Fannie Mae Ecosystem

Fannie Mae
1100 15th Street, NW
Washington, DC 20005
Phone: (800) 232-6643 Website: www.fanniemae.com

Outside Relationships

Regulators | Capital | Suppliers | Customers

- Public Debt Holders
- Commercial Banks
- Federal Home Finance Agency (FHFA) (Conservator Controls Fannie Mae Business Activity, Sets Required Minimum Capital, and Imposes Limits on Investment Portfolio)

Bond Financing

Commercial Loans (Including Intraday Line of Credit)

Oversight and Management Services as Conservatorship

Business Regulation

Federal Regulation

- Federal Home Finance Agency (Duty to Serve Underserved Markets, Affordable Housing Goals and Allocations, Minimum Capital Requirement, Restriction on Portfolio Activities, and Limits on Debts Incurred)
- U.S. Department of Housing and Urban Development (Fair Lending and Anti-Discrimination Rules)
- U.S. Treasury Department (Purchase Agreement Confers Approval Authority over Issuances of Debt, Equity and New Types of Mortgage-Related Securities and Dividends to Junior Classes of Equity)
- Consumer Financial Protection Bureau (Loan Origination, Finance and Servicing Rules, "Ability-to-Repay" Rule, and Limits on Buying Loans with Term Exceeding 30 Years)
- U.S. Securities and Exchange Commission (Securities Law Reporting Requirements Only)

Federal Home Loan Mortgage Corporation (Federally-Chartered Corporation)

Debt Structure

Debt ($3.488T @ 12/31/2019) | Long-Term Debt Rating: S&P (AA+), Moody's (Aaa), Fitch (AAA) | Short-Term Debt Rating: S&P (A-1+), Moody's (P-1), Fitch (F1+)

- Short-Term Debt: ($26.7 Billion)
- Line of Credit Facility: ($15.0 Billion)
- Total Long-Term Debt: ($3.441 Trillion)
- Senior Fixed: ($123.9 Billion)
- Senior Floating: ($31.6 Billion)
- Debt of Consolidated Trusts: ($3285.1 Billion)
- Total Long-Term Debt of Fannie Mae: ($155.6 Billion)

Equity Structure

Equity ($14.608B) Preferred Stock Rating: S&P (D), Moody's (Ca), Fitch (C/RR6)

- Senior Preferred Stock (under 2008 Purchase/Conservatorship Agreement with U.S. Treasury; $135.4 billion aggregate liquidation preference of Senior Preferred Stock (as of 3/31/20))
- Common Stock: 1,158,087,567 outstanding shares
- 17 Classes of Preferred Stock (with Variable Rates between 4.75% and 8.75%)

Governance

Board of Directors

Amy E. Alving (G,R,T)	Robert H. Herz (A,C,G)	Manuel Sánchez Rodríguez (G,R,T)
Sheila C. Blair (C,G,R)	Antony Jenkings (A,R,T)	
Brian P. Brooks (S,R,T)	Karin J. Kimbrough (A,C,G)	Committees: Audit (A); Compensation (C); Corporate Governance (G); Risk Policy (R); Sustainability (S); Technology (T)
Hugh R. Frater (S)	Diane C. Nordin (A,C,R)	
Renee Lewis Glover (S,G,T)	Jonathan Plutzik	
Michael J. Heid (A,S,C)	Ryan A. Zanin (S,C,R)	

Management Team

Hugh R. Frater (CEO)	John S. Forlines (SVP, Risk	Kimberly H. Johnson (EVP, Operations)
David C. Benson (President)	Nancy Jardini (SVP, Compliance)	
Celeste M. Brown (EVP, CFO)	Steve James (SVP, Marketing)	Stergios Theologides (EVP, General Counsel & Secretary)
Andrew J. Bon Salle (EVP, Single-Family Business)	Michele M. Evans (EVP, Multifamily)	Jeffery R. Hayward (EVP, Administration)
	Doug Watt (SVP, Audit)	

Human Resources
- Talent Acquisition
- Culture
- Compensation and Benefits
- Diversity and Inclusion
- Talent Development
- HR Information

Audit, Risk, and Compliance
- Internal Audit
- Compliance
- Enterprise Risk Management
- Audit Committee Reporting
- Financial Forecasting
- Analytics

