

**Protecting Your Company:
Technology for Fair Lending, Fraud Detection and Other Purposes**

**Leveraging Analytics
Automated Fraud & Compliance Systems**

Roger Fendelman, Esq.

Vice President—Compliance

Interthinx



MBA Legal Issues and Mortgage Technology

Coronado, CA

November 30, 2007

Vulnerabilities

➤ Fraud

- Borrower
- Loan Participants (brokers, appraisers)
- Property

➤ Compliance

- APR/Finance Charge Calculations
- Anti-Predatory Lending Laws
- GSE Guidelines
- State Lending Laws

Risks

➤ Fraud

- EPD's
- Foreclosures
- Loss of Collateral
- Buybacks

➤ Compliance

- Borrower Reimbursements
- Administrative Fines/Penalties
- Lawsuits
- Buybacks

➤ *The past...*

- Limited focus on fraud and compliance issues

➤ *The Present...*

- Losses from fraud and compliance mistakes are staggering

➤ *The future...*

- Investors and regulators tighten standards and require loan-level fraud and compliance reviews

PRESS RELEASE

XYZ Mortgage Lender today announced that it will exit the wholesale mortgage business. We will be fulfilling all of our contractual obligations to you and your customers. You will receive formal, written notification of the termination of our Wholesale Broker Agreement by end of day Friday, October 26 with an effective termination date of November 25, 2007. During this transition period, please be assured that our sales and fulfillment teams will continue to provide you with the exceptional level of service you've come to expect. If you have any questions during this time, please contact your account executive.

We know what *can* be done with automated fraud and compliance tools, but...
What can't be done *without* them?

➤ **Problem Prevention:**

- ✓ Review **every** application for fraud and compliance issues
- ✓ Ensure unbiased analysis with parameters pre-determined by management
- ✓ ID problems prior to funding
- ❖ Use compiled loan data to create powerful analytics that identify patterns and problems to prevent future occurrences

Same Thing Happens Every Day!

Use of Analytics to Prevent Fraud

Appraisal Fraud - Example

Demand/Supply	<input type="checkbox"/> Shortage	<input checked="" type="checkbox"/> In balance	<input type="checkbox"/> Over Supply	Vacant (0-5%)	130	25	VACANT	0
Marketing time	<input checked="" type="checkbox"/> Under 3 Mos.	<input type="checkbox"/> 3-6 mos.	<input type="checkbox"/> Over 6 Mos.	Vacant (over 5%)				

Notes: Race and the racial composition of the neighborhood are not appraisal factors.

Neighborhood boundaries and characteristics: **THE SUBJECT NEIGHBORHOOD IS IN A WELL DEVELOPED AREA CONSISTING OF A MIXTURE OF STYLES AND AGES OF SINGLE FAMILY HOMES.**

Factors that affect the marketability of the properties in the neighborhood (proximity to employment and amenities, employment stability, appeal to market, etc.): **THE SUBJECT IS LOCATED NORTH OF SCHOOLCRAFT & WEST OF EVERGREEN IN CLOSE PROXIMITY TO SCHOOLS,**



Economically Stable



Open Floorplan



➤ To determine whether a flip is occurring, an underwriter must research:

- What is the purpose of the loan?
- Who are the parties involved?
- Do any other the parties have a conflict of interest?
- What are the prior sale dates of the property?
- How quickly did sales occur?
 - How many times?
- How did the sales price change?
- What are the market conditions in the area surrounding the subject property?
- How many other loans do we have:
 - With this borrower?
 - Involving this seller/appraiser/broker, etc.?
 - In this neighborhood?
 - o Who was involved?
 - o What was the value?
- Are any of the parties on:
 - Internal E-Lists/WatchLists?
 - External E-Lists/WatchLists?
- Is the Appraiser Licensed?

AUTOMATED FRAUD SOLUTIONS CAN DO ALL THIS IS LESS THAN 20 SECONDS.

