



Fannie Mae Quality Control Framework

April 2014



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EXECUTIVE SUMMARY



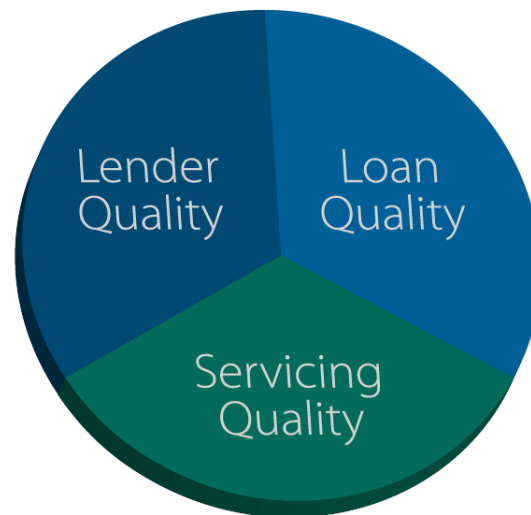
Executive Summary

Effective January 2013, Fannie Mae implemented its new Representation & Warranty framework, which provides lenders with more certainty and clarity around repurchase exposure and loan quality.

In conjunction with this change, Fannie Mae has enhanced its credit risk management processes by developing state of the art tools and analytics to help identify defective loans earlier, with the ultimate goal of preventing them from ever being delivered to Fannie Mae.

Fannie Mae's Credit Risk Management Framework

We have a comprehensive and proactive risk management approach to strengthen loan performance and reduce losses.



Our enhanced quality control efforts operate within our overarching risk framework that focuses on ensuring lender, loan, and servicing quality throughout the loan lifecycle.

Fannie Mae's Credit Risk Management Framework



- A comprehensive review of key functional areas and counterparty strength before approving a lender to conduct business with us
- Ongoing reviews of lender operations assess the effectiveness of lender's quality control procedures
- 80 -100 lender operational reviews are conducted on an annual basis (covering 70-80% of acquisition volumes), 15 of which are conducted with top volume lenders (covering 60-70% of acquisition volumes)¹



- Significant findings rates have fallen from over 5% in 2010 to below 2%²
- Loans must demonstrate a borrower's willingness and capacity to repay the loan, along with the adequacy of the property as collateral

- Underwriting guidelines have been strengthened since 2008
- Over 80%³ of loans are underwritten through Desktop Underwriter®, the industry's leading automated underwriting system



- New enhancements build upon pre-existing robust quality controls that are both preventative and detective
- Servicer performance is closely evaluated and servicer rankings are announced publicly.
- Ongoing servicer quality and risk reviews measure servicer compliance with Fannie Mae requirements
- Onsite servicing managers work directly with servicers to manage the Fannie Mae portfolio of loans and execute strategies to minimize credit losses

(1) Percentage of acquisition volumes may fluctuate based on evaluation of lender risk attributes that drive a lender review.

(2) As of June 30, 2013 for the period ending December 31, 2012

(3) 2013 new acquisitions, excluding loans acquired under Fannie Mae's Refi Plus™ and HARP initiatives

Framework Enhancements Overview

Development of enhanced quality controls to help Fannie Mae and lenders effectively manage risk within the new framework

- ① New Representations and Warranties Framework
 - Focus and allocation of resources shifted to the review of performing loans leveraging data-driven assessment tools
- ② Enhancement of Risk Controls
 - Underwriting Risk Assessment Tools, Collateral Risk Management Tools
- ③ Oversight of Lender Loan Quality
 - Mortgage Origination Risk Assessments, Targeted Lender Oversight, Lender Loan Quality Monitoring and Control, Data Validation Center

NEW REP & WARRANT FRAMEWORK



New Rep & Warrant Framework

Key Features

- Loans acquired beginning in 2013 that meet specific payment history requirements will be eligible for relief from certain rep & warrant obligations
- A Lender's underwriting rep & warrant obligations will sunset if the borrower demonstrates a defined payment history standard
 - Certain conditions will result in exclusion from rep & warrant sunset eligibility
 - File request and repurchase timelines are standardized
 - The framework sunset applies to underwriting reps & warrants; other life of loan reps & warrants still apply
 - Framework gives lenders greater certainty around their new underwriting and warranty obligations
 - Fannie Mae's enhanced quality control (QC) processes are focused on identifying loan defects prior to the sunset