Capital Markets
- Loan Pricing
- Trading
- Structuring
- Multifamily Securitization
- Research & Modeling
- Investor relations
- Strategic Planning/Research
- Portfolio Management

Finance and Accounting
- Internal Audit
- Financial Reporting
- FP&A/Analytics
- Risk Management
- Treasury/Cash Management
- Asset/Liability Management
- Budget Support
- Accounting
- Insurance

Selling and Marketing

Seniors Housing	Digital Strategy	Content Creation
Conventional	Origination & Underwriting	Targeted Portfolio Housing
Mortgage Eligibility		
Media Relations	Selling and Delivery	

Corporate Matters

Professional, Corporate, IT, Facilities, & Financial Services

Real Estate	Litigation Management	Software Licenses
Structured Transactions	Law Firm Management	IT Equipment
Contract Management	Procurement Management Systems	IT Infrastructure
Corporate Governance	Securities Law	Sustainability
Compliance	Employment Law	

Servicing
- Servicing Default Management
- Servicing All Mortgages
- Transfers of Servicing

Administration

Government and Industry Relations	Conservatorship and Regulatory Affairs
Public Policy	Economic and Housing Research
Public Relations and Corporate Marketing	Internal Affairs

Operations

Fannie Mae's Role in the Secondary Mortgage Market

Fannie Mae securitizes a substantial portion of mortgage loans acquired. The securitization transactions fall into three broad categories: lender swap transactions, portfolio securitizations, and structured securitizations. Lender swap transactions (as pictured below) are the most common type for Fannie Mae.

STEP 1: When an individual wants to purchase a home but lacks the cash in-hand to purchase it outright, they must receive a cash loan from a lender (commercial bank). In exchange, the lender acquires a property interest (mortgage) in the home until the homeowner pays off the loan.

STEP 2: For liquidity or default risk reasons, approved lenders will transfer a pool of mortgage loans to Fannie Mae in exchange for mortgage-backed securities (lender swap transactions) that the lender can sell to investors for cash.

STEP 3: After purchasing mortgages from lenders, Fannie Mae puts these mortgages in trust that packages similar mortgages together to create mortgage-backed securities (MBS). Fannie Mae will guarantee repayment of principal and interest on the loans underlying the mortgages in exchange for a guaranty fee.

Fannie Mae and Lenders engage in Credit Risk Transactions (CRT) in order to facilitate the flow of capital and manage credit and interest rate risks.

STEP 4: Since Lenders need to maintain cash in-hand to continue to make home loans to Borrowers, the Lenders sell (tranches) of Fannie Mae's relatively safe MBS to investors who are entitled to principal and interest payments on the underlying securities from Fannie Mae.

STEP 5/6: Fannie Mae is taking on the credit risk associated with the underlying mortgages packaged into MBS. To minimize the credit risk Fannie Mae holds, Fannie Mae: (i) transfers credit risk to investors through the sale of non-guaranteed credit-risk securities in exchange for cash (interest is paid to investors on the notes) and (ii) engages in insurance risk transfers in which it pays insurance premium for coverage upon credit default.

1. Transfer of Mortgages / Cash Loan: Borrowers ↔ Lender
2. Transfer of Mortgages / Mortgage-Backed Securities: Lender ↔ Fannie Mae
3. Transfer of Mortgages & Agreement to Guaranty Loans / Mortgage-Backed Securities: Fannie Mae ↔ MBS Trust
4. Mortgage-Backed Securities / Cash: Lender ↔ Interest Investors
5. Credit Securities or Risk Transfer / Cash / Mortgage-Backed Securities Payments: Fannie Mae ↔ Credit Investors
- Step 2 Swap Transaction: Fannie Mae ↔ Lender

Single-Family Segment: Purchase, Securitization, Guarantee of Single-family Loans and Management Of Mortgage Credit Risk (This Segment Accounts For 90% of Fannie Mae's Guaranty Book of Business)
- Properties with 4 or fewer residential dwelling units
- Single-Family Guaranty: $3,075B

Multi-Family Segment: Purchase, Securitization, and Guarantee of Multifamily Loans (e.g., Loans for Apartment Complexes) and Securities, Investments in Those Loans and Securities, and the Management of Multifamily Mortgage Credit Risk and Market Risk
- Properties with 5 or more residential dwelling units
- Multi-Family Guaranty: $342B

Liquidity and Capital Management: Liquidity and Funding Risk Management to Maintain Sufficient Capacity to Meet Ongoing Needs, Adhere to Regulatory Requirements and Manage Exposure.

