

**Federal National Mortgage Association
Fannie Mae**

Enterprise Regulatory Capital Framework Disclosures

For the Quarterly Period Ended December 31, 2023

Federal National Mortgage Association - Fannie Mae
Capital Disclosures Report
For the quarterly period ended December 31, 2023

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Introduction

Fannie Mae is a leading source of financing for residential mortgages in the United States. We are a government-sponsored, stockholder-owned corporation, chartered by Congress to provide liquidity and stability to the U.S. housing market and to promote access to mortgage credit. We primarily do this by buying residential mortgage loans that are originated by lenders. We place these loans into trusts and issue guaranteed mortgage-backed securities (“MBS” or “Fannie Mae MBS”) that global investors buy from us. We do not originate mortgage loans or lend money directly to borrowers. We provide a guaranty on the MBS that we issue. If a borrower fails to make a payment on a mortgage loan that is included in a Fannie Mae MBS, we pay the shortfall amount to the MBS investor. In exchange for providing this guaranty, we receive a guaranty fee. Guaranty fees are the primary source of our revenues.

We are in conservatorship, with the Federal Housing Finance Agency (“FHFA”) as our conservator. During conservatorship, our Board has no fiduciary duties to the company or its stockholders, as they owe their fiduciary duties of care and loyalty solely to FHFA as conservator. Conservatorship and our agreements with the U.S. Department of the Treasury (“Treasury”) significantly restrict our business activities and stockholder rights. For more information about the impact of conservatorship and these agreements on our business, stockholders, and our uncertain future, see “Business—Conservatorship and Treasury Agreements” and “Risk Factors—GSE and Conservatorship Risk” in our Form 10-K for the year ended December 31, 2023 (the “2023 Form 10-K”).

We manage the risks that arise from our business activities through our enterprise risk management program. Our risk management activities are aligned with the requirements of FHFA’s Enterprise Risk Management Program Advisory Bulletin, which are consistent with the general principles set forth by the Committee of Sponsoring Organizations of the Treadway Commission’s (“COSO”) Enterprise Risk Management—Integrating with Strategy and Performance framework. We are exposed to the following major risk categories: credit risk, market risk, liquidity and funding risk, operational risk, and model risk. We are also exposed to these additional risk categories: strategic risk, compliance risk, and reputational risk. These risks can materially adversely affect our business, results of operations, financial condition, liquidity, and net worth.

Our risk management program is composed of four inter-related components:

- Governance and Organizational Structure;
- Risk Appetite Framework;
- Risk Identification, Assessment, Control, and Monitoring; and
- Reporting and Communication Processes.

We manage risk by using the industry standard “three lines of defense” structure:

- First line: Business units and corporate functions—generate, own and manage risks;
- Second line: Enterprise Risk Management (“ERM”) and Compliance & Ethics—independent risk oversight and effective challenge; and
- Third line: Internal Audit—independent assurance.

Our Board of Directors and management-level risk committees are also integral to our risk management program.

As a government-sponsored enterprise (“GSE”), we are subject to the regulatory capital rules issued by FHFA pursuant to the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended (the “GSE Act”). Additionally, we are required to provide timely public disclosures each calendar quarter of the information specified in Subpart D and F of the enterprise regulatory capital framework (“ERCF”). This Capital Disclosures Report fulfills this requirement for Q4 2023 and should be read in conjunction with our 2023 Form 10-K.

FHFA’s ERCF establishes both leverage and risk-based minimum capital requirements. The leverage capital requirement is to maintain tier 1 capital equal to at least 2.5% of adjusted total assets. The risk-based capital requirements are to maintain common equity tier 1 capital, tier 1 capital, and adjusted total capital equal to at least 4.5%, 6.0%, and 8.0%, respectively, of risk-weighted assets (“RWA”). Compliance

with these minimum regulatory capital requirements will be required upon our exit from conservatorship or such later date as FHFA may order. The ERCF also provides the following:

- A requirement that we hold prescribed capital buffers that can be drawn down in periods of financial stress. In general, once we are required to be in compliance with the capital buffers, if our capital levels fall below the prescribed buffer amounts, we must restrict capital distributions, such as stock repurchases and dividends, as well as discretionary bonus payments to executives, until the buffer amounts are restored. Compliance with the capital buffers will be required upon our exit from conservatorship;
- Specific minimum risk-weights, or “floors,” on single-family and multifamily risk-weighted exposures, which can increase the amount of capital required for loans that would otherwise have lower risk weights;
- Specific floors on the risk-weights applicable to retained portions of credit risk transfer transactions, which decreases the capital relief obtained from these transactions;
- Risk-based capital requirements related to market risk and operational risk; and
- Additional elements based on U.S. banking regulations, such as supplemental public disclosure requirements.

To be fully capitalized under the enterprise regulatory capital framework, we must meet all applicable leverage and risk-based minimum capital requirements, including applicable buffers, under the rule’s standardized approach.

In November 2023, FHFA published a final rule amending several provisions of the ERCF, including the following:

- Reduced the risk weight for guarantees on commingled securities from 20% to 5%, and reduced the credit conversion factor for such guarantees from 100% to 50%. A Fannie Mae commingled security is a security we issue that is backed, in whole or in part, by collateral issued by Freddie Mac.
- Introduced a risk multiplier of 0.6 for multifamily mortgage exposures secured by properties with certain government subsidies;
- Changed the methodology for computing exposure and risk-weighted asset amounts for derivatives and cleared transactions; and
- Extended the compliance date for the advanced approaches of the ERCF to January 2028, or such later date as FHFA may order.

The effective date for most of the amendments will be April 2024; however, some of the amendments—including those relating to the method for computing exposure and risk-weighted asset amounts for derivatives and cleared transactions—will be effective January 2026.

Our capital disclosures in this report are not required to be, and have not been, audited by its independent registered public accounting firm. Some measures of exposures contained in this report may not be consistent with accounting principles generally accepted in the U.S. (“U.S. GAAP”) and may not be comparable with measures reported in our 2023 Form 10-K.

This report includes forward-looking statements regarding future requirements under the ERCF and our intention with respect to future credit risk transfer transactions. Actual outcomes could be materially different from what is set forth in these forward-looking statements due to a variety of factors, including those described in “Business—Forward-Looking Statements” and “Risk Factors” in our 2023 Form 10-K.

1. Capital Structure

The ERCF establishes leverage and risk-based minimum capital requirements related to the amount and form of capital we must hold. The ERCF requirements include two statutory capital elements, which are defined in the GSE Act, and three regulatory capital elements, which are based largely on definitions of capital used in U.S. banking regulators' regulatory capital framework:

- a. Statutory capital elements:
 - i. core capital, which is comprised of outstanding common stock, outstanding perpetual, noncumulative preferred stock¹, paid-in capital, and retained earnings (accumulated deficit); and
 - ii. total capital, which is comprised of core capital, a general allowance for foreclosure losses, and other amounts from sources of funds available to absorb losses (that the Director of FHFA by regulation determines are appropriate to include in determining total capital).
- b. Regulatory capital elements:
 - i. common equity tier 1 ("CET1") capital;
 - ii. tier 1 capital; and
 - iii. adjusted total capital.

Fannie Mae has a variety of issued and outstanding capital instruments, including:

- Senior preferred stock - There were one million shares of the senior preferred stock authorized, issued and outstanding as of December 31, 2023. Shares of the senior preferred stock have no par value and have a stated value and initial liquidation preference equal to \$1,000 per share, for an aggregate initial liquidation preference of \$1 billion. The senior preferred stock is non-participating and non-voting.
- Preferred stock - The preferred stock ranks junior to the senior preferred stock as to both dividends and distributions upon dissolution, liquidation or winding down of the company. Each series of our preferred stock has no par value, is non-participating, is non-voting and has a liquidation preference equal to the stated value per share. Holders of preferred stock are entitled to receive non-cumulative, quarterly dividends when, and if, declared by our Board of Directors, but have no right to require redemption of any shares of preferred stock. Payment of dividends on preferred stock is not mandatory but has priority over payment of dividends on common stock, which are also declared by the Board of Directors. If dividends on the preferred stock are not paid or set aside for payment for a given dividend period, dividends may not be paid on our common stock for that period. Shares of preferred stock authorized, issued and outstanding totaled 556 million as of December 31, 2023.
- Common stock - The common stock ranks junior to the senior preferred stock and the preferred stock as to both dividends and distributions upon dissolution, liquidation or winding down of the company. Shares of common stock outstanding, net of shares held as treasury stock, totaled 1.2 billion as of December 31, 2023.

