## UNITED STATES

## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549
FORM 10-Q
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2021
OR
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number 001-34057

## AGNC INVESTMENT CORP.

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

26-1701984
(I.R.S. Employer Identification No.)

2 Bethesda Metro Center, 12th Floor Bethesda, Maryland 20814
(Address of principal executive offices)
(301) 968-9315
(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

| Title of Each Class | Trading Symbol(s) | Name of Exchange on Which Registered |
| :---: | :---: | :---: |
| Common Stock, par value \$0.01 per share | AGNC | The Nasdaq Global Select Market |
| Depositary shares of $7.000 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock | AGNCN | The Nasdaq Global Select Market |
| Depositary shares of 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock | AGNCM | The Nasdaq Global Select Market |
| Depositary shares of $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock | AGNCO | The Nasdaq Global Select Market |
| Depositary shares of $6.125 \%$ Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock | AGNCP | The Nasdaq Global Select Market |

## Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark whether the registrant (1) has filed all reports to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes $\mathrm{x} \quad$ No $\square$

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes $x$ No $\square$

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| Large accelerated filer | $\boxed{y y y}$ | Accelerated filer |
| :--- | :--- | :--- |
| Non-accelerated filer | $\square$ | Smaller Reporting Company |
| Emerging growth company | $\square$ |  |

If an emerging growth company, indicate by check mark if registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. $\square$

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No x
The number of shares of the issuer's common stock, $\$ 0.01$ par value, outstanding as of October 31, 2021 was 524,908,382.

## AGNC INVESTMENT CORP.

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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements

## AGNC INVESTMENT CORP. CONSOLIDATED BALANCE SHEETS (in millions, except per share data)

|  | ptember 30, |  | 1, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Unaudited) |  |  |  |
| Assets: |  |  |  |  |
| Agency securities, at fair value (including pledged securities of \$46,741 and \$53,698, respectively) | \$ | 53,517 | \$ | 64,836 |
| Agency securities transferred to consolidated variable interest entities, at fair value (pledged securities) |  | 226 |  | 295 |
| Credit risk transfer securities, at fair value (including pledged securities of \$534 and \$455, respectively) |  | 1,072 |  | 737 |
| Non-Agency securities, at fair value (including pledged securities of \$380 and \$458, respectively) |  | 578 |  | 546 |
| U.S. Treasury securities, at fair value (including pledged securities of \$645 and \$0, respectively) |  | 645 |  | - |
| Cash and cash equivalents |  | 981 |  | 1,017 |
| Restricted cash |  | 464 |  | 1,307 |
| Derivative assets, at fair value |  | 402 |  | 391 |
| Receivable for investment securities sold (including pledged securities of \$252 and \$207, respectively) |  | 272 |  | 210 |
| Receivable under reverse repurchase agreements |  | 9,617 |  | 11,748 |
| Goodwill |  | 526 |  | 526 |
| Other assets |  | 505 |  | 204 |
| Total assets | \$ | 68,805 | \$ | 81,817 |
| Liabilities: |  |  |  |  |
| Repurchase agreements | \$ | 46,532 | \$ | 52,366 |
| Debt of consolidated variable interest entities, at fair value |  | 134 |  | 177 |
| Payable for investment securities purchased |  | 1,821 |  | 6,157 |
| Derivative liabilities, at fair value |  | 178 |  | 2 |
| Dividends payable |  | 88 |  | 90 |
| Obligation to return securities borrowed under reverse repurchase agreements, at fair value |  | 8,896 |  | 11,727 |
| Accounts payable and other liabilities |  | 477 |  | 219 |
| Total liabilities |  | 58,126 |  | 70,738 |
| Stockholders' equity: |  |  |  |  |
| Preferred Stock - aggregate liquidation preference of \$1,538 |  | 1,489 |  | 1,489 |
| Common stock - $\$ 0.01$ par value; 1,500 shares authorized; 524.9 and 539.5 shares issued and outstanding, respectively |  | 5 |  | 5 |
| Additional paid-in capital |  | 13,747 |  | 13,972 |
| Retained deficit |  | $(4,973)$ |  | $(5,106)$ |
| Accumulated other comprehensive income |  | 411 |  | 719 |
| Total stockholders' equity |  | 10,679 |  | 11,079 |
| Total liabilities and stockholders' equity | \$ | 68,805 | \$ | 81,817 |

See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP.

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME <br> (Unaudited) <br> (in millions, except per share data)

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Interest income: |  |  |  |  |  |  |  |  |
| Interest income | \$ | 293 | \$ | 364 | \$ | 1,099 | \$ | 1,284 |
| Interest expense |  | 14 |  | 62 |  | 60 |  | 622 |
| Net interest income |  | 279 |  | 302 |  | 1,039 |  | 662 |
| Other gain (loss), net: |  |  |  |  |  |  |  |  |
| Gain (loss) on sale of investment securities, net |  | (5) |  | 346 |  | 7 |  | 993 |
| Unrealized gain (loss) on investment securities measured at fair value through net income, net |  | (141) |  | (365) |  | $(1,124)$ |  | 511 |
| Gain (loss) on derivative instruments and other securities, net |  | 101 |  | 400 |  | 922 |  | $(3,139)$ |
| Total other gain (loss), net: |  | (45) |  | 381 |  | (195) |  | $(1,635)$ |
| Expenses: |  |  |  |  |  |  |  |  |
| Compensation and benefits |  | 14 |  | 13 |  | 42 |  | 39 |
| Other operating expense |  | 8 |  | 8 |  | 26 |  | 29 |
| Total operating expense |  | 22 |  | 21 |  | 68 |  | 68 |
| Net income (loss) |  | 212 |  | 662 |  | 776 |  | $(1,041)$ |
| Dividends on preferred stock |  | 25 |  | 25 |  | 75 |  | 71 |
| Net income (loss) available (attributable) to common stockholders | \$ | 187 | \$ | 637 | \$ | 701 | \$ | $(1,112)$ |
|  |  |  |  |  |  |  |  |  |
| Net income (loss) | \$ | 212 | \$ | 662 | \$ | 776 | \$ | $(1,041)$ |
| Unrealized gain (loss) on investment securities measured at fair value through other comprehensive income (loss), net |  | 6 |  | 70 |  | (308) |  | 737 |
| Comprehensive income (loss) |  | 218 |  | 732 |  | 468 |  | (304) |
| Dividends on preferred stock |  | 25 |  | 25 |  | 75 |  | 71 |
| Comprehensive income (loss) available (attributable) to common stockholders | \$ | 193 | \$ | 707 | \$ | 393 | \$ | (375) |
|  |  |  |  |  |  |  |  |  |
| Weighted average number of common shares outstanding - basic |  | 526.7 |  | 553.2 |  | 529.0 |  | 553.8 |
| Weighted average number of common shares outstanding - diluted |  | 528.6 |  | 554.3 |  | 530.8 |  | 553.8 |
| Net income (loss) per common share - basic | \$ | 0.36 | \$ | 1.15 | \$ | 1.33 | \$ | (2.01) |
| Net income (loss) per common share - diluted | \$ | 0.35 | \$ | 1.15 | \$ | 1.32 | \$ | (2.01) |
| Dividends declared per common share | \$ | 0.36 | \$ | 0.36 | \$ | 1.08 | \$ | 1.20 |

See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP.

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY <br> (Unaudited) <br> (in millions)

|  | Preferred Stock |  | Common Stock |  |  | Additional Paid-in Capital |  | Retained Deficit |  | AccumulatedOtherComprehensiveIncome (Loss) |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Shares | Amount |  |  |  |  |  |  |  |  |  |
| Balance, June 30, 2020 | \$ | 1,489 | 555.5 | \$ | 6 | \$ | 14,191 | \$ | $(6,100)$ | \$ | 764 | \$ | 10,350 |
| Net income |  | - | - |  | - |  | - |  | 662 |  | - |  | 662 |
| Other comprehensive income: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized gain on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | 70 |  | 70 |
| Stock-based compensation, net |  | - | - |  | - |  | 5 |  | - |  | - |  | 5 |
| Repurchase of common stock |  | - | (10.3) |  | (1) |  | (143) |  | - |  | - |  | (144) |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (25) |  | - |  | (25) |
| Common dividends declared |  | - | - |  | - |  | - |  | (198) |  | - |  | (198) |
| Balance, September 30, 2020 | \$ | 1,489 | 545.2 | \$ | 5 | \$ | 14,053 | \$ | $(5,661)$ | \$ | 834 | \$ | 10,720 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Balance, June 30, 2021 | \$ | 1,489 | 524.9 | \$ | 5 | \$ | 13,741 | \$ | $(4,972)$ | \$ | 405 | \$ | 10,668 |
| Net income |  | - | - |  | - |  | - |  | 212 |  | - |  | 212 |
| Other comprehensive income: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized gain on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | 6 |  | 6 |
| Stock-based compensation, net |  | - | - |  | - |  | 6 |  | - |  | - |  | 6 |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (25) |  | - |  | (25) |
| Common dividends declared |  | - | - |  | - |  | - |  | (188) |  | - |  | (188) |
| Balance, September 30, 2021 | \$ | 1,489 | 524.9 | \$ | 5 | \$ | 13,747 | \$ | $(4,973)$ | \$ | 411 | \$ | 10,679 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Balance, December 31, 2019 | \$ | 932 | 540.9 | \$ | 5 | \$ | 13,893 | \$ | $(3,886)$ | \$ | 97 | \$ | 11,041 |
| Net loss |  | - | - |  | - |  | - |  | $(1,041)$ |  | - |  | $(1,041)$ |
| Other comprehensive income: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized gain on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | 737 |  | 737 |
| Stock-based compensation, net |  | - | 0.1 |  | - |  | 12 |  | - |  | - |  | 12 |
| Issuance of preferred stock, net of offering cost |  | 557 | - |  | - |  | - |  | - |  | - |  | 557 |
| Issuance of common stock, net of offering cost |  | - | 26.7 |  | 1 |  | 438 |  | - |  | - |  | 439 |
| Repurchase of common stock |  | - | (22.5) |  | (1) |  | (290) |  | - |  | - |  | (291) |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (71) |  | - |  | (71) |
| Common dividends declared |  | - | - |  | - |  | - |  | (663) |  | - |  | (663) |
| Balance, September 30, 2020 | \$ | 1,489 | 545.2 | \$ | 5 | \$ | 14,053 | \$ | $(5,661)$ | \$ | 834 | \$ | 10,720 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Balance, December 31, 2020 | \$ | 1,489 | 539.5 | \$ | 5 | \$ | 13,972 | \$ | $(5,106)$ | \$ | 719 | \$ | 11,079 |
| Net income |  | - | - |  | - |  | - |  | 776 |  | - |  | 776 |
| Other comprehensive loss: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized loss on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | (308) |  | (308) |
| Stock-based compensation, net |  | - | 0.4 |  | - |  | 14 |  | - |  | - |  | 14 |
| Repurchase of common stock |  | - | (15.0) |  | - |  | (239) |  | - |  | - |  | (239) |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (75) |  | - |  | (75) |
| Common dividends declared |  | - | - |  | - |  | - |  | (568) |  | - |  | (568) |
| Balance, September 30, 2021 | \$ | 1,489 | 524.9 | \$ | 5 | \$ | 13,747 | \$ | $(4,973)$ | \$ | 411 | \$ | 10,679 |