Securitization and Guarantee Products

Level 1 Securitization Products: Pass-Through Securities Representing Beneficial interest in Trusts Holding Pools of Single-Family Mortgages/Loans

- **Universal Mortgage-Backed Securities (UMBS)** Fixed-rate mortgage loans eligible for financing through the TBA market, "first-level" UMBS issued by Fannie Mae are backed only by mortgage loans Fannie Mae has acquired
- **Adjustable-Rate (ARM) MBS** (various subtypes of ARM MBS are comprised of adjustable-rate mortgage loans with an interest rate that adjusts periodically based on a specified index, which comprise 2% of Fannie Mae's conventional guaranty book of business)
- **Single-Class Fannie Mae MBS** (receive principal and interest payments on the mortgages backing the MBS directly in proportion to their percentage ownership)
- **Fixed-Rate Mortgage (FRM) MBS** (securities backed by pools of fixed-rate mortgages issued in 50-basis-point increments)
- **Multi-Class Fannie Mae MBS** (creates several classes of securities, related to a specific portion and priority of cash flows which may be shorter than the maturity of the underlying mortgages and/or mortgage-related securities
- **Single-Family Green MBS** (includes only mortgage loans backed by newly constructed single-family homes with ENERGY STAR certification.

Re-Securitization Products: Pass-Through Securities Representing Beneficial interest in Trusts Holding Pools of Level 1 Securitization Products

- **Supers** (single-class, pass-through, TBA-eligible securities in which the underlying collateral consists of groups of existing UMBS and/or Supers. The securities that back Supers may be issued and guaranteed by either Fannie Mae or Freddie Mac
- **Real Estate Mortgage Investment Conduit (REMIC)** (re-securitization of previously issued mortgage securities that divide cash flows of underlying collateral into two or more classes)
- **Stripped MBS (SMBS)** (multi-class, pass-through, grantor trust securities created by "stripping apart" the principal and interest payments from the underlying mortgage-related collateral into two or more classes.
- **MEGAS** (single-class, pass-through, non-TBA-eligible securities in which the underlying collateral are groups of existing Fannie Mae non-TBA MBS and/or Fannie Mae Megas)
- **Grantor Trust** (pass-through vehicle, like a REMIC, that must receive principal on the underlying collateral each month for federal income tax purposes)

Products and Activities

Loan Purchases and Commitments

- **Conventional Loans** Financing with 30 lenders, 25 of which delivered loans under Fannie Mae's Delegated Underwriting and Servicing (DUS) program, which is comprised of large financial institutions and independent mortgage lenders, to address the rental housing needs of families earning at or below 120% of the median income in their area.
- **Targeted Affordable Housing** GSE Act requires Fannie Mae to serve very low-,low-, and moderate-income families in the: (1) manufactured housing, (2) affordable housing preservation, and (3) rural housing markets.
- Investment in low-income housing tax credit (LIHTC) projects
- Average Loan Size of $12M, with a typical term of 5, 7, or 10 years, with balloon payments due at maturity
- Must set aside an amount equal to 4.2 basis points for each unpaid principal balance of new business purchases to specified HUD and Treasury funds in support of affordable housing ($280M in 2019).
- **Refi Plus; Home Affordable Refinance Program (HARP); and Home Affordable Modification Program (HAMP)** (includes refinancing and mortgage loans with rate-reset modifications; 5% of conventional guaranty book of business)
- 37.5% of multifamily business must be "mission-driven, affordable housing, pursuant to FHFA's guidelines"

Securitization and Multifamily Products/Services

- **Multifamily Fannie Mae MBS** (each MBS is backed by either fixed-rate, or adjustable-rate mortgage loans, but not both; Multifamily MBS may be placed into Megas, REMICs, or other Structured Transactions)
- **Multifamily Fannie Mae GeMS** (structured transactions for customer's multi-family mortgage-related assets in exchange for a transaction fee)
- **Multifamily REMIC** (pass-through certificate for multifamily real estate investment conduits)
- **Multifamily Megas** (require that the underlying securities have the same prefix and that the pass-through rates fit within a certain range)
- **Desktop Underwriting Service (DUS)** (program for multifamily credit risk sharing)