For more information about our outstanding capital instruments, refer to "Note 12, Equity" and "Note 13, Regulatory Capital Requirements" in our 2023 Form 10-K.

¹ These capital classification measures exclude the funds provided to us by Treasury pursuant to the senior preferred stock purchase agreement, as the senior preferred stock does not qualify as core capital due to its cumulative dividend provisions.

The following exhibit provides a reconciliation from stockholder's equity on the U.S. GAAP consolidated balance sheets to regulatory and statutory capital components as of December 31, 2023.

Exhibit 1.1: Capital Instruments & Reconciliations

		As of December 31, 2023	
		(Dollars in millions)	
GAAP	Common stock	\$	687
	Treasury stock		(7,400)
	Retained earnings ²		(55,603)
	Accumulated other comprehensive income ("AOCI")		32
	Junior preferred stock ³		19,130
	Senior preferred stock		120,836
	Stockholders' equity under U.S. GAAP		77,682
Regulatory Capital	Less: Senior & junior preferred stock		139,966
	Common stockholders' equity		(62,284)
	Less:		
	Goodwill ⁴		—
	Other intangible assets ⁴		—
	Deferred tax assets ("DTAs") ⁵		11,681
	AOCI-related adjustments		—
	Other deductions		—
	Common equity tier 1 ("CET1") capital (deficit)		(73,965)
	Qualifying junior preferred stock		19,130
	Other adjustments and deductions		—
	Tier 1 capital (deficit)		(54,835)
	Qualifying subordinated debt and other instruments		—
Qualifying allowance for credit losses		—	
Other adjustments and deductions		—	
Tier 2 capital		—	
Adjusted total capital (deficit)		(54,835)	
Statutory Capital	Par value or stated value of outstanding common stock		687
	Par value or stated value of outstanding perpetual, non-cumulative preferred stock		19,130
	Paid-in capital		—
	Retained earnings ²		(55,603)
	Treasury stock		(7,400)
	Total core capital (deficit)		(43,186)
	General allowance for foreclosure losses ⁶		8,934
	Other ⁷		—
Total capital (deficit)	\$	(34,252)	

² Referred to as "Accumulated deficit" on our consolidated balance sheets as of December 31, 2023.

³ Referred to as "Preferred Stock" on our consolidated balance sheets as of December 31, 2023.

⁴ Net of associated deferred tax liabilities ("DTLs").

⁵ DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs, that exceed the 10% CET1 deduction threshold.

⁶ Includes an allowance for portfolio mortgage losses, an allowance for non-reimbursable foreclosure costs on government claims, and an allowance for liabilities reflected on the balance sheet for estimated foreclosure losses on mortgage-backed securities.

⁷ From sources of funds available to absorb losses that the Director of FHFA by regulation determines are appropriate to include in determining total capital.

2. Capital Adequacy

Capital management is integral to our risk and governance processes. Our ability to manage capital resources under baseline and stress environments supports our capacity to absorb expected and unexpected future losses and to carry out our statutory mission. Our capital adequacy assessment process informs the capital management actions that we may take to align with our regulatory requirements, forecasts, risks, strategic goals, and other business objectives. Additionally, operating under the conservatorship of FHFA affects our business and capital management. For more information on how conservatorship impacts us, refer to “Business—Conservatorship and Treasury Agreements—Conservatorship” and “Risk Factors—GSE and Conservatorship Risk” in our 2023 Form 10-K.

We actively monitor our capital levels as part of the capital adequacy assessment process. Periodic capital adequacy monitoring enables the identification and assessment of actual changes and potential impacts to capital levels and requirements. The objective of this monitoring process is to understand our current and forecasted capital levels and requirements.

In accordance with the Capital Planning and Stress Capital Buffer Determination requirements of the ERF, we conduct annual capital planning exercises, which include:

- An assessment of the expected uses and sources of capital over the planning horizon;
- Estimates of projected revenues, expenses, losses, reserves, and pro forma capital levels, including regulatory capital ratios, under internal base and stress scenarios, along with regulatory required scenarios such as Dodd-Frank Act Stress Tests;
- A description of all planned capital actions over the planning horizon; and
- A detailed description of our process for assessing capital adequacy.

Although the ERF went into effect in February 2021, we are not required to hold capital according to the framework’s requirements until the date of termination of our conservatorship or such later date as may be ordered by FHFA. Under the risk-based capital requirements, we must maintain minimum CET1 capital, tier 1 capital, and adjusted total capital ratios equal to at least 4.5%, 6.0%, and 8.0%, respectively, of RWA. Under the leverage capital requirement, we must maintain a tier 1 capital ratio equal to at least 2.5% of adjusted total assets.

As of December 31, 2023, our capital levels reflect deficits and were significantly below the levels that will be required under the ERF. For more information about our capital management and our capital metrics under the ERF as of December 31, 2023, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)—Liquidity and Capital Management—Capital Management—Capital Requirements” and “Note 13, Regulatory Capital Requirements” in our 2023 Form 10-K.

Risk-Weighted Assets

Under the ERF, we are required to determine our RWA under both a standardized approach and an advanced approach; however, the advanced approach requirements are not effective until the later of January 1, 2028 or such later date as FHFA may order. Currently, we calculate our RWA using the standardized approach set forth in the ERF. Under the standardized approach, our total RWA equals the sum of our credit risk, market risk and operational risk RWA.

Our credit risk exposure exists primarily in connection with our guaranty book of business and our institutional counterparties. Mortgage credit risk arises from the risk of loss resulting from the failure of a borrower to make required mortgage payments.

Market risk is the risk of loss resulting from changes in the economic environment. Market risk arises from fluctuations in interest rates, exchange rates, and other market rates and prices. Market risk includes interest-rate risk, which is the risk that movements in interest rates will adversely affect the value of our assets or liabilities or our future earnings or capital. Market risk also includes spread risk, which is the risk from changes in an instrument’s value that relate to factors other than changes in interest rates. We can experience losses from changes in the spreads between our mortgage assets and the debt and derivatives we use to hedge our position.

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems, or disruptions from external events. Operational risk includes cyber/information security risk and third-party risk.

The following exhibit provides a summary of our RWA as of December 31, 2023.

Exhibit 2.1: RWA Summary

	As of December 31, 2023 (Dollars in millions) Standardized Approach RWA
Credit risk	\$ 1,240,896
Market risk	30,843
Operational risk	85,358
Total	\$ 1,357,097

Regulatory Capital Summary

The following exhibit presents the RWA, CET1, tier 1, and adjusted total risk-based capital metrics as of December 31, 2023.

Exhibit 2.2: Capital Metrics under the Enterprise Regulatory Capital Framework⁸

As of December 31, 2023
(Dollars in billions)

Adjusted total assets	\$ 4,552						
Risk-weighted assets	1,357						
		Amounts			Ratios		
	Available Capital (Deficit)	Minimum Capital Requirement	Total Capital Requirement (including Buffers)	Available Capital (Deficit) Ratio	Minimum Capital Requirement Ratio	Total Capital Requirement Ratio (including Buffers)	
Risk-based capital:							
Total capital (statutory)	\$ (34)	\$ 109	\$ 109	(2.5)%	8.0 %	8.0 %	
Common equity tier 1 capital	(74)	61	140	(5.5)	4.5	10.3	
Tier 1 capital	(55)	81	160	(4.1)	6.0	11.8	
Adjusted total capital	(55)	109	188	(4.1)	8.0	13.9	
Leverage capital:							
Core capital (statutory)	(43)	114	114	(0.9)	2.5	2.5	
Tier 1 capital	(55)	114	137	(1.2)	2.5	3.0	

⁸ Ratios are calculated as a percentage of risk-weighted assets for risk-based capital metrics and as a percentage of adjusted total assets for leverage capital metrics.

