Fannie Mae

Credit Risk Management

Single-Family Rating Agency Day

July 2020

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Overview

Welcome

Laurel Davis

VP of Credit Risk Transfer

Executive Session

Celeste Brown

EVP and Chief Financial Officer

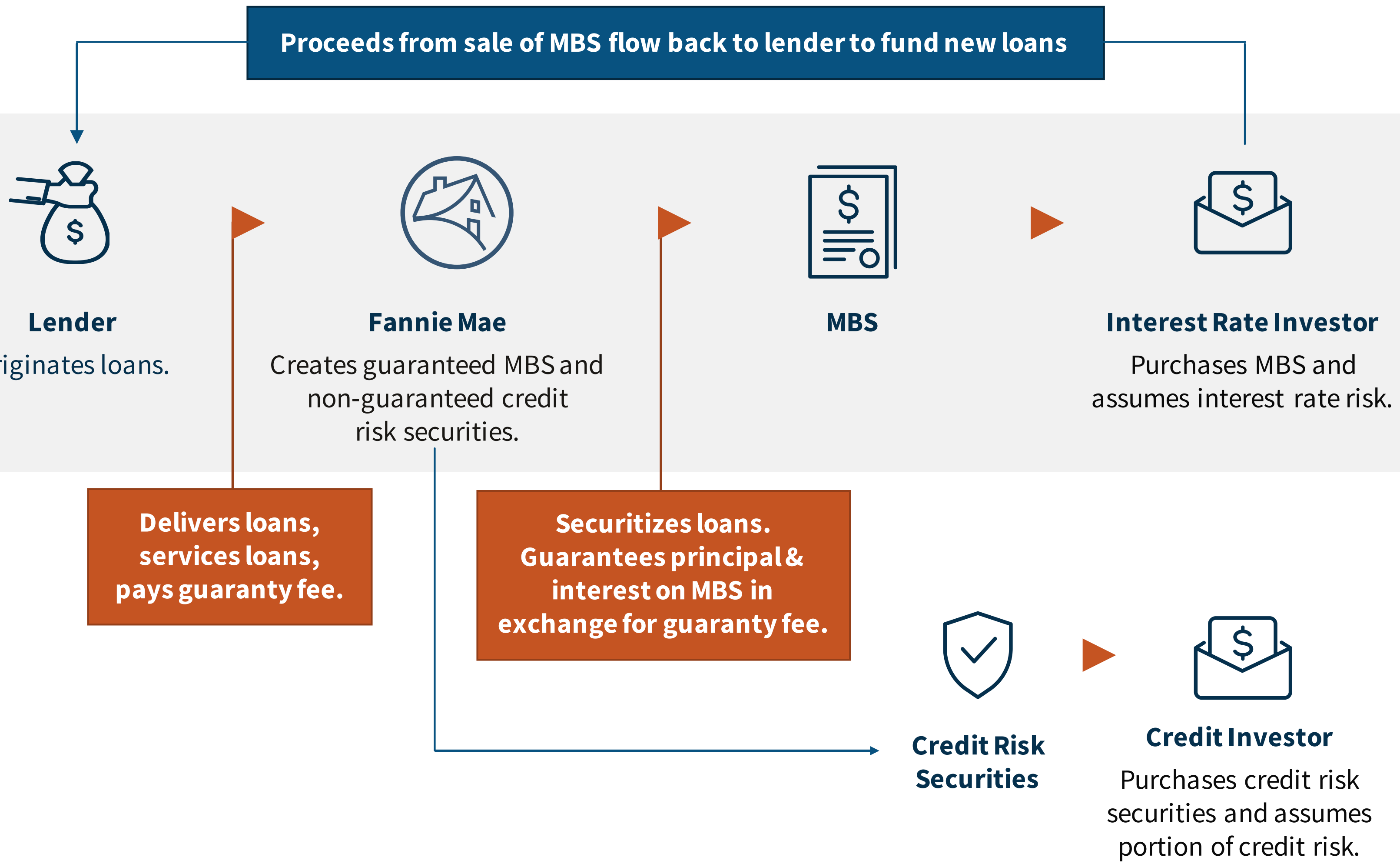
Credit Risk Management Strategy

Malloy Evans

SVP and Chief Credit Officer of Single-Family

Our Single-Family Business

Providing liquidity to the housing market and investment options to rates and credit investors.

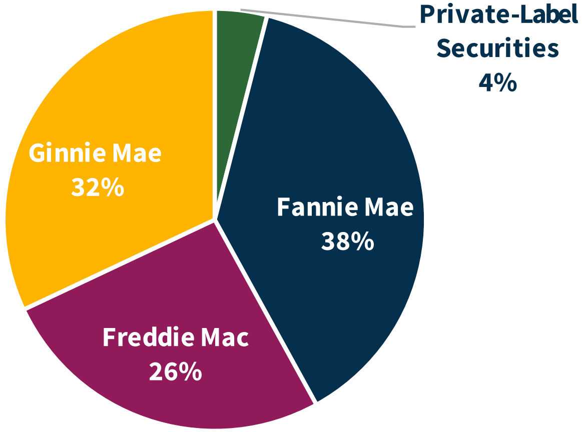


Credit Risk Management Is a Cornerstone of Our Business

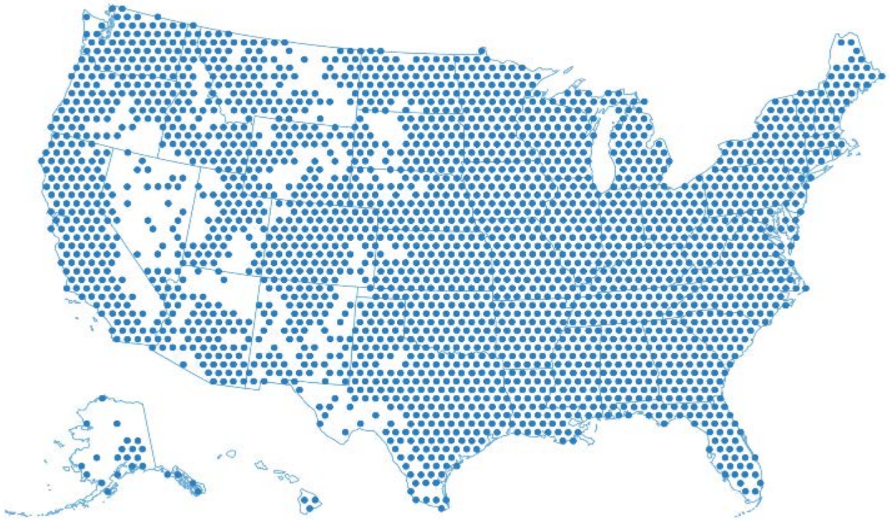
Participants in credit risk transfer are investing in Fannie Mae as a credit risk manager — the largest in the mortgage industry.

Fannie Mae was the largest issuer of single-family mortgage securities in the first quarter of 2020.

Q1 2020 Market Share:
New Single-Family Mortgage-Related Securities Issuances



We provided $205 billion in mortgage liquidity across the country in the first quarter of 2020.



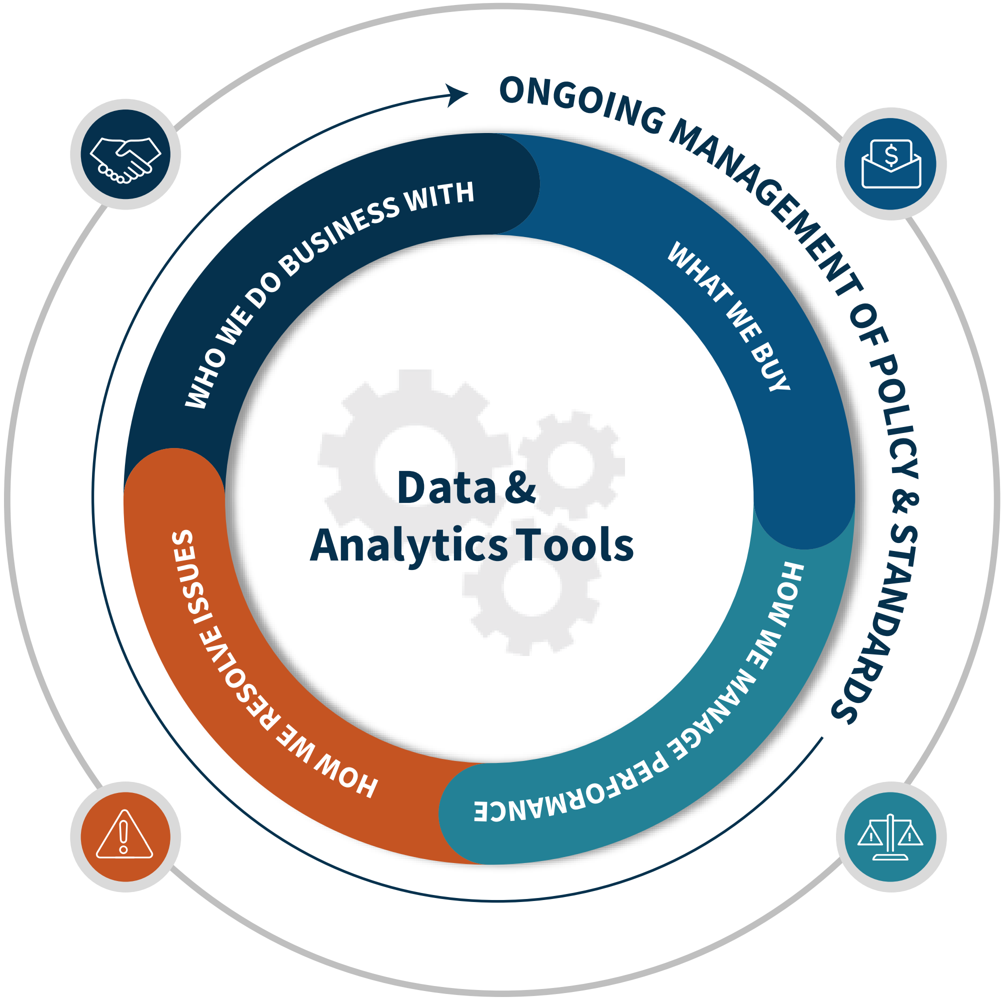
Approximately 46%* of the loans in our single-family conventional guaranty book of business, measured by unpaid principal balance, were included in a reference pool for a credit risk transfer transaction.

* As of March 31, 2020.

Our Credit Risk Management Strategy

Promote sustainable homeownership, minimize losses and maximize recoveries for CRT investors and taxpayers, and continuously improve our risk management capabilities.

- We actively manage our seller/servicers and the loans we buy throughout the loan lifecycle.
- Our strategy is driven by strong policy, supported by robust data and unique analytical tools.
- We are leading the industry's digital transformation to a fully electronic and secure mortgage process.
- Our goal is to provide transparency and certainty to our customers and partners.



Dynamic Risk Management

Enhancements across the entire loan life cycle make us better prepared to manage through an economic downturn and minimize our losses.

Underwriting standards	Strong credit standards have produced a portfolio of higher quality loans that are less likely to default in a downturn.
Loan quality	Moving quality control to the front of the process drives down loan defect rates — better loan quality supports improved loan performance.
Counterparty oversight	Strong counterparty requirements provide greater assurance of compliance and the reliability of credit enhancement. Oversight frameworks provide confidence in our lenders' and servicers' operational capabilities and enable proactive performance management.
Problem loan management	We leverage a comprehensive system to manage loans and REO properties through the entire default cycle, which enables us to achieve better credit loss outcomes and reduce severities.
Technological advances	Tools are embedded in our lenders' and servicers' processes to improve our ability to assess credit and collateral risks prior to loan acquisition, make it easier to comply with our requirements, drive consistency and quality, rapidly assist delinquent borrowers, and reduce the frequency and severity of our credit losses.

DU Model Updates

DU Timeline

July 2017: DU 10.1

- Enabled loans with DTI ratios above 45% (up to 50%) to rely on DU's comprehensive risk assessment.
- Removed DU model overlays with set maximum LTV ratio and minimum reserves requirements for those loans.

Dynamic Credit Management

March 2018: DU 10.2

- Revised DU's risk assessment to limit risk layering.
- Fewer DU Approve recommendations on loans that have multiple higher-risk characteristics.