Investing and Related Activity
- **U.S. Treasury Securities** ($39.5B @ 12/31/19)
- **Mortgage Loans** (Loans held for sale, investment, etc.)
- **Risk Management Transactions**
- **Agency Securities** (investments in Fannie Mae, Freddie Mac, and Ginnie Mae Securities)
- **Private Label Alt-A or Subprime Mortgage-Backed Securities** (can be re-securitized to include Fannie Mae's guaranty)
- **Retained Mortgage Portfolio** (including mortgage loans and mortgage-related securities)
  - **Lender Liquidity** (Agency Securities & Mortgage Loans)
  - **Loss Mitigation Loans**
  - **Other** (including Reverse Mortgage Loans/Securities, Private-Label, Mortgage Loans/Revenue Bonds)

Funding and Liquidity Management
- **Short and Long-Term Debt Securities**
- **Other Investments Portfolio:** (Cash and Cash Equivalents, Federal Funds Sold and Securities Purchased Under Resell or Similar Arrangements, and U.S. Treasury Securities)
- **Off-Balance Sheet Arrangements**

Interest-Rate Risk Management
- **Managing Economic and GAAP Exposure to Changes in Interest-Rates (Derivatives Transactions)**

Competition
- **Federal Home Loan Mortgage Corporation (or Freddie Mac)**
- **Other Financial Institutions that Retain or Securitize Loans (private-label securities)**
- **Federal Housing Administration/U.S. Department of Veterans Affairs, with Securitization by Government National Mortgage Association (or Ginnie Mae)**

Primary Mortgage Market

Homeowners/Sellers

- 1B Cash
- 1C Single-Family Home Sales

Single and Multifamily Home Buyers

- 1A Cash Loans
- 1D Qualifying Single-Family Mortgages
- 2C Loan Servicing and Collection

Financial Institutions (i.e., Lender Customers of Fannie Mae) (as Originators, Sellers or Servicers of Loans)

Top Lender Customers
- Wells Fargo Bank, N.A.
- Quicken Loans Inc.
- Walker & Dunlop
- CBRE Multifamily Capital

Other Lender Customers
- Mortgage Banking Companies
- Savings/Loan Assoc.
- Insurance Companies
- Savings/Commercial Banks and Credit Unions
- State and Local Housing Finance Agencies

Prudent Loan Underwriting and Servicing Standards (Through Fannie Mae's Desktop Underwriter or Freddie Mac's Loan Product Advisor)

2A **Sales of Single-Family Mortgages** (Loan Amount Can't Exceed an FHFA-Indexed Amount (Currently $510,400) and Loan-to-Home Value Ratio (LTV) Can't Exceed 80%); *and* **Sales of Multi-Family Mortgages** (Properties Owned by Entities That Generate Cash Flows) **In Exchange for Mortgage Backed Securities**

2B **Cash Fee Paid** (as Consideration for Fannie Mae's Guarantee of Principal and Interest on the Mortgages Bought)

2D **Loan Payments Collected and Remitted to Fannie Mae**

Secondary Mortgage Market

4A **Sale of Guaranteed Mortgage-Backed Securities** (Received in Step 2A)

- Investors in Mortgage-Backed Securities
  - U.S. Treasury
  - Federal Reserve System
  - Investors in Mortgage-Backed Securities (Assumes the Interest Rate, Prepayment and Liquidity Risk on the Underlying Loans; Fannie Mae Retains the Credit Risk)
  - Investors in Credit Risk Transfer Transactions

3A **Establish Trust and Transfer of Mortgages to Trust** (with Guarantee of Interest and Principal Payment on Underlying Loan)

3B **Issue Mortgage-Backed Securities** (and Pay Guarantee Fee)

3C **Data Acceptance, Issuance Support, and Bond Administration Services** (under Common Securitization Platform with Freddie Mac)

4B **Distribution of Underlying Loan Payments** (Net of any Guarantee Fees—see 2B and 3B)