See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP

## CONSOLIDATED STATEMENTS OF CASH FLOWS

## (Unaudited)

## (in millions)

|  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  |
| Operating activities: |  |  |  |  |
| Net income (loss) | \$ | 776 | \$ | $(1,041)$ |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: |  |  |  |  |
| Amortization of premiums and discounts on mortgage-backed securities, net |  | 231 |  | 816 |
| Stock-based compensation, net |  | 14 |  | 12 |
| Gain on sale of investment securities, net |  | (7) |  | (993) |
| Unrealized (gain) loss on investment securities measured at fair value through net income, net |  | 1,124 |  | (511) |
| (Gain) loss on derivative instruments and other securities, net |  | (922) |  | 3,139 |
| (Increase) decrease in other assets |  | (33) |  | 104 |
| Decrease in accounts payable and other accrued liabilities |  | (19) |  | (189) |
| Net cash provided by operating activities |  | 1,164 |  | 1,337 |
| Investing activities: |  |  |  |  |
| Purchases of Agency mortgage-backed securities |  | $(34,575)$ |  | $(44,753)$ |
| Purchases of credit risk transfer and non-Agency securities |  | $(1,405)$ |  | (609) |
| Proceeds from sale of Agency mortgage-backed securities |  | 27,713 |  | 68,920 |
| Proceeds from sale of credit risk transfer and non-Agency securities |  | 994 |  | 838 |
| Principal collections on Agency mortgage-backed securities |  | 12,167 |  | 12,635 |
| Principal collections on credit risk transfer and non-Agency securities |  | 73 |  | 115 |
| Payments on U.S. Treasury securities |  | $(18,560)$ |  | $(22,090)$ |
| Proceeds from U.S. Treasury securities |  | 15,261 |  | 20,112 |
| Net proceeds from reverse repurchase agreements |  | 2,129 |  | 1,590 |
| Net proceeds from (payments on) derivative instruments |  | 918 |  | $(2,260)$ |
| Net cash provided by investing activities |  | 4,715 |  | 34,498 |
| Financing activities: |  |  |  |  |
| Proceeds from repurchase arrangements |  | 1,650,800 |  | 2,651,280 |
| Payments on repurchase agreements |  | $(1,656,634)$ |  | $(2,685,896)$ |
| Payments on debt of consolidated variable interest entities |  | (39) |  | (44) |
| Net proceeds from preferred stock issuances |  | - |  | 557 |
| Net proceeds from common stock issuances |  | - |  | 439 |
| Payments for common stock repurchases |  | (239) |  | (291) |
| Cash dividends paid |  | (646) |  | (748) |
| Net cash used in financing activities |  | $(6,758)$ |  | $(34,703)$ |
| Net change in cash, cash equivalents and restricted cash |  | (879) |  | 1,132 |
| Cash, cash equivalents and restricted cash at beginning of period |  | 2,324 |  | 1,282 |
| Cash, cash equivalents and restricted cash at end of period | \$ | 1,445 | \$ | 2,414 |

See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

## Note 1. Organization

AGNC Investment Corp. (referred throughout this report as the "Company," "we," "us" and "our") was organized in Delaware on January 7, 2008 and commenced operations on May 20, 2008 following the completion of our initial public offering. Our common stock is traded on The Nasdaq Global Select Market under the symbol "AGNC."

We invest primarily in Agency residential mortgage-backed securities ("Agency RMBS") for which the principal and interest payments are guaranteed by a U.S. Government-sponsored enterprise ("GSE") or a U.S. Government agency. We also invest in other types of mortgage and mortgagerelated securities, such as credit risk transfer ("CRT") securities and non-Agency residential and commercial mortgage-backed securities ("non-Agency RMBS" and "CMBS," respectively), where repayment of principal and interest is not guaranteed by a GSE or U.S. Government agency, and other assets related to the housing, mortgage or real estate markets. We fund our investments primarily through collateralized borrowings structured as repurchase agreements.

We operate to qualify to be taxed as a real estate investment trust ("REIT") under the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"). As a REIT, we are required to distribute annually $90 \%$ of our taxable income, and we will generally not be subject to U.S. federal or state corporate income tax to the extent that we distribute our annual taxable income to our stockholders on a timely basis. It is our intention to distribute $100 \%$ of our taxable income, after application of available tax attributes, within the limits prescribed by the Internal Revenue Code, which may extend into the subsequent tax year.

We are internally managed with the principal objective of providing our stockholders with attractive risk-adjusted returns through a combination of monthly dividends and tangible net book value accretion. We generate income from the interest earned on our investments, net of associated borrowing and hedging costs, and net realized gains and losses on our investment and hedging activities.

## Note 2. Summary of Significant Accounting Policies

## Basis of Presentation

Our accompanying consolidated financial statements and related notes have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") for interim financial information and pursuant to the requirements for reporting on Form 10-Q and Article 10 of Regulation S-X. The accompanying consolidated financial statements and related notes are unaudited and include the accounts of all our wholly-owned subsidiaries and variable interest entities for which we are the primary beneficiary. Significant intercompany accounts and transactions have been eliminated. The accompanying consolidated financial statements and related notes should be read in conjunction with the audited consolidated financial statements included in our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of income and expenses during the reporting period. In the opinion of management, all adjustments, consisting solely of normal recurring accruals, necessary for the fair presentation of consolidated financial statements for the interim period have been included. The current period's results of operations are not necessarily indicative of results that ultimately may be achieved for the year.

## Investment Securities

Agency RMBS consist of residential mortgage pass-through securities and collateralized mortgage obligations ("CMOs") guaranteed by the Federal National Mortgage Association ("Fannie Mae"), Federal Home Loan Mortgage Corporation ("Freddie Mac," and together with Fannie Mae, the "GSEs") or the Government National Mortgage Association ("Ginnie Mae").

CRT securities are risk sharing instruments issued by the GSEs, and similarly structured transactions issued by third-party market participants, that synthetically transfer a portion of the risk associated with credit losses within pools of conventional residential mortgage loans from the GSEs and/or third parties to private investors. Unlike Agency RMBS, full repayment of the original principal balance of CRT securities is not guaranteed by a GSE or U.S. Government agency; rather, "credit risk transfer" is achieved by writing down the outstanding principal balance of the CRT securities if credit losses on a related pool
of loans exceed certain thresholds. By reducing the amount that they are obligated to repay to holders of CRT securities, the GSEs and/or other third parties offset credit losses on the related loans.

Non-Agency RMBS and CMBS (together, "Non-Agency MBS") are backed by residential and commercial mortgage loans, respectively, packaged and securitized by a private institution, such as a commercial bank. Non-Agency MBS typically benefit from credit enhancements derived from structural elements, such as subordination, over-collateralization or insurance, but nonetheless carry a higher level of credit exposure than Agency RMBS.

All of our securities are reported at fair value on our consolidated balance sheet. Accounting Standards Codification ("ASC") Topic 320, Investments -Debt and Equity Securities, requires that at the time of purchase, we designate a security as held-to-maturity, available-for-sale or trading, depending on our ability and intent to hold such security to maturity. Alternatively, we may elect the fair value option of accounting for securities pursuant to ASC Topic 825, Financial Instruments. Prior to fiscal year 2017, we primarily designated our investment securities as available-for-sale. On January 1, 2017, we began electing the fair value option of accounting for all investment securities newly acquired after such date. Unrealized gains and losses on securities classified as available-for-sale are reported in accumulated other comprehensive income ("OCI"), whereas unrealized gains and losses on securities for which we elected the fair value option, or are classified as trading, are reported in net income through other gain (loss). Upon the sale of a security designated as available-for-sale, we determine the cost of the security and the amount of unrealized gain or loss to reclassify out of accumulated OCI into earnings based on the specific identification method. In our view, the election of the fair value option simplifies the accounting for investment securities and more appropriately reflects the results of our operations for a reporting period by presenting the fair value changes for these assets in a manner consistent with the presentation and timing of the fair value changes for our derivative instruments.

We generally recognize gains or losses through net income on available-for-sale securities only if the security is sold; however, if the fair value of a security declines below its amortized cost and we determine that it is more likely than not that we will incur a realized loss on the security when we sell the asset, we will recognize the difference between the amortized cost and the fair value in net income as a component of other gain (loss). Since all of our available-for-sale designated securities consist of Agency RMBS, we do not have an allowance for credit losses. We have not recognized impairment losses on our available-for-sale securities through net income for the periods presented in our consolidated financial statements.

## Interest Income

Interest income is accrued based on the outstanding principal amount of the investment securities and their contractual terms. Premiums or discounts associated with the purchase of Agency RMBS and non-Agency MBS of high credit quality are amortized or accreted into interest income, respectively, over the projected lives of the securities, including contractual payments and estimated prepayments, using the effective interest method in accordance with ASC Subtopic 310-20, Receivables-Nonrefundable Fees and Other Costs.

We estimate long-term prepayment speeds of our mortgage securities using a third-party service and market data. The third-party service provider estimates prepayment speeds using models that incorporate the forward yield curve, primary to secondary mortgage rate spreads, current mortgage rates, mortgage rates of the outstanding loans, age and size of the outstanding loans, loan-to-value ratios, interest rate volatility and other factors. We review the prepayment speeds estimated by the third-party service for reasonableness with consideration given to both historical prepayment speeds and current market conditions. If based on our assessment, we believe that the third-party model does not fully reflect our expectations of the current prepayment landscape, such as during periods of elevated market uncertainty or unique market conditions, we may make adjustments to the models. We review our actual and anticipated prepayment experience on at least a quarterly basis and effective yields are recalculated when differences arise between (i) our previous estimate of future prepayments and (ii) actual prepayments to date and our current estimate of future prepayments. We are required to record an adjustment in the current period to premium amortization / discount accretion for the cumulative effect of the difference in the effective yields as if the recalculated yield had been in place as of the security's acquisition date through the reporting date.

At the time we purchase CRT securities and non-Agency MBS that are not of high credit quality, we determine an effective yield based on our estimate of the timing and amount of future cash flows and our cost basis. Our initial cash flow estimates for these investments are based on our observations of current information and events and include assumptions related to interest rates, prepayment rates and the impact of default and severity rates on the timing and amount of credit losses. On at least a quarterly basis, we review the estimated cash flows and make appropriate adjustments based on inputs and analysis received from external sources, internal models, and our judgment regarding such inputs and other factors. Any resulting changes in effective yield are recognized prospectively based on the current amortized cost of the investment adjusted for credit impairments, if any.