Interthinx FraudGuard Analytics-Overview:

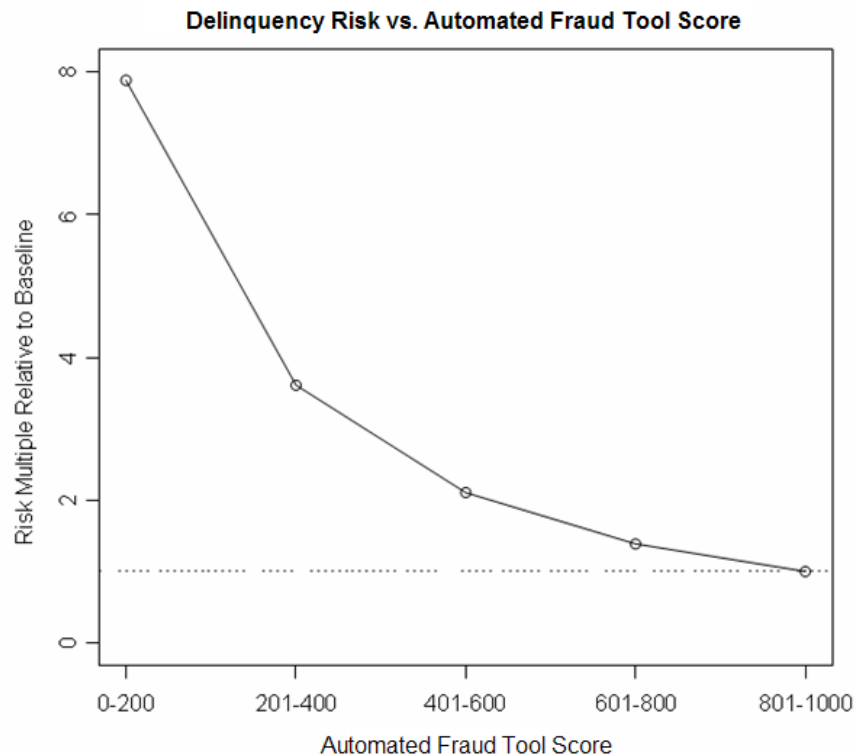
- Review of 2.3 million loans from 2005–2006
- All loans contain at least 9 months of performance history

*Loan performance matching through exclusive partnership with TransUnion

Using this information, the following analysis emerged →

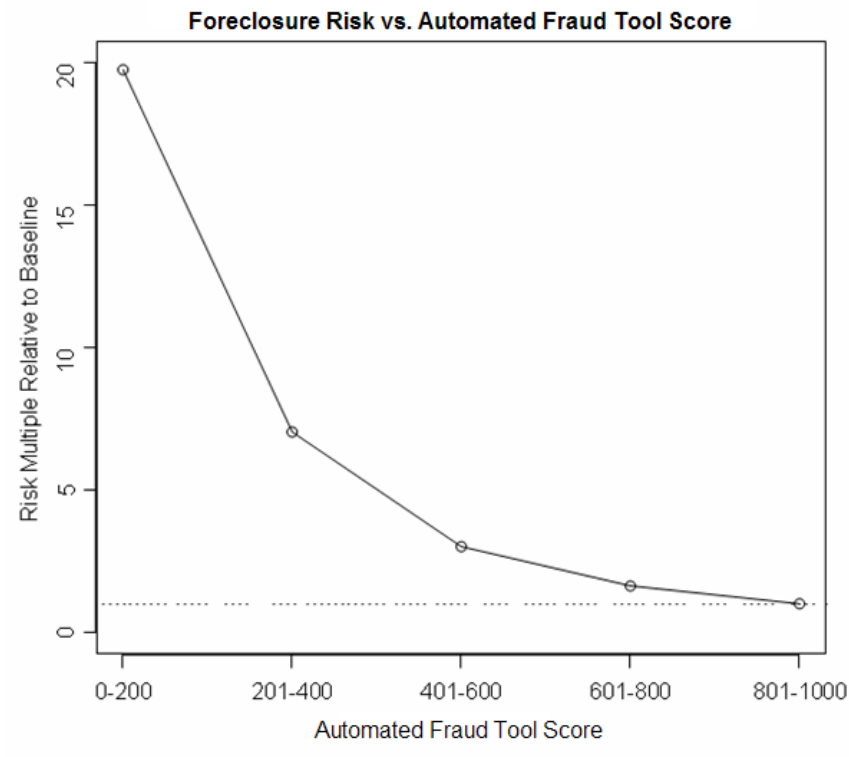
1. DELINQUENCY

- Overall market delinquency rates at **2.87%**, up 41% from 2005 (Fitch)
- Delinquency risk is **8** times greater when Automated Fraud Tool scores < 200.



2. FORECLOSURE

- Cumulative losses in the 2006 subprime RMBS vintage estimated to be **6-8%** (Fitch)
- Foreclosure risk is **20 times greater** when Automated Fraud Tool scores **< 200**.