The following exhibit presents credit RWA by risk and exposure type as of December 31, 2023.

Exhibit 2.3: Credit RWA Summary

	As of December 31, 2023	
	(Dollars in millions)	
	Exposure Amount	RWA Amount
Exposures to the U.S. Government	\$ 99,491	\$ 1,059
Exposures to supranational entities and multilateral development banks	—	—
Exposures to GSEs	976,800	43,707
Exposures to depository institutions and credit unions, except for equity exposure	24,481	4,896
Exposures to U.S. public sector entities (“PSEs”)	126	63
Corporate exposures	18	18
Residential mortgage exposures ⁹	2,909,311	929,886
a. Single-family	2,522,788	809,384
i. Performing loans	2,396,892	727,310
ii. Non-modified re-performing loans	23,594	12,263
iii. Modified re-performing loans	81,312	41,128
iv. Non-performing loans	20,990	28,683
b. Multifamily	386,523	120,502
i. Fixed-rate exposures	347,006	91,784
ii. Adjustable-rate exposures	39,517	28,718
Past due exposures of more than 90 days past due and nonaccrual	—	—
Other assets ¹⁰	18,805	8,343
Insurance assets	3,001	3,001
Default fund contributions to central counterparties ¹¹	—	—
CRT and other securitization exposures ¹²	1,197,664	243,700
Over-the-counter (“OTC”) derivative contracts	—	—
Cleared transactions	563	74
Unsettled transactions	—	—
Equity exposures	3,699	3,699
Repo-style transactions	32,437	154
Forward agreements	175	60
Commitments	27	6
Other off-balance sheet exposures ¹³	2,230	2,230
Total	\$ 5,268,828	\$ 1,240,896

⁹ Excludes mortgage loans that are part of CRT transactions and we have elected the Credit Risk Transfer Approach (“CRTA”) capital treatment under the ERCF.

¹⁰ Includes cash held in insured depository institution or in transit, cash in process of collection, DTAs arising from temporary differences that can be realized through net operating loss carrybacks, DTAs arising from temporary differences that cannot be realized through net operating loss carrybacks (amount in excess of the 10/15% limitations), Mortgage Servicing Assets (“MSAs”) non-deducted portion (amount in excess of the 10/15% limitations) and other assets subject to a 100% risk weight.

¹¹ Central counterparty (“CCP”) means a counterparty (for example, a clearing house) that facilitates trades between counterparties in one or more financial markets by either guaranteeing trades or novating contracts.

¹² Includes mortgage loans that are part of CRT transactions for which we have elected the CRTA capital treatment under the ERCF. RWA is net of the benefit from these transactions.

¹³ Includes off-balance sheet guarantees, repurchase agreements, off-balance sheet securities lending and borrowing.

3. Capital Buffers

The ERCF includes a requirement that we hold prescribed capital buffers that can be drawn down in periods of financial stress. Our compliance with these capital buffers will be required upon exit from conservatorship. In general, once we are required to be in compliance with the capital buffers, if our capital levels fall below the prescribed buffer amounts, we must restrict capital distributions such as stock repurchases and dividends, as well as discretionary bonus payments to executives, until the buffer amounts are restored. The prescribed capital buffers represent the amount of capital we are required to hold above the minimum leverage and risk-based capital requirements.

The prescribed leverage buffer amount (“PLBA”) represents the amount of tier 1 capital we are required to hold above the minimum tier 1 leverage capital requirement. The PLBA for 2023 was set at 50% of the stability capital buffer. Going forward, the stability capital buffer and PLBA will be updated with an effective date that depends on whether the stability capital buffer increases or decreases relative to the previously calculated value.

The prescribed capital conservation buffer amount (“PCCBA”) represents the amount of CET1 capital we are required to hold above the risk-based capital requirements. The PCCBA consists of three separate components: a stability capital buffer, a stress capital buffer, and a countercyclical capital buffer.

The following exhibit presents our PCCBA, PLBA, eligible retained income, and maximum payout ratio as of December 31, 2023.

Exhibit 3.1: PCCBA, PLBA, Eligible Retained Income, and Maximum Payout Ratio

	As of December 31, 2023	
	(Dollars in millions)	
	Amount	
Stress capital buffer ¹⁴	\$	34,197
Stability capital buffer ¹⁵		45,128
Countercyclical capital buffer ¹⁴		—
Prescribed capital conservation buffer amount (PCCBA)	\$	79,325
Prescribed leverage buffer amount (PLBA)		22,564
Eligible retained income ¹⁶	\$	14,891
Maximum payout ratio ¹⁷		0 percent

¹⁴ The stress capital buffer and countercyclical capital buffer are each calculated by multiplying prescribed factors by adjusted total assets as of the last day of the previous calendar quarter.

¹⁵ The stability capital buffer is based on our share of mortgage debt outstanding.

¹⁶ Eligible retained income is the greater of: (1) net income for the four preceding calendar quarters, net of distributions and associated tax effects not already reflected in net income and (2) average of our net income over the preceding four quarters.

¹⁷ While it is not applicable until the date of termination of our conservatorship, our maximum payout ratio represents the percentage of eligible retained income that we are permitted to pay out in the form of distributions or discretionary bonus payments under the ERCF. The maximum payout ratio for a given quarter is the lowest of the payout ratios determined by our capital conservation buffer and our leverage buffer.

4. Credit Risk: General Disclosures

Credit risk is the risk of loss arising from another party's failure to meet its contractual obligations. For financial securities or instruments, credit risk is the risk of not receiving principal, interest or other financial obligation on a timely basis. Our credit risk exposure exists primarily in connection with our guaranty book of business and our institutional counterparties.

For information related to counterparty credit risk, refer to "Section 5, Counterparty Credit Risk."

Our credit risk exposure includes the following types of mortgage credit risk: single-family mortgage credit risk and multifamily mortgage credit risk.

Mortgage Credit Risk Management

Our strategy for managing single-family and multifamily mortgage credit risk consists of the following primary components:

- our acquisition and servicing policies along with our underwriting and servicing standards;
- portfolio diversification and monitoring;
- the transfer of mortgage credit risk to third parties; and
- management of problem loans.

For more information related to mortgage credit risk and mortgage credit risk management, see "MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management," "MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management," "MD&A—Risk Management—Mortgage Credit Risk Management," and "Note 14, Concentrations of Credit Risk."

Additional Mortgage Credit Risk Management Considerations

Past Due Loans - We consider loans that are 30 days or more past due, or in the foreclosure process, "past due."

Nonaccrual Loans - We recognize interest income on an accrual basis except when we believe the collection of principal and interest is not reasonably assured. A nonaccrual loan is returned to accrual status when the full collection of principal and interest is reasonably assured. We generally determine that the full collection of principal and interest is reasonably assured when the loan returns to current payment status.

Allowance for Credit Losses - Our allowance for loan losses is a valuation account that is deducted from the amortized cost basis of held for investment ("HFI") loans to present the net amount expected to be collected on the loans. The allowance for loan losses reflects an estimate of expected credit losses on single-family and multifamily HFI loans held by Fannie Mae and by consolidated MBS trusts. Estimates of credit losses are based on expected cash flows derived from internal models that estimate loan performance under simulated ranges of economic environments. Our modeled loan performance is based on our historical experience of loans with similar risk characteristics, adjusted to reflect current conditions and reasonable and supportable forecasts. Changes to our estimate of expected credit losses, including changes due to the passage of time, are recorded through the "Benefit (provision) for credit losses" in our consolidated statements of operations and comprehensive income.

Charge-offs - We record write-offs as a reduction to the allowance for loan losses when amounts are deemed uncollectible. When losses are confirmed through the receipt of assets in satisfaction of a loan, such as the underlying collateral upon foreclosure or cash upon completion of a short sale, we record a write-off in an amount equal to the excess of a loan's amortized cost over fair value of assets received.