## Repurchase Agreements

We finance the acquisition of securities for our investment portfolio primarily through repurchase agreements with financial institutions. Repurchase arrangements involve the sale and a simultaneous agreement to repurchase the transferred assets at a future date. We maintain a beneficial interest in the specific securities pledged during the term of each repurchase arrangement and we receive the related principal and interest payments. Pursuant to ASC Topic 860, Transfers and Servicing, we account for repurchase agreements as collateralized financing transactions, which are carried at their contractual amounts (cost), plus accrued interest. Our repurchase agreements typically have maturities of less than one year but may extend up to five years or more.

## Reverse Repurchase Agreements and Obligation to Return Securities Borrowed under Reverse Repurchase Agreements

We borrow securities to cover short sales of U.S. Treasury securities through reverse repurchase transactions under our master repurchase agreements (see Derivative Instruments below). We account for these as securities borrowing transactions and recognize an obligation to return the borrowed securities at fair value on the balance sheet based on the value of the underlying borrowed securities as of the reporting date. We may also enter into reverse repurchase agreements to earn a yield on excess cash balances. The securities received as collateral in connection with our reverse repurchase agreements mitigate our credit risk exposure to counterparties. Our reverse repurchase agreements typically have maturities of 30 days or less.

## Derivative Instruments

We use a variety of derivative instruments to hedge a portion of our exposure to market risks, including interest rate, prepayment, extension and liquidity risks. The objective of our risk management strategy is to reduce fluctuations in net book value over a range of interest rate scenarios. In particular, we attempt to mitigate the risk of the cost of our variable rate liabilities increasing during a period of rising interest rates. The primary instruments that we use are interest rate swaps, options to enter into interest rate swaps ("swaptions"), U.S. Treasury securities and U.S. Treasury futures contracts. We also use forward contracts in the Agency RMBS "to-be-announced" market, or TBA securities, to invest in and finance Agency securities and to periodically reduce our exposure to Agency RMBS.

We account for derivative instruments in accordance with ASC Topic 815, Derivatives and Hedging ("ASC 815"). ASC 815 requires an entity to recognize all derivatives as either assets or liabilities in our accompanying consolidated balance sheets and to measure those instruments at fair value. None of our derivative instruments have been designated as hedging instruments for accounting purposes under the provisions of ASC 815, consequently changes in the fair value of our derivative instruments are reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income.

Our derivative agreements generally contain provisions that allow for netting or setting off derivative assets and liabilities with the counterparty; however, we report related assets and liabilities on a gross basis in our consolidated balance sheets. Derivative instruments in a gain position are reported as derivative assets at fair value and derivative instruments in a loss position are reported as derivative liabilities at fair value in our consolidated balance sheets. Changes in fair value of derivative instruments and periodic settlements related to our derivative instruments are recorded in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income. Cash receipts and payments related to derivative instruments are classified in our consolidated statements of cash flows according to the underlying nature or purpose of the derivative transaction, generally in the investing section.

## Interest rate swap agreements

We use interest rate swaps to economically hedge the variable cash flows associated with our borrowings made under repurchase agreements. Under our interest rate swap agreements, we typically pay a fixed rate and receive a floating rate ("payer swaps") based on a short-term benchmark rate, such as the Secured Overnight Financing Rate ("SOFR") and Overnight Index Swap Rate ("OIS"). Our interest rate swaps typically have terms from one to 10 years but may extend up to 20 years or more. Our interest rate swaps are centrally cleared through a registered commodities exchange. The clearing exchange requires that we post an "initial margin" amount determined by the exchange, which is generally intended to be set at a level sufficient to protect the exchange from the interest rate swap's maximum estimated single-day price movement. We also exchange daily settlements of "variation margin" based upon changes in fair value, as measured by the exchange. Pursuant to rules governing central clearing activities, we recognize variation margin settlements as a direct reduction of the carrying value of the interest rate swap asset or liability.

## Interest rate swaptions

We purchase interest rate swaptions to help mitigate the potential impact of larger, more rapid changes in interest rates on the performance of our investment portfolio. Interest rate swaptions provide us the option to enter into an interest rate swap agreement for a predetermined notional amount, stated term and pay and receive interest rates in the future. Our interest rate swaption agreements are not subject to central clearing. The premium paid for interest rate swaptions is reported as an asset in our consolidated balance sheets. The difference between the premium paid and the fair value of the swaption is reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income. If a swaption expires unexercised, the realized loss on the swaption would be equal to the premium paid. If we sell or exercise a swaption, the realized gain or loss on the swaption would be equal to the difference between the cash or the fair value of the underlying interest rate swap and the premium paid.

## TBA securities

A TBA security is a forward contract for the purchase or sale of Agency RMBS at a predetermined price, face amount, issuer, coupon and stated maturity on an agreed-upon future date. The specific Agency RMBS to be delivered into the contract are not known until shortly before the settlement date. We may choose, prior to settlement, to move the settlement of these securities out to a later date by entering into an offsetting TBA position, net settling the offsetting positions for cash, and simultaneously purchasing or selling a similar TBA contract for a later settlement date (together referred to as a "dollar roll transaction"). The Agency securities purchased or sold for a forward settlement date are typically priced at a discount to equivalent securities settling in the current month. This difference, or "price drop," is the economic equivalent of interest income on the underlying Agency securities, less an implied funding cost, over the forward settlement period (referred to as "dollar roll income"). Consequently, forward purchases of Agency securities and dollar roll transactions represent a form of off-balance sheet financing.

We account for TBA contracts as derivative instruments since either the TBA contracts do not settle in the shortest period of time possible or we cannot assert that it is probable at inception and throughout the term of the TBA contract that we will physically settle the contract on the settlement date. We account for TBA dollar roll transactions as a series of derivative transactions.

## U.S. Treasury securities

We use U.S. Treasury securities and U.S. Treasury futures contracts to mitigate the potential impact of changes in interest rates on the performance of our portfolio. We borrow U.S. Treasury securities under reverse repurchase agreements to cover short sales of U.S. Treasury securities. We account for these as securities borrowing transactions and recognize an obligation to return the borrowed securities at fair value on our accompanying consolidated balance sheets based on the value of the underlying U.S. Treasury security as of the reporting date. Gains and losses associated with U.S. Treasury securities and U.S. Treasury futures contracts are recognized in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income.

## Fair Value Measurements

We determine the fair value of financial instruments based on our estimate of the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. We utilize a three-level valuation hierarchy for disclosure of fair value measurements based upon the transparency of inputs to the valuation of the instrument as of the measurement date. We categorize a financial instrument within the hierarchy based upon the lowest level of input that is significant to the fair value measurement.

The three levels of valuation hierarchy are defined as follows:

- Level 1 Inputs - Quoted prices (unadjusted) for identical unrestricted assets and liabilities in active markets that are accessible at the measurement date.
- Level 2 Inputs - Quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.
- Level 3 Inputs - Instruments with primarily unobservable market data that cannot be corroborated.

The majority of our financial instruments are classified as Level 2 inputs. The availability of observable inputs can be affected by a wide variety of factors, including the type of instrument, whether the instrument is new and not yet established in the marketplace and other characteristics particular to the instrument. We typically obtain price estimates from multiple third-
party pricing sources, such as pricing services and dealers, or, if applicable, the registered clearing exchange. We make inquiries of third-party pricing sources to understand the significant inputs and assumptions they used to determine their prices and that they are derived from orderly transactions, particularly during periods of elevated market turbulence and reduced market liquidity. We also review third-party price estimates and perform procedures to validate their reasonableness, including an analysis of the range of estimates for each position, comparison to recent trade activity for similar securities and for consistency with market conditions observed as of the measurement date. While we do not adjust prices we obtain from pricing sources, we will exclude prices for securities from our estimation of fair value if we determine based on our validation procedures and our market knowledge and expertise that the price is significantly different from what observable market data would indicate and we cannot obtain an understanding from the third-party source as to the significant inputs used to determine the price.

The following is a description of the valuation methodologies used for instruments measured at fair value on a recurring basis classified as Level 2 inputs. These instruments trade in active markets such that participants transact with sufficient frequency and volume to provide transparent pricing information on an ongoing basis. The liquidity of these markets and the similarity of our securities and derivative instruments to those actively traded enable our pricing sources and us to observe quoted prices in the market and utilize those prices as a basis for formulating fair value measurements.

Investment securities - are valued based on prices obtained from multiple third-party pricing sources. The pricing sources utilize various valuation approaches, including market and income approaches. For Agency RMBS, the pricing sources primarily utilize a matrix pricing technique that interpolates the estimated fair value based on observed quoted prices for forward contracts in the Agency RMBS "to-be-announced" market ("TBA securities") of the same coupon, maturity and issuer, adjusted to reflect the specific characteristics of the pool of mortgages underlying the Agency security, such as maximum loan balance, loan vintage, loan-to-value ratio, geography and other characteristics as may be appropriate. For other investment securities, the pricing sources primarily utilize discounted cash flow model-derived pricing techniques to estimate the fair value. Such models incorporate market-based discount rate assumptions based on observable inputs such as recent trading activity, credit data, volatility statistics, benchmark interest rate curves, spread measurements to benchmark curves and other market data that are current as of the measurement date and may include certain unobservable inputs, such as assumptions of future levels of prepayment, defaults and loss severities.

TBA securities - are valued using prices obtained from third-party pricing sources based on pricing models that reference recent trading activity.
Interest rate swaps - are valued using the daily settlement price, or fair value, determined by the clearing exchange based on a pricing model that references observable market inputs, including current benchmark rates and the forward yield curve.

Interest rate swaptions - are valued using prices obtained from the counterparty and other third-party pricing models. The pricing models are based on the value of the future interest rate swap that we have the option to enter into as well as the remaining length of time that we have to exercise the option based on observable market inputs, adjusted for non-performance risk, if any.
U.S. Treasury securities and futures are valued based on quoted prices for identical instruments in active markets and are classified as Level 1 assets. None of our financial instruments are classified as Level 3 inputs.

## Recent Accounting Pronouncements

We consider the applicability and impact of all ASUs issued by the FASB. There are no unadopted ASUs that are expected to have a significant impact on our consolidated financial statements when adopted or other recently adopted ASUs that had a significant impact on our consolidated financial statements upon adoption.

## Note 3. Investment Securities

As of September 30, 2021 and December 31, 2020, our investment portfolio consisted of: $\$ 55.4$ billion and $\$ 66.4$ billion investment securities, at fair value, respectively; $\$ 28.3$ billion and $\$ 31.5$ billion net TBA securities, at fair value, respectively; and $\$ 0.5$ billion and zero forward settling non-Agency securities, at fair value, respectively. Our net TBA position and forward settling non-Agency securities are reported at their net carrying value totaling $\$(171)$ million and $\$ 275$ million as of September 30, 2021 and December 31, 2020, respectively, in derivative assets / (liabilities) on our accompanying consolidated balance sheets. The net carrying value of our TBA position and forward settling non-Agency securities represents the difference between the fair value of the underlying security and the cost basis or the forward price to be paid or received for the underlying security.