December 2018: DU 10.3

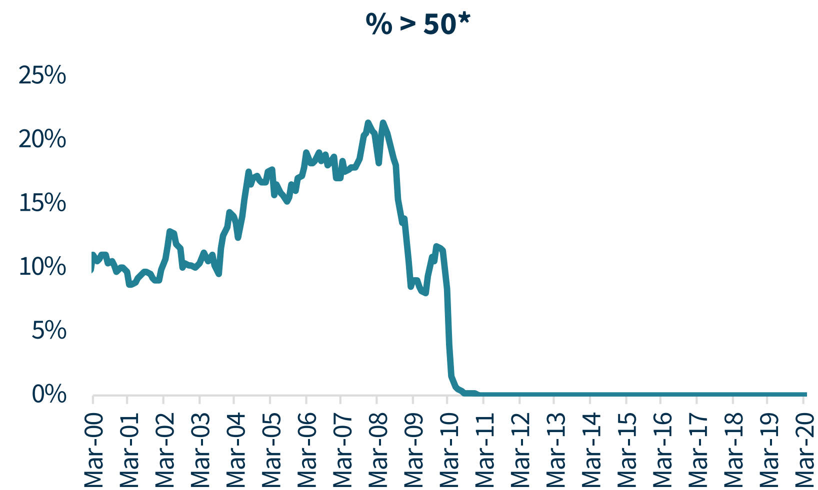
- Enhanced DU's management of multiple risk layers.
- Six months of reserves for cash-out refinances with DTI over 45% to address increase in high DTI acquisitions.

July 2019

- Certain new loan casefiles submitted to DU will receive an Ineligible recommendation when multiple high-risk factors are present.
- We have updated the DU eligibility assessment to better align the mix of business delivered to Fannie Mae with the composition of business in the overall market.

April 2020

- Revised DU's risk and eligibility assessments to result in modest reduction of loan casefiles with high-risk factors receiving an Approve/Eligible recommendation.



Rounded to the nearest integer.

Improved Risk Position

We have drastically improved the risk position of the company since the 2008 financial crisis.

	Metric name	Pre-crisis	Crisis peak	Today
Strengthened underwriting standards	90 in 12 delinquency rate	**0.78%** (2000)	**3.42%** (2007)	**0.29%** (Apr 2018– Mar 2019)*
Increased loan quality	Eligibility defect rate for acquisitions	**1.72%** (Jan 2005 – Dec 2005)	**5.875%** (Jul 2007 – Jun 2008)	**0.44%** (Jun 2018 – Mar 2019)*
Technological advances	Data points on collateral	**2**	**2**	**~600**
	# of appraisals available in UAD	**0**	**0**	**44.4 M** (Mar 2020)
Improved problem loan management	Seriously Delinquent Loan (SDQ) rate	**0.58%** (Aug 2003)	**5.59%** (Feb 2010)	**0.66%** (Mar 2020)
	SDQ count	**85,770** (Aug 2003)	**1,018,984** (Feb 2010)	**111,587** (Mar 2020)
	SDQ monthly new additions	**16,514** (12-month avg Sep 2002 – Aug 2003)	**90,556** (12-month avg Mar 2009 – Feb 2010)	**16,269** (12-month avg Apr 2019 – Mar 2020)
	REO inventory count	**13,749** (Dec 2003)	**171,283** (Oct 2010)	**15,793** (Mar 2020)
	REO monthly net acquisitions	**2,541** (Dec 2003)	**31,012** (Sep 2010)	**878** (Mar 2020)

** Excludes Refi Plus*

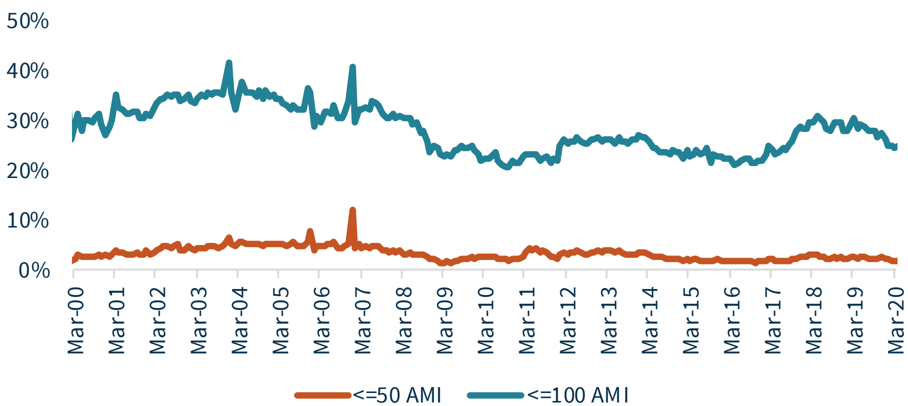
Responsible and Affordable Home Lending

Fannie Mae has a duty to serve the underserved, including providing responsible access to mortgage credit for creditworthy low- and moderate-income borrowers in common sense ways.

Our overall approach to affordable lending:

- Credit standards must support **sustainable** homeownership.
- **Only** creditworthy borrowers can qualify.
- Improve loan access by making loans **affordable** rather than compromising underwriting standards.

High LTV share of low/moderate income borrowers[1]



Low/mod income lending has consistently been a significant share of Fannie Mae's business

HomeReady®

- Borrower's income must be less than or equal to 80% of Area Median Income (AMI)*

HomeReady reduces borrower costs:

- Reduced MI requirements for LTV >90 result in lower monthly payment.
- Lower loan-level price adjustments (LLPAs) help to reduce the rate and/or fees charged to the borrower.

*Prior to July 20, 2019, borrower's income must have been less than or equal to 100% of area median income (AMI), or the property must have been located in a low income census tract.

[1] Share of Acquisition UPB for loans with original LTV >80% where borrower income is less than or equal to the Area Median Income (AMI).

Credit Policy and Acquisitions

Cyndi Danko

VP of Single-Family Credit Risk Management

Setting Our Selling Policy

Fannie Mae's credit risk management philosophy considers all stages of the loan life cycle and is focused on leveraging data and analytics to support a simple, certain, digital experience for our customers.

Single-Family Selling Guide Policy Development Life Cycle

Developing Selling Policy

Monitor and assess

- Book and acquisition profile, performance, volume.
- Economic and housing market data.
- Regulatory and legislative changes.
- Market and competitive landscape.

Research and analyze

- Performance expectations.
- Credit, operational, and legal risks.
- Impact on housing market, liquidity, lenders, and borrowers.

Communicate policy decisions

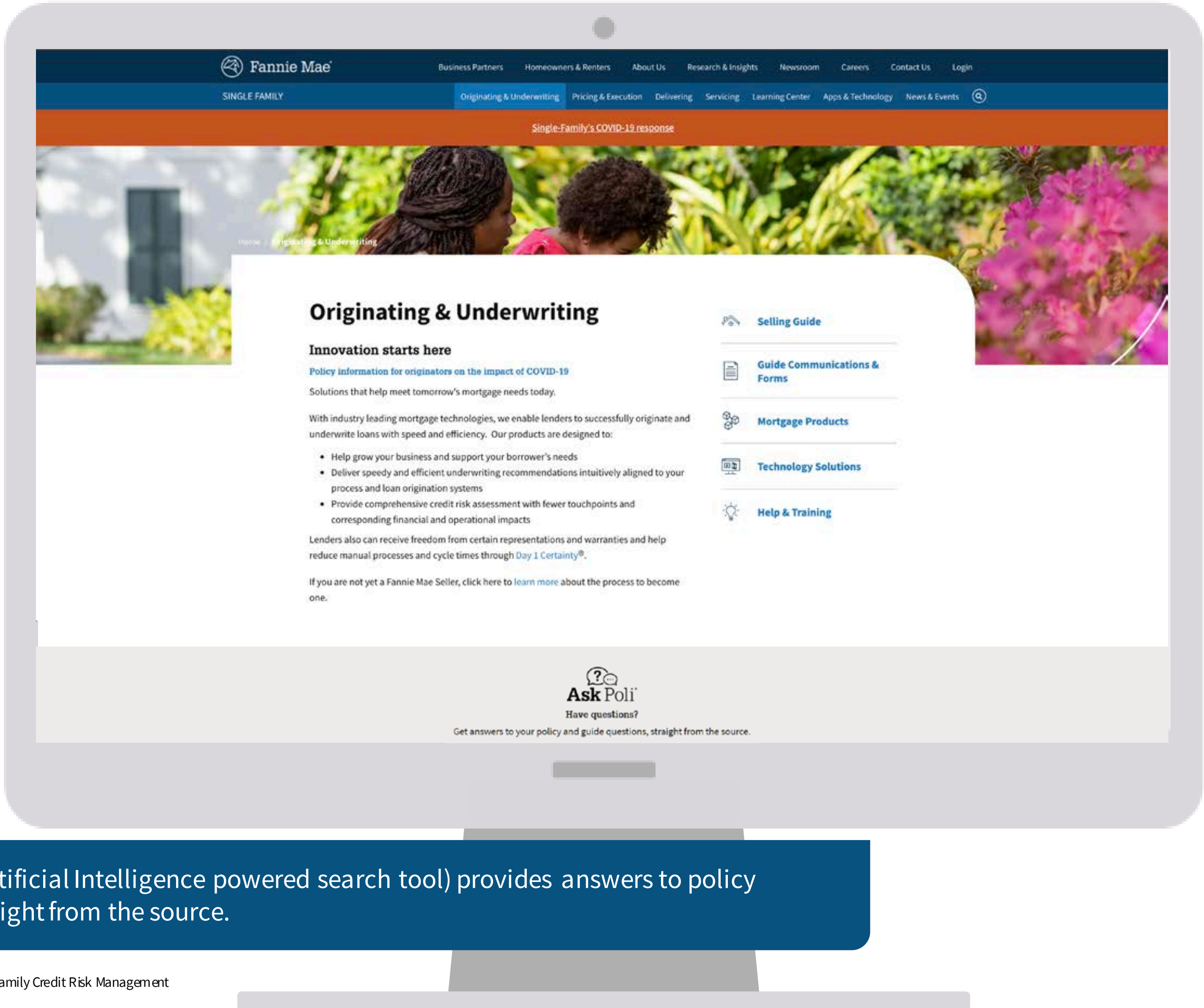
- Share updates and policy changes via the ***Selling Guide.***

Actively engage

- Lenders.
- Internal stakeholders.
- External industry stakeholders.

We closely monitor the performance and quality of acquisitions and make necessary policy and process changes to maintain strong performance of the book.

Communicating Our Policies



Ask Poli (an Artificial Intelligence powered search tool) provides answers to policy questions straight from the source.

Communicating Our Policies

Fannie Mae's communications are designed to be timely and transparent in order to keep lenders and servicers informed of up-to-date policy and requirement changes.

Source	Description
The *Selling Guide*	Part of the legal contract; informs lenders about our policies and requirements for the origination, underwriting, and delivery of mortgages that Fannie Mae will purchase or securitize.
The *Servicing Guide*	Part of the legal contract; informs servicers of the policies and requirements for performing servicing obligations.
Announcements and Release Notes	Describe new, supplemental, or modified policies, procedures, and requirements, and amend the *Selling Guide* or *Servicing Guide* documents posted on fanniemae.com.
Lender/Servicing Letters and Notices	Communicate new or modified policies and requirements that may be temporary in nature, reminders of existing policies, or advanced notice of policy changes with future effective dates to be included in future *Selling Guide* or *Servicing Guide* updates. Also provide information that lenders/servicers need but that does not require an update to *Selling Guide* or *Servicing Guide* text, such as an update to an exhibit on Fannie Mae's website.
Exhibits and Forms Incorporated by Reference	Information about specific forms the servicer must use to fulfill the policies and requirements contained in the *Servicing Guide*.
Mortgage Selling & Servicing Contract (MSSC)	Establishes the lender's contractual relationship with Fannie Mae and sets forth the terms and conditions for the lender to sell mortgages to Fannie Mae and incorporates the *Selling Guide* and *Servicing Guide*.
Seller Negotiated Contracts	Establishes negotiated guideline exceptions that are acceptable due to alignment with our credit risk appetite and the lender's overall control environment.

Fannie Mae is focused on bringing transparency to its seller/servicer customers through policy communications, key to the success of our rep & warrant framework. We provide targeted announcements and commentaries to investors to support transparency into our programs.

Selling Guide, Servicing Guide, Announcements, Lender Letters, Notices are available on fanniemae.com and AllRegs® and constitute part of the contract between Fannie Mae and the lenders. News is pushed to external customers by subscribing to Fannie Mae's email subscription services available on fanniemae.com.

Proprietary Tools Support Quality Underwriting

Desktop Underwriter®

Automates Fannie Mae's underwriting guidelines and credit policies by performing detailed analysis of credit and mortgage risk factors.

- Available to all Fannie Mae Sellers and certain other originators.
- Allows us to make a risk recommendation for the loans.*
- Continually innovate ways to enhance loan quality.
- DU validation service uses designated third-party data vendors to independently validate borrower income, assets, and employment data.

Collateral Underwriter®

Proprietary appraisal analytics tool for measuring appraisal risk using electronic appraisal records to improve loan quality.

- Incorporated into DU® and available to all Fannie Mae Sellers.
- Drives quality improvements across the industry.
- Proprietary appraisal risk assessment tool, unique to the industry.
- Enables us to provide value representation and warranty relief on eligible transactions.
- The underlying collateral data enables us to provide Appraisal Waivers on eligible transactions.