For additional information on our accounting policies and allowance methodology related to mortgage loans, see “Note 1, Summary of Significant Accounting Policies,” “Note 4, Mortgage Loans,” and “Note 5, Allowance for Loan Losses.”

Sources of Credit Risk and Related Exposure

We have credit risk exposure related to the following:

- **Mortgage Loan Credit Risk Exposures** – see “MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management,” “MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management,” “Note 4, Mortgage Loans,” and “Note 14, Concentrations of Credit Risk.”
- **Off-Balance Sheet Exposures** – see “MD&A—Liquidity and Capital Management—Liquidity Management—Off-Balance Sheet Arrangements” and “Note 7, Financial Guarantees.”
- **Debt Securities and OTC Derivatives** – see “MD&A—Liquidity and Capital Management,” “Note 6, Investments in Securities,” “Note 9, Derivative Instruments,” and “Note 15, Netting Arrangements.”
- **Counterparty Exposures** – “MD&A—Risk Management—Institutional Counterparty Credit Risk Management” and “Note 14, Concentrations of Credit Risk.”

The following exhibit presents a summary of the delinquency status of our single-family and multifamily loans and the associated unpaid principal balance (“UPB”) and allowance as of December 31, 2023.

Exhibit 4.1: Delinquency Status of Single-Family and Multifamily Loans¹⁸

As of December 31, 2023

(Dollars in millions)

	Single-Family		Multifamily	
	UPB Amount	Adjusted Allowance for Credit Losses ¹⁹	UPB Amount	Adjusted Allowance for Credit Losses ¹⁹
Current	\$3,571,956	\$ 5,924	\$ 458,649	\$ 1,991
30 to 89 days delinquent	43,844	510	640	28
90+ days delinquent and on nonaccrual	18,362	337	1,328	40
90+ days delinquent and still accruing	1,473	96	170	—
Total	\$3,635,635	\$ 6,867²⁰	\$ 460,787	\$ 2,059

For the twelve months ended December 31, 2023, gross write-offs were \$881 million for single-family and \$401 million for multifamily.

¹⁸ Includes held-for-investment mortgage loans, excluding loans for which we have elected the fair value option.

¹⁹ Adjusted allowance for credit losses refers to valuation allowances that have been established through a charge against earnings or retained earnings for expected credit losses on financial assets as determined in accordance with U.S. GAAP. For loans charged-off prior to foreclosure, the allowance may include an estimate of expected recoveries, in accordance with U.S. GAAP, which may result in a small or negative allowance for delinquent loans.

²⁰ Total includes allowance related to loan UPB plus \$196 million related to accrued interest receivable and advance receivables for pre-foreclosure costs.

The following exhibit presents a geographic distribution of single-family and multifamily past due loans and the associated allowances for the respective geographic regions as of December 31, 2023.

Exhibit 4.2: Geographic Distribution of Past Due Loans

Geographic Region ²¹	As of December 31, 2023 (Dollars in millions)			
	Single-Family		Multifamily	
	UPB		UPB	
	Amount of Past Due Loans	Allowances for Past Due Loans	Amount of Past Due Loans	Allowances for Past Due Loans
Midwest	\$ 8,422	\$ 121	\$ 454	\$ 11
Northeast	11,853	136	577	18
Southeast	15,174	243	459	21
Southwest	12,974	229	399	10
West	15,256	214	249	8
Total	\$ 63,679	\$ 943	\$ 2,138	\$ 68

The following table displays the regional geographic concentration of single-family and multifamily loans in our guaranty book of business, measured by the UPB of the loans as of December 31, 2023.

Exhibit 4.3: Geographic Concentration

Geographic Region	As of December 31, 2023	
	Percentage of Single-Family Conventional Guaranty Book of Business	Percentage of Multifamily Guaranty Book of Business
Midwest	14 %	12 %
Northeast	16	15
Southeast	23	27
Southwest	19	22
West	28	24
Total	100 %	100 %

For a reconciliation of changes in the allowance for loan losses, see “Note 5, Allowance for Loan Losses” in our 2023 Form 10-K.

²¹ Midwest consists of IL, IN, IA, MI, MN, NE, ND, OH, SD, and WI. Northeast consists of CT, DE, ME, MA, NH, NJ, NY, PA, PR, RI, VT, and VI. Southeast consists of AL, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA, and WV. Southwest consists of AZ, AR, CO, KS, LA, MO, NM, OK, TX, and UT. West consists of AK, CA, GU, HI, ID, MT, NV, OR, WA, and WY.

The following exhibit presents the remaining contractual maturity of single-family and multifamily mortgage loans as of December 31, 2023.

Exhibit 4.4: Remaining Contractual Maturity of Mortgage Loans²²

As of December 31, 2023

(Dollars in millions)

	Due in 1 Year or Less	Due after 1 Year through 5 Years	Due after 5 Years through 15 Years	Due after 15 Years	Total
Single-family fixed rate	\$ 126,454	\$ 532,651	\$ 1,347,025	\$ 1,601,137	\$ 3,607,267
Single-family adjustable-rate	6,089	4,284	12,011	12,317	34,701
Multifamily fixed rate	11,601	131,314	275,132	5,787	423,834
Multifamily adjustable-rate	723	12,290	24,765	130	37,908
Total unpaid principal balance of outstanding mortgage loans	\$ 144,867	\$ 680,539	\$ 1,658,933	\$ 1,619,371	\$ 4,103,710

²² Consists of the contractual unpaid principal balance for HFI mortgage loans, held-for-sale mortgage loans, and loans for which we have elected the fair value option.

5. Counterparty Credit Risk

Institutional counterparty credit risk is the risk of loss resulting from the failure of an institutional counterparty to fulfill its contractual obligations to us. Our primary exposure to institutional counterparty credit risk exists with our:

- credit guarantors, including mortgage insurers, reinsurers and multifamily lenders with risk sharing arrangements;
- mortgage lenders that sell loans to us and mortgage lenders and other counterparties that service our loans; and
- financial institutions that issue investments included in our corporate liquidity portfolio.

We also have counterparty exposure to: derivatives counterparties; custodial depository institutions; mortgage originators, investors and dealers; debt security dealers; central counterparty clearing institutions; and document custodians.

We routinely enter into a high volume of transactions with counterparties in the financial services industry resulting in a significant credit concentration with respect to this industry. We also may have multiple exposures to particular counterparties, as many of our institutional counterparties perform several types of services for us. Accordingly, if one of these counterparties were to become insolvent or otherwise default on its obligations to us, it could harm our business and financial results in a variety of ways. Our overall objective in managing institutional counterparty credit risk is to maintain individual and portfolio-level counterparty exposures within acceptable ranges based on our risk-based rating system. We seek to achieve this objective through the following:

- establishment and observance of counterparty eligibility standards appropriate to each exposure type and level;
- establishment of risk limits;
- requiring collateralization of exposures where appropriate; and
- exposure monitoring and management.

Counterparty Credit Limits – For a discussion of how we establish risk limits for counterparty credit exposures, refer to “MD&A—Risk Management—Institutional Counterparty Credit Risk Management” in our 2023 Form 10-K. Fannie Mae also has established processes for the management, identification, and valuation of collateral received from or posted by counterparties. Principal types of collateral taken include cash, U.S. Treasury securities, agency debt and agency mortgage-backed securities.

The following exhibit presents the gross positive fair values and collateral values of derivative contracts and securities financing transactions as of December 31, 2023.

Exhibit 5.1: Derivative Contracts and Securities Financing Transactions

Activity Type	As of December 31, 2023 (Dollars in millions)	
	Gross Positive Fair Value	Collateral Value ²³
Risk management derivatives	\$ 45	\$ 5
Swaps	120	
Swaptions	208	
Netting adjustment	(283)	
Mortgage commitment derivatives	112	—
Credit enhancement derivatives ²⁴	45	—
Securities financing transactions ²⁵	30,700	30,700
Total	\$ 30,902	\$ 30,705

Fannie Mae's collateral requirements vary based on the provisions present within individual agreements. Under many of our International Swaps and Derivatives Association ("ISDA") agreements, in the event of a counterparty credit downgrade the posted collateral is subject to an additional collateral haircut. Additionally, if the counterparty credit rating is downgraded to a certain level, the party that has not been downgraded maintains the ability to terminate all trades.