As of September 30, 2021 and December 31, 2020, our investment securities had a net unamortized premium balance of $\$ 1.9$ billion and $\$ 2.4$ billion, respectively.

The following tables summarize our investment securities as of September 30, 2021 and December 31, 2020, excluding TBA and forward settling securities, (dollars in millions). Details of our TBA and forward settling securities as of each of the respective dates are included in Note 5.


[^0]| Investment Securities | December 31, 2020 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Agency RMBS |  |  |  |  |  | Non-Agency |  |  |  | CRT |  | Total |  |
|  | Fannie Mae |  | Freddie Mac |  | Ginnie Mae |  | RMBS |  | CMBS |  |  |  |  |  |
| Available-for-sale securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value | \$ | 9,325 | \$ | 3,416 | \$ | 2 | \$ | - | \$ | - | \$ | - | \$ | 12,743 |
| Unamortized discount |  | (4) |  | (1) |  | - |  | - |  | - |  | - |  | (5) |
| Unamortized premium |  | 389 |  | 152 |  | - |  | - |  | - |  | - |  | 541 |
| Amortized cost |  | 9,710 |  | 3,567 |  | 2 |  | - |  | - |  | - |  | 13,279 |
| Gross unrealized gains |  | 539 |  | 180 |  | - |  | - |  | - |  | - |  | 719 |
| Gross unrealized losses |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total available-for-sale securities, at fair value |  | 10,249 |  | 3,747 |  | 2 |  | - |  | - |  | - |  | 13,998 |
| Securities remeasured at fair value through earnings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value |  | 32,824 |  | 14,447 |  | 3 |  | 187 |  | 331 |  | 735 |  | 48,527 |
| Unamortized discount |  | (18) |  | (1) |  | - |  | (12) |  | (3) |  | (12) |  | (46) |
| Unamortized premium |  | 1,314 |  | 607 |  | - |  | 4 |  | 6 |  | 10 |  | 1,941 |
| Amortized cost |  | 34,120 |  | 15,053 |  | 3 |  | 179 |  | 334 |  | 733 |  | 50,422 |
| Gross unrealized gains |  | 1,280 |  | 683 |  | - |  | 11 |  | 28 |  | 12 |  | 2,014 |
| Gross unrealized losses |  | (5) |  | (1) |  | - |  | (2) |  | (4) |  | (8) |  | (20) |
| Total securities remeasured at fair value through earnings |  | 35,395 |  | 15,735 |  | 3 |  | 188 |  | 358 |  | 737 |  | 52,416 |
| Total securities, at fair value | \$ | 45,644 | \$ | 19,482 | \$ | 5 | \$ | 188 | \$ | 358 | \$ | 737 | \$ | 66,414 |
| Weighted average coupon as of December 31, 2020 |  | 3.30 \% |  | 3.56 \% |  | 4.73 \% |  | 4.28 \% |  | 4.13 \% |  | 3.43 \% |  | 3.39 \% |
| Weighted average yield as of December 31, $2020{ }^{1}$ |  | 2.25 \% |  | 2.39 \% |  | 2.46 \% |  | 4.33 \% |  | 4.29 \% |  | 3.71 \% |  | 2.33 \% |

1. Incorporates a weighted average future constant prepayment rate assumption of $17.6 \%$ based on forward rates as of December 31,2020 .

As of September 30, 2021 and December 31, 2020, our investments in CRT and non-Agency securities had the following credit ratings (in millions):

| CRT and Non-Agency Security Credit Ratings ${ }^{1}$ | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CRT |  | RMBS |  | CMBS |  | CRT |  | RMBS |  | CMBS |  |
| AAA | \$ | - | \$ | - | \$ | 21 | \$ | - | \$ | - | \$ | 35 |
| AA |  | - |  | 22 |  | 118 |  | - |  | 20 |  | 190 |
| A |  | - |  | 33 |  | 35 |  | - |  | 32 |  | 28 |
| BBB |  | 32 |  | 76 |  | 83 |  | 28 |  | 83 |  | 55 |
| BB |  | 263 |  | 42 |  | 83 |  | 167 |  | 36 |  | 43 |
| B |  | 351 |  | 9 |  | 27 |  | 304 |  | 6 |  | 7 |
| Not Rated |  | 426 |  | 15 |  | 14 |  | 238 |  | 11 |  | - |
| Total | \$ | 1,072 | \$ | 197 | \$ | 381 | \$ | 737 | \$ | 188 | \$ | 358 |

[^1] equivalent rating as of each date.

Our CRT securities reference the performance of loans underlying Agency RMBS issued by Fannie Mae or Freddie Mac, which were subject to their underwriting standards.

The actual maturities of our investment securities are generally shorter than their stated contractual maturities. The actual maturities of our Agency and high credit quality non-Agency RMBS are primarily affected by principal prepayments and to a lesser degree the contractual lives of the underlying mortgages and periodic contractual principal repayments. The actual maturities of our credit-oriented investments are primarily impacted by their contractual lives and default and loss recovery rates. As of September 30, 2021 and December 31, 2020, the weighted average expected constant prepayment rate ("CPR") over the remaining life of our Agency and high credit quality non-Agency RMBS investment portfolio was $10.7 \%$ and $17.6 \%$, respectively. Our estimates can differ materially for different securities and thus our individual holdings have a wide range of projected CPRs. The following table summarizes our investments as of September 30, 2021 and December 31, 2020 according to their estimated weighted average life classification (dollars in millions):

| Estimated Weighted Average Life of Investment Securities | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value |  | Amortized Cost |  | Weighted Average Coupon | $\begin{gathered} \text { Weighted } \\ \text { Average } \\ \text { Yield } \\ \hline \end{gathered}$ | Fair Value |  | Amortized Cost |  | Weighted Average Coupon | $\begin{aligned} & \hline \text { Weighted } \\ & \text { Average } \\ & \text { Yield } \end{aligned}$ |
| $\leq 3$ years | \$ | 1,457 | \$ | 1,414 | 3.51\% | 4.28\% | \$ | 3,642 | \$ | 3,569 | 3.56\% | 2.15\% |
| $>3$ years and $\leq 5$ years |  | 8,766 |  | 8,426 | 3.90\% | 2.76\% |  | 47,740 |  | 45,578 | 3.54\% | 2.42\% |
| $>5$ years and $\leq 10$ years |  | 42,927 |  | 42,029 | 3.02\% | 2.38\% |  | 15,019 |  | 14,541 | 2.87\% | 2.08\% |
| $>10$ years |  | 2,243 |  | 2,243 | 2.51\% | 2.11\% |  | 13 |  | 13 | 5.56\% | 3.59\% |
| Total | \$ | 55,393 | \$ | 54,112 | 3.15\% | 2.48\% | \$ | 66,414 | \$ | 63,701 | 3.39\% | 2.33\% |

## Gains and Losses on Sale of Investment Securities

The following table is a summary of our net gain (loss) from the sale of investment securities for the three and nine months ended September 30, 2021 and 2020 by investment classification of accounting (in millions):


Proceeds include cash received during the period, plus receivable for investment securities sold during the period as of period end.
See Note 9 for a summary of changes in accumulated OCI.

## Note 4. Repurchase Agreements and Reverse Repurchase Agreements

## Repurchase Agreements

We pledge our securities as collateral under our borrowings structured as repurchase agreements with financial institutions. Amounts available to be borrowed are dependent upon the fair value of the securities pledged as collateral, which fluctuates with changes in interest rates, type of security and liquidity conditions within the banking, mortgage finance and real estate industries. If the fair value of our pledged securities declines, lenders will typically require us to post additional collateral or pay down borrowings to re-establish agreed upon collateral requirements, referred to as "margin calls." Similarly, if the fair value of our pledged securities increases, lenders may release collateral back to us. As of September 30, 2021, we had met all margin call requirements. For additional information regarding our pledged assets, please refer to Note 6.

As of September 30, 2021 and December 31, 2020, we had $\$ 46.5$ billion and $\$ 52.4$ billion, respectively, of repurchase agreements outstanding used to fund our investment portfolio and temporary holdings of U.S. Treasury securities. The terms and conditions of our repurchase agreements are typically negotiated on a transaction-by-transaction basis. Our repurchase agreements with original maturities greater than one year may have floating interest rates based on an index plus or minus a
fixed spread. The following table summarizes our borrowings under repurchase agreements by their remaining maturities as of September 30, 2021 and December 31, 2020 (dollars in millions):

| Remaining Maturity | September 30, 2021 |  |  |  | December 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Repurchase Agreements |  | Weighted Average Interest Rate | Weighted Average Days to Maturity | Repurchase Agreements |  | Weighted Average Interest Rate | Weighted Average Days to Maturity |
| Agency repo: |  |  |  |  |  |  |  |  |
| $\leq 1$ month | \$ | 20,997 | 0.10 \% | 16 | \$ | 29,505 | 0.22 \% | 12 |
| $>1$ to $\leq 3$ months |  | 11,652 | 0.13 \% | 63 |  | 13,434 | 0.27 \% | 57 |
| $>3$ to $\leq 6$ months |  | 9,470 | 0.14 \% | 126 |  | 7,317 | 0.28 \% | 142 |
| $>6$ to $\leq 9$ months |  | 1,875 | 0.14 \% | 196 |  | 660 | 0.24 \% | 208 |
| $>9$ to $\leq 12$ months |  | 1,595 | 0.15 \% | 351 |  | 1,450 | 0.15 \% | 354 |
| Total Agency repo |  | 45,589 | 0.12 \% | 70 |  | 52,366 | 0.24 \% | 54 |
| U.S. Treasury repo: |  |  |  |  |  |  |  |  |
| $>1$ day to $\leq 1$ month |  | 943 | 0.07 \% | 3 |  | - | - \% | - |
| Total | \$ | 46,532 | 0.12 \% | 69 | \$ | 52,366 | 0.24 \% | 54 |

As of September 30, 2021 and December 31, 2020, $\$ 3.7$ billion and $\$ 11.2$ billion, respectively, of our repurchase agreements had an overnight maturity of one business day and none of our repurchase agreements were due on demand. As of September 30, 2021, we had $\$ 2.5$ billion of forward commitments to enter into repurchase agreements with a weighted average forward start date of 1 day and a weighted average interest rate of $0.06 \%$. As of December 31, 2020, we had $\$ 2.9$ billion of forward commitments to enter into repurchase agreements, with a weighted average forward start date of 4 days and a weighted average interest rate of $0.12 \%$. As of September 30, 2021 and December 31, 2020, $43 \%$ and $47 \%$, respectively, of our repurchase agreement funding was sourced through our wholly-owned captive broker-dealer subsidiary, Bethesda Securities, LLC ("BES"). Amounts sourced through BES include funding from the General Collateral Finance Repo service ("GCF Repo") offered by the Fixed Income Clearing Corporation ("FICC"), which totaled $42 \%$ and $46 \%$ of our repurchase agreement funding outstanding as of September 30, 2021 and December 31, 2020, respectively.