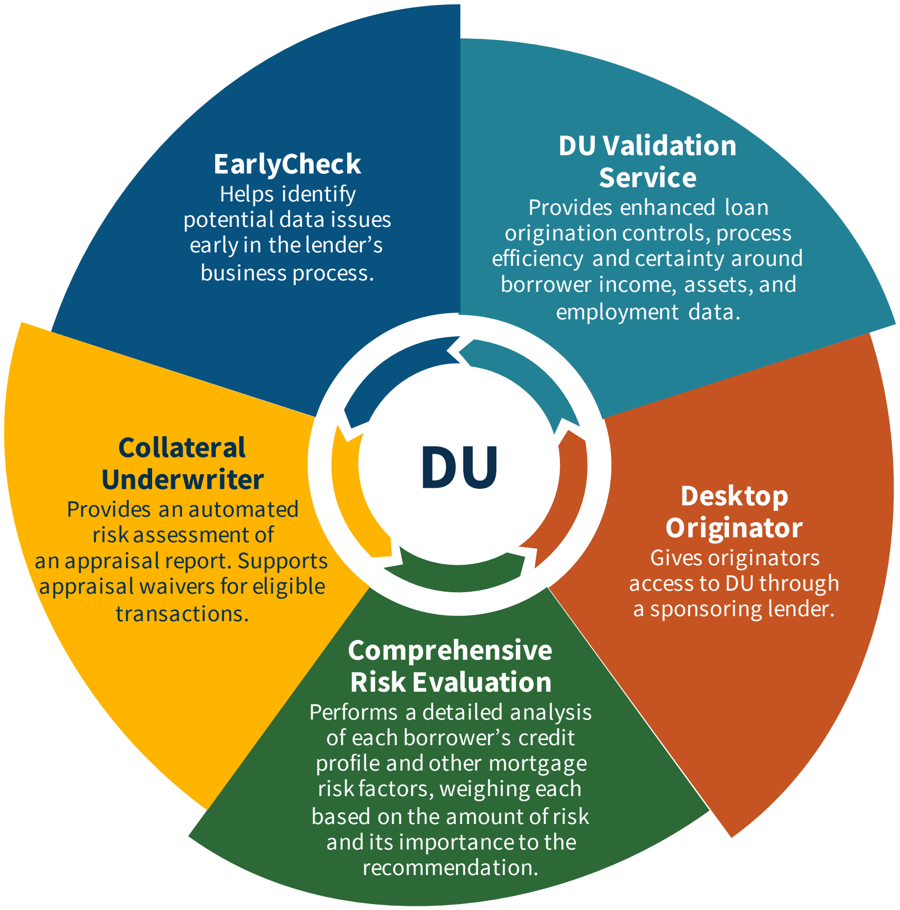
Our tools are some of the most widely used in the industry supporting comprehensive credit risk management.

*DU risk recommendations inform Sellers whether a loan — if closed — would be eligible for sale to Fannie Mae. Credit decisions are made by Fannie Mae Sellers only.

Desktop Underwriter (DU): The Industry's Most Widely Used Automated Underwriting System

Used by 1,900 lenders/agents, with over 90% of loans delivered to Fannie Mae[1] evaluated through DU in 2019.

- Automates underwriting eligibility guidelines and assesses risk of the loan through a comprehensive examination of primary and contributory risk factors.
- Improves efficiency of loan origination process and enables efficient deployment of new policies, standards, and products to lenders.
- Provides lender with underwriting and eligibility recommendations and a list of conditions/verifications that must be fulfilled in order to sell the loan to Fannie Mae.
- DU validation service enables source validation of income, assets, and employment through third-party data vendors.



DU connects with proprietary tools for detailed analysis of credit and mortgage risk factors.

[1] *Excluding Refi Plus and DU Refi Plus.*

DU's Comprehensive Risk Evaluation

Performs a detailed analysis of each borrower's credit profile and other mortgage risk factors, weighing each based on the amount of risk and its importance to the recommendation.

Credit profile risk factors

- Credit history.
- Delinquent accounts.
- Installment loans.
- Revolving credit utilization.
- Public records.
- Foreclosures and collections.
- Credit inquiries.
- Trended credit data.

Additional risk factors

- Borrower's equity and loan-to-value ratio.
- Liquid reserves.
- Loan purpose.
- Loan term.
- Loan amortization type.
- Occupancy type.
- Debt-to-income ratio.
- Housing expense ratio.
- Property type.
- Co-borrowers.
- Self-employment.

DU does not rely on credit scores. Rather, it performs a detailed analysis of credit and mortgage risk factors.

COVID-19 Publication Metrics

Our credit risk management strategy and selling policy development lifecycle positioned us well to rapidly respond to market needs during the COVID pandemic.

Since the first issuance on March 18, 2020, we have issued **29 COVID-19 Lender Letter updates:**

- ✓ **6 updates** to LL 2020-02 on Servicing.
- ✓ **6 updates** to LL 2020-03 on Originations.
- ✓ **6 updates** to LL 2020-04 on Appraisals.
- ✓ **3 updates** LL 2020-05 Payment Deferrals.
- ✓ **3 updates** to LL 2020-06 Forbearance.
- ✓ **3 updates** to LL 2020-07 COVID-19 Payment Deferral.
- ✓ **LL-2020-08** on Changes to Servicer Principal and Interest Advance Requirements.
- ✓ **LL-2020-09** on Incentive Fees for Retention Workout Options.

COVID-19 Selling Policy Publications

Originations
LL-2020-03

- Verbal verification of employment flexibilities.
- Notes, electronic records, and signatures.
- Title insurance, POA, RON.
- Remote QC requirements.
- Age of documentation contraction.
- Sales of loans aged <6 months.
- Temporary eligibility for purchases and refinances.
- Self-employed income guidance.

Appraisal
LL-2020-04

- Flexibilities to our appraisal inspection and report requirements.
- Desktop and exterior appraisals for purchases.
- Exterior appraisals for Fannie-owned LCORs.
- Flexibilities extended to new construction.
- Condo project review waiver and budget flexibility.

Forbearance
LL-2020-06

- Delivering loans that are in active forbearance as a result of financial hardship related to COVID-19.
- Overview, effective dates, and eligibility.
- Representations & warranties.
- Reporting standards.
- Included scenario based examples to assess the impact to the lenders' representations & warranties.

Innovation Through DU

Asset, income, and employment validation are important components of the underwriting process, critical to assessing a borrower's ability to repay a mortgage loan.

Traditional validation

- Requires seller to collect and verify income and asset documentation from borrower to satisfy underwriting requirements.
- Manual and paper-intensive process.
- Seller provides a representation and warranty that the information is accurate.

DU validation service

- Validates income, employment, and assets through source data rather than relying on paper documentation.
- Reduces loan processing time by relying on data provided by third-party vendors who are connected to employer, tax, and bank data.
- If validated and lender meets the terms of obtaining relief, lender receives representation and warranty relief on a component level (e.g., per borrower, income type, or employer basis).

Single-source validation (in pilot)

- Goal of pilot is to expand capabilities to validate borrower income and employment through source data.
- Over 80% of borrowers are paid via direct deposit on a recurring basis.[1]
- Through DU, we can leverage paycheck direct deposit data to validate income for certain types of borrowers (wage earners, retirement/social security income).
- If validated, seller receives representation and warranty relief on a per-borrower or employer basis.

DU enables Fannie Mae to test innovative ways to improve the mortgage process.

[1] nacha.org/news/new-nacha-survey-shows-adoption-and-awareness-direct-deposit-ach-continues-build.

Day 1 Certainty®

By leveraging borrower and property data, applying advanced analytics, and bringing key quality control processes up front, Fannie Mae is helping to improve the loan origination process.

1. Direct source validation of borrower income, employment, and assets through DU reduces **paperwork, loan process time, and exposure to borrower fraud.** Fannie Mae provides relief from enforcement of representations & warranties on validated components.

2. By combining DU with the industry-leading analytics provided by Collateral Underwriter to leverage our database of **more than 41 million appraisals,** Fannie Mae can offer appraisal waivers for certain eligible transactions. We provide relief from enforcement of representations & warranties on the value of the appraisal.

3. Potential valuation issues are identified during the underwriting process, **before loans are delivered**. This allows lenders to correct potential valuation errors upfront and also allows us to monitor behavior across appraisers. CU has been effective in identifying loans with appraisal defects. Fannie Mae provides relief from enforcement of representations & warranties on the value of the appraisal when the CU risk score is 2.5 or lower.

Our digital innovation allows us to quickly deploy new policies to address changing market and economic conditions during the COVID pandemic. We're improving quality and reducing risk by leveraging automation to help lenders avoid common loan manufacturing defects.

Live Q&A

Cyndi Danko

VP of Single-Family Credit Risk Management

Malloy Evans

SVP and Chief Credit Officer of Single-Family

Break

Visit the microsite at fanniemae.com/ratingagencyday

Username: fanniemae
Password: ra2020

Collateral Risk Management

Jacob Williamson
VP of Single-Family Collateral Risk Management

Collateral Risk Management

By having a centralized focus on collateral risk management across originations, servicing, and REO, Fannie Mae can more effectively create best practice methods for analyzing collateral risk, improve efficiencies across a myriad of valuation processes, and optimize liquidation results.

Strategic priorities

Supporting tactics
- Use more data
- Improve tools
- Optimize decisions

1 More comprehensive origination risk assessment

- Using data, improve our overall risk evaluation, and increase certainty around collateral value and eligibility.

Goal: Improve risk assessment

2 Improve valuation process

- Focus on process improvements for analyzing value, specifically:
  - Cost.
  - Assurance.
  - Speed.

Goal: Drive process improvements

3 Improved delinquent loan/REO decisioning

- Improve our ability to set prices for the collateral and sell REOs. Examples:
  - Short sale strike price.
  - Foreclosure auction bidding strategy.
  - REO list price and rehab decisions.

Goal: Reduce severity, cost, time

Fannie Mae's execution on its strategic collateral risk management priorities allows for a greater understanding and more effective management of collateral risk throughout all stages of a loan.

Appraisal Data Delivery and Strategy

Uniform data standards and collection together with Fannie Mae's advanced analytics are transforming the industry by identifying higher risk appraisals earlier in the lending process.

Robust appraisal analytics improve assessment of collateral risk:

- Appraisal data quality and eligibility issues identified by automated data checks at time of submission.
- Additional messaging generated by CU gives lenders real-time feedback on critical valuation risks.
- CU provides context behind messages along with additional validation data and tools to assist in managing risks.
- Fannie Mae leverages CU analytics in our post-purchase QC process to uncover valuation defects and enhance our discretionary QC sampling.
- Appraiser Quality Monitoring framework detects and manages collateral risk issues at the appraiser level.

Advanced data helps to inform policy enhancement, leading to more effective appraisal policies and enabling modernization of appraisal processes.

Collateral Underwriter

CU is Fannie Mae's flagship product of appraisal data innovation, driving greater digitization in the mortgage industry

Appraisal analysis

- CU Risk Score rates risk on a scale of 1-5 where 5 is highest risk
- Appraisal quality flag notes potential issues with the appraiser's methodology
- Overvaluation flag notes potentially unsupported appraised values
- Messages provide specific feedback to lenders so that potential issues can be addressed prior to loan delivery to Fannie Mae

Data integrity

- Helps to identify when an appraiser has reported potentially incorrect property or transaction characteristics
- Compares specific data fields on the appraisal against previously reported data to identify discrepancies
- Identifies inconsistencies within an appraiser's body of work and relative to peers

Comparable selection

- CU shows pertinent property and transaction characteristics for the subject and comparable properties
- Appraiser-provided comparables are analyzed by CU and ranked against a pool of available sales based on physical characteristics, location, and sale date
- Statistically-derived, market-specific adjustments for differences in physical features, time, and location estimated by the model

Local market analytics

- Provides analytics like median sales price or price per square foot at a Census Block Group level
- Overlays prior and current transactions of the subject property on a plot of market trends at the zip code level from the Fannie Mae Home Price Index

Advanced data-driven analytics support collateral appraisal quality – a key risk attribute.

Innovation with Collateral Underwriter

Fannie Mae’s appraisal waiver, formerly known as Property Inspection Waiver, leverages DU and CU in an integrated fashion to offer appraisal waivers for certain lower-risk eligible loans.

- The subject property generally has a prior appraisal that was analyzed by CU.
  - CU will evaluate the prior appraisal for overvaluation or property eligibility issues. If any of these issues exist, an appraisal waiver will not be granted.
  - CU will use the prior appraised value along with Fannie Mae’s Home Price Index to assess the reasonableness of the estimated property value provided by the lender in DU.
  - If estimated property value is reasonably supported, the loan may be eligible for a waiver, subject to additional eligibility requirements.
- The majority of transactions will continue to require an appraisal
- Advanced data collection techniques along with CU drive future collateral innovation

Part of Fannie Mae’s commitment to simplifying the complexity of mortgage origination by creating efficiencies and delivering innovations, leveraging data.