New Rep & Warrant Framework

Sunset of Underwriting Reps & Warrants

- Underwriting the borrower: Lender's assessment of loan terms, credit history, employment and income, assets, and other financial information
- Underwriting the property: Lender's analysis of the property to determine adequacy of collateral
- Underwriting the project: Analysis of Planned Unit Development (PUD), condo, or co-op project in accordance with Fannie Mae's requirements
- Reps & Warrants sunset complemented by
 - **Enhanced loan-level quality control process** focuses on finding defects early in the life of the loan, aided by strong data, analytics, and lender quality control program effectiveness
 - **Enhanced appraisal data strategy** dramatically changed how appraisals are reported, creating common standards and a uniform appraisal data set that is captured electronically for analysis and modeling

Reps & warrants are complemented by enhanced data, analytics, and processes that support the new rep & warrant framework.

New Rep & Warrant Framework

Life of Loan Reps & Warrants

With respect to each mortgage loan, a lender remains responsible for the life of loan reps & warrants related to the following:

- Fannie Mae Charter Matters
- Misstatements, Misrepresentations, Omissions, and Data Inaccuracies. There must not have been:
 - Systematic fraud involving two or more mortgages or related real estate transactions and was made by two or more parties.
 - Systematic inaccuracies of delivery data inaccuracies involving multiple loans
- Clear Title/First-Lien Enforceability
- Compliance with Laws and Responsible Lending Practices
- Single-Family Mortgage Product Eligibility

Shifting Focus & Resources

Fannie Mae has shifted its focus to the review of performing loans, leveraging data-driven assessment tools.

- Reviewing a significantly larger discretionary sample of performing loans
- Focusing on identifying loans that fail to meet underwriting and eligibility requirements

Defects that will trigger a repurchase request will consist of eligibility violations that would have resulted in Fannie Mae's refusal to acquire the loan at the time of delivery.

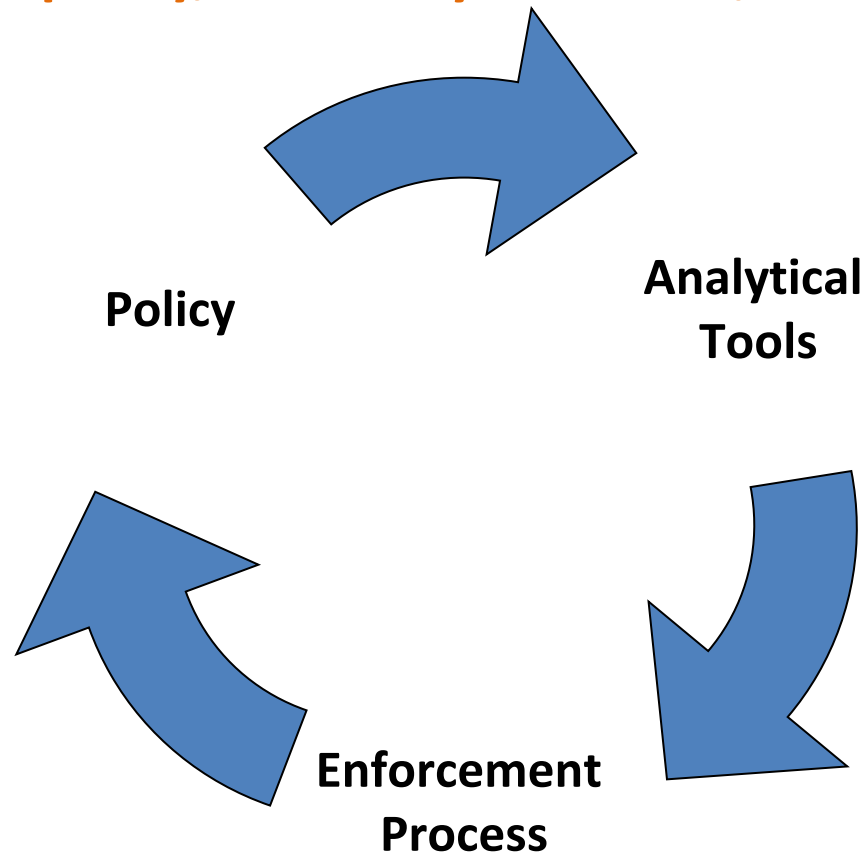
- Fannie Mae has developed proprietary data-driven risk assessment tools to identify loans with a higher probability of underwriting and/or appraisal defects
- A Data Validation Center (DVC) was established to process data changes for defects that generally will not result in a repurchase, but may have a pricing or disclosure impact