During the nine months ended September 30, 2020, we terminated $\$ 3.7$ billion of repurchase agreements with a weighted average interest rate of $2.11 \%$ and a weighted average remaining maturity of 2.2 years. The terminated agreements were replaced with shorter duration repurchase agreements at lower prevailing market rates. We recognized losses on debt extinguishment of $\$ 146$ million in other gain (loss), net for the nine months ended September 30, 2020 associated with the terminated repurchase agreements. We did not terminate any repurchase agreements during the current year periods.

## Reverse Repurchase Agreements

As of September 30, 2021 and December 31, 2020, we had $\$ 9.6$ billion and $\$ 11.7$ billion, respectively, of reverse repurchase agreements outstanding used primarily to borrow securities to cover short sales of U.S. Treasury securities, for which we had associated obligations to return borrowed securities at fair value of $\$ 8.9$ billion and $\$ 11.7$ billion, respectively. As of September 30, 2021 and December 31, 2020, $\$ 2.5$ billion and $\$ 3.6$ billion, respectively, of our reverse repurchase agreements were with the FICC sourced through BES.

## Note 5. Derivative and Other Hedging Instruments

We hedge a portion of our interest rate risk primarily utilizing interest rate swaps, interest rate swaptions, U.S. Treasury securities and U.S. Treasury futures contracts. We utilize TBA securities primarily as a means of investing in the Agency securities market. For additional information regarding our derivative instruments and our overall risk management strategy, please refer to the discussion of derivative and other hedging instruments in Note 2.

## Derivative and Other Hedging Instrument Assets (Liabilities), at Fair Value

The table below summarizes fair value information about our derivative and other hedging instrument assets/(liabilities) as of September 30, 2021 and December 31, 2020 (in millions):

| Derivative and Other Hedging Instruments | Balance Sheet Location | $\underset{2021}{\text { September 30, }}$ |  | $\begin{gathered} \text { December 31, } \\ 2020 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Swaptions | Derivative assets, at fair value | \$ | 374 | \$ | 116 |
| TBA and forward settling non-Agency securities | Derivative assets, at fair value |  | 7 |  | 275 |
| U.S. Treasury futures - short | Derivative assets, at fair value |  | 21 |  | - |
| Total derivative assets, at fair value |  | \$ | 402 | \$ | 391 |
|  |  |  |  |  |  |
| TBA and forward settling non-Agency securities | Derivative liabilities, at fair value |  | (178) |  | - |
| U.S. Treasury futures - short | Derivative liabilities, at fair value |  | - |  | (2) |
| Total derivative liabilities, at fair value |  | \$ | (178) | \$ | (2) |
|  |  |  |  |  |  |
| U.S. Treasury securities - long | U.S. Treasury securities, at fair value | \$ | 645 | \$ | - |
| U.S. Treasury securities - short | Obligation to return securities borrowed under reverse repurchase agreements, at fair value |  | $(8,896)$ |  | $(11,727)$ |
| Total U.S. Treasury securities, net at fair value |  | \$ | $(8,251)$ | \$ | $(11,727)$ |

The following tables summarize certain characteristics of our derivative and other hedging instruments outstanding as of September 30, 2021 and December 31, 2020 (dollars in millions):

| Pay Fixed / Receive Variable Interest Rate Swaps | September 30, 2021 |  |  |  |  | December 31, 2020 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notional Amount |  | $\begin{gathered} \text { Average } \\ \text { Fixed Pay } \\ \text { Rate } \end{gathered}$ | Average Receive Rate | Average Maturity (Years) | Notional Amount |  | $\begin{gathered} \text { Average } \\ \text { Fixed Pay } \\ \text { Rate } \end{gathered}$ | Average Receive Rate | Average Maturity (Years) |
| $\leq 3$ years | \$ | 22,500 | 0.10\% | 0.05\% | 2.3 | \$ | 8,750 | 0.04\% | 0.08\% | 2.4 |
| $>3$ to $\leq 5$ years |  | 15,300 | 0.16\% | 0.05\% | 4.2 |  | 17,000 | 0.10\% | 0.08\% | 4.1 |
| $>5$ to $\leq 7$ years |  | 6,800 | 0.29\% | 0.05\% | 6.0 |  | 9,800 | 0.21\% | 0.08\% | 5.8 |
| $>7$ to $\leq 10$ years |  | 3,650 | 0.33\% | 0.05\% | 8.4 |  | 6,200 | 0.28\% | 0.07\% | 8.5 |
| $>10$ years |  | 1,475 | 0.47\% | 0.05\% | 13.4 |  | 1,475 | 0.47\% | 0.07\% | 14.2 |
| Total | \$ | 49,725 | 0.17\% | 0.05\% | 4.2 | \$ | 43,225 | 0.15\% | 0.08\% | 5.1 |


| Pay Fixed / Receive Variable Interest Rate Swaps by <br> Receive Index (\% of Notional Amount) | September 30, <br> 2021 |  |  | December 31, 2020 |
| :--- | :--- | :--- | :--- | :--- |
| SOFR | $74 \%$ |  | $71 \%$ |  |
| OIS |  | $26 \%$ | $29 \%$ |  |
| Total |  | $100 \%$ |  | $100 \%$ |
|  |  |  |  |  |


| Swaptions | Option |  |  |  |  | Underlying Payer Swap |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Option Expiration Date | Cost Basis |  | Fair Value |  | Average Months to Current Option Expiration Date | Notional Amount |  | Average Fixed Pay Rate $^{2}$ | Average Term (Years) |
| September 30, 2021 |  |  |  |  |  |  |  |  |  |
| $\leq 1$ year | \$ | 85 | \$ | 53 | 6 | \$ | 3,200 | 1.80\% | 8.3 |
| $>1$ year $\leq 2$ years |  | 104 |  | 156 | 19 |  | 4,500 | 1.62\% | 10.0 |
| $>2$ year $\leq 3$ years |  | 135 |  | 165 | 30 |  | 5,250 | 2.13\% | 10.0 |
| Total | \$ | 324 | \$ | 374 | 20 | \$ | 12,950 | 1.87\% | 9.6 |
|  |  |  |  |  |  |  |  |  |  |
| December 31, 2020 |  |  |  |  |  |  |  |  |  |
| $\leq 1$ year | \$ | 123 | \$ | 15 | 5 | \$ | 5,900 | 2.17\% | 9.2 |
| $>1$ year $\leq 2$ years |  | 41 |  | 33 | 20 |  | 2,000 | 1.38\% | 10.0 |
| $>2$ year $\leq 3$ years |  | 65 |  | 60 | 33 |  | 2,250 | 1.40\% | 10.0 |
| $>3$ year $\leq 4$ years |  | 8 |  | 8 | 40 |  | 250 | 1.43\% | 10.0 |
| Total | \$ | 237 | \$ | 116 | 15 | \$ | 10,400 | 1.84\% | 9.5 |

1. As of September 30, 2021 and December 31, 2020, $\leq 1$ year notional amount includes $\$ 700$ million of Bermudan swaptions where the options may be exercised on predetermined dates up to their final exercise date, which is six months prior to the underlying swaps' maturity date.
2. As of September 30, 2021, $95 \%$ and $5 \%$ of the underlying swap receive rates were tied to SOFR and 3 -Month LIBOR, respectively. As of December $31,2020,67 \%$ and $33 \%$ of the underlying swap receive rates were tied to SOFR and 3-Month LIBOR, respectively.

| U.S. Treasury Securities | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maturity | Face Amount Long/(Short) |  | Cost Basis ${ }^{1}$ |  | Fair Value |  | Face Amount Long/(Short) |  | Cost Basis ${ }^{1}$ |  | Fair Value |  |
| 5 years | \$ | (171) | \$ | (165) | \$ | (162) | \$ | (425) | \$ | (425) | \$ | (425) |
| 7 years |  | (733) |  | (730) |  | (706) |  | $(1,083)$ |  | $(1,081)$ |  | $(1,089)$ |
| 10 years |  | $(7,285)$ |  | $(7,281)$ |  | $(7,383)$ |  | $(9,780)$ |  | $(9,862)$ |  | $(10,213)$ |
| Total U.S. Treasury securities | \$ | $(8,189)$ | \$ | $(8,176)$ | \$ | $(8,251)$ | \$ | $(11,288)$ | \$ | $(11,368)$ | \$ | $(11,727)$ |

1. As of September 30, 2021 and December 31, 2020, short U.S. Treasury securities had a weighted average yield of $1.46 \%$ and $1.20 \%$, respectively, and long U.S. Treasury securities totaling $\$ 645$ million, at fair value, had a weighted average yield of $0.56 \%$ as of September 30, 2021.

| U.S. Treasury Futures | September 30, 2021 |  |  |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maturity | NotionalAmountLong (Short) |  | $\begin{aligned} & \text { Cost } \\ & \text { Basis } \end{aligned}$ |  | Fair Value |  | Net Carrue ${ }^{1}{ }^{1}{ }^{1}$. |  | NotionalAmountLong (Short) |  | Cost |  | Fair Value |  | $\begin{gathered} \text { Net Carrying } \\ \text { Value }^{1} \end{gathered}$ |  |
| 10 years | \$ | $(1,500)$ | \$ | $(1,995)$ | \$ | $(1,974)$ | \$ | 21 | \$ | $(1,000)$ | \$ | $(1,379)$ | \$ | $(1,381)$ | \$ | (2) |

1. Net carrying value represents the difference between the fair market value and the cost basis (or the forward price to be paid/(received) for the underlying U.S. Treasury security) of the U.S. Treasury futures contract as of period-end and is reported in derivative assets/(liabilities), at fair value in our consolidated balance sheets.

| TBA Securities by Coupon ${ }^{2}$ | September 30, 2021 |  |  |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NotionalAmountLong (Short) |  | Cost <br> Basis |  | Fair <br> Value |  | $\begin{aligned} & \text { Net Carrying } \\ & \text { Value }^{1} \end{aligned}$ |  | NotionalAmountLong (Short) |  | Cost Basis |  | Fair Value |  | $\begin{aligned} & \text { Net Carrying } \\ & \text { Value }^{1} \end{aligned}$ |  |
| 15-Year TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 2.0 \%$ | \$ | 1,982 | \$ | 2,025 | \$ | 2,016 |  | (9) | \$ | 6,540 | \$ | 6,708 | \$ | 6,771 | \$ | 63 |
| 2.5\% |  | - |  | - |  | - |  | - |  | 200 |  | 208 |  | 209 |  | 1 |
| Total 15-Year TBA securities |  | 1,982 |  | 2,025 |  | 2,016 |  | (9) |  | 6,740 |  | 6,916 |  | 6,980 |  | 64 |
| 30-Year TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 2.0 \%$ |  | 5,774 |  | 5,852 |  | 5,776 |  | (76) |  | 19,805 |  | 20,314 |  | 20,480 |  | 166 |
| 2.5\% |  | 16,875 |  | 17,440 |  | 17,353 |  | (87) |  | 3,167 |  | 3,291 |  | 3,335 |  | 44 |
| 3.0\% |  | 2,417 |  | 2,524 |  | 2,525 |  | 1 |  | 528 |  | 552 |  | 553 |  | 1 |
| 3.5\% |  | 581 |  | 616 |  | 615 |  | (1) |  | 124 |  | 131 |  | 131 |  | - |
| Total 30-Year TBA securities, net |  | 25,647 |  | 26,432 |  | 26,269 |  | (163) |  | 23,624 |  | 24,288 |  | 24,499 |  | 211 |
| Total TBA securities, net | \$ | 27,629 | \$ | 28,457 | \$ | 28,285 | \$ | (172) | \$ | 30,364 | \$ | 31,204 | \$ | 31,479 | \$ | 275 |

1. Net carrying value represents the difference between the fair market value and the cost basis (or the forward price to be paid/(received) for the underlying Agency security) of the TBA contract as of period-end and is reported in derivative assets/(liabilities), at fair value in our consolidated balance sheets.
2. Table excludes forward settling non-Agency securities totaling $\$ 0.5$ billion market value and $\$ 1$ million net carrying value as of September 30, 2021.