- Trust (Fannie Mae Serves as Trustee)
- Common Securitization Solutions, LLC (Joint Venture Owned Equally by Fannie Mae and Freddie Mac)

5A **Sale of CAS and CIRT Notes** (Notes are Linked to Fannie Mae's Credit Risk Position—First Loss, Mezzanine, and Senior Positions--Under Mortgage-Backed Securities)

5C **Pay Principal and Interest on Notes** (Less Amounts Payable by Trust to Fannie Mae for Credit Default)

- Credit Risk Transfer and Other Credit Enhancements
- Connecticut Avenue Securities (CAS) and Multi-Family CAS (MCAS) (Fannie Mae's Primary Securities-Based Credit Risk Sharing Vehicle)
- Credit Insurance Risk Transfer (CIRT) and Multi-Family CIRT (MCIRT) (Fannie Mae's Primary Insurance-Based Credit Risk Sharing Vehicle)

5B **Payments to Support Interest Due on CAS Notes**

5D **Payment upon Credit Default on Mortgage-Backed Securities**

6A **Insurance Policies and Collateral** (Linked to Fannie Mae's Credit Risk Position)

6B **Credit Risk Transfer Insurance Premiums**

6C **Payment Upon Credit Default**

Long-Term Standby Commitments (in Exchange for Guarantee Fees)

Contractual Guarantee Fees for Multifamily Securitizations

- Global Insurance and Reinsurance Companies
- Third Parties Holding Mortgage Assets
- Non-Consolidated Trusts

Swaps, Swaptions and Other Derivatives Transactions

Sales or Securitizations of Delinquent or "Seasoned" Loans Re-Acquired by the Guarantee Segments

Electronic Registry That Tracks Loans in the U.S.

- Hedging Counterparties
- Buyers of, and Investors in, Delinquent Loans and Securitizations
- MERS System

Securities Regulation and OTCQB (or Venture Market) Listing Rules

Treasury Agreement to Purchase Equity to Eliminate Net Worth Deficit

Equity Capital

Professional Services

Legal Services Standards

Outside Relationships

Customers | Suppliers | Capital | Regulators

Securities Regulators
- US Securities and Exchange Commission
- OTC Markets Group, Inc.

Shareholders
- U.S. Treasury Department (79.9% Senior Preferred Plus Warrant to Buy Common Stock)

Top Institutional Shareholders
- Capital Research & Management (10.99%)
- Pershing Square Capital Management (9.98%)
- CapWealth Advisors LLC (0.13%)
- Macquarie Investment Management Business Trust (0.11%)
- KBC Asset Management NV (0.07%)

Professional Service Providers
- Deloitte & Touche LLP ((Audit Services)
- Qualifying Default Law Firms (Legal Services to Loan Servicers for Foreclosures, Bankruptcies and Loss Mitigation Arrangements)

Key Company Data

Financials
- Revenue: $122.84B
- Net Revenue: $22.138B
- Net Interest Income: $20.972B
- $3.367T Guaranty Book of Business
- Total Assets: $3.503T

Share Information
- OTC Markets Symbol: FNMA
- Share Price: $ 1.90 (11/4/20)
- Dividend: Currently $0 (Pays a dividend to Treasury by an amount its "net worth" at the end of the immediately preceding fiscal quarter, less its "capital reserve," exceeds zero)
- EPS: $0.01

Resources
- 7,500 employees
- 13 Office Locations

Factors Impacting Fannie Mae's Business and Financial Results

Earnings are Primarily Driven by Guaranty Fees Received for Managing the Credit Risk on Mortgage-Backed Securities Fannie Mae Issues.

- Interest Rates
- Unemployment Rates and Economic Conditions
- Delinquency Rates
- Single-Family and Multifamily Housing and Mortgage Market Conditions

Recent Developments

Own/Guaranty mortgage assets representing approximately 26% of the total U.S. residential mortgage debt outstanding as of 9/30/2019.

Provided over $650 billion in liquidity to the mortgage market in 2019, which enabled the financing of approximately 3 million home purchases, refinancings or rental units.

Fannie Mae has been under the conservatorship of the FHFA since 2008, and because of this, Fannie Mae can only issue dividends to senior preferred stock issued to Treasury.

Treasury has released a plan to reform the housing finance system that is far-reaching in scope and could significantly impact Fannie Mae.

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