ENHANCEMENT OF RISK CONTROLS



Enhancement of Risk Controls

The overarching principle in developing the enhanced risk control framework is to establish a consistent end-to-end process that aligns policy, risk analytical tools, and enforcement.



Enhancement of Risk Controls

Developing Risk-Driven Analytics

Fannie Mae has developed analytical tools to electronically review 100% of loans acquired and select loans that may violate our eligibility criteria or underwriting guidelines

Aggregated internal and external data sources



Developed Underwriting Risk Assessment tool and Collateral Risk Assessment tool to identify loans with anomalies indicative of possible defects



Results from the automated review drive discretionary file reviews

- Potential underwriting and appraisal issues are detected ➡ Full File Review
- Underwriting issue detected, but the appraisal looks acceptable ➡ Credit-only Review
- Appraisal issue detected, but no apparent issues with underwriting ➡ Appraisal-only Review
- Issue can typically be resolved by a lender data correction ➡ Data Validation Center (DVC) Review

100% of new acquisitions are assessed by risk tools, allowing us to efficiently select loans with potential defects for review before the reps & warrants expire. Approximately 3%-5% of loan acquisitions are referred for in depth QC review.¹

(1) This number may fluctuate based on acquisition volumes and loan quality.

Enhancement of Risk Controls

Underwriting Risk Assessment Tool

The Underwriting Risk Assessment Tool drives discretionary loan reviews by leveraging multiple data sources to identify loans with a greater likelihood of a defect and select such loans for hands-on QC file review.

In addition, the Underwriting Risk Assessment tool is used during the loan review process to assist the QC reviewer in identifying potential loan defects.

Tool Contents and Capabilities

Data Sources

- Delivery Data: Provided by the lender at the time of delivery
- Other Data: credit report data, driver's license address, voter address, deed records, geographical information system data, parcel data, Google mapping, agent performance histories
- Fannie Mae data: Collateral Risk Assessment Tool, which provides detailed loan appraisal data; Desktop Underwriter submissions; additional Fannie Mae loan data

'Red Flags' and Eligibility

- Tool aggregates information across internal and external data sources (recent and historical) to evaluate consistency and accuracy of key attributes, resulting in 'red flags' and eligibility determination
- Loans with apparent eligibility defects are flagged and referred automatically to a human underwriter for review
- Tool assesses the overall eligibility of a loan and impact of the potential defect

Enhancement of Risk Controls

Underwriting Risk Assessment Tool – Helping Fannie Mae identify potential loan defects

EXAMPLE #1: Occupancy Status

Lender A makes a refinance loan on a condominium to Charlie Homebuyer, who states that he occupies the property as his primary residence. After acquiring the loan, Fannie Mae runs the loan through our Underwriting Risk Assessment tool, which uncovers a number of data anomalies that lead us to believe the loan is actually an investment property:

- The loan application data shows that Charlie owns two other condo properties that are near the subject property
- By cross-referencing drivers license records, the tool identified that Charlie was issued a new drivers license after the loan closed for a different address than the subject property
- By cross-referencing the appraisal data for the subject property, the tool identified that the appraiser who conducted a site inspection of the subject property noted that the door was answered by a tenant
- By cross-referencing data on other Fannie Mae loans, the tool identified that Charlie had closed a purchase money loan with a different lender eight months ago on a different property that he also claimed was his primary residence