COVID-19 Response — Collateral Policy

The first lender letter was published March 23, 2020 and will remain in place for loans with application dates on or before July 31, 2020.

3.23.20

Desktop and exterior appraisals for purchases.

Exterior appraisals for Fannie-owned LCORs.

Completion reports (Form 1004D).

3.31.20

Flexibilities were extended to new construction.

Renovation draw flexibilities.

4.14.20

Condo project review waiver and budget flexibility.

Virtual inspections for renovations.

DU — Fannie Owned Loans (4/11/2020).

5.28.20

HomeStyle® Renovation loans — recourse removal after forbearance and loan delivery timelines.

Loan purpose	LTV ratio	Occupancy	Ownership of loan being refinanced	Permissible appraisals
Purchase*	Per *Eligibility Matrix*	Principal residence	N/A	Traditional appraisal Desktop appraisal Exterior-only appraisal
	≤ 85%	Second home Investment		Traditional appraisal Desktop appraisal Exterior-only appraisal
	> 85%	Second home		Traditional appraisal
Limited cash-out refinance	Per *Eligibility Matrix*	All	Fannie Mae-owned	Traditional appraisal Exterior-only appraisal
			Not Fannie Mae-owned	Traditional appraisal
Cash-out refinance			Fannie Mae or not Fannie Mae-owned	Traditional appraisal

*Excludes construction-to-permanent loans.

NOTE: *For all loans with LTV ratios greater than 80%, we require mortgage insurance in accordance with our standard Selling Guide policy. Lenders must consult with their mortgage insurance companies to confirm coverage for mortgages using one of the temporary appraisal flexibilities.*

Live Q&A

Jacob Williamson

VP of Single-Family Collateral Risk Management

Managing Lender and Loan Performance

Caroline Patane

VP of Single-Family Credit Risk Counterparty

Bill Cleary

VP of Single-Family Loan Quality

Our Risk Governance and Culture

Our credit risk management strategy is bolstered by a "three lines of defense" approach to managing risk.

Responsibilities

3rd line
Internal audit

- Perform independent systematic evaluation of the effectiveness of the internal controls systems employed by management to achieve objectives.

2nd line
Enterprise risk management, compliance, support functions

- Set standards for the first line of defense to manage and oversee risks.
- Perform independent oversight and monitoring of risk management and aggregate reporting on risk.
- Develop and maintain the Company's integrated risk management program.

1st line
Business units and operations*

- Identify, assess, respond to, and monitor/report on risks.
- Abide by risk appetite, policies, standards, and limits/thresholds.

* *The first line of defense is comprised of any group that generates risk from their business activities.*

Counterparty Risk Management

We rate all of our seller/servicer counterparties on a quantitative and qualitative basis. This rating helps define our risk tolerance and maximum exposure for each counterparty. Our framework is composed of:

Counterparty ratings

Internal ratings make assessments that cover the following areas:

- Profitability
- Asset quality
- Capitalization
- Liquidity/funding
- Portfolio concentration
- Management quality

Counterparty limits

Internal exposure limits tracked on a daily basis for all counterparties and are based on:

- Internal ratings
- Financial capacity

Risk mitigation strategies for troubled sellers/servicers include:

- Guaranty of obligations by higher-rated entities;
- Reduction or elimination of exposures and/or certain business activities;
- Collateral to secure obligations; and/or
- Suspension/termination of seller/servicer approval(s).

Our enterprise counterparty framework supports management of our seller/servicer counterparties.

Becoming a Fannie Mae Seller/Servicer

A key strength of our credit loss mitigation strategy is our comprehensive management of sellers and servicers to assess readiness to do business with us and the continual evaluation of compliance with our guidelines.

Fannie Mae's resources provide transparency into the onboarding process

- Typically a three-to-four-month process.
- Seller/servicer requirements include:[1]
  - At least 24 months in the mortgage business.
  - Minimum net worth of at least $2.5M plus 0.25% of UPB of servicing portfolio and minimum capital and liquidity requirements.
  - Adequate facilities and experienced staff.
  - Quality control processes and procedures for loan products, servicing, and vendor management.
- Potential servicers must also have written procedures in escrow management, general servicing, investor reporting, custodial funds, default management, QC, and audit.

Sellers and servicers must meet financial, organizational, staffing, process, and experience requirements.

[1] *See the Path to Approval Toolkit, our Selling Guide and our Servicing Guide, for more information at fanniemae.com.*

Active Review of Seller/Servicer Before Approval

Encompasses both an offsite review and onsite review that includes:

Pre-contract seller assessment

- Organizational structure and governance.
- Retail/wholesale/correspondent.
- Underwriting.
- Appraisal review and approval.
- Quality control.
- Site/system walkthrough.

Pre-contract servicer assessment

- Organizational structure and governance.
- General servicing.
- Solution delivery.[1]
- Timeline management.
- Subservicer selection protocols and oversight criteria.

Pre-contract assessments help us to determine the quality of seller/servicer processes and effectiveness of controls.

[1] *Includes loss mitigation and liquidation.*

Our Representations & Warranties Framework

Fannie Mae relies on a delegated model — sellers providing representations & warranties that the loans they deliver to us meet our guidelines.

Framework

Sellers and servicers are jointly and severally responsible for breaches of selling reps & warranties.

Life of loan representations & warranties

Lenders may receive relief from certain underwriting reps for an individual loan based on that loan's payment performance or completion of successful loan QC review.

No relief for breaches of certain "life of loan" reps & warranties, including matters related to fraud, pattern of misrepresentation, clear title, legal compliance, and our Charter.

Enhanced quality control

Leveraging automation, applying advanced analytics, and bringing key quality control processes upfront, helping to avoid common manufacturing defects.

Customer Management Solutions Teams

Dedicated customer teams provide critical support in hands-on risk management.

Sellers

- Assess and monitor lender's credit culture through ongoing interaction, regular onsite visits, and senior-level engagement.
- Monitor acquisition profile, performance, and lender's overall book of business to ensure compliance with Fannie Mae's requirements and corporate risk expectations and tolerance.
- Lead remediation efforts to address performance/quality issues.
- Serve as lender's contact for risk policy and interpretation.
- Interact with lenders regarding loan quality and loan delivery, including anti-fraud measures.
- Provide lenders with training, expertise, and assistance on risk-related topics including credit quality issues.

Servicers

- Measure, monitor, and manage servicer performance commensurate with total delinquency (TDQ: 30+ days) and serious delinquency (SDQ: 90+ days) volume.
  - Provide regular performance goals to certain servicers.
  - Discuss performance against goals and track action items to improve.
- Follow up on remediation of findings from servicer compliance reviews.
- Work with single-family risk management to provide best practices and consultative support in collections, modifications, short sales/mortgage release, bankruptcy monitoring, foreclosure processing, and reporting.

Customer Management Solutions Teams (CMST) are the central point of contact to address lender/servicer questions and provide feedback.

Management and Monitoring of Our Sellers

1 **Mortgage origination risk assessment**

- In-depth reviews of a lender's origination processes.
- Assess the quality of a lender's manufacturing process and the effectiveness of its controls.

2 **Targeted lender oversight**

- Internal monitoring using proprietary tools quickly assesses risk associated with new lenders and/or lenders that may have emerging growth and/or potentially elevated risk.

3 **Data validation center**

- Review and respond to the potential data changes that are identified from Fannie Mae's models.
- Analyze data changes that do not rise to the level of a repurchase and determines next steps.

4 **Lender loan quality monitoring and control**

- Quality control system allows real-time engagement with lenders on manufacturing quality to drive faster improvement in lender process.
- Testing to determine the adequacy and effectiveness of lender's quality control processes and procedures.

Rigorous monitoring conducted through an integrated framework to ensure sellers have effective controls in place to meet eligibility, operational, QC, and data quality guidelines.

Post-Purchase Loan Review Processes

New acquisitions

Random selections

- Determine overall loan defect rate and trends.
- Monthly random loan file selections of statistically valid sample of Fannie Mae's acquisitions.
- Lender-stratified sample and comparisons help drive improved quality control in lenders' processes.
- Random selections to ensure every lender with at least 10 loans delivered to us in a year has loan files selected for review.

Drive policy and lender-level action to reduce defect rate.

Discretionary/targeted selections

- Discretionary loan selection driven by automated data and analysis tools.
- Additional discretionary selections target new lenders and emerging risks.

Enforce remedies before loan defaults.

Non-performing loans

All non-performing loans*

- Undergo predictive model-driven analysis that assigns a repurchase risk score.
- Any loan above the prescribed risk score is selected for hands-on review.
- Non-performing loan review volumes have dropped in recent years due to sharp reduction in defaulted loans.

Enforce representations and warranties and mitigate losses.

Reviews of performing loans measure the quality of new acquisitions and target potential problem loans. Reviews of non-performing loans aim to mitigate potential credit losses.

** Excluding loans acquired under Fannie Mae's RefiPlus program.*

Loan Quality Review Process

Ensures compliance and provides lenders with actionable data and feedback about loan origination quality.

Post-purchase file review process

- Validates that loans Fannie Mae purchases were originated in accordance with applicable requirements.
- Uses proprietary underwriting risk assessment forensics tool in quality control reviews and finds data anomalies that may impact eligibility.
- Full underwriting review of the loan is completed when a loan file is requested from a lender.

Fannie Mae's loan review process pairs analytical tools with human reviews to ensure compliance.

Loan defect remedies

Remedies enforce contractual rights and motivate the lender to correct their manufacturing processes.

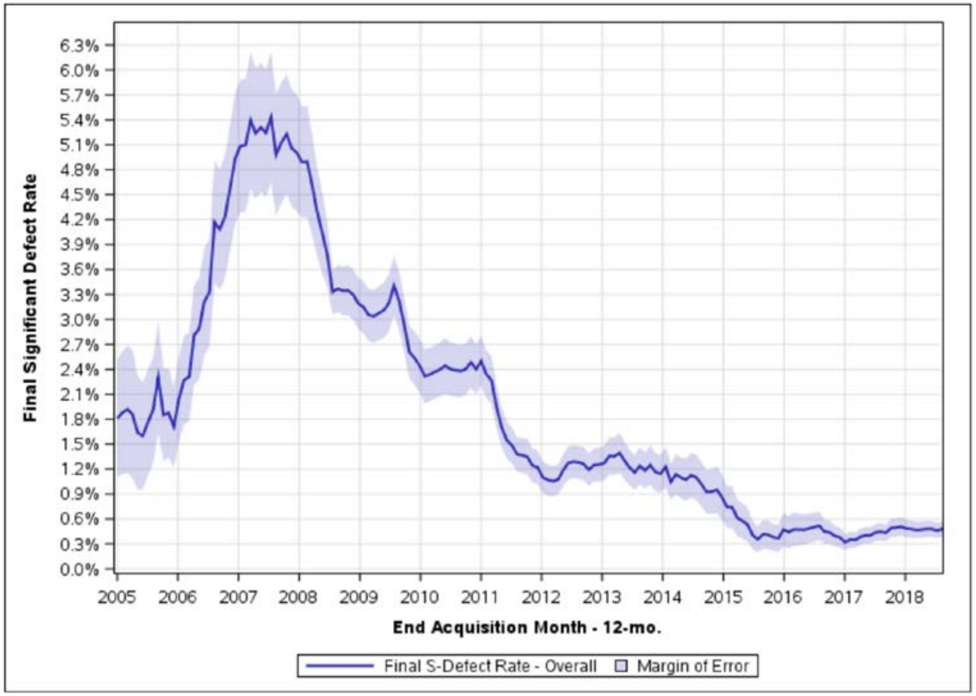
Defect type	Defect description	Remedies
Finding	Defect does not necessitate a change in the price of the loan or result in the loan being ineligible for delivery.	Lender submits data correction. • Could trigger CAS Reference Pool removal, depending on nature of data change.
Price-adjusted loan	Loan was otherwise eligible for delivery had the correct loan-level price adjustment (LLPA) been paid to Fannie Mae by the lender.	Lender submits data correction and pays the applicable LLPA. • Could trigger CAS Reference Pool removal, depending on nature of data change.
Significant defect	Defect that either necessitates a change to the price on which the loan was acquired or results in the loan being ineligible for purchase.	Loan repurchase, or repurchase alternative, which may include payment of a fee and/or an agreement by the lender to provide recourse on the loan. • Repurchases and repurchase alternatives are treated as CAS Reference Pool removals.

Post-Purchase Loan Review Findings

Fannie Mae's digital vision over time should reduce manual errors that result in loan defects:

- Income — incorrect calculation (self-employed or rental income).
- Property — inappropriate/dissimilar comparable sales.
- Undisclosed liabilities.