We account for certain forms of credit risk transfer transactions as derivatives. For more information on our derivative transactions, refer to "Note 9, Derivative Instruments" in our 2023 Form 10-K. For more information on netting arrangements, refer to "Note 15, Netting Arrangements" in our 2023 Form 10-K.

²³ Excludes collateral received that has not been recognized and not offset in our consolidated balance sheets.

²⁴ Represents fair value of derivatives associated with risk sharing programs.

²⁵ Represents reverse repurchase agreements, excluding reverse repurchase agreements classified as cash equivalents.

6. Credit Risk Mitigation

We enter into various transactions where we pledge and accept collateral, the most common of which are our derivative and Credit Insurance Risk Transfer™ (“CIRT™” and “MCIRT™”) transactions. Required collateral levels vary depending on the credit rating and type of counterparty. We also pledge and receive collateral under our repurchase and reverse repurchase agreements. In order to reduce potential exposure to counterparties for securities purchased under agreements to resell, a third-party custodian typically maintains the collateral and any margin. We monitor the fair value of the collateral received from our counterparties, and we may require additional collateral from those counterparties, as we deem appropriate. For a discussion of our credit risk mitigation practices regarding collateral valuation and the types of collateral engaged, see “Note 1, Summary of Significant Accounting Policies—Collateral” in our 2023 Form 10-K.

We rely on our institutional counterparties to provide services and credit enhancements that are critical to our business. For more information on the guarantors and other providers of credit risk mitigation that we engage, see “MD&A—Risk Management—Institutional Counterparty Credit Risk Management,” “MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management,” “MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management,” and “Note 14, Concentrations of Credit Risk” in our 2023 Form 10-K.

Our charter generally requires credit enhancement on single-family conventional mortgage loans we purchase or securitize with a loan-to-value ratio over 80% at the time of acquisition. We generally achieve this through primary mortgage insurance. Primary mortgage insurance transfers varying portions of the credit risk associated with a mortgage loan to a third-party insurer. For us to receive a payment in settlement of a claim under a primary mortgage insurance policy, the insured loan must be in default and the borrower’s interest in the property securing the loan must have been extinguished, generally in a foreclosure action, short sale or a deed-in-lieu of foreclosure. Eligibility standards for mortgage insurers are established under private mortgage insurer eligibility requirements and exposure concentrations managed via counterparty limit monitoring. The financial ability and willingness of our approved mortgage insurers to pay claims is an important determinant of our overall credit risk exposure. For additional information on mortgage insurers, see “MD&A—Risk Management—Institutional Counterparty Credit Risk Management—Mortgage Insurers” in our 2023 Form 10-K.

CRT transactions provide another form of credit risk mitigation. We manage the concentration, market, and counterparty risks associated with CRT transactions through back-end CRT deal structures, including Connecticut Avenue Securities® (“CAS”) issuances and reinsurance transactions, as well as counterparty risk requirements and collateral requirements. For additional information on counterparty risk and collateral refer to “Section 5, Counterparty Credit Risk.”

Collateral levels for repurchase agreement transactions and certain CRT transactions, where applicable, are consistent with the ERCF requirements and are detailed in the exhibit below as of December 31, 2023.

Exhibit 6.1: Eligible Financial Collateral Coverage²⁶

	As of December 31, 2023	
	(Dollars in millions)	
	Enterprise-level²⁷	
Total exposure covered by eligible financial collateral	\$	520,612
Collateral pre-haircut		35,370
Collateral post-haircut		32,914
Total RWA associated with exposure	\$	106,102

With the exception of mortgage insurance, CRT exposures, the guarantees we receive from affiliates of certain derivative counterparties, and multifamily lender front-end risk-sharing arrangements, Fannie Mae does not have any other exposures whose credit risk is mitigated by eligible guarantees or credit derivatives obtained from external third parties.

²⁶ Exposures based on definitions under ERCF. Includes collateral from reverse repurchase transactions and certain CRT transactions.

²⁷ Exhibit excludes multifamily loans for which lenders have posted \$1,402 million collateral pre-haircut and \$1,362 million collateral post-haircut pursuant to multifamily lender front-end risk-sharing arrangements.

7. Credit Risk Transfers and Securitization

One of the key components of our credit risk management strategy is the transfer of mortgage credit risk to third parties. Credit risk transfer transactions, including CAS and Multifamily Connecticut Avenue Securities (“MCAS”) issuances, generally transfer a portion of credit losses on a reference pool of mortgage loans to investors. We also use Credit Insurance Risk Transfer™ (“CIRT™” and “MCIRT™”) deals to transfer a portion of the credit risk on a pool of loans to an insurance provider that retains the risk, or to an insurance provider that simultaneously cedes all of its risk to one or more reinsurers.

For more information on our credit risk management strategy regarding CRTs, see “MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk” and “MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management—Transfer of Multifamily Mortgage Credit Risk” in our 2023 Form 10-K.

Our issuance of CRT securities does not create any new mortgage credit exposure for us, since we already guarantee the loans in the underlying reference pools. CRT transactions are designed to reduce our mortgage credit risk by transferring a portion of our single-family and multifamily mortgage credit risk on reference pools of mortgage loans to the private market. CIRT and MCIRT transactions do give rise to incremental counterparty credit risk, which reduces the capital relief provided by the transactions, because we are subject to the risk that the CIRT and MCIRT counterparties (insurers and reinsurers) may not meet their payment obligations to us following a credit loss event. CAS and MCAS transactions, however, do not present a similar risk as the CAS and MCAS trusts receive the proceeds upon issuance that will reimburse us for certain credit events on the related loans. All CRT transactions have model, pricing, and structuring risks given their inherent complexity.

The metrics we use to measure the interest-rate and spread securitization exposures of CRT transactions are generated using internal models. Our internal models, consistent with standard practice for models used in our industry, require numerous assumptions. There are inherent limitations in any methodology used to estimate the exposure to changes in interest rates for transactions where CRT is applied. The reliability of our prepayment estimates and interest-rate risk metrics depends on the availability and quality of historical data for each of the types of securities in our net portfolio. When market conditions change rapidly and dramatically, the assumptions of our models may no longer accurately capture or reflect the changing conditions. On a regular basis, management makes judgments about the appropriateness of the risk assessments indicated by the models. For more information on our models, see “MD&A—Risk Management—Model Risk Management” and “Risk Factors—Operational and Model Risk” in our 2023 Form 10-K.

For a discussion of how we mitigate mortgage credit risk retained through securitization exposures, see “MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management,” “MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management,” and “MD&A—Risk Management—Institutional Counterparty Credit Risk Management” in our 2023 Form 10-K.

Special Purpose Entities (“SPEs”) used to Securitise Third-Party Exposures – For information on the type of securitization SPEs that Fannie Mae, as sponsor, uses to securitize third-party exposures, see “Note 3, Consolidations and Transfers of Financial Assets” in our 2023 Form 10-K.

Fannie Mae had no affiliated entities in CRT securitization transactions as of December 31, 2023.

CRT Accounting Treatment– We transfer mortgage credit risk to investors through both CAS special purpose vehicles (“SPVs”) and MCAS SPVs. CAS and MCAS SPVs are separate legal entities that issue notes that are fully collateralized by cash deposited into a collateral account held by the respective CAS or MCAS SPV and is invested in short-term highly rated investments. To the extent that collateral held by the CAS or MCAS SPV and the earnings thereon are insufficient relative to the payments due to holders of the CAS or MCAS notes, we may be required to make payments to the CAS or MCAS SPVs. The CAS and MCAS SPV qualify as VIEs. We do not have the power to direct significant activities of the CAS or MCAS SPVs while the CAS and MCAS SPVs are outstanding, and, therefore, we do not consolidate CAS or MCAS SPVs. For information on our CRT processes, see “MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk” and “MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management—Transfer of Multifamily Mortgage Credit Risk” in our 2023 Form 10-K. In addition, for information regarding the methods and key assumptions applied in valuing retained or purchased interests, treatment of synthetic securitizations, and recognizing liabilities on the balance sheet for arrangements that could require the company to provide financial support for securitized assets, see “Note 1, Summary of Significant Accounting Policies—Investments in Securities,” “Note 3, Consolidations and Transfers of Financial Assets—Types of VIEs—Special Purpose Vehicles Associated with our Credit Risk Transfer Programs,” and “Note 7, Financial Guarantees” in our 2023 Form 10-K.