Enhancement of Risk Controls

Underwriting Risk Assessment Tool – Helping Fannie Mae identify potential loan defects

EXAMPLE #2: Undisclosed Debts

Lender B makes a loan to Sally Refi. Based on the income and liabilities listed on Sally's loan application and credit report, Lender B calculates Sally's debt-to-income ratio to be 33%. Fannie Mae's Underwriting Risk Assessment tool identifies data from additional sources that indicate that Sally may have failed to disclose a new car loan and that her debt ratio is actually 50%

- The Underwriting Risk Assessment tool pulls a new credit report for Sally after the loan is acquired by Fannie Mae
- The trade line data on the credit report indicates that Sally recently opened a new auto loan for a large amount with another bank that was not disclosed on Sally's loan application
- The credit report data indicates that Sally took out the new car loan prior to closing on her mortgage loan with Lender B
- The Underwriting Risk Assessment tool simulates the DU results based on a DTI of 50% and determines that the loan would not be eligible for sale to Fannie Mae with the higher debt ratio

Enhancement of Risk Controls

Collateral Underwriter

Designed to assess the quality of appraisals delivered to Fannie Mae in order to select loans for hands-on QC review and drive Appraiser Quality Monitoring list

The Collateral Underwriter Tool leverages the Uniform Appraisal Dataset (UAD) data submitted by lenders using proprietary analytic models to flag appraisals that may be outside of our requirements or eligibility parameters for further review.

Tool Contents and Capabilities

Appraiser Data Quality

- Data quality screening to identify inconsistencies between an appraiser's information and the information provided by peer appraisers for the same property
- Data analysis to highlight adjustments that do not reflect fair market value

Assessment of Property

- Geographic Information System (GIS) analytics recognize and display unique spatial attributes on homes
- Chain of ownership (from public records) and mortgages related to property

Assessment of Comparables & Appraisals

- Diagnostic tests for appraisal quality and comparable selections
- Tools for comparing the appraiser's comparable selections to other potential comparables identified by the model
- Graphic display of historical prices for properties and comparables in relation to market value indices

Enhancement of Risk Controls

Collateral Underwriter– Helping Fannie Mae identify potential defects in loan appraisals

EXAMPLE #1: Improper adjustments resulting from inaccurate data

John Appraiser prepares an appraisal for Bank A on the subject property 123 Main Street. In estimating the subject property value, John uses three comparable sales that are near the subject property and makes adjustments to the subject property value based on the differences in square footage of the comps:

Property	Address	Gross Living Area (GLA)	GLA Value Adjustment
Subject	123 Main St	1950 Sq Ft	N/A
Comp #1	111 First St	1800 Sq Ft	+\$7,500
Comp #2	222 Second St	1400 Sq Ft	+\$25,000
Comp #3	333 Third St	2000 Sq Ft	-\$2,500

Fannie Mae runs the loan through Collateral Underwriter and finds that the appraiser made an improper adjustment by reporting incorrect square footage on one of the comparables. Although John stated that Comp #2 was 1400 sq ft, other appraisals (including several of John's own) indicate that Comp #2 was actually 1800 sq ft. This facilitated significantly larger positive adjustments and resulted in a potentially inflated appraisal value for the subject property.

Gross Living Area Value Report for 222 Second St
Value: 1400 sq ft (1 record)
2013-01 Appraisal comp from John Appraiser for Bank A

Value: 1800 sq ft (34 records)
2013-01 Appraisal listing from Jim Value for Bank B
2013-01 Appraisal listing from Sue Money for Bank C
2012-12 **Appraisal listing from John Appraiser for Bank D**
2012-12 Appraisal comp from Jim Value for Lender E
2012-?? Public Record