Eligibility defect rates for Single-Family loan acquisitions based on random post purchase review outcomes:



Review data as of May 31, 2005 – May 31, 2019 loan acquisitions.

Loan Quality Connect™

Connecting Fannie Mae and our lenders in an ongoing partnership to drive loan quality.

Loan Quality Connect is an interactive loan quality management system that is the hub for collaboration.

- Transforms how we work with lenders — simplified technology replacing the Quality Assurance System and File Transfer Portal.
- More importantly, it provides the tools to support seamless collaboration and drive increased certainty.

Simplified technology

- One-stop shop for loan file submissions and status updates.
- Save time and money with simplified doc management.
- No integration required.

Seamless collaboration

- Instant communication tools for process efficiencies.
- No email or spreadsheets — all documents and communications stay within the system.

Increased certainty

- Instant status updates.
- Real-time loan quality feedback.
- Self-serve reporting and data visualization.

Fannie Mae QC specialists

- Dedicated Fannie Mae QC specialists interface directly with our lenders.
- Support lender with action planning to address top findings and defects.
- Provide analysis and recommendations related to loan manufacturing quality.
- When loans with significant defects are found, Loan Quality Control (LQC) and QC specialists work with lenders to assess if repurchase or repurchase alternatives are appropriate.

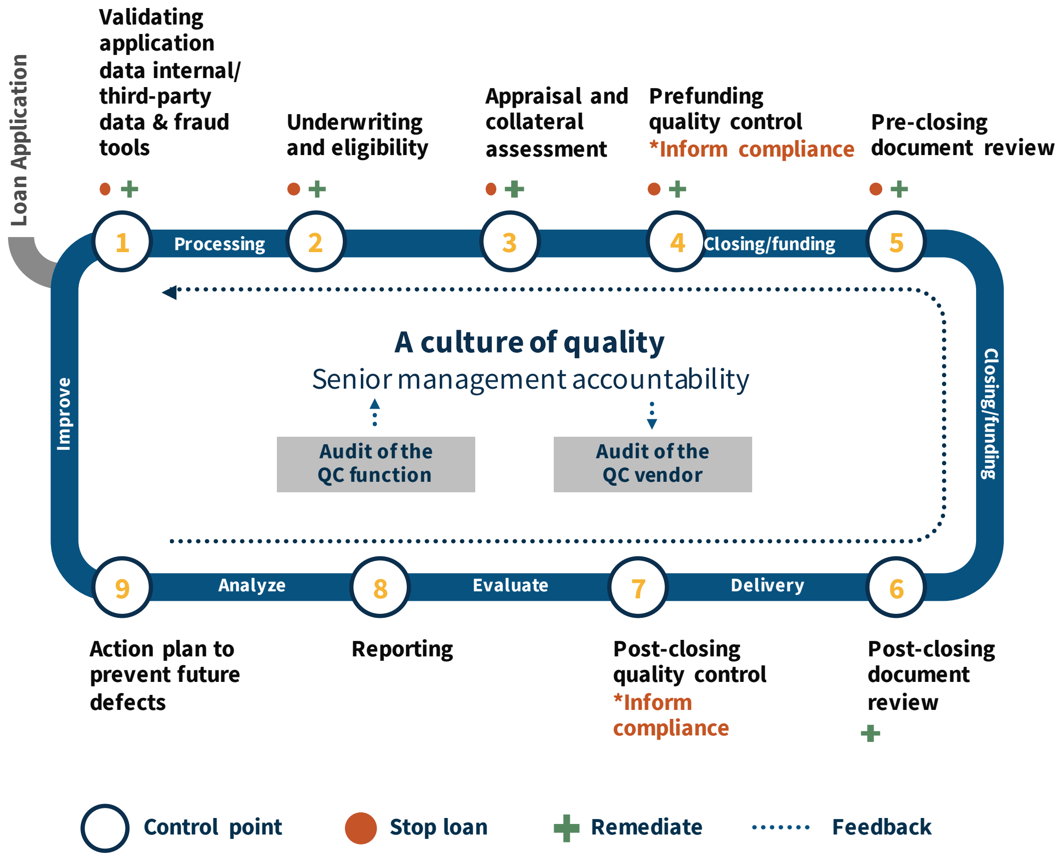
Training designed to foster loan quality and reduce defects

- Training resource catalog offers comprehensive collection of resources available to lenders.
- Quality control self-assessment tool enables quality control managers to analyze the state of their programs.
- Annual risk management and QC boot camp provides intensive live training on underwriting and quality control requirements.
- *Beyond the Guide* offers ideas for enhancing quality control efforts.

Seller Training Provides Industry Value

Effective, fully integrated quality control program provides value to the lenders' businesses and the overall industry.

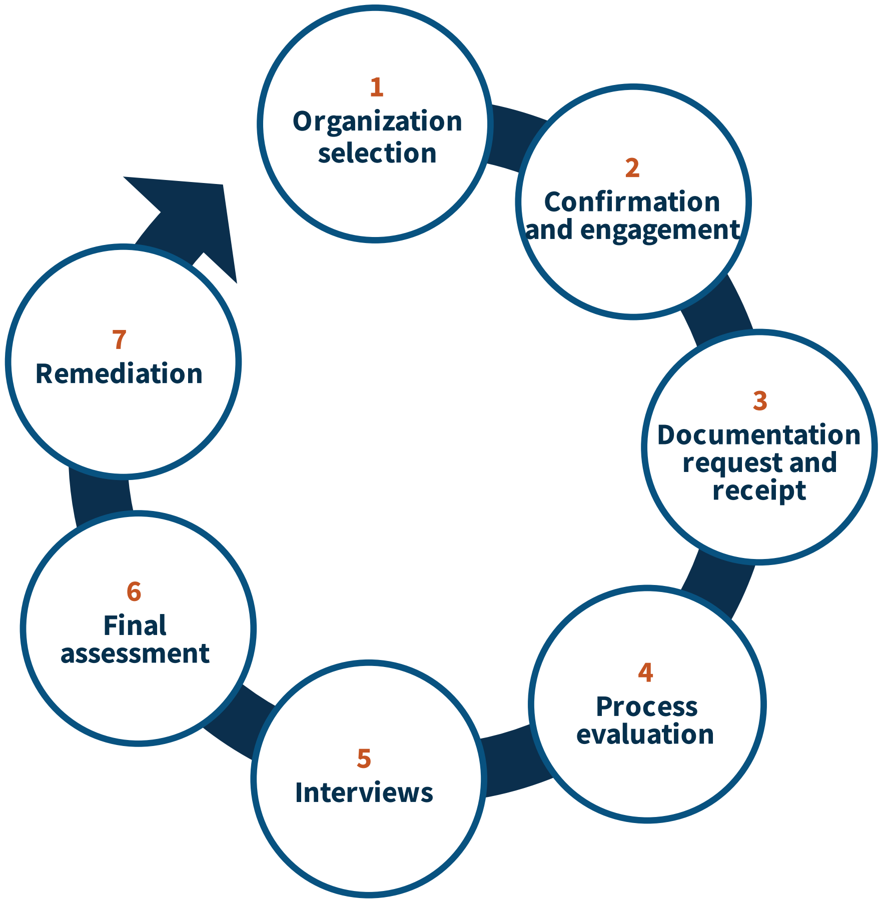
Beyond the Guide **offers best practices for a comprehensive Risk Control Framework**



Evaluating Compliance with Our Guidelines

The Mortgage Origination Risk Assessment (MORA) assesses lenders' operational risks, and the Servicing Total Achievement and Rewards™ (STAR™) operational review assesses servicers operational risk.

- A key component of review is process evaluation — a review of policies, procedures, management reports, and file-level testing. Validates adherence to Fannie Mae requirements and assesses operational capabilities.
- All reviews produce a final assessment — findings, applicable corrective actions, and any recommendations based on tests, interviews, and ratings.
- If remediation is needed, lenders have 30 days from date of report delivery to submit a proposed Action Plan to the Single-Family Remediation team. This team tracks findings, confirms completion of corrective actions, and/or retests to evidence effectiveness of the correction.



LEOPARD Overview

Our proprietary lender monitoring tool, LEOPARD, measures and rank orders our 1,200+ sellers, providing a holistic view across operations, risk, profitability, and execution:

- Empowering the Customer Management Solutions Teams (CMST) to make decisions with more certainty, clarity, and speed.
- Simplifying metrics to focus on critical risk while setting thresholds that are aligned with Board Risk Limits and Triggers.
- Allowing the Single-Family Risk team to quickly identify meaningful and persistent anomalous trends through established risk tiers.

Benefits:

- A more nimble and user-friendly interface.
- New metrics covering additional important risk areas such as counterparty, loan quality, and collateral.
- A new methodology used to categorize lenders by leveraging visual management and aligning with other customer-facing tools.

LEOPARD, an innovative dashboard, was developed to provide enhanced lender monitoring reports to support Fannie Mae's risk management processes.

Fannie Mae’s STAR program is one of the primary ways that we monitor servicers. The framework gauges relative performance across servicers and provides benchmarks to drive better performance.

Fannie Mae’s STAR Program

The program seeks to:

- Align servicer performance with Fannie Mae’s expectations to reduce our credit losses.
- Provide a consistent methodology for measuring servicer performance on the STAR Scorecard.
- Understand and communicate leading practices across the servicing industry using operational assessments.
- Identify and recognize our highest performing servicers.

The STAR Performance Scorecard White Paper is available at singlefamily.fanniemae.com/job-aid/star-white-paper-2019/topic/welcomenew.htm

STAR Performance Scorecard

Servicers are evaluated across distinct business processes that measure performance in terms of a servicer's ability to prevent credit losses for Fannie Mae leveraging scorecard metrics and operational assessments.

General servicing

Measured on managing early term roll rates, call center management, and investor reporting and custodial accounting.

Measured on their general servicing functions that include loan payment processing, escrow account management, and ensuring that loan boarding practices are managed consistently.

Solution delivery

Measured on their ability to resolve delinquent loans and effectiveness in providing the appropriate loss mitigation or liquidation product.

Measured on their standard practices for borrower outreach, loan modification, and liquidation practices in order to meet Fannie Mae requirements.

Timeline management

Measured on their ability to resolve or liquidate loans beyond the allowable foreclosure time frames, timely reporting of new REO inventory, and ensuring property is marketable.

Measured on their foreclosure proceedings conducted appropriately by participating in foreclosure initiation, timeline management and reporting, and process management, including mortgage default law firm management.

Our servicers' success is essential in achieving Fannie Mae's goal of preserving home ownership and reducing taxpayers' and investors' exposure to credit losses.

Incentives to Drive Performance

Incentives are leveraged to motivate servicers to deliver improved performance.

Encourage earlier borrower contact and faster solution delivery to distressed borrowers:

- Improve outreach and service to borrowers.
- Achieve better post-modification performance.
- Align investor and servicer benefits.
- Increase value returned to Fannie Mae, taxpayers, and investors.

Monetary incentives tied to timing of solution delivery:

- Incentives as high as $1,600 for eligible modifications occurring for loans that are less than or equal to 120 days delinquent.
- Incentives as high as $2,500 for short sale and mortgage release closings that are less than or equal to 210 days delinquent.

Faster solution delivery supports improved performance metrics measured as part of STAR.

Remediation and Escalation

STAR program prescribes corrective actions as needed and escalates to leadership if remediation is not completed as agreed.

Findings and remediation

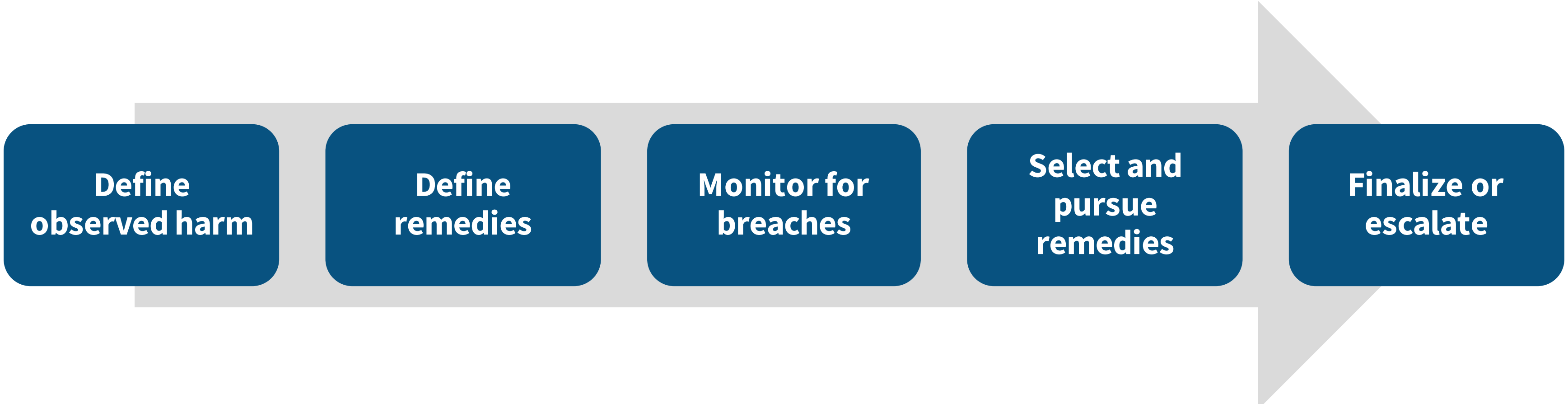
- Final reports are issued with prescribed corrective actions and expected resolution due dates for each finding tracked in an action plan.
- Dedicated analysts are assigned to assist the servicer through its remediation efforts to ensure compliance as each finding is cleared.
- If remediation is not completed by the agreed-upon due date or if a servicer is unable to clear a finding, the issue is escalated to cross-functional leadership.