Our CRTs are off-balance sheet arrangements. As the reference pools of loans remain on our balance sheet, there is no sale associated with the issuance of the accompanying securities (i.e., CAS) or reinsurance (i.e., CIRT). The assessment and valuation of a CRT transaction do not result in the recognition of retained or purchased interest nor any gain-on-sale. Furthermore, there are no retained or purchased CRT resecuritization exposures on our balance sheet. We do not have any credit-enhancing interest-only strip CRT-related arrangements assigned 1,250% risk weights. Additionally, our process for valuing exposures intended to be securitized through CRT transactions is the same as our process for valuing other exposures.

Private-label securitization exposures are assigned 1,250% risk weights for calculating RWA. For CRT exposures, we utilize the Credit Risk Transfer Approach (“CRTA”) for calculating RWA.

We perform regular evaluations and assessments of our CRT objectives, risks, processes, and policies.

The following exhibit sets forth the exposure amounts, past due amounts and losses recognized on loans included in private-label securities and reference pools for CRT transactions as of December 31, 2023. We do not have any traditional single-family or multifamily securitization exposures as defined under ERCF.

Exhibit 7.1: CRT and Securitizations by Exposure Types

As of December 31, 2023												
(Dollars in millions)												
	Total Exposure	On- Balance Sheet Exposure	Off- Balance Sheet Exposure	Retained	Acquired	Past Due Amount	Loss Recognized					
Traditional:												
Single-family securitization	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —					
Multifamily securitization	—	—	—	—	—	—	—					
Private-label securities	489	489	—	364	125	120	25					
Synthetic / Reinsurance CRT:												
Single-family CRT ²⁸	1,113,949	1,113,949	—	1,113,949	—	9,495	518					
Multifamily CRT	83,226	83,226	—	83,226	—	422	15					
Total CRT and securitization exposure	\$1,197,664	\$1,197,664	\$ —	\$1,197,539	\$ 125	\$ 10,037	\$ 558					

²⁸ The exposure, past due and loss recognized amounts correspond to loans included in the reference pools for CRT transactions for which we elected the CRTA capital treatment under ERCF. The past due and loss recognized amounts include \$7,181 million and \$115 million, respectively, for the deals with remaining capital benefit under the CRTA.

The following exhibit provides information on the RWA related to CRT and securitization exposures as of December 31, 2023.

Exhibit 7.2: CRT and Securitizations by Capital Treatment

As of December 31, 2023 (Dollars in millions)					
	Total Exposure	RWA	RWA by Calculation Methodology		
			SSFA ²⁹	CRTA ³⁰	1250% Risk Weighted
Traditional:					
Single-family securitization	\$ —	\$ —	\$ —	\$ —	\$ —
Multifamily securitization	—	—	—	—	—
Private-label securities	489	6,109	—	—	6,109
Synthetic / Reinsurance CRT:					
Single-family CRT	1,113,949	223,541	—	223,541	—
Multifamily CRT	83,226	14,050	—	14,050	—
Total CRT and securitization exposure	\$ 1,197,664	\$ 243,700	\$ —	\$ 237,591	\$ 6,109

The following exhibit provides information on our securitization and reinsurance CRT exposures by risk-weight bands and capital impact of RWA as of December 31, 2023.

Exhibit 7.3: Securitization and Resecuritization CRT Exposures Risk and Risk-Weight Bands

As of December 31, 2023 (Dollars in millions)					
	Total Exposure	SSFA Risk-Weighted Assets ³¹	CRTA Risk-Weighted Assets	Capital Impact of RWA ³²	
Securitization / Reinsurance CRT:					
Zero to 20%	\$ 796,544	\$ —	\$ 97,529	\$ 4,389	
21% to 50%	311,127	—	91,959	4,138	
51% to 100%	89,504	—	48,103	2,165	
Over 100%	415	5,189	—	234	
Resecuritization:					
Zero to 20%	—	—	—	—	—
21% to 50%	—	—	—	—	—
51% to 100%	—	—	—	—	—
Over 100%	74	920	—	41	
Total CRT and securitization/resecuritization	\$ 1,197,664	\$ 6,109	\$ 237,591	\$ 10,967	

²⁹ Refers to the Simplified Supervisory Formula Approach ("SSFA"), which is a calculation methodology, defined in the ERCF, used to determine the risk-weight for a securitization exposure.

³⁰ Refers to the CRTA, which is a calculation methodology, defined in the ERCF, used to determine the risk-weight for a retained CRT exposure.

³¹ Includes exposures risk-weighted at 1,250%.

³² Required CET1 capital amount associated with the exposure.

The following exhibit provides information on our exposures intended to be securitized in the subsequent fiscal quarter, exposures securitized year-to-date, and the associated gain/loss on sale as of December 31, 2023.

Exhibit 7.4: CRT and Securitization Pipeline & Activity

	As of December 31, 2023			
	(Dollars in millions)			
	Carrying Value of Assets Pending Securitization³³	Assets Securitized YTD	Recognized Gain/ Loss on Sale YTD	
Traditional				
Single-family securitization	\$ —	\$ —	\$ —	—
Multifamily securitization	—	—	—	—
Private-label securities	—	—	—	—
Other	—	—	—	—
Synthetic / Reinsurance CRT				
Single-family CRT	68,404	308,039	—	—
Multifamily CRT	—	30,654	—	—
Total CRT and securitization exposure	\$ 68,404	\$ 338,693	\$ —	—

³³ Represents our estimate, as of December 31, 2023, of the UPB of loans we expect will be included in reference pools for single-family and multifamily CRT transactions in the first quarter of 2024. Actual amounts may change, perhaps materially, depending on a number of factors, including our risk appetite, future market conditions, the cost of the transactions, FHFA guidance or requirements (including FHFA's scorecard), the capital relief provided by the transactions, and our overall business and capital plans.

8. Equities

We account for securities we have acquired as either trading or available-for-sale (“AFS”). We measure trading securities at fair value in our consolidated balance sheets with unrealized and realized gains and losses included as a component of “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income.

We adhere to U.S. GAAP to guide our determination of each pricing approach and primarily use independent pricing sources. Vendor pricing is generally our preferred method for pricing assets and liabilities, which enables us to leverage and validate pricing information from multiple independent sources. To corroborate results, we subject vendor prices to stringent testing by pricing teams. When vendor pricing is not available or appropriate, we use either an internal method based on market observable data or pricing models. Models used for financial reporting purposes must be approved by our independent model risk management team within our Enterprise Risk Management division prior to use. Additionally, our internal pricing teams conduct regular model assessments to determine whether models are still reasonable and appropriate for their intended business purposes.

For information regarding the types and nature of our equity investments, along with the carrying and fair value of the investments, refer to the “Consolidated Balance Sheets” and the “Consolidated Statements of Operations and Comprehensive Income” in our 2023 Form 10-K.

The following exhibit provides information on unrealized gains and losses for publicly-traded and non-publicly traded equity investments as of December 31, 2023.

Exhibit 8.1: Equity Investments

	As of December 31, 2023		
	(Dollars in millions)		
	Public	Non-Public ³⁴	Total
Carrying value	\$ 4	\$ 3,695	\$ 3,699
Unrealized gains/losses	—	—	—
Unrealized gains/losses not recognized on the balance sheet or through earnings	—	—	—
Fair value	4	3,695	3,699
Unrealized gains/losses included in risk-based capital	—	—	—
YTD Cumulative realized gains/losses from sales and liquidation	—	—	—

³⁴ Includes low-income housing tax credits, community investments and other partnership investments; for these investments, carrying value approximates fair value.