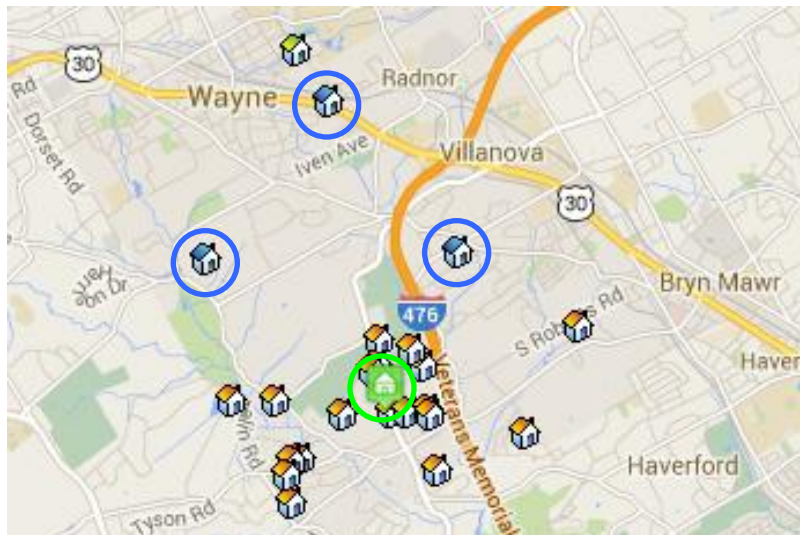
Enhancement of Risk Controls

Collateral Underwriter— Helping Fannie Mae identify potential defects in loan appraisals

EXAMPLE #2: Improper Comps

Sue Appraiser prepares an appraisal for Lender A using the sales comparison approach. Sue uses data from three other recently sold properties as comparable sales to support the value derived for the subject property. All of the comps are within several miles of the subject property.

Collateral Underwriter performs an automated market analysis using Fannie Mae's property database. The tool identifies a number of recent sales in the subject's neighborhood that are closer in proximity to the subject than the comps that were used by the appraiser. In addition, through using census tract data and geo-spatial analysis, the tool identifies that the comps used by the appraiser are in different neighborhoods with higher property values than the subject.



Ignoring relevant comparables in the immediate vicinity in favor of comparables that are physically superior or located in Neighborhoods with higher home prices may lead to an inflated appraisal value on the subject property

- *Green house is subject property*
- *Blue houses are comps selected by Appraiser*
- *Orange houses are comps identified by Collateral Underwriter*

Enhancement of Risk Controls

Summary

- Shift in focus to performing loans resulting in larger discretionary sample
- 100% of loans are reviewed through Fannie Mae's data-driven proprietary quality assessment tools; loans with higher likelihood of defect are referred to a human reviewer for an in-depth loan QC review
- Fannie Mae's risk assessment tools are being used broadly to support QC reviews
- Loan-level quality control review enhancements are augmented by robust lender-level quality control oversight

OVERSIGHT OF LENDER LOAN QUALITY



Oversight of Lender Loan Quality

Evaluating the Effectiveness of a Lender's Loan Quality

The Loan Origination Controls and Loan Quality Assessment (LOLA) team is responsible for ensuring that our sellers have effective controls in place through an integrated framework to ensure lenders' deliveries meet operational, eligibility, and data quality guidelines.

- Oversight of lender quality control mechanisms is an integral component of the overall quality control framework
- Since the inception of LOLA in 2009, Fannie Mae has continued to expand this function to enhance the focus on lender quality control
- LOLA focuses on a Lender's senior management commitment to the loan quality process
- Fannie Mae's LOLA team is responsible for:



Oversight of Lender Loan Quality

Evaluating the Effectiveness of a Lender's Origination Controls

MORAs

- In-depth reviews of a lender's origination processes, designed to help determine the quality of their manufacturing process and effectiveness of their controls to drive continuous lender improvement
- Reviews include file level testing, procedural review, control reports and an intense interview protocol
- 80 -100 lender operational reviews are conducted on an annual basis (covering 70-80% of acquisition volumes), 15 of which are conducted with top volume lenders (covering 60-70% of acquisition volumes)¹
- Analyzes review results, reports issues, prioritizes findings, and works with lenders or customer account risk managers to develop remediation plans. Validates lender progress against remediation
- Complemented by ongoing lender servicing reviews
- Effective in the third quarter of 2012, added capabilities to conduct pre-approval MORAs for new lenders applying for seller approval

(1) Percentage of acquisition volumes may fluctuate based on evaluation of lender risk attributes that drive a lender review.