Escalation

- Monthly reports are reviewed to maintain awareness of all open findings and the current status.
- Quarterly status updates and recommended actions are provided for servicers with overall ratings of Needs Significant Improvement or Unsatisfactory and if remediation efforts are stalled or unacceptable to resolve the finding.
- Guidance is issued by leadership for required action.

Remedies for Non-Performance

Active monitoring of non-performance includes:



We generally follow a waterfall approach to pursuing remedies for servicing defects:

- Opportunity to Cure — Servicers typically are given an opportunity to correct a servicing defect.
- Repurchase Alternative — If the servicer is unable to correct the servicing defect, Fannie Mae's primary remedy generally is a repurchase alternative such as an indemnification for any loss.
- Repurchase — A remedy whereby the servicer repurchases either the mortgage loan or the property that was securing the mortgage loan.

Fannie Mae also assesses compensatory fees in certain circumstances to compensate Fannie Mae for losses caused by poor performance by the servicer.

Servicing remedies help us recover losses and emphasize compliance with our *Servicing Guide*.

Live Q&A

Caroline Patane
VP of Single-Family
Credit Risk Counterparty

Bill Cleary
VP of Single-Family
Loan Quality

Lunch

Visit the microsite at fanniemae.com/ratingagencyday

Username: fanniemae
Password: ra2020

Servicing Policies

Cyndi Danko
VP of Single-Family Credit Risk Management

Richard Plotnick
Director of Single-Family Digital Products, Servicing

Kathleen Pagliaro
Director of Credit Risk Transfer

Borrower Outreach

Quality Right Party Contact (QRPC), a uniform standard for communicating with borrower, co-borrower, or trusted advisor, supports resolution of mortgage loan delinquency. The servicer must make every attempt to achieve this uniform standard.

KnowYourOptions
By Fannie Mae

Quality Right Party Contact aims to:

- Determine reason for delinquency and whether it is temporary or permanent.
- Assess whether borrower has ability to repay mortgage loan debt.
- Educate borrower on available workout options, as appropriate.
- Obtain commitment from borrower to resolve the delinquency.

Fannie Mae establishes, and monitors servicers' progress against, transparent outreach timelines in order to assist borrowers with foreclosure prevention options quickly and effectively.

Helps servicers to help their borrowers. Benefits include:

Fannie Mae

- Reduction in credit losses saves taxpayer dollars.
- Reduction in foreclosures and SDQ.
- Suite of solutions available to homeowners earlier in delinquency cycle results in better loan performance.

Servicers

- Set industry standard of customer service excellence.
- Improved response rates and take-up rates.
- Improved STAR performance.
- Increased incentives for earlier loss mitigation resolution.

Homeowners

- Options to avoid foreclosure discussed early, increasing likelihood of maintaining homeownership.
- Early engagement builds relationships and homeowner advocacy.
- Increased satisfaction with loss mitigation experience.

Borrower Outreach Timelines

Prescriptive borrower outreach sets standards for timely resolution of loss mitigation activities.

Day

17 | 36 | 45 | 60 | 106 | 121

17: For first-lien mortgage loans, servicer must send a payment reminder notice to borrower no later than 17th day of delinquency if payment has not been received.

36: No later than 36th day of delinquency, calls made every seven days until QRPC is made, borrower response package is received, or delinquency status is resolved.[1]

45: If QRPC or resolution has not been achieved by 45th day of delinquency, servicer must send either a Borrower Solicitation Letter or a Borrower Solicitation Package.

Modification related activities

Once a complete borrower response package is received, servicer has 30 days to evaluate borrower for a workout option and must provide an Evaluation Notice to borrower within 5 days after making the decision.

If granted a modification, borrower enters a trial period plan, which has a duration of 3 – 4 months depending on the delinquency at start of trial.

Foreclosure related activities

On or after 60th day of delinquency, the first inspection takes place.

If property is a first-lien and is not vacant or abandoned, servicer must issue a breach letter no later than 75th day of delinquency.

Days 106 – 120, within 15 days prior to foreclosure referral date: Pre-referral account review.

Day 121+ (for principal residences) and not later than Day 120 (for non-principal residences), referral to foreclosure if complete Borrower Response Package is not received.

[1] The servicer is authorized to continue contact attempts beyond the 210th day of the delinquency until Quality Right Party Contact is achieved, borrower response package is received, or delinquency status is resolved.

Comprehensive Disaster and Hardship Response

Through policies and guidance in our *Selling* and *Servicing Guides*, as well as recently introduced solutions, Fannie Mae provides a comprehensive disaster and hardship response.

Homeowner support

- Suspend late charges.
- Short-term foreclosure and eviction moratorium to determine disaster impact to homeowners and property.
- Fannie Mae's Disaster Response Network™, a comprehensive case-management service for disaster-affected homeowners whose mortgage loans are owned by Fannie Mae.
- Fannie Mae's Know Your Options provides help for homeowners and renters impacted by hardship, including "Here to Help" in response to COVID-19.

Customer support

- In some cases, reimburse seller/servicers for costs of inspecting impacted properties.
- In some cases, provide updated underwriting and appraisal flexibilities based on the disaster or hardship scenario.
- Update representations and warranties relief framework to address loans in disaster forbearance.

Loss mitigation solutions

Servicers are authorized to offer eligible borrowers forbearance plans for up to 12 months. Once those expire, loss mitigation options may include:

- The borrower resumes making mortgage payments and brings their loan current through reinstatement.
- The borrower is approved for another workout option, including a repayment plan, payment deferral, or modification option.

Property preservation

- Conduct damage assessments on active and REO properties using mobile technology and aerial photography.
- Timely distribution of insurance proceeds to homeowners and servicers.
- Balanced servicer delegation for preservation expenses.

Neighborhood stabilization

- REO Sales — provide owner occupants with a First Look.
- Neighborhood Stabilization Initiative expansion to support sales to nonprofits.
- Fannie Mae's robust REO repair strategy helps to provide additional affordable housing for owner occupant purchasers.

Fannie Mae's robust disaster and hardship response provides assistance to servicers to work with their homeowners in times of crisis.

Automated Loss Mitigation Decisioning System

Servicing Management Default Underwriter™ (SMDU™) determines whether a loan is eligible for a modification per Fannie Mae policy, provides borrowers with different temporary or permanent options for their delinquency, simplifies the execution of these options, and responds quickly to changing market conditions (like disaster payment relief).

Superior risk assessment and messaging

Streamlined underwriting and messaging provides clarity and certainty

- Simplified view for different loss mitigation options.
- Streamlined experience on loan modification full life cycle.
- Standardized messaging helps servicers and borrowers.
- Decreases servicers costs associated with implementing/maintaining Fannie Mae loss mitigation policy.

Rapid distribution of policies and product guidelines

Rapid delivery of new products, policy and eligibility criteria

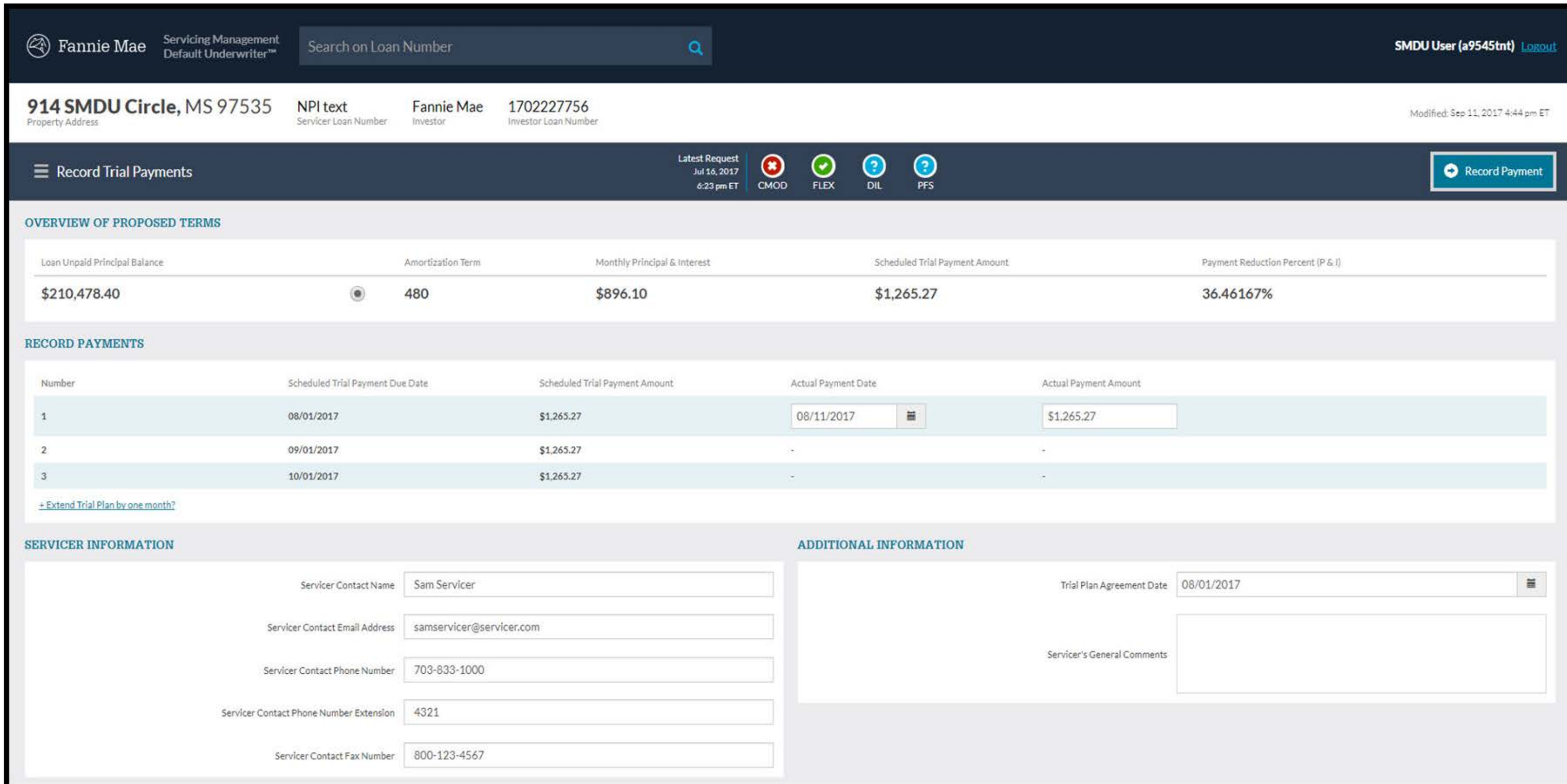
- Fully integrated (through B2B API or UI) with all leading vendors.
- Available for use 24 hours a day, 7 days a week.
- Automated Rules engine and Agile squads for rapid delivery.

Greater certainty and consistency

Standardized data set allows for increased consistency

- Leverages Fannie Mae-provided data, including originations data, property valuations, modification history, etc.
- Ensures borrowers receive a consistent evaluation from servicer to servicer.
- Data views and messages can be leveraged by servicers for borrower communications.
- R&W relief to servicers on all decisions and execution performed in SMDU.

Servicing Management Default Underwriter



Foreclosure Management

Servicers ensure foreclosure proceedings are conducted appropriately by participating in foreclosure initiation, timeline management and reporting, and process management.

Foreclosure initiation	Timely and complete review of loans that are determined eligible for foreclosure prior to referral.
Timeline management and reporting	Maintain an accurate foreclosure timeline and status tracking system as well as all related foreclosure documentation.
Process management	Processes that monitor and manage MDC law firm performance related to foreclosure and bankruptcy.

Key metrics

- STAR timeline management metrics.
- Transition to beyond time frame.
- Motion for relief referred timely.
- REOGrams submitted within timeline.
- Title issues resolved within 45 Days.

Servicers play a key role in ensuring that foreclosure proceedings are conducted appropriately. Metrics track their performance and influence their STAR rating.