Scoring Factors That Influenced Automated Fraud Tool Risk Score Include:

Borrower

- Identity
- Address Validation
- Phone
- Employment
- Straw Buyer
- Occupancy
- Income
- Silent Second
- Loan Churning
- Conflict of Interest
- Watch List / Exclusionary List

Participants

- Conflict of Interest
- Appraiser License Validation
- Watch List / Exclusionary List
- Client Participant History
- Global Participant History

Property

- Valuation
- Flipping
- Title/Ownership
- Address Validation
- Neighborhood Analysis
- Title Chain

Use of Analytics to Reduce Compliance Errors

To determine whether a loan is compliant, an underwriter must research:

- What is the purpose of the loan?
- Where is the property located?
- Are there rate/fee thresholds from anti-predatory lending laws?
- What fees are included?
- What constitutes the “total loan amount?”
- Are there different versions of the law based on date?
- How is YSP treated?
- Are there exclusions for BFDP’s?
- Are prepay penalties included?
- Is the APR accurate?
- Is the finance charge accurate?
- Which fees are prepaids and which aren’t?
- Are fees from affiliates accounted for?
- Were the payment streams calculated correctly?
- Are there special requirements like suitability or RTNB?
- Is the prepayment penalty legal?
- Is the max interest rate legal?
- Are any of the fees prohibited?
- Are the late fees too restrictive?

AUTOMATED COMPLIANCE SOLUTIONS CAN DO ALL THIS IN LESS THAN 10 SECONDS.

Factors Considered in the Automated Regulatory Compliance Review Include:

Loan Characteristics

- Property Address
- Important Dates
- Occupancy
- Lien Position
- Purpose
- Loan Amount
- Income

Product Type

- Rate
- Fees
- Rate Adjustments
- Prepayment Penalties
- Yield Spread
- Neg Am
- Fixed vs. Adjustable

Jurisdiction

- Federal Law
- TILA/HOEPA
- State Law
- Anti-Predatory
- Prepay
- Usury
- Restricted Fees
- Late Fees
- Investor Guidelines
- GSE's
- Licenses

6 Month Analysis of Automated Regulatory Compliance Data For: Regional Lender

- **Lender Using System Since:** 2005
- **Time Period Analyzed:** April 2007 – September 2007
- **Applications:** 3696
- **37 applications (0.01%) had serious TILA violations**
 - » Finance charge mistakes total **\$434,000**
- **19 applications (0.005%) failed the FNMA 5% fees test**
 - » Over **\$2.8 million**
- **4 applications (0.002%) failed various state anti-predatory lending law tests (CA, GA and SC)**
 - » Over **\$325,000**
- **9 applications (0.002%) were submitted multiple times**
 - » 19 apps failed an anti-predatory lending test at least 1 time
 - » 4 apps failed at least 2 times
 - » 3 apps failed at least 3 times
 - » 2 apps failed at least 5 times
- **Average per-loan cost of automated compliance reviews:** \$5-\$10
 - Depends on service provider

Analysis

- Cost of Solution Over 6-Month Period: \$40,000 (approx)
- TIL Reimbursement Prevention: \$434,000
- Predatory Loan Prevention: \$2,800,000
- **Net Loss Prevention: \$3,234,000**
- Projected Profit: 3696 applications x \$2500 (ave.) = **\$9,240,000**
- **Loss Mitigation: Analytics saved lender from losing 1/3 of its profits**

Question: Why weren't there MORE violations?

Answer: Analytics from automated systems corrected systemic problems

Additional Uses of Data:

- **Pinpoint Compliance “Hot Spots”**
 - » States, counties, cities with high concentrations of predatory lending violations

- **Trend compliance mistakes by**
 - Branch
 - Business group (retail, wholesale, etc.)
 - Employee

- **Look for signs of employee fraud**
 - » Ex: how many times do they resubmit applications into the system?

- **Satisfy examiners and investors**
 - » Place compliance worksheets in permanent loan file
 - » Demonstrate system operation and functions

- **Reduce “last-minute fallout” (for lack of a better term)**
 - » Applications that must be denied just prior to close because anti-predatory lending laws make them unaffordable to the lender

Draw conclusions from large mass of data

- Instead of seeing only a bad appraisal or understated APR, analytics can predict additional risk factors that run across several loan files

Identify Fraud and Compliance Trends:

- Branch problems
- Employee dishonesty
- Location issues
 - Cities, counties, states
- Bad Actors – appraisers, borrowers, brokers
- Loan Types – purchase, refi
- Product Types – exotics, govvy's
- Property Problems

BOTTOM LINE:

Fraud and compliance exposure is reduced with analytics from automated solutions

Roger Fendelman, Esq.

VP—Compliance

Interthinx, Inc.

an ISO Company

rfendelman@interthinx.com

800.333.4510 ext. 2892