## Gain (Loss) From Derivative Instruments and Other Securities, Net

The following table summarizes changes in our derivative and other hedge portfolio and their effect on our consolidated statements of comprehensive income for the three and nine months ended September 30, 2021 and 2020 (in millions):

| Derivative and Other Hedging Instruments | $\begin{gathered} \text { Beginning } \\ \text { Notional Amount } \end{gathered}$ |  | Additions | Settlement, Termination, Expiration or Exercise | Ending Notional Amount |  | Gain/(Loss) on Derivative Instruments and Other Securities, Net ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Three months ended September 30, 2021: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 26,567 | 86,363 | $(85,301)$ | \$ | 27,629 | \$ | 30 |
| Forward settling non-Agency securities | \$ | 300 | 750 | (600) | \$ | 450 |  | 3 |
| Interest rate swaps - payer | \$ | 49,725 | 500 | (500) | \$ | 49,725 |  | 57 |
| Payer swaptions | \$ | 11,450 | 3,000 | $(1,500)$ | \$ | 12,950 |  | 28 |
| U.S. Treasury securities - short position | \$ | $(10,893)$ | $(1,443)$ | 3,498 | \$ | $(8,838)$ |  | (11) |
| U.S. Treasury securities - long position | \$ | 397 | 4,098 | $(3,846)$ | \$ | 649 |  | (8) |
| U.S. Treasury futures contracts - short position | \$ | $(1,500)$ | $(1,500)$ | 1,500 | \$ | $(1,500)$ |  | 5 |
|  |  |  |  |  |  |  | \$ | 104 |
| Three months ended September 30, 2020: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 19,760 | 80,599 | $(71,838)$ | \$ | 28,521 | \$ | 283 |
| Interest rate swaps - payer | \$ | 42,075 | 24,975 | $(24,075)$ | \$ | 42,975 |  | 140 |
| Payer swaptions | \$ | 9,350 | - | $(2,450)$ | \$ | 6,900 |  | (1) |
| U.S. Treasury securities - short position | \$ | $(7,247)$ | $(2,735)$ | 2,255 | \$ | $(7,727)$ |  | (15) |
| U.S. Treasury securities - long position | \$ | 1,132 | - | $(1,132)$ | \$ | - |  | 1 |
| U.S. Treasury futures contracts - short position | \$ | $(1,000)$ | $(1,000)$ | 1,000 | \$ | $(1,000)$ |  | (5) |
|  |  |  |  |  |  |  | \$ | 403 |


| Nine months ended September 30, 2021: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TBA securities, net | \$ | 30,364 | 273,947 | $(276,682)$ | \$ | 27,629 | \$ | (500) |
| Forward settling non-Agency securities | \$ | - | 1,050 | (600) | \$ | 450 |  | 3 |
| Interest rate swaps - payer | \$ | 43,225 | 7,500 | $(1,000)$ | \$ | 49,725 |  | 781 |
| Payer swaptions | \$ | 10,400 | 7,250 | $(4,700)$ | \$ | 12,950 |  | 102 |
| U.S. Treasury securities - short position | \$ | $(11,287)$ | $(9,289)$ | 11,738 | \$ | $(8,838)$ |  | 463 |
| U.S. Treasury securities - long position | \$ | - | 6,749 | $(6,100)$ | \$ | 649 |  | (19) |
| U.S. Treasury futures contracts - short position | \$ | $(1,000)$ | $(4,500)$ | 4,000 | \$ | $(1,500)$ |  | 37 |
|  |  |  |  |  |  |  | \$ | 867 |
| Nine months ended September 30, 2020: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 7,322 | 193,535 | $(172,336)$ | \$ | 28,521 | \$ | 1,196 |
| Interest rate swaps - payer | \$ | 79,075 | 100,700 | $(136,800)$ | \$ | 42,975 |  | $(3,034)$ |
| Payer swaptions | \$ | 8,850 | 2,000 | $(3,950)$ | \$ | 6,900 |  | (149) |
| U.S. Treasury securities - short position | \$ | $(9,224)$ | $(12,967)$ | 14,464 | \$ | $(7,727)$ |  | $(1,012)$ |
| U.S. Treasury securities - long position | \$ | 95 | 7,011 | $(7,106)$ | \$ | - |  | 102 |
| U.S. Treasury futures contracts - short position | \$ | $(1,000)$ | $(3,000)$ | 3,000 | \$ | $(1,000)$ |  | (117) |
|  |  |  |  |  |  |  | \$ | $\stackrel{(3,014)}{ }$ |

1. Amounts exclude other miscellaneous gains and losses recognized in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income. Amounts for the nine months ended September 30, 2020 exclude $\$ 146$ million of losses on debt extinguishment (see Note 4).

## Note 6. Pledged Assets

Our funding agreements require us to fully collateralize our obligations under the agreements based upon our counterparties' collateral requirements and their determination of the fair value of the securities pledged as collateral, which fluctuates with changes in interest rates, credit quality and liquidity conditions within the investment banking, mortgage finance and real estate industries. Our derivative contracts similarly require us to fully collateralize our obligations under such agreements, which will vary over time based on similar factors as well as our counterparties' determination of the value of the derivative contract. We are typically required to post initial margin upon execution of derivative transactions, such as under our interest rate swap agreements and TBA contracts, and subsequently post or receive variation margin based on daily fluctuations in fair value. Our brokerage and custody agreements and the clearing organizations utilized by our wholly-owned captive broker-dealer subsidiary, Bethesda Securities, LLC, also require that we post minimum daily clearing deposits. If we breach our collateral requirements, we will be required to fully settle our obligations under the agreements, which could include a forced liquidation of our pledged collateral.

Our counterparties also apply a "haircut" to our pledged collateral, which means our collateral is valued at slightly less than market value and limits the amount we can borrow against our securities. This haircut reflects the underlying risk of the specific collateral and protects our counterparty against a change in its value. Our agreements do not specify the haircut; rather, haircuts are determined on an individual transaction basis. Consequently, our funding agreements and derivative contracts expose us to credit risk relating to potential losses that could be recognized if our counterparties fail to perform their obligations under such agreements. We minimize this risk by limiting our counterparties to major financial institutions with acceptable credit ratings or to registered clearinghouses and U.S. government agencies, and we monitor our positions with individual counterparties. In the event of a default by a counterparty, we may have difficulty obtaining our assets pledged as collateral to such counterparty and may not receive payments as and when due to us under the terms of our derivative agreements. In the case of centrally cleared instruments, we could be exposed to credit risk if the central clearing agency or a clearing member defaults on its respective obligation to perform under the contract. However, we believe that the risk is minimal due to the clearing exchanges' initial and daily mark-to-market margin requirements, clearinghouse guarantee funds and other resources that are available in the event of a clearing member default.

As of September 30, 2021, our maximum amount at risk with any counterparty related to our repurchase agreements, excluding the Fixed Income Clearing Corporation, was less than $2 \%$ of our tangible stockholders' equity (or the excess/shortfall of the value of collateral pledged/received over our repurchase agreement liabilities/reverse repurchase agreement receivables). As of September 30, 2021, approximately $7 \%$ of our tangible stockholder's equity was at risk with the Fixed Income Clearing Corporation.

## Assets Pledged to Counterparties

The following tables summarize our assets pledged as collateral under our funding, derivative and brokerage and clearing agreements by type, including securities pledged related to securities sold but not yet settled, as of September 30, 2021 and December 31, 2020 (in millions):

| Assets Pledged to Counterparties ${ }^{18}$ | September 30, 2021 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Repurchase Agreements ${ }^{2}$ |  | Debt ofConsolidated VIEs |  | Derivative Agreements |  | Brokerage and Clearing Agreements ${ }^{3}$ |  | Total |  |
| Agency RMBS - fair value | \$ | 46,144 | \$ | 226 | \$ | 448 |  | 491 | \$ | 47,309 |
| CRT - fair value |  | 534 |  | - |  | - |  | - |  | 534 |
| Non-Agency - fair value |  | 380 |  | - |  | - |  | - |  | 380 |
| U.S. Treasury securities - fair value |  | 917 |  | - |  | - |  | 286 |  | 1,203 |
| Accrued interest on pledged securities |  | 117 |  | 1 |  | 1 |  | 1 |  | 120 |
| Restricted cash |  | 18 |  | - |  | 446 |  | - |  | 464 |
| Total | \$ | 48,110 | \$ | 227 | \$ | 895 |  | 778 | \$ | 50,010 |


| Assets Pledged to Counterparties ${ }^{1}$ | December 31, 2020 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Repurchase Agreements ${ }^{2}$ |  | $\begin{aligned} & \text { Debt of } \\ & \text { Consolidated VIEs } \end{aligned}$ |  | Derivative Agreements |  | Brokerage and Clearing Agreements ${ }^{3}$ |  | Total |  |
| Agency RMBS - fair value | \$ | 53,401 | \$ | 295 | \$ | 365 | \$ | 258 | \$ | 54,319 |
| CRT - fair value |  | 455 |  | - |  | - |  | - |  | 455 |
| Non-Agency - fair value |  | 458 |  | - |  | - |  | - |  | 458 |
| Accrued interest on pledged securities |  | 147 |  | 1 |  | 1 |  | 1 |  | 150 |
| Restricted cash |  | 417 |  | - |  | 890 |  | - |  | 1,307 |
| Total | \$ | 54,878 | \$ | 296 | \$ | 1,256 | \$ | 259 | \$ | 56,689 |

. Includes repledged assets received as collateral from counterparties and securities sold but not yet settled.
2. Includes $\$ 89$ million and $\$ 119$ million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30 , 2021 and December 31 , 2020, respectively.
3. Includes margin for TBAs cleared through prime brokers and other clearing deposits.