The following exhibit provides information on the capital treatment of equity investments as of December 31, 2023.

Exhibit 8.2: Capital Treatment of Equity Investments

As of December 31, 2023
(Dollars in millions)

Risk Weight	Exposure ³⁵	RWA	Capital Impact of RWA ³⁶
0%	\$ —	\$ —	\$ —
20%	—	—	—
100%	3,699	3,699	166
300%	—	—	—
400%	—	—	—
600%	—	—	—
Total equity investments	\$ 3,699	\$ 3,699	\$ 166

We record AFS securities at fair value with unrealized gains and losses, recorded net of tax, as a component of “Other comprehensive income (loss)” and we recognize realized gains and losses from the sale of AFS securities in “Investment gains (losses), net” in our consolidated statements of operations and comprehensive income. We define the amortized cost basis of our AFS securities as unpaid principal balance, net of unamortized premiums and discounts, and other cost basis adjustments. For a breakout of the total unrealized gains and losses recognized on our consolidated balance sheets but not through earnings, see “Note 6, Investments in Securities—Available-for-Sale Securities” in our 2023 Form 10-K.

We did not have any equity investments subject to supervisory transition during the quarter ended December 31, 2023.

³⁵ Represents net exposure of equity investments.

³⁶ Required CET1 capital amount associated with the exposure.

9. Interest Rate Risk for Non-Trading Activities

We are subject to interest-rate risk, which is the risk that movements in interest rates will adversely affect the value of our assets or liabilities or our future earnings or capital. Our exposure to interest-rate risk primarily arises from two sources: (1) our “net portfolio,” which we define as: our retained mortgage portfolio assets, our corporate liquidity portfolio, outstanding debt of Fannie Mae used to fund the retained mortgage portfolio assets and our corporate liquidity portfolio, mortgage commitments and risk management derivatives; and (2) our consolidated MBS trusts.

For general derivatives activities, we use a wide range of Futures Commission Merchants and receive and pledge collateral to address market concentration and counterparty risk management requirements. These risks include counterparty default risk and market risks.

For more information on the nature of interest rate risk for non-trading activities, and the key assumptions used, see “MD&A—Key Market Economic Indicators—How Interest Rates Can Affect Our Financial Results” and “MD&A—Risk Management—Market Risk Management, including Interest-Rate Risk Management” in our 2023 Form 10-K.

For information on Fannie Mae’s market value sensitivity based on interest-rate shocks, see “MD&A—Risk Management—Market Risk Management, including Interest-Rate Risk Management—Measurement of Interest-Rate Risk” in our 2023 Form 10-K.

10. Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, or systems, or disruptions from external events. Refer to “Risk Factors—Operational and Model Risk,” “MD&A—Risk Management—Operational Risk Management,” and “Cybersecurity” in our 2023 Form 10-K for information on the operational risks we face, how we identify, monitor, and manage these risks (including cybersecurity risks), and how insurance is used to mitigate operational risk.

As previously discussed, Fannie Mae calculates its RWA using the standardized approach, whereby operational risk RWA is calculated by multiplying adjusted total assets by 15 basis points, and then multiplying by 12.5.

11. Tier 1 Leverage Ratio

Under the ERCF, the tier 1 leverage ratio is calculated as available tier 1 capital divided by adjusted total assets. Fannie Mae is required to maintain tier 1 capital in excess of the amount required under its tier 1 leverage ratio requirement by at least the amount of its PLBA. The following exhibit provides a view of our adjusted total assets and tier 1 leverage as of December 31, 2023.

Exhibit 11.1: Tier 1 Leverage Ratio

	As of December 31, 2023 (Dollars in millions)
Part 1: Summary comparison of accounting assets and adjusted total assets	
1 Total consolidated assets as reported in published financial statements	\$ 4,325,437
2 Adjustment for fiduciary assets recognized on balance sheet but excluded from total leverage exposure	—
3 Adjustment for derivative exposures	565
4 Adjustment for repo-style transactions	1,737
5 Adjustment for off-balance sheet exposures (that is, conversion to credit equivalent amounts of off-balance sheet exposures)	227,457
6 Other adjustments	(2,748)
7 Adjusted total assets (sum of lines 1 to 6)	\$ 4,552,448
Part 2: Tier 1 leverage ratio	
On-balance sheet exposures	
1 On-balance sheet assets (excluding on-balance sheet assets for repo-style transactions and derivative exposures, but including cash collateral received in derivative transactions and including allowance for credit losses)	\$ 4,303,469
2 LESS: Amounts deducted from tier 1 capital	11,681
3 Total on-balance sheet exposures (excluding on-balance sheet assets for repo-style transactions and derivative exposures, but including cash collateral received in derivative transactions) (sum of lines 1 and 2)	\$ 4,291,788
Derivative exposures	
4 Current exposure for derivative exposures (that is, net of cash variation margin)	\$ (2,766)
5 Add-on amounts for potential future exposure (PFE) for derivative exposures	565
6 Gross-up for cash collateral posted if deducted from the on-balance sheet assets, except for cash variation margin	2,922
7 LESS: Deductions of receivable assets for cash variation margin posted in derivative transactions, if included in on-balance sheet assets	—
8 LESS: Exempted CCP leg of client-cleared transactions	—
9 Effective notional principal amount of sold credit protection	45
10 LESS: Effective notional principal amount offsets and PFE adjustments for sold credit protection	—
11 Total derivative exposures (sum of lines 4 to 10)	\$ 766
Repo-style transactions	
12 On-balance sheet assets for repo-style transactions, except include the gross value of receivables for reverse repurchase transactions. Exclude from this item the value of securities received in a security-for-security repo-style transaction where the securities lender has not sold or re-hypothecated the securities received. Include in this item the value of securities that qualified for sales treatment that must be reversed	\$ 30,700
13 LESS: Reduction of the gross value of receivables in reverse repurchase transactions by cash payables in repurchase transactions under netting agreements	—
14 Counterparty credit risk for all repo-style transactions	1,737
15 Exposure for repo-style transactions where a banking organization acts as an agent	—
16 Total exposures for repo-style transactions (sum of lines 12 to 15)	\$ 32,437
Other off-balance sheet exposures	
17 Off-balance sheet exposures at gross notional amounts	\$ 227,536
18 LESS: Adjustments for conversion to credit equivalent amounts and off-balance sheet exposures held in retained portfolio	79
19 Off-balance sheet exposures (sum of lines 17 and 18)	\$ 227,457
Capital and adjusted total assets	
20 Tier 1 capital (deficit)	(54,835)
21 Adjusted total assets (sum of lines 3, 11, 16, and 19)	\$ 4,552,448
Tier 1 leverage ratio	
22 Tier 1 leverage ratio (in percent)	(1.2)%

12. Market Risk

We are subject to market risk, which includes interest-rate risk and spread risk. These risks arise primarily from our mortgage asset investments. Interest-rate risk is the risk that movements in interest rates will adversely affect the value of our assets or liabilities or our future earnings or capital. Spread risk is the risk from changes in an instrument's value that relate to factors other than changes in interest rates. We can experience losses from changes in the spreads between our mortgage assets and the debt and derivatives we use to hedge our position. Our internal management practices include procedures to identify, assess, respond to, and monitor our market risk. The process for monitoring and managing market risk includes stressing factors such as interest rates and spreads in order to evaluate the impact on fair value and earnings.

We monitor current market conditions, including the interest-rate environment, to assess the impact of these conditions on individual positions and our interest-rate risk profile. In addition to qualitative factors, we use various quantitative risk metrics in determining the appropriate composition of our retained mortgage portfolio, our investments in non-mortgage securities and relative mix of debt and derivatives positions in order to remain within pre-defined risk tolerance levels that we consider acceptable. We regularly disclose two interest-rate risk metrics that estimate our interest-rate exposure: (1) fair value sensitivity to changes in interest-rate levels and the slope of the yield curve and (2) duration gap.

