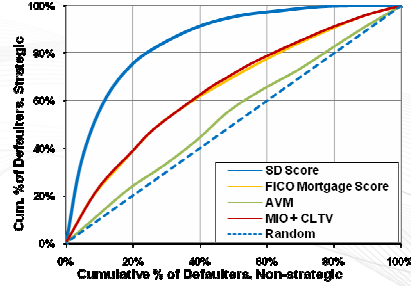
(no sign of delinquency)



Strategic defaulters vs. Goods

Distressed

(30+ days delinq / not charged off)



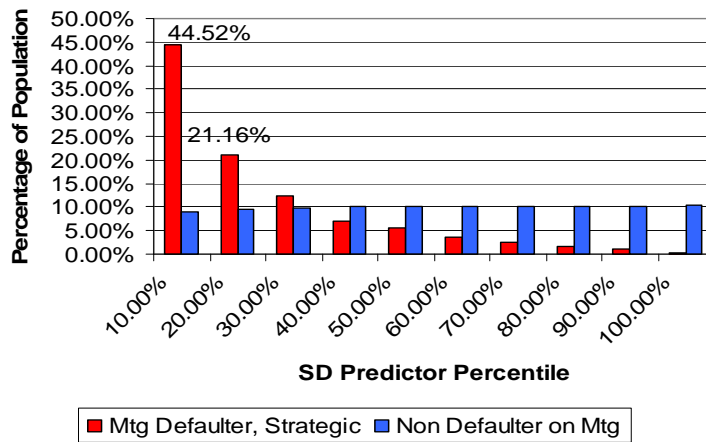
Strategic vs Non-strategic defaulters

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Decision Area I and Our Solution: Modeling Result

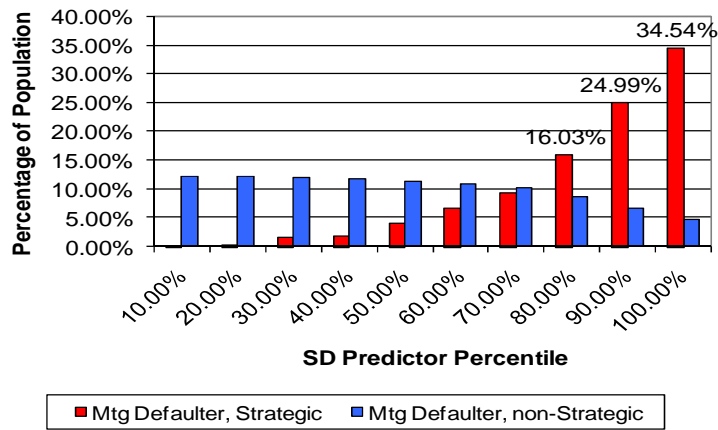


SD Predictor Distribution (on Mtg Clean Population at Oct 2008)



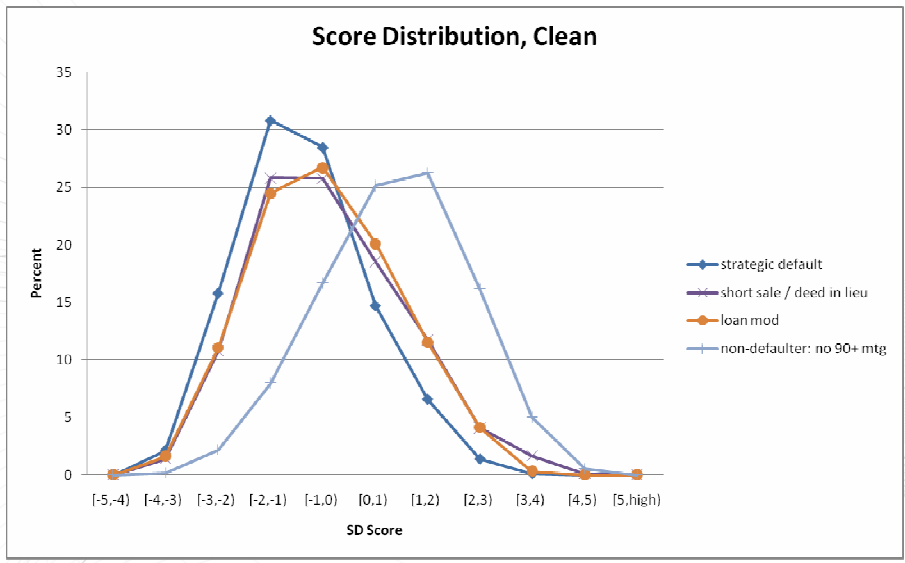
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SD Predictor Distribution
(on Mtg 30-180d Delinq Population at Oct 2008)