Connecticut Avenue Securities® (CAS)

Kathleen Pagliaro

Director of Credit Risk Transfer

Temporary Payment Forbearance

- Reduced interest collections due to temporary payment forbearance **do not affect interest payments to CAS investors.**

- A borrower who enters a temporary payment forbearance plan may continue making scheduled payments and **may not become delinquent.**

- **Payment forbearance will affect the amount of principal distributed to CAS investor.** Principal is not distributed to CAS notes unless it is collected from the borrower.

- A loan in temporary payment forbearance will be reported as **delinquent in CAS** if the borrower is making partial or no payments during the forbearance period.
  - Delinquent loans are included in the Distressed Principal Balance calculation if the loan is 90 days or more delinquent.

Repayment Plans

If a loan enters into a Repayment Plan following the temporary payment forbearance plan, it will be disclosed to MBS and CRT investors as **delinquent until the repayment plan is complete**.

Loan Delinquency

As the borrower gradually repays the missed payments over the term of the repayment plan, the loan will be reported as progressively less delinquent until the plan is complete and the loan is reported as current.

Casualty Event Reversal

For the fixed severity deals with casualty event reversal provision (CAS 2013-C01, CAS 2014-C01, CAS 2014-C02, CAS 2014-C03), the reversal would only occur if the borrower completed their repayment plan within the three-month window after the conclusion of the forbearance period.

COVID-19 Payment Deferral Option

- Loans in COVID-19 payment deferral are **not** treated as loan modifications for CAS.
- The deferral of missed P&I payments does not affect the ongoing contractual monthly payment due from the borrower and **will not result in a Modification Loss Amount** to investors.
- Borrowers that enter into COVID-19 payment deferral resume making their contractual P&I payments. However, the **missed P&I payments are not due until the loan's maturity or earlier pay-off**.
- Interest payments to CAS investors will continue to be made and will be based on the total loan balance.
  - Payments are inclusive of all deferred amounts (including any allowable servicing advances to third parties (i.e., T&I) that are part of the deferred amount).
- Upon entering into the COVID-19 payment deferral agreement, the related loan will be **reported as current**.
- **Actual Loss Deals**: If a loan in a COVID-19 payment deferral agreement subsequently defaults, the severity will be calculated to include any deferred interest, taxes, and insurance that is due as part of the payment deferral agreement.

Cashflow impacts by loss severity structure

Deal type	Treatment
Actual Loss	A loan entering a COVID-19 payment deferral agreement will not be included in the Distressed Principal Balance for purposes of the delinquency test.
Fixed Severity (no casualty provision) CAS 2013-C01, CAS 2014-C01, CAS 2014-C02, CAS 2014-C03	A loan that was less than 6 months delinquent prior to entering the deferral agreement will not become a credit event.
Fixed Severity (with casualty provision) CAS 2014-C04, CAS 2015-C01, CAS 2015-C02, CAS 2015-C03	A loan that was less than 6 months delinquent prior to entering the deferral agreement will not become a credit event. If a loan became a credit event while in forbearance due to COVID-19 and the borrower entered into a COVID-19 payment deferral at the conclusion of their forbearance period, that loan would become a reversed credit event reference obligation.

Loan Modifications

As of July 1, 2020, the Extend Mod & Cap and Extend Mod options are no longer part of the COVID-19 hierarchy. The new COVID-19 hierarchy replaced those options with the COVID-19 Payment Deferral and the Fannie Mae Flex Modification.

- In cases of permanent hardship where a loan modification is pursued, the implications for CAS investors vary by modification type, as well as across deals.

- A Modification Loss Amount is assessed only for loan modifications that result in a **permanent** interest rate reduction and/or **permanent** principal forbearance.

- Loan modification programs that only result in term extension and/or capitalization of arrears <u>do not</u> result in a Modification Loss Amount.

- Fannie Mae does not include modified loans in the calculation of Distressed Principal Balance for the purpose of the Delinquency Test.

Live Q&A

Cyndi Danko

VP of Single-Family Credit Risk Management

Richard Plotnick

Director of Single-Family Digital Products, Servicing

Kathleen Pagliaro

Director of Credit Risk Transfer

Property Disposition Strategies

Jacob Williamson

VP of Single-Family Collateral Risk Management

John Thibaudeau

Director of REO Disposition

Real Estate Functional Capabilities

Our full range of credit risk management capabilities includes our valuation, sales strategy, and fulfillment operations to maintain and ready properties for sale.

Valuation

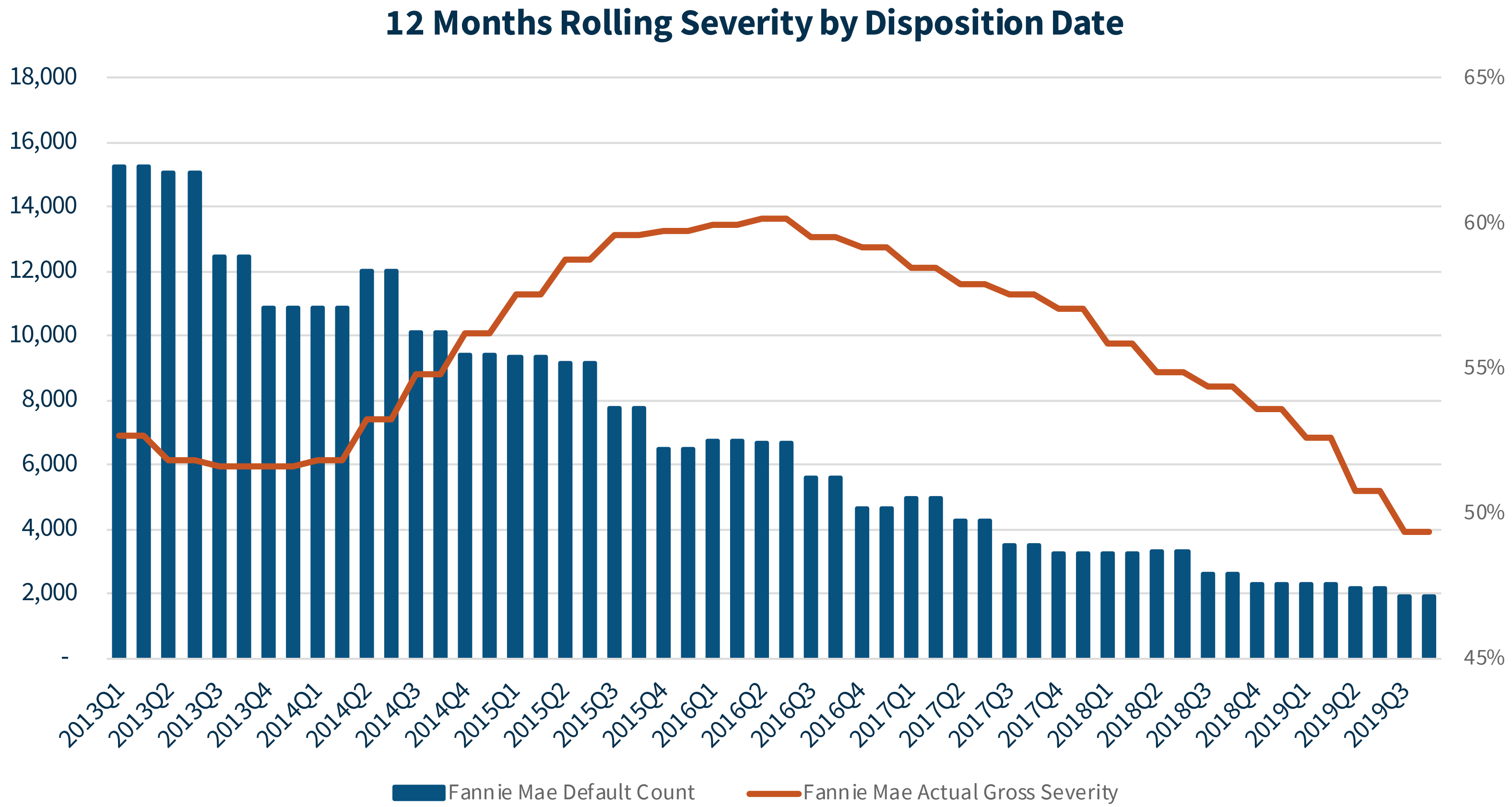
Sales

Fulfillment

- Full range of distressed loan and real estate disposition capabilities utilized for management of the portfolio. **Disposed over 1.8 million properties since 2009.**
- Disposition capabilities include Non-performing Loan (NPL) Sales, Mortgage Releases (Deed-in-Lieu of Foreclosures), Short Sales, Foreclosure Auction Sales, REO Retail Sales, REO Auction Sales, and NSI Sales. Operational capabilities to support these various channels include Valuations, Property Preservation, Repairs, Title/HOA/Tax, Rental/Cash for Keys/Eviction, and Vendor Management.
- Fannie Mae utilizes a 100% in-house REO sales team leveraging a **900-member nationwide realtor network**. Sales teams are assigned geographically based on volumes.
- Fannie Mae leverages our HomePath.com website, which has had **more than 69 million unique visitors since inception,** to market our REO properties, provide information to the public, and as a short sale portal for real estate agents.
- Peer performance based on publicly available severity levels and MLS data shows placement among the industry leaders.

Our real estate strategy is to minimize loss severities by maximizing sales prices, supporting neighborhood stabilization, and minimizing carrying costs.

Our Best-in-Class Loss Mitigation Platform Reduces Loss Severity



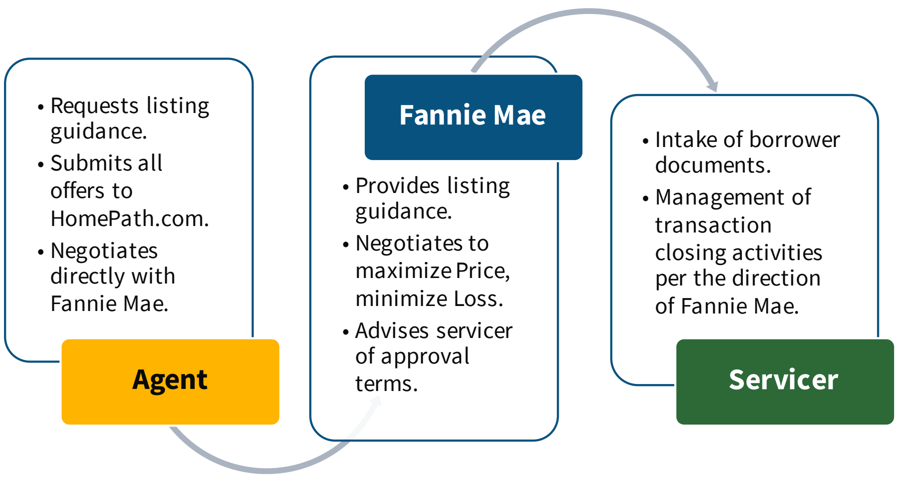
Source: Fannie Mae Single Family Historical Loan Performance Dataset. Population limited to loans disposed via short sale, third-party sale, and foreclosure sale and having an original amortization term > 300 months. Excludes repurchased loans and loans sold via note sale.

Fannie Mae real estate executes, on average, at 98% of sales price to established value across retail and auction platforms.

Pre-Foreclosure Loan Disposition Options

Short sales

- Fannie Mae manages offer negotiation process in-house.
- Pricing determined in conjunction with our valuations team and negotiated directly with buyer's agent.
- All borrower direct communications are distributed through the servicer.
- By managing process in-house, Fannie Mae achieves lower severity, reducing credit losses over a delegated model.



Mortgage Release™

- Mortgage Release (also known as a Deed-in-Lieu of Foreclosure) provides borrowers an expedited option to resolve their delinquency and avoid foreclosure.
- The borrower deeds collateral property to Fannie Mae in exchange for release of repayment obligations under the mortgage.
- Upon completion of a Mortgage Release, the borrower receives a deficiency waiver.
- Borrower may choose between three options upon Mortgage Release: immediate vacancy, a 3-month, or 12-month transition.
  - 3-month: Borrower permitted to live in the property rent free for 90-day period.
  - 12-month: Borrower leases for 12 months after Mortgage Release with rent determined through a review of former owner's financial ability in conjunction with a market value review.
- Mortgage Release option contributes to an average net present value savings over REO.

Property Valuation

Key platform advantages

Data and tools

- Collateral Underwriter, nationwide MLS, and AVMs.
- Market leading valuation volume (>3M since 2008) providing trending data.

Staff

- Experienced leadership and extensively trained reviewers.
- Field reps in key markets, providing local market knowledge and inspections.

Vendor performance

- Highly trained vendors providing appraisals, BPOs, and alternative value products.
- Vendor scorecards continually refining vendor volumes based upon performance.

Fannie Mae maintains an in-house property valuation team to determine property values.

- A team of Fannie Mae employees, including representatives throughout the country in Fannie Mae's top markets who provide local market intelligence and inspect properties that have been valued.
- Leverage multiple third-party vendors, including appraisers and national Broker Price Opinion (BPO) and alternative value product providers, for property condition and value information.