The following table summarizes our securities pledged as collateral under our repurchase agreements by the remaining maturity of our borrowings, including securities pledged related to sold but not yet settled securities, as of September 30, 2021 and December 31, 2020 (in millions). For the corresponding borrowings associated with the following amounts and the interest rates thereon, refer to Note 4.

| Securities Pledged by Remaining Maturity of Repurchase Agreements ${ }^{1,2}$ | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value of Pledged Securities |  | Amortized Cost of Pledged Securities |  | Accrued Interest on Pledged Securities |  | Fair Value of Pledged Securities |  | Amortized Cost of Pledged Securities |  | Accrued Interest on Pledged Securities |  |
| $\leq 30$ days | \$ | 21,772 | \$ | 21,202 | \$ | 54 | \$ | 29,674 | \$ | 28,208 | \$ | 82 |
| $>30$ and $\leq 60$ days |  | 5,933 |  | 5,745 |  | 15 |  | 8,438 |  | 8,013 |  | 23 |
| $>60$ and $\leq 90$ days |  | 7,503 |  | 7,258 |  | 20 |  | 5,782 |  | 5,495 |  | 16 |
| $>90$ days |  | 12,496 |  | 12,313 |  | 28 |  | 10,420 |  | 10,068 |  | 26 |
| Total | \$ | 47,704 | \$ | 46,518 | \$ | 117 | \$ | 54,314 | \$ | 51,784 | \$ | 147 |

[^2]
## Assets Pledged from Counterparties

As of September 30, 2021 and December 31, 2020, we had assets pledged to us from counterparties as collateral under our reverse repurchase and derivative agreements summarized in the tables below (in millions).

| Assets Pledged to AGNC | September 30, 2021 |  |  |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reverse Repurchase Agreements |  | Derivative Agreements |  | Repurchase <br> Agreements |  | Total |  | Reverse Repurchase Agreements |  | Derivative Agreements |  | Repurchase Agreements |  | Total |  |
| U.\$. Treasury securities - fair value | \$ | 9,520 | \$ | - | \$ | 32 | \$ | 9,552 | \$ | 11,727 | \$ | - | \$ | 13 | \$ | 11,740 |
| Cash |  | - |  | 380 |  | - |  | 380 |  | - |  | 107 |  | 3 |  | 110 |
| Total | \$ | 9,520 | \$ | 380 | \$ | 32 | \$ | 9,932 | \$ | 11,727 | \$ | 107 | \$ | 16 | \$ | 11,850 |

1. As of September 30 , 2021, $\$ 0.6$ billion of U.S. Treasury securities received from counterparties were repledged as collateral. As of September 30, 2021 and December 31,2020 , $\$ 8.9$ billion and $\$ 11.7$ billion, respectively, of U.S. Treasury securities received from counterparties were used to cover short sales of U.S. Treasury securities.

## Offsetting Assets and Liabilities

Certain of our repurchase agreements and derivative transactions are governed by underlying agreements that generally provide for a right of setoff under master netting arrangements (or similar agreements), including in the event of default or in the event of bankruptcy of either party to the transactions. We present our assets and liabilities subject to such arrangements on a gross basis in our consolidated balance sheets. The following tables present information about our assets and liabilities that are subject to master netting arrangements and can potentially be offset on our consolidated balance sheets as of September 30, 2021 and December 31, 2020 (in millions):

|  | Offsetting of Financial and Derivative Assets |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross Amounts of Recognized Assets |  | Gross Amounts Offset in the Consolidated Balance Sheets |  | Net Amounts of Assets Presented in the Consolidated Balance Sheets |  | Gross Amounts Not Offsetin theConsolidated Balance Sheets |  |  |  | Net Amount |  |
|  |  |  | Financial Instruments | Collateral Received ${ }^{2}$ |  |  |  |
| September 30, 2021 |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest rate swap and swaption agreements, at fair value ${ }^{1}$ | \$ | 374 |  |  | \$ | - | \$ | 374 | \$ | - | \$ | (372) | \$ | 2 |
| TBA and forward settling non-Agency securities, at fair value |  | 7 |  | - |  |  |  | 7 |  | (7) |  | - |  | - |
| Receivable under reverse repurchase agreements |  | 9,617 |  | - |  | 9,617 |  | $(6,625)$ |  | $(2,992)$ |  | - |
| Total | \$ | 9,998 | \$ | - | \$ | 9,998 | \$ | $(6,632)$ | \$ | $(3,364)$ | \$ | 2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| December 31, 2020 |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest rate swap and swaption agreements, at fair value ${ }^{1}$ | \$ | 116 | \$ | - | \$ | 116 | \$ | - | \$ | (105) | \$ | 11 |
| TBA securities, at fair value |  | 275 |  | - |  | 275 |  | - |  | - |  | 275 |
| Receivable under reverse repurchase agreements |  | 11,748 |  | - |  | 11,748 |  | $(6,522)$ |  | $(5,223)$ |  | 3 |
| Total | \$ | 12,139 | \$ | - | \$ | 12,139 | \$ | $(6,522)$ | \$ | $(5,328)$ | \$ | 289 |


|  | Offsetting of Financial and Derivative Liabilities |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross Amounts of Recognized Liabilities |  | Gross Amounts Offset in the Consolidated Balance Sheets |  | Net Amounts of Liabilities Presented in the Consolidated Balance Sheets |  | Gross Amounts Not Offsetin theConsolidated Balance Sheets |  |  |  | Net Amount |  |
|  |  |  | Financial Instruments | Collateral Pledged ${ }^{2}$ |  |  |  |
| September 30, 2021 |  |  |  |  |  |  |  |  |  |  |  |  |
| TBA and forward settling non-Agency securities, at fair value | \$ | 178 |  |  | \$ | - | \$ | 178 | \$ | (7) | \$ | (171) | \$ | - |
| Repurchase agreements |  | 46,532 |  | - |  |  |  | 46,532 |  | $(6,625)$ |  | $(39,907)$ |  | - |
| Total | \$ | 46,710 | \$ | - | \$ | 46,710 | \$ | $(6,632)$ | \$ | $(40,078)$ | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| December 31, 2020 |  |  |  |  |  |  |  |  |  |  |  |  |
| Repurchase agreements | \$ | 52,366 | \$ | - | \$ | 52,366 | \$ | $(6,522)$ | \$ | $(45,844)$ | \$ | - |
| Total | \$ | 52,366 | \$ | - | \$ | 52,366 | \$ | $(6,522)$ | \$ | $(45,844)$ | \$ | - |

1. Reported under derivative assets / liabilities, at fair value in the accompanying consolidated balance sheets. Refer to Note 5 for a reconciliation of derivative assets / liabilities, at fair value to their sub-components.
2. Includes cash and securities pledged / received as collateral, at fair value. Amounts include repledged collateral. Amounts presented are limited to collateral pledged sufficient to reduce the net amount to zero for individual counterparties, as applicable.

## Note 7. Fair Value Measurements

The following table provides a summary of our assets and liabilities that are measured at fair value on a recurring basis, as of September 30, 2021 and December 31, 2020, based on their categorization within the valuation hierarchy (in millions). There were no transfers between valuation hierarchy levels during the periods presented in our accompanying consolidated statements of comprehensive income.

|  | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 |  | Level 2 |  | Level 3 |  | Level 1 |  | Level 2 |  | Level 3 |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |  |  |
| Agency securities | \$ | - | \$ | 53,517 | \$ | - | \$ | - | \$ | 64,836 | \$ | - |
| Agency securities transferred to consolidated VIEs |  | - |  | 226 |  | - |  | - |  | 295 |  | - |
| Credit risk transfer securities |  | - |  | 1,072 |  | - |  | - |  | 737 |  | - |
| Non-Agency securities |  | - |  | 578 |  | - |  | - |  | 546 |  | - |
| U.S. Treasury securities |  | 645 |  | - |  | - |  | - |  | - |  | - |
| Swaptions |  | - |  | 374 |  | - |  | - |  | 116 |  | - |
| TBA and forward settling securities |  | - |  | 7 |  | - |  | - |  | 275 |  | - |
| U.S. Treasury futures |  | 21 |  | - |  | - |  | - |  | - |  | - |
| Total | \$ | 666 | \$ | 55,774 | \$ | - | \$ | - | \$ | 66,805 | \$ | - |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Debt of consolidated VIEs | \$ | - | \$ | 134 | \$ | - | \$ | - | \$ | 177 | \$ | - |
| Obligation to return U.S. Treasury securities borrowed under reverse repurchase agreements |  | 8,896 |  | - |  | - |  | 11,727 |  | - |  | - |
| TBA and forward settling securities |  | - |  | 178 |  | - |  | - |  | - |  | - |
| U.S. Treasury futures |  | - |  | - |  | - |  | 2 |  | - |  | - |
| Total | \$ | 8,896 | \$ | 312 | \$ | - | \$ | 11,729 | \$ | 177 | \$ | - |

Excluded from the table above are financial instruments presented in our consolidated financial statements at cost. The fair value of our repurchase agreements approximated cost as of September 30, 2021 and December 31, 2020, as the rates on our outstanding repurchase agreements largely corresponded to prevailing rates observed in the repo market. The fair value of cash and cash equivalents, restricted cash, receivables and other payables were determined to approximate cost as of September 30, 2021 and December 31, 2020 due to their short duration. We estimate the fair value of these instruments carried at cost using "Level 1" or "Level 2" inputs.

## Note 8. Net Income (Loss) Per Common Share

Basic net income (loss) per common share is computed by dividing (i) net income (loss) available (attributable) to common stockholders by (ii) the sum of our weighted-average number of common shares outstanding and the weighted-average number of vested but not yet issued time and performancebased restricted stock units ("RSUs") outstanding for the period granted under our long-term incentive program to employees and non-employee Board of Directors. Diluted net income (loss) per common share assumes the issuance of all potential common stock equivalents unless the effect is to reduce a loss or increase the income per common share. Our potential common stock equivalents consist of unvested time and performance-based RSUs. The following table presents the computations of basic and diluted net income (loss) per common share for the periods indicated (shares and dollars in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Weighted average number of common shares issued and outstanding |  | 524.9 |  | 552.1 |  | 527.4 |  | 552.9 |
| Weighted average number of fully vested restricted stock units outstanding |  | 1.8 |  | 1.1 |  | 1.6 |  | 0.9 |
| Weighted average number of common shares outstanding - basic |  | 526.7 |  | 553.2 |  | 529.0 |  | 553.8 |
| Weighted average number of dilutive unvested restricted stock units outstanding |  | 1.9 |  | 1.1 |  | 1.8 |  | - |
| Weighted average number of common shares outstanding - diluted |  | 528.6 |  | 554.3 |  | 530.8 |  | 553.8 |
| Net income (loss) available (attributable) to common stockholders | \$ | 187 | \$ | 637 | \$ | 701 | \$ | $(1,112)$ |
| Net income (loss) per common share - basic | \$ | 0.36 | \$ | 1.15 | \$ | 1.33 | \$ | (2.01) |
| Net income (loss) per common share - diluted | \$ | 0.35 | \$ | 1.15 | \$ | 1.32 | \$ | (2.01) |

For the nine months ended September 30, 20201.0 million of potentially dilutive unvested time and performance based RSUs outstanding were excluded from the computation of diluted net income (loss) per common share because to do so would have been anti-dilutive for the period.