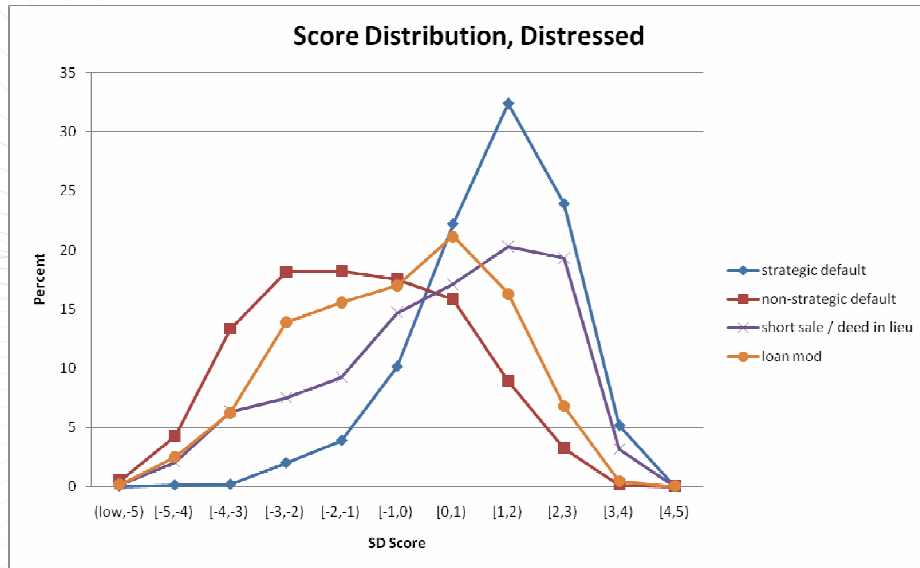
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Current:
Large Percentage of Loan Mod, Short Sale/Deed in Lieu Have High Strategic Default Scores



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Distressed: Large Percentage of Short Sale/Deed in Lieu Have High Strategic Default Scores



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Profiling of Strategic Defaulters



» Who are the Strategic Defaulters?

Compared to those who go delinquent across-the-board, strategic defaulters have:

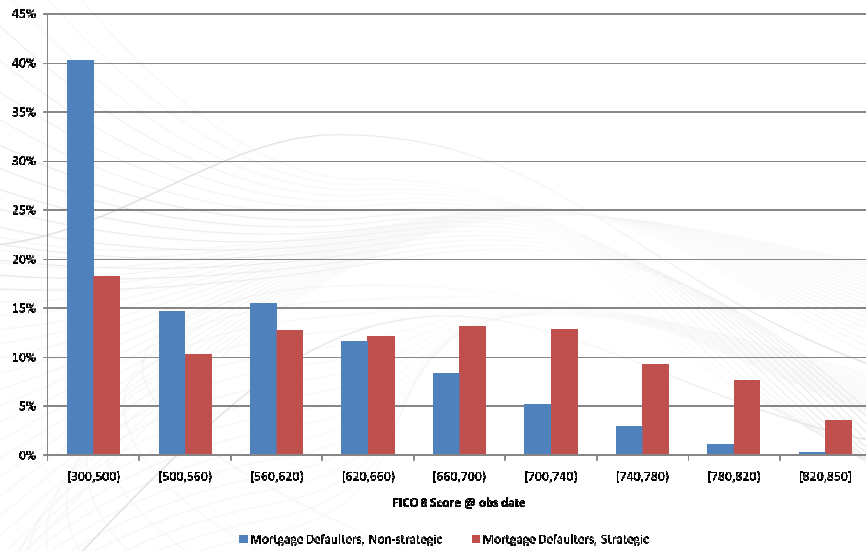
- » Better FICO score (good previous credit history)
- » Lower utilization, less over-limit on credit card (better credit management)
- » Less retail balance (spend money carefully)
- » Shorter length of residence in the property (less attachment)

