

Improving Fraud Detection Rates with Data Analysis

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Rapid Reporting, The Verification
Company

Getting Started

- What do we analyze
- Market Conditions
- What are the obstacles
- Fraud Data
- Reporting
- Examples
- Identity Theft Data

Analyze this....

- ❑ Market Data
- ❑ External Data – Investors, MI companies, Agencies
- ❑ Borrower demographics and appetite
- ❑ Internal Data
 - First payment defaults
 - Repurchase requests
 - Early payment defaults
 - Overall performance data by product, region, branch, customer
 - Broker/Retail loans
 - Programs and Doc Types
 - Fraud loans
 - Foreclosed loans
 - Pre-Funding reviews

Obstacles to analyzing your data

- ❑ Resources – qualified personnel able to analyze the data and report the results
- ❑ Cost – Can you afford outsourcing or not analyzing at all
- ❑ Data Integrity
 - LOS that has morphed over time
 - Missing or incomplete data
 - Manual input; misspelled, duplicated data spelled differently, etc.
 - Different platforms across the enterprise
- ❑ Outdated applications
- ❑ Connectivity – they need to talk
- ❑ Lack of data – purged records
- ❑ Lack of infrastructure – no data warehousing or inconsistent warehousing
- ❑ Naming conventions
- ❑ Outsourcing can provide solutions to these obstacles

First Steps

- ❑ Identify where you currently are and grade yourself, your customers, your employees
- ❑ Compile overall performance data
 - ❑ Look at your programs, regions, branches, account execs, underwriters, brokers
 - ❑ Determine the appropriate benchmark performance
 - ❑ Excellent out-sourcing opportunity with many quality vendors
 - ❑ Define the difference between a problem and a trend
- ❑ If you sell all your loans, ask your investor for reports on your performance or access to their data warehouse under your seller id.
- ❑ Compile fraud, default and repurchase data
 - ❑ Where are the red flags at origination
 - ❑ What are the common factors or trends
 - ❑ Where they are the result of program criteria

Market 2007....MBA forecast

- GDP growth average 3%
- Fixed rate expected to rise to 6.5% by eoy
- Existing home sales decline 7%
- New home sales decline 8%
 - Both projected to rebound 2008
 - Existing and new home price appreciation will slow significantly
- Purchase mortgages reach \$1.33T
- Refinance mortgages reach \$1.06T
- Total residential mortgage production down 5% to \$2.39T continuing to decline in 2008 and 2009

Fraud Forecast 2007

- Fraud will continue to grow.....
- Investor flipping will continue
 - Straw Buyers
- Title and Closing fraud will continue to grow
- Shades of grey
- Stated income will continue to dominate the loan market
- Identity issues will continue slow emergence layered under other misrepresentations
- Cloudy with possible thunderstorms
- Same stuff different day

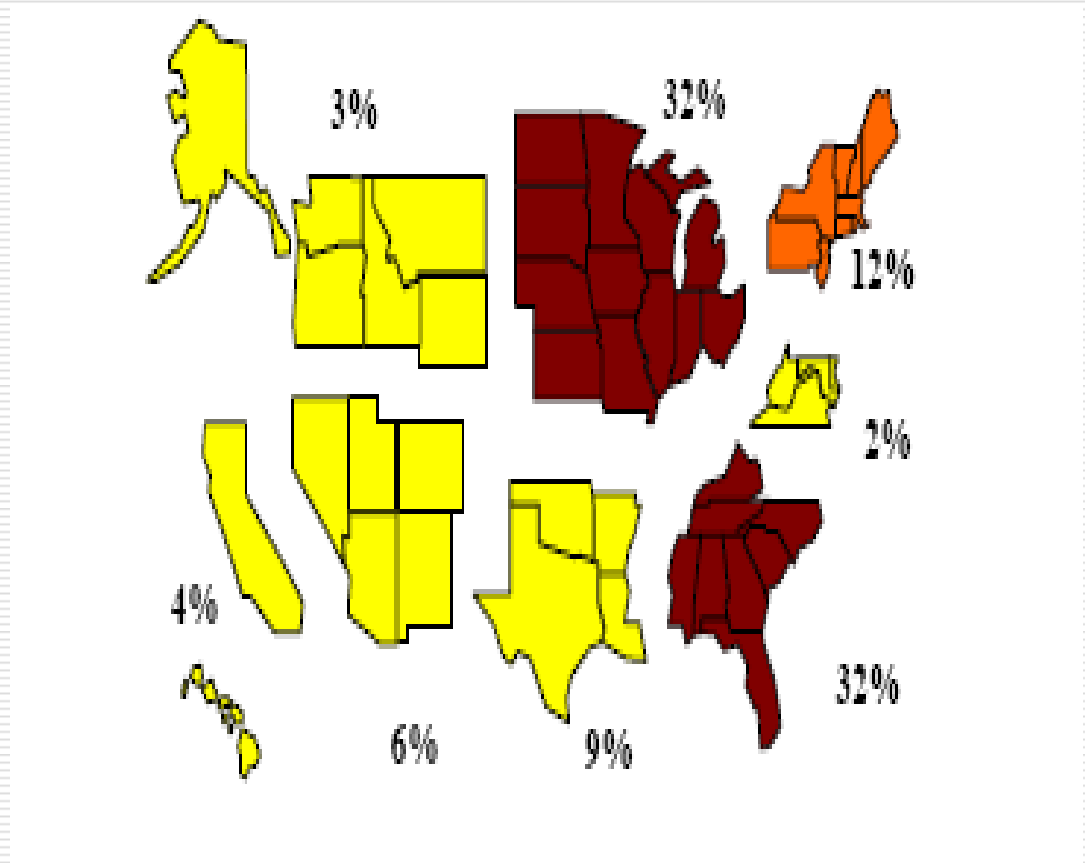
What does the fraud data tell us?