## Note 9. Stockholders' Equity

## Preferred Stock

We are authorized to designate and issue up to 10.0 million shares of preferred stock in one or more classes or series. As of September 30, 2021 and December 31, 2020, 13,800, 10,350, 16,100 and 23,000 shares of preferred stock were designated as $7.00 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, $6.875 \%$ Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock and 6.125\% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, respectively, (referred to as "Series C, D, E and F Preferred Stock", respectively). As of September 30, 2021 and December 31, 2020, 13,000, 9,400, 16,100 and 23,000 shares of Series C, D, E and F Preferred Stock, respectively, were issued and outstanding. Each share of preferred stock is represented by 1,000 depositary shares. Each share of preferred stock has a liquidation preference of $\$ 25,000$ per share (or $\$ 25$ per depositary share).

Our preferred stock ranks senior to our common stock with respect to the payment of dividends and the distribution of assets upon a voluntary or involuntary liquidation, dissolution or winding up of the Company. Our preferred stock has no stated maturity, is not subject to any sinking fund or mandatory redemption and each series of preferred stock ranks on parity with one another. Under certain circumstances upon a change of control, our preferred stock is convertible to shares of our common stock. Holders of our preferred stock and depositary shares underlying our preferred stock have no voting rights, except under limited conditions. Beginning on each series' optional redemption date, we may redeem shares at $\$ 25.00$ per depositary share, plus accumulated and unpaid dividends (whether or not declared), exclusively at our option.

The following table includes a summary of preferred stock depositary shares issued and outstanding as of September 30, 2021 (dollars and shares in millions):

| Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock ${ }^{1}$ | $\begin{aligned} & \text { Issuance } \\ & \text { Date } \end{aligned}$ | $\begin{gathered} \text { Depositary } \\ \text { Shares } \\ \text { Issued } \\ \text { and } \\ \text { Outstanding } \end{gathered}$ | Carrying Value |  | Aggregate Liquidation Preference |  | Fixed Rate | Optional Redemption Date $^{2}$ | Fixed-to-Floating Rate Conversion Date | Floating Annual Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series C | August 22, 2017 | 13.0 |  | 315 |  | 325 | 7.000\% | October 15, 2022 | October 15, 2022 | $\begin{gathered} \hline \text { 3M LIBOR + } \\ 5.111 \% \end{gathered}$ |
| Series D | March 6, 2019 | 9.4 |  | 227 |  | 235 | 6.875\% | April 15, 2024 | April 15, 2024 | $\underset{4.332 \%}{3 \mathrm{M} \text { LIBOR }}+$ |
| Series E | October 3, 2019 | 16.1 |  | 390 |  | 403 | 6.500\% | October 15, 2024 | October 15, 2024 | $\underset{4.993 \%}{3 \mathrm{M} \text { LIBOR }}+$ |
| Series F | February 11, 2020 | 23.0 |  | 557 |  | 575 | 6.125\% | April 15, 2025 | April 15, 2025 | $\begin{gathered} \text { 3M LIBOR + } \\ 4.697 \% \end{gathered}$ |
| Total |  | 61.5 | \$ | 1,489 | \$ | 1,538 |  |  |  |  |

[^3]
## At-the-Market Offering Program

We are authorized by our Board of Directors to enter into agreements with sales agents to publicly offer and sell shares of our common stock in privately negotiated and/or at-the-market transactions from time-to-time up to a maximum aggregate offering price of our common stock. As of September 30, 2021, shares of our common stock with an aggregate offering price of $\$ 1.25$ billion remained authorized for issuance under this program through June 11, 2024. We did not issue shares under the program during the nine months ended September 30, 2021.

## Common Stock Repurchase Program

We are authorized by our Board of Directors to repurchase shares of our common stock in open market or through privately negotiated transactions or pursuant to a trading plan that may be adopted in accordance with Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). During the three months ended March 31, 2021, we repurchased 15.0 million shares, or $\$ 239$ million, of our common stock for an average repurchase price of $\$ 16.00$ per common share, inclusive of transaction costs and including amounts repurchased in December 2020 that settled in January 2021. During the six months ended September 30, 2021, we did not repurchase shares of our common stock. As of September 30, 2021, shares of our common stock with an aggregate repurchase price of $\$ 684$ million remained authorized for repurchase through December 31, 2021. (See Note 10. Subsequent Events for additional information regarding our stock repurchase plan.)

## Accumulated Other Comprehensive Income (Loss)

The following table summarizes changes to accumulated OCI for the three and nine months ended September 30, 2021 and 2020 (in millions):

| Accumulated Other Comprehensive Income (Loss) | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Beginning Balance | \$ | 405 | \$ | 764 | \$ | 719 | \$ | 97 |
| OCI before reclassifications |  | 10 |  | 70 |  | (272) |  | 777 |
| Net loss amounts for available-for-sale securities reclassified from accumulated OCI to realized gain (loss) on sale of investment securities, net |  | (4) |  | - |  | (36) |  | (40) |
| Ending Balance | \$ | 411 | \$ | 834 | \$ | 411 | \$ | 834 |

## Note 10. Subsequent Events

## Common Stock Repurchase Program

On October 21, 2021 our Board of Directors terminated our existing stock repurchase plan (see Note 9) that was due to expire on December 31, 2021 and replaced it with a new plan authorizing us to repurchase up to $\$ 1$ billion of common stock through December 31, 2022. Under the new plan, we may repurchase shares in the open market or through privately negotiated transactions or pursuant to a trading plan that may be adopted in accordance with Rule 10b5-1 of the Exchange Act. Our stock repurchase program may be limited or terminated at any time without prior notice. We intend to repurchase shares under the stock repurchase program only when the repurchase price is less than our then-current estimate of tangible net book value per common share.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD\&A") is designed to provide a reader of AGNC Investment Corp.'s consolidated financial statements with a narrative from the perspective of management and should be read in conjunction with the consolidated financial statements and accompanying notes included in this Quarterly Report on Form 10-Q for quarterly period ended September 30, 2021. Our MD\&A is presented in six sections:

- Executive Overview
- Financial Condition
- Results of Operations
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements
- Forward-Looking Statements


## EXECUTIVE OVERVIEW

We are a leading provider of private capital to the U.S. housing market, enhancing liquidity in the residential real estate mortgage markets and, in turn, facilitating home ownership in the U.S. We invest primarily in Agency residential mortgage-backed securities ("Agency RMBS") on a leveraged basis. These investments consist of residential mortgage pass-through securities and collateralized mortgage obligations for which the principal and interest payments are guaranteed by a U.S. Government-sponsored enterprise, such as Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac," and together with Fannie Mae, the "GSEs"), or by a U.S. Government agency, such as Government National Mortgage Association ("Ginnie Mae"). We may also invest in other assets related to the housing, mortgage or real estate markets that are not guaranteed by a GSE or U.S. Government agency.

We are internally managed with the principal objective of providing our stockholders with attractive risk-adjusted returns through a combination of monthly dividends and tangible net book value accretion. We generate income from the interest earned on our investments, net of associated borrowing and hedging costs, and net realized gains and losses on our investment and hedging activities. We fund our investments primarily through collateralized borrowings structured as repurchase agreements. We operate in a manner to qualify to be taxed as a REIT under the Internal Revenue Code.

The size and composition of our investment portfolio depends on the investment strategies we implement, availability of attractively priced investments, suitable financing to appropriately leverage our investment portfolio and overall market conditions. Market conditions are influenced by a variety of factors, including interest rates, prepayment expectations, liquidity, housing prices, unemployment rates, general economic conditions, government participation in the mortgage market, regulations and relative returns on other assets.

## Trends and Recent Market Impacts

In the third quarter, several positive developments benefited the Agency RMBS market. First, the Federal Reserve (the "Fed") communicated a potential timeline for the reduction of its asset purchases that was largely in line with market expectations and, as result, did not precipitate material mortgage spread widening or interest rate volatility. The interest rate and prepayment landscape also improved, with intermediate and longer-term rates increasing late in the quarter. Primary mortgage rates also ended the quarter well above their intra-year low, which should lead to a more benign prepayment environment. Collectively, these favorable developments contributed to our stable tangible net book value and $2.3 \%$ economic return for the quarter, which consisted of a $\$ 0.02$ increase in our tangible net book value per common share and $\$ 0.36$ of dividends per common share for the quarter. Notably, despite significant interest rate volatility and elevated prepayment speeds in the first half of the year, AGNC's year-to-date economic return totaled $4.7 \%$ through the third quarter.

In November, the Fed announced that it will begin tapering Agency RMBS purchases at the pace of $\$ 5$ billion per month over an estimated eightmonth period but may adjust the pace consistent with changes in its economic outlook. Importantly, when tapering is complete, it is expected that the Fed will continue to purchase significant amounts of Agency RMBS as it reinvests paydowns on its existing portfolio. As a result, we do not expect significant Agency RMBS spread widening during the Fed taper cycle, though some spread volatility could occur.

Despite the Fed providing clarity regarding its tapering plan, broader macroeconomic uncertainty remains. Inflation measures remain elevated, and supply chain shortages and disruptions have become more widespread. Further, the employment outlook appears poised for strong growth and could put upward pressure on wages. Collectively, uncertainty surrounding these inflationary pressures reduces the predictability as to when and how significantly the Fed will increase short-term interest rates, creating the potential for increased interest rate volatility. As a result, we favor operating with a more conservative risk profile in the current environment.

As of September 30, 2021, our "at-risk" leverage ratio declined to 7.5 x tangible equity, from 7.9 x as of June 30, 2021. Our interest rate hedge portfolio totaled $\$ 72.9$ billion, or $98 \%$ of our mortgage borrowings, compared to $\$ 74$ billion and $97 \%$, respectively, as of June 30 , 2021. Our duration gap, which is a measure of the difference between the interest rate sensitivity of our assets and liabilities, inclusive of our interest rate hedges, was largely unchanged during the third quarter at 0.4 years as of September 30, 2021, compared to 0.3 years as of June 30, 2021.

Our investment portfolio totaled $\$ 84