» Relationship between CLTV and P(SD)

- » Varies by geography; e.g. CA, NV, FL, AZ
- » Varies judicial vs non judicial states

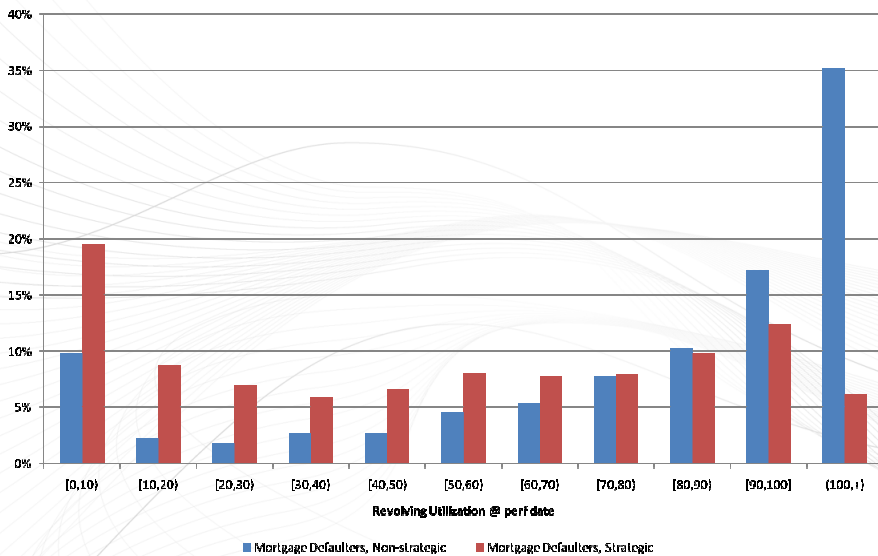
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Profiling of Strategic Defaulters – FICO 8 Score



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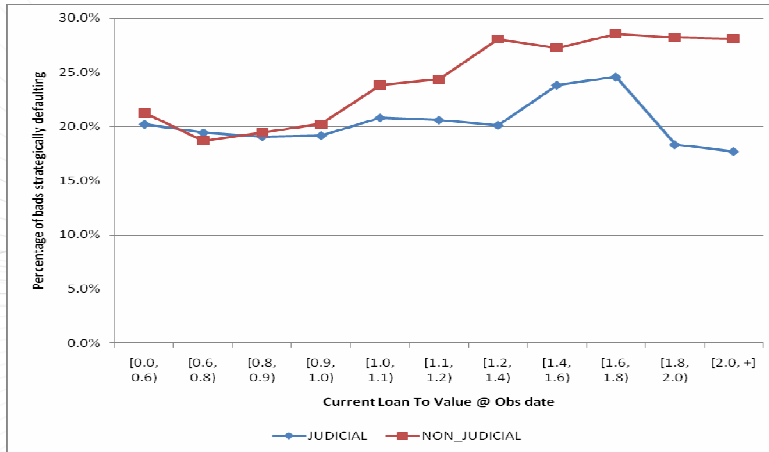
Profiling of Strategic Defaulters – Utilization



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Relation between CLTV and P(SD) Judicial vs. Non-Judicial Foreclosure States