See our Property Valuation and Analytics demo: fanniemae.com/portal/funding-the-market/credit-risk/credit-risk-management.html.

Collateral Valuations

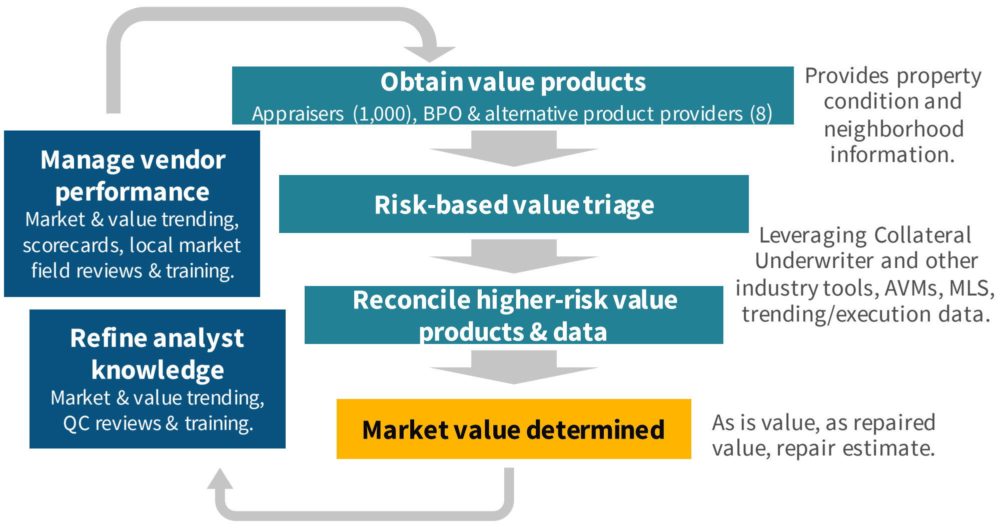
The Single-Family collateral valuations team determine property values to support REO sales, short sales, foreclosure sale bidding, MI terminations, and NPL/RPL sales.

Fannie Mae maintains an in-house property valuation team to determine property values.

- A team of Fannie Mae employees, including representatives throughout the country in Fannie Mae's top markets who provide market intelligence and inspect properties that have been valued
- Leverage a panel of 1,000+ third-party appraisers and eight national Broker Price Opinion (BPO) and alternative value vendors providing property condition and value information.

Why are we different?

1. **Best-in-class staff** — Experienced leadership and extensively trained reviewers; field reps in key markets providing vendor training, inspections and local market knowledge.
2. **Data & tools** — Collateral Underwriter & MLS; market leading valuation volume (>3M since 2008) creating trending analyses.
3. **Vendor performance** — Highly trained appraiser panel and BPO/alternative providers; vendor scorecards continually refine vendor panels.



See our Property Valuation and Analytics demo: fanniemae.com/portal/funding-the-market/credit-risk/credit-risk-management.html.

Valuation Channels

NPL/RPL	▪ ~15,000 every other month. ▪ Utilize exterior BPOs with multiple model validations; 20% review.
Short Sale	▪ ~500 monthly. ▪ Utilize interior appraisal and BPO; 100% review.
Foreclosure Bidding (TPS)	▪ ~1,500 monthly. ▪ Utilize exterior BPOs; ~65% review.
Mortgage Release	▪ ~200 monthly. ▪ Utilize exterior BPOs; 0% review.
MI Cancellation & Mods	▪ ~5000 monthly. ▪ Utilize interior BPOs or alternative appraisals on MI Cancellation and AVMs/exterior BPOs on mods.
REO — Forward and Reverse	▪ ~1,500 monthly. ▪ Utilize interior appraisals and listing agent BPOs; ~75% review.
Appraisal Modernization & Flexibility Reviews	▪ ~1,000 monthly. ▪ Review pilot appraisals and COVID appraisal flexibilities for quality and accuracy.

All figures as of June 2020.

Property Management Overview

Our property management services seek to enhance the marketability of our properties while supporting neighborhood stabilization.

Maintenance and field quality control

- National and regional supplier mix providing initial and on-going services.
- Multiple layers of QC (broker sign-off, third-party inspections, and in-house field reviews).
- Diverse inspection products (vacant, occupied, repair, and rental).
- Code compliance and vacant property registration teams.

Occupied property management

- Relocation assistance program.
- Occupied sales via auction strategy.
- “Eviction as a Last Resort” framework.
- Multiple lease products offered.
- Hybrid in-/out-sourced model for eviction/redemption follow-up.

Title, closing, HOA/tax operations

- Curative and closing functions leveraging local and national attorneys and suppliers.
- Flexible capacity model for title follow-ups and closings.
- HOA, COA, tax identification, negotiation, and payment facilitation.
- Multiple disposition channel support including e-closings.

Before	After

Initial/routine services

Curb appeal

Clear boarding

Disaster Support

In addition to policy and process changes to support disaster events and recovery, property oversight capabilities have been expanded to include the use of drones and aerial imagery.

- Process/policy adjustments to provide support for disaster recovery activities include:
  - Use of temporary repairs prior to bid approval during insurance claim process to protect collateral.
  - Allow and reimburse for current loan inspections.
  - Leverage data and analytics to narrow the population needed for traditional inspections.
- Mobile disaster inspection capabilities.
- Aerial imagery combined with weather/damage data services to assess portfolio risk/exposure.

Disaster heat map highlighting damage severity zone

Aerial view of properties damaged by Hurricane Maria

Repair Strategy

Current capabilities afford full suite of repair options for all property types and conditions.

- Seasoned local and national Repair Contractor Network.
- Proprietary return on investment modeling tool (RHINO) to determine net present value of repair decision.
- Mobile scoping capabilities.
- Quality assurance of repairs.
- Negotiated material/labor pricing for roofing, plumbing, carpentry, electrical, flooring, etc.
- Specialized products and supplier alliances.
- Energy-efficient and water-saving products.

Before

After

Before

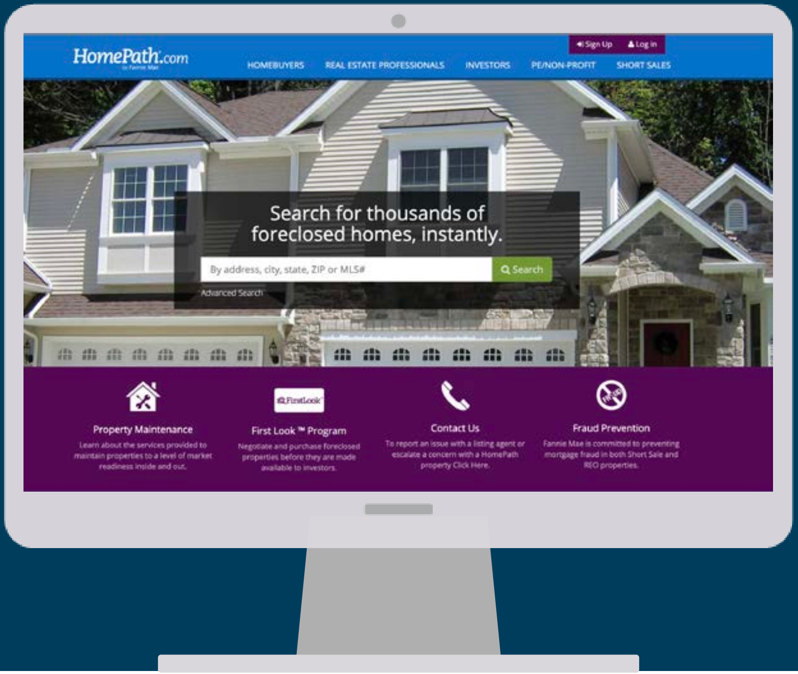
After

Fannie Mae employs a robust quality control process and leverages a national network of repair contractors to maximize cost savings and efficiency.

Virtual staging

HomePath is Fannie Mae's Brand for Marketing REO

More than 3 million unique visitors and 50 million page views annually.



Custom search functionality

FirstLook™ program for owner occupants and non-profits

Payment calculators and **Rent Range** information per property

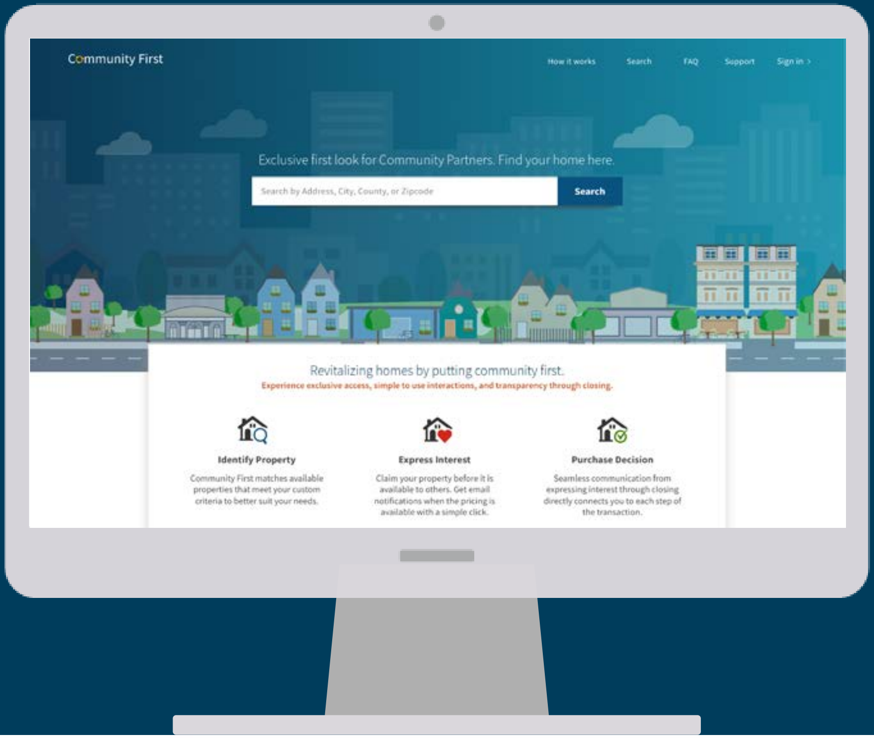
Features repaired properties with **HD photos**

Marketing resources available for agent network

Online offer for easy submission

Syndication to other websites (Zillow®, Realtor®, etc.)

Community First™ Provides Access for Nonprofits, Community Partners, and Public Entity Purchasers



Community First Look - Benefits

Qualified **non-profits**, **community partners**, and **public entities** enjoy special access and pricing.
The simple and straight forward process will help you close on the right property in your area.

Exclusive Access

Approved buyers can express interest and purchase homes before they are listed without competition from investors.

Custom Alerts

Based on your needs, criteria, and areas of interest, e-mail notifications will be sent daily to alert you of new properties that fit your strategy.

Unique Pricing

Early access allows for cost savings on each property allowing your organization flexibility towards the homes end strategy.

Transparency

Online visibility via "Buyer Portal" shows all properties purchased, in your queue, and where they are each step of the process through closing.

Live Q&A

Jacob Williamson

VP of Single-Family Collateral Risk Management

John Thibaudeau

Director of REO Disposition

Closing Remarks

Laurel Davis

VP of Credit Risk Transfer

Additional Resources

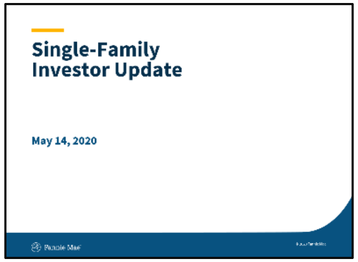
COVID-19 Investor Resources

Fannie Mae remains committed to helping market participants easily access the investor resources and communications related COVID-19.

Investor Resources

Web page focused on COVID-19 investor resources, including FAQs, announcements, and Lender Letters.

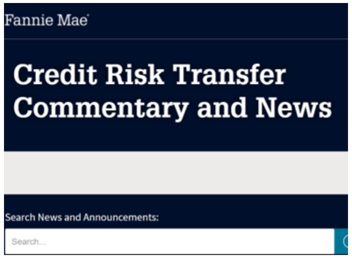
Visit the site.



Webinar Replay

An overview of Fannie Mae's temporary selling, servicing, and collateral policies related to COVID-19.

Access the replay.



Commentary and News

Searchable repository of all news and announcements impacting CRT investors.

Read more.

Data Dynamics Enhancements

New dashboards to view performance of loans in temporary payment forbearance or modification and analyze historical outcomes for those loans.

View user guide.

Sign up to receive the latest news and insights at **fanniemae.com/CMsignup**

Thank you

Please take a minute to share your feedback on today's virtual event in a short survey.

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Data Dynamics®
fanniemae.com/DataDynamics

Contact us with questions:
credit_securities@fanniemae.com