Fannie Mae Mortgage Fraud Update January 2007

- Loans originated in 2005-2006, as of reviews completed December 2006
 - 24% Income misrepresentation
 - 16% property
 - 15% Assets
 - 12% Occupancy
 - 7% SSN
 - 26% Credit, SSN and Liabilities are the most common grouping for multiple misrepresentations

Regional FNMA Fraud

- ❑ Midwest and Southeast are drivers of fraud
- ❑ Northeast secondary driver
- ❑ Implement more pre-funding screening in Midwest and Southeast



Zip Code FNMA Fraud

1. 462 - Indianapolis, IN	Property & Assets
2. 381 - Memphis, TN	Property, Income & Assets
3. 300 - Decatur, GA	Income, Credit & Property
4. 303 - Atlanta, GA	Credit & Property
5. 482 - Detroit, MI	Income, Credit & Property
6. 330 - Pompano Beach, FL	Income & Credit
7. 460 - Westfield, IN	Property & Assets
8. 601 - Elgin, IL	Credit & Income
9. 770 - Houston, TX	Property, Credit & Income
10. 554 - Minneapolis, MN	Credit

BasePoint Analytics Top 10 Fraud Flags – Frank McKenna

- 16,000 EPD loans red flags present at origination
 - Program risk (stated, 100% Itv, non-prime)
 - Credit profile not matching program (high credit score, non-prime product)
 - Geographic risk
 - Broker risk
 - Appraisal didn't match the area or neighborhood
 - Same employer for multiple apps
 - Income too high for area
 - Assets – did not match bureau characteristics
 - Non arm's length – borrower works for broker
 - Unreasonable commute

Example Solutions Using the Data

- Appraisal didn't match area or neighborhood
 - Pull AVMs or Property Data reports
- Same employer multiple apps
 - Build database and queries for employers to run against the pipeline
 - Match to applications, brokers, borrowers
- Income too high for area
 - Verify income with the IRS
 - Set tolerances
- Unreasonable commute
 - You've got to be kidding me.....
- Geographic Risk
 - Implement pre-funding procedures for those areas
- Non Arm's Length – broker employee
 - Restrictions
 - Verifications

Scenarios for ongoing analysis....

- Changes in your applications
 - From 30% stated income to 70% or 80%
 - Occupancy has changed
 - Product mix changed from 80% A and Alt A to 75% Non-Prime
- Increased defaults and repurchase activity
- First payment defaults (get rid of the noise)
- Monitor external fraud activity
 - Pay attention and enhance pre-funding sampling and activities
- Best to be pro-active and monitor as the change occurs rather than after

What do you do with the data?

- Rate your performance
 - Do you have little or no appetite for risk
 - Can you stand more risk
- Determine any weaknesses in your programs, policies and processes
 - Are you adversely selected by the broker community
 - Monitor new lending areas, new personnel
 - Do you carry a disproportionate amount of inherent risk
- Determine which customers are true partners
 - Where is the majority of your broker risk; with the broker, appraiser or account executive
 - Possible incentive program
 - Define benchmark requirements for brokers regarding performance and don't be afraid to eliminate non-performers
 - Data supports that brokers who submit higher number of stated loans were more likely to have bad performance and be involved with fraud

Big Bank Lending Inc.

Broker Risk Assessment Summary Report

Broker Profile

Broker Name(ID)		Origination Doc Code	
Broker Address	2121 Main St. Anytown, USA	Approve Date	11/25/1998
Account Executive	Honest, Bobby	Inactive Date	
Broker Contact(Owner)	JOHN LOAN((Owner))	Broker Status	3
Branch Name(ID)	Swingtown	Priority Status	E

Pre-Funding Reviews (All Products)

Year	Yes Misrep	%	No Misrep	%	Inconclusive Misrep	%	Total Reviewed	Funded Inconclusive	%
1999	0	0.00%	5	100.00%	0	0.00%	5	0	0.00
2000	0	0.00%	4	100.00%	0	0.00%	4	0	0.00
2001	0	0.00%	5	100.00%	0	0.00%	5	0	0.00
2002	1	12.50%	6	75.00%	1	12.50%	8	0	0.00%
2003	0	0.00%	6	66.67%	3	33.33%	9	1	33.33%
2004	3	6.25%	39	81.25%	6	12.50%	48	3	50.00%
2005	8	36.36%	7	31.82%	7	31.82%	22	0	0.00%
2006	3	18.75%	8	50.00%	5	31.25%	16	5	100.00%
Total	15	12.82%	80	68.38%	22	18.80%	117	9	40.91%

Problem Loans, Repurchases, Unsaleable, PC Referrals(All Products)

Year	Loss Amount	Pending	Pending Disposition	Repurchased	Rescinded	Resolved w/o Repurchase	Unsaleable	Total
2001	\$0.00	0	0	0	0	1	0	1
2002	\$22,762.97	0	0	1	0	0	0	1
2003	\$58,697.36	0	0	6	0	0	0	6
2004	\$0.00	0	0	2	0	0	0	2
2005	\$0.00	0	0	0	0	0	1	1
Total	\$81,460.33	0	0	9	0	1	1	11

EPDs - Loans 90 days DLQ in 12 months

Year	Pending Review	Misrepresentation	PaidOff	Inconclusive	Servicing	SubsequentEvent	Acceptable/Unknown	Total
2001	0	0	0	0	0	1	0	1
2003	0	4	0	0	0	2	1	7
2004	3	1	0	1	0	2	0	7
2005	7	0	0	0	0	0	0	7
Total	10	5	0	1	0	5	1	22

Severe Delinquencies

Product	1998			1999			2000			2001			2002			2003			2004			2005			2006		
	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg	Fund	Delq	Pcntg
EQ Line	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Fixed 2nd	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.00	0	0	0.00	3	0	0.00	12	2	16.67	11	0	0.00
Non-Prime	0	0	0.00	1	0	0.00	0	0	0.00	2	0	0.00	1	0	0.00	5	3	60.00	6	0	0.00	5	0	0.00	5	0	0.00
Alt A	0	0	0.00	0	0	0.00	3	0	0.00	7	0	0.00	6	2	33.33	8	1	12.50	5	0	0.00	27	5	18.52	12	0	0.00
Alt A Plus	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	8	2	25.00	24	4	16.67	12	2	16.67	0	0	0.00
Non Jumbo A	0	0	0.00	3	0	0.00	3	0	0.00	17	0	0.00	12	2	16.67	24	1	4.17	14	0	0.00	23	0	0.00	14	0	0.00
Non Jumbo Plus	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00	0	0	0.00
Jumbo	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00	4	0	0.00
JumboExp	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Jumbo Plus	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	8	4	50.00	8	3	37.50	2	0	0.00	0	0	0.00
107	0	0	0.00	0	0	0.00	0	0	0.00	10	1	10.00	11	4	36.36	16	0	0.00	3	0	0.00	4	0	0.00	0	0	0.00
107 Plus	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	6	3	50.00	13	0	0.00	6	0	0.00
Pay Option Arm	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.00	2	0	0.00
Total	0	0	0.00	4	0	0.00	6	0	0.00	37	1	2.70	34	8	23.53	74	11	14.86	79	10	12.66	105	9	8.57	54	0	0.00

Standard Fraud Drivers

- ❑ Undisclosed liabilities – (none on FNMA)
- ❑ Occupancy – (none on FNMA)
- ❑ Employment/Income – (3rd driver FNMA 1/07)
- ❑ Assets – (4th driver FNMA 1/07)
- ❑ Identity/Credit – (tied 1st driver FNMA 1/07)
- ❑ Transaction – (none on FNMA)
- ❑ Property – (tied 1st driver FNMA 1/07)
 - Value
 - Comps
 - Subject
- ❑ You also need to rate multiple misrepresentations

Your fraud data reveals

- The following zip codes have a higher propensity for specific fraud
 - 770 Houston, TX, 300 Decatur, GA, 482 Detroit, MI, are driving repurchase requests for value, income and credit misrepresentation
 - Your report to senior management should include the following details and recommended action steps
- You should report facts & figures relative to the size of the findings
 - If these repurchase loans are a small population, your report will be less detailed with minimal recommendations
 - Don't be Chicken Little....
 - On the other hand specific fraud to a specific area is usually considered a trend and worth reporting

Reporting the findings...zip code

- For discussion sake lets use a different scenario, loans in these areas represent 25% of your 2005 pipeline and 10% of the 2005 book is defaulting
- Issues are related to value, income and credit in Houston, Decatur and Detroit
 - Your reporting should include the program details
 - The percentage of loans in these areas, as well as loan level details
 - Transaction type, doc type, DTIs, credit scores
 - Any conclusions that can be drawn from loan level data
 - The reputational, legal, monetary and compliance risk
 - Recommendations for further analysis, pre-funding reviews or additional processing steps or forms necessary for mitigating the fraud risk
 - Recommendations for follow-up review

Another Example

□ Your data reveals

- First-Time homebuyers on New You loan program with debt ratios greater than 45% and credit scores less than 660 was 5 times more likely to go into default within 6 months of origination.
- These loans accounted for more than 40% of your 2005 book of New You loan program.
- Solution report the finding to management with recommendation to reduce DTI with credit scores less than 660.

Another example

- Stated Income
- Default rates for your stated income product across all products are 34% and this accounts for 70% of your portfolio
- Top reasons
 - Income level too high for area
 - Invalid CPA letters
 - 100% non-owner occupied for first time investors
- What to do
 - Define reasonable and stick to it
 - Give your underwriters tools to find reasonable
 - Verify filing status and schedules files with 4506T (maintains integrity of Stated Doc since you see no income)
 - Decrease LTV or limit the number of 100% loans for first time investors

Using Data to Fight Identity Theft

□ Sidebar

- An ID theft policy and process is required for CIP and FACTA
- It is so important to know your borrower

□ Enhances your customer service to your borrower

- They are grateful for notification of red flags regarding their identity or that you recognize the alert on their credit report

FNMA Identity Data –

January 2007 - 2005 & 2006 originations

□ Significant Patterns of SSN discrepancies

- Especially SSN not issued or issued prior to date of birth confirmed in the areas below
- First 3 digits of zip code and representative city
 - 554 – Minneapolis, MN
 - 601 – Elgin, IL
 - 770 – Houston, TX

2006 Identity Data Rapid Reporting

- ❑ 508,746 identities reviewed with DirectChek
- ❑ 366,280 or 72.1% escalated to be verified with SSA
- ❑ 21,977 No Match
- ❑ 1481 DeathMaster Match
- ❑ 23,458 or 6.4% of total orders submitted to the SSA were not who they said they were on the application

Utilize FNMA and RRVC stats to increase identity theft surveillance

- Build business rules around sections of the credit report or an identity report to verify identity
 - Verify identity when red flags exist regarding SSN
 - Verify identity when fraud alert is present
 - Verify identity when additional SSN is listed
 - Verify identity when DOB discrepancy
 - Verify identity when name discrepancies appear
- Be part of the problem or part of the solution
- Protecting the customers identity is our responsibility

Create Efficiency, Not Work

- ❑ We continually add processes or work to get around the answer or to make the grey area acceptable
- ❑ This is regardless of data analytics or automated systems or manual review
- ❑ Use the results of the data to surgically identify risk areas and promote processes around those
- ❑ Is this, in some part, the root cause of our problems
- ❑ To protect our financial markets you need to get the definitive answer
 - They do make the income they say
 - They are who they say they are
 - The property is valued at that level required for the loan
 - You are originating quality product with acceptable risk
- ❑ By getting the answer to the above items you have eliminated the majority of the fraud perpetrated against mortgage lenders

Thank you for your time

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