We calculate market risk RWA under the standardized approach in the ERCF. We use one of the following three approaches depending principally on instrument type: (1) a single-point approach used for instruments primarily with credit risk only; (2) a spread duration approach for instruments with additional spread and prepayment risk; or (3) an internal models approach for instruments with spread risk not included in the previous two categories, such as commercial mortgage-backed securities ("CMBS"), single-family agency securities, performing loans not securitized, and Ginnie Mae mortgage-backed securities.

The following exhibit provides the covered position exposure amounts and RWA for each of the three types of ERCF standardized approaches as of December 31, 2023. The population of covered positions includes those with spread risk exposure regardless of intent or accounting treatment.

Exhibit 12.1: Covered Position Exposure Amounts and RWA

	As of December 31, 2023	
	(Dollars in millions)	
	Exposure Amount	Standardized Market Risk RWA
Single Point Approach		
Mortgage exposures that are not secured by an MBS guaranteed by the Enterprise		
Non-performing loans	\$ 8,744	\$ 5,192
Re-performing loans	20,412	12,119
Reverse mortgage loans	3,667	733
Reverse mortgage securities	2,356	1,207
Spread Duration Approach		
Multifamily mortgage exposures	2,745	81
Private-label securities	502	272
MBS (non-interest only) guaranteed by an Enterprise or by Ginnie Mae	3,459	2,128
Internal Estimates		
Covered Positions that are not subject to the Single Point or Spread Duration Approaches		
Single-family MBS guaranteed by the Enterprise	(9,441)	(1,818)
Single-family MBS guaranteed by Ginnie Mae	(16)	(5)
Single-family MBS guaranteed by the other Enterprise ³⁷	2,873	1,092
Multifamily interest-only securities guaranteed by an Enterprise or Ginnie Mae	328	249
Commercial MBS	—	—
CRT exposures	—	—
Other securitization exposures	132	40
Performing loans, not securitized	14,162	7,130
Other trading assets and liabilities	612	2,423
Total	\$ 50,535	\$ 30,843

On- and Off-Balance Sheet Exposure Types – For additional information on our aggregate amount of on-balance sheet and off-balance sheet securitization positions by exposure type and composition of material covered positions, refer to “Note 3, Consolidations and Transfers of Financial Assets—Unconsolidated VIEs” and “Note 7, Financial Guarantees” in our 2023 Form 10-K.

Our valuation framework incorporates key elements for governance, methodology, valuation adjustments, and model validation.

Valuation governance provides: (1) an overview of governance bodies and committees; (2) an outline of the structure emphasizing independence of the valuation review process; (3) detail on governance processes and financial instruments covered; and (4) the end-to-end valuation process, including the control framework and roles and responsibilities for first and second lines of defense in the valuation

³⁷ “Other Enterprise” refers to Freddie Mac.

processes. For more information on our valuation techniques, refer to “Note 16, Fair Value—Fair Value Measurement” in our 2023 Form 10-K.

The internal model approach is intended to capture at a granular level the risk associated with changes in the discounting spread used to value the future cash flows of the assets in our retained mortgage portfolio. The future cash flows are projected by models that reflect the expected prepayment behavior associated with the different characteristics of the assets (amortization terms, vintages, mortgage rates, etc.) in our current economic outlook. However, internal models do not incorporate basis risk³⁸ across positions.

Consistent with our model risk management framework, regulatory expectations and industry practice, an independent second line model risk function subjects our material market risk models to rigorous validation testing for conceptual soundness and fitness for use.

The calculation of market risk capital for our net portfolio quantifies the amount of market value losses that its assets could experience under spread widening consistent with the size of the largest spread movements observed since the recession of 2008, assuming that other risk factors such as benchmark interest rates, mortgage rates, and home prices remain the same as in the current economic outlook.

Per our model risk management framework and policies, relevant market risk models using internal-derived models are subject to model performance management to ensure conformance between model estimates and actual portfolio value changes.

The metrics used to measure our interest-rate exposure are generated using internal models. Our internal models, consistent with standard practice for models used in our industry, require numerous assumptions. There are inherent limitations in any methodology used to estimate the exposure to changes in market interest rates. The reliability of our prepayment estimates and interest-rate risk metrics depends on the availability and quality of historical data for each of the types of securities in our net portfolio. When market conditions change rapidly and dramatically, the assumptions of our models may no longer accurately capture or reflect the changing conditions. On a regular basis, management makes judgments about the appropriateness of the risk assessments indicated by the models and will make adjustments as necessary to properly assess our interest-rate exposure and manage our interest-rate risk. For more information on our models, see “MD&A—Risk Management—Model Risk Management” and “Risk Factors—Operational and Model Risk” in our 2023 Form 10-K.

The metrics used to measure the interest-rate and spread exposure of re-securitization positions are generated using internal models in combination with external models that project how the securitization cash flows are allocated to the re-securitization positions.

³⁸ Basis risk is the risk that the value of a futures contract or an over-the-counter hedge will not perfectly offset an underlying position.

Glossary

This section defines terms included in this report.

- **CAS** – Connecticut Avenue Securities® - A type of security that allows Fannie Mae to transfer a portion of the credit risk from loan reference pools, consisting of certain mortgage loans in our guaranty book of business, to third-party investors.
- **CIRT**TM – Credit Insurance Risk TransferTM - Insurance transactions whereby we obtain actual loss coverage on pools of loans either directly from an insurance provider that retains the risk, or from an insurance provider that simultaneously cedes all of its risk to one or more reinsurers.
- **CRTA** – Credit Risk Transfer Approach - A calculation methodology, defined in the ERCF, used to determine the risk-weight for a retained CRT exposure.
- **FHFA** – The Federal Housing Finance Agency - FHFA is an independent agency of the federal government with general supervisory and regulatory authority over Fannie Mae, Freddie Mac and the Federal Home Loan Banks. FHFA also has been acting as our conservator since September 2008. For more information on FHFA's authority as our conservator and as our regulator, see “Business—Conservatorship and Treasury Agreements” and “Business—Legislation and Regulation” in our 2023 Form 10-K.
- **MCAS**TM – Multifamily Connecticut Avenue SecuritiesTM - Connecticut Avenue Securities that are structured as notes issued by trusts to transfer a portion of the credit risk on our multifamily guaranty book of business to third-party investors.
- **MCIRT**TM – Multifamily Credit Insurance Risk TransferTM - Insurance transactions that transfer a portion of the credit risk associated with a reference pool of multifamily mortgage loans to insurers, reinsurers, or investors.
- **Multifamily loan** – A mortgage loan secured by a property containing five or more residential dwelling units.
- **Net portfolio** – Our retained mortgage portfolio assets, corporate liquidity portfolio, outstanding debt of Fannie Mae used to fund the retained mortgage portfolio assets and corporate liquidity portfolio, mortgage commitments and risk management derivatives.
- **Private-label securities** – Mortgage-related securities issued by entities other than agency issuers Fannie Mae, Freddie Mac or Ginnie Mae.
- **Retained mortgage portfolio** – Mortgage-related assets we own (excluding the portion of assets that back mortgage-related securities owned by third parties).
- **Senior preferred stock** – Shares of Variable Liquidation Preference Senior Preferred Stock, Series 2008-2, issued to the U.S. Treasury under the senior preferred stock purchase agreement.
- **Single-family loan** – A mortgage loan secured by a property containing four or fewer residential dwelling units.
- **SSFA** – Simplified Supervisory Formula Approach - a calculation methodology, defined in the ERCF, used to determine the risk-weight for a securitization exposure.
- **Synthetic securitization** – A synthetic securitization means a transaction in which: (1) all or a portion of the credit risk of one or more underlying exposures is retained or transferred to one or more third parties through the use of one or more credit derivatives or guarantees; (2) the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority; (3) performance of the securitization exposures depends upon the performance of the underlying exposures; and (4) all or substantially all of the underlying exposures are financial exposures.



- **Write-off** – Loan amounts written off as uncollectible bad debts. These loan amounts are removed from our consolidated balance sheet and charged against our loss reserves when the balance is deemed uncollectible, which is generally at foreclosure or other liquidation events, such as a deed-in-lieu of foreclosure or a short-sale. Also includes write-offs related to the redesignation of loans from held for investment to held for sale.