FICO™

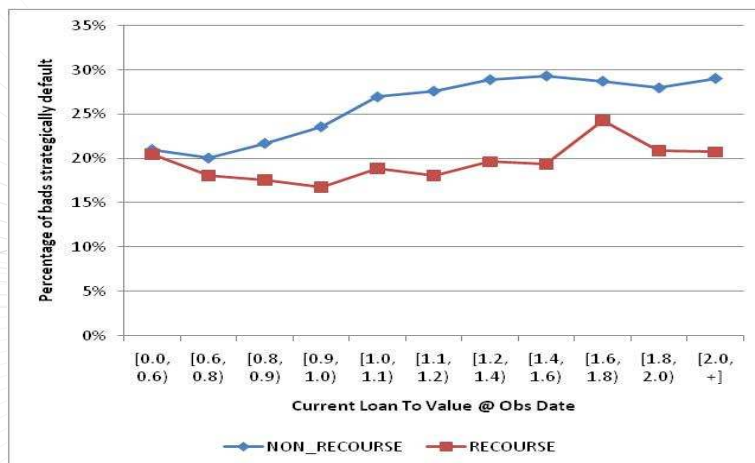


- Borrowers in non-judicial states exhibit higher overall strategic default risk
- Borrowers in non-judicial foreclosure states exhibit higher sensitivity to CLTV

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Relation between CLTV and P(SD) Recourse vs. Non-recourse States

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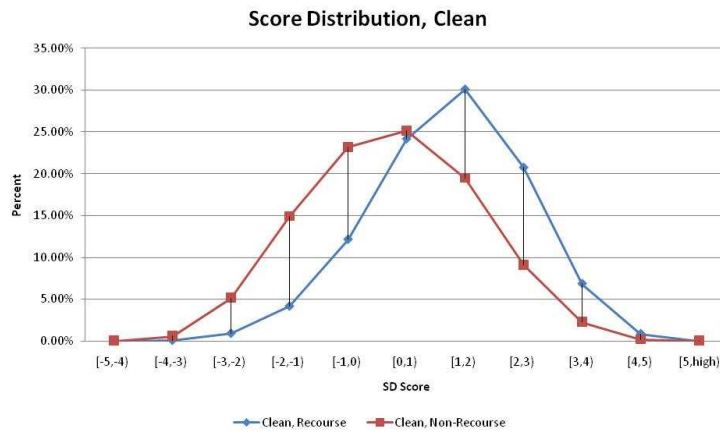


- Borrowers in non-recourse states exhibit higher overall strategic default risk
- Borrowers in non-recourse states exhibit higher sensitivity to CLTV

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Recourse vs. Non-recourse Score Distribution

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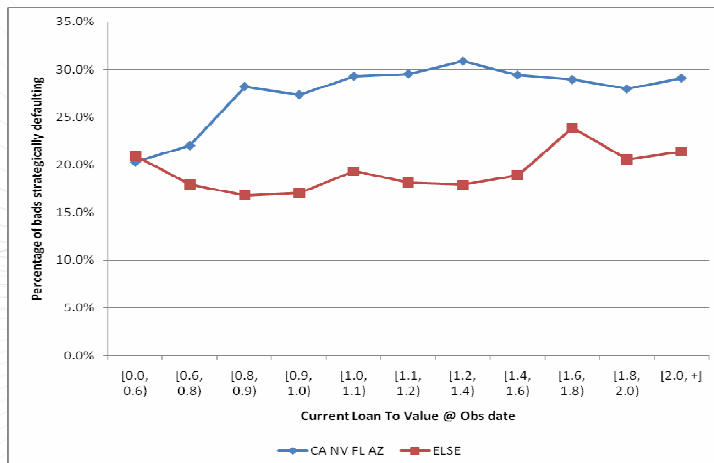


- Borrowers in the recourse states are less likely to be strategic defaulters

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Relation between CLTV and P(SD) Risky vs. Non-risky States

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- "Risky states" defined as CA, NV, FL, AZ
- Borrowers in risky states exhibit higher overall strategic default risk

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Key Lessons



THANK YOU

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