Oversight of Lender Loan Quality

Evaluating the Effectiveness of a Lender's Loan Quality

Targeted Lender Oversight

- In early 2012, Fannie Mae enhanced the process to more quickly monitor risks associated with new lenders and/or lenders which may have emerging growth and potentially elevated risk
- Monthly monitoring of lenders with significant volume spikes, an increase in Third Party Originations, and/or profile shifts. A management committee reviews each of these lenders monthly to determine if additional quality control monitoring or other actions are warranted

Lender Loan Quality Monitoring and Control

- A team assesses lenders on an ongoing basis to ensure they have effective quality control programs in place
- Conduct testing and file reviews to determine the adequacy and effectiveness of lender's quality control processes and procedures
- Findings can result in remediation plans, lender training, and additional loan-level QC selections

Data Validation Center (DVC)

- In 2013, Fannie Mae further enhanced the process to respond to the potential necessary data changes identified from Fannie Mae's models on a monthly basis
- Aids in discovering loan eligibility issues
- Analyzes data changes that do not result in a repurchase and determines next steps

Oversight of Lender Loan Quality

Evaluating Loan Quality – Defect Rates

- Fannie Mae provides lenders with examples of how to calculate the rate, analyze the defect, and identify remediation action plans.
- Regular feedback to our lenders is provided in order to assist lenders with their QC programs and hold them accountable for hitting defect rate targets.
- Loan eligibility violation categories are identified by Fannie Mae in post-purchase acquisition reviews and are referenced in reporting to lenders on the quality of their deliverables.

Loan Eligibility Violation Categories⁽¹⁾

Assets

Borrower and Mortgage Eligibility

Credit

Liabilities

Income/Employment

Insurance

Legal/ Regulatory/ Compliance

Loan package Documentation

Project Eligibility

Property Eligibility

Appraisal

(1) Non-exclusive list as of June 1, 2013; subject to change.

Oversight of Lender Loan Quality

Summary

- Fannie Mae uses the results of loan-level and lender-level quality control as part of the risk assessment of a lender and uses these results on a continuous basis to:
 - Provide the results to dedicated lender risk managers who interact with the lenders to monitor loan quality, acquisition profile and performance as well as provide lenders with training, expertise, and assistance on credit quality issues and efforts
 - More quickly identify lenders with substantial volume or business mix changes
 - Conduct additional in-depth and onsite assessments of lenders as required
 - Make necessary policy changes to Fannie Mae's Selling Guide to maintain strong performance of the book of business.

As part of Fannie Mae's holistic approach to credit risk management, results of lender and loan reviews are used to drive policy, process, procedure, and model changes to mitigate risk.

Summary



Fannie Mae Quality Control Framework

① New Representations and Warranties Framework

Focus shifted to the review of performing loans

② Enhanced Quality Controls

State-of-the-art tools electronically risk-assess all deliveries

③ Lender Quality Control

Holistic approach to lender risk management helps drive lower defect rates

Resources

For more information >>

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Resources

- ***Selling Guide* Announcement: New Lender Selling Representations and Warranties Framework**
<https://www.fanniemae.com/content/announcement/sel1208.pdf>
- **Lender Letters: Fannie Mae's Quality Control Process**
<https://www.fanniemae.com/content/announcement/ll1205.pdf>
<https://www.fanniemae.com/content/announcement/ll1207.pdf>
- **Single-Family *Selling Guide***
<https://www.fanniemae.com/content/guide/sel041514.pdf>
- **Loan Quality Page**
<https://www.fanniemae.com/singlefamily/loan-quality>
- ***Beyond the Guide* – Recommendations for getting the most out of your Quality Control Program**
<https://www.fanniemae.com/content/tool/beyond-qc-guide.pdf>
- **QC Self-Assessment Executive Summary**
https://www.fanniemae.com/content/fact_sheet/qc-self-assessment-summary.pdf
- **Manage your Post-Purchase Risk: Strategies to Increase Your Confidence in Loan and Data Quality**
<https://www.fanniemae.com/content/tool/manage-post-purchase-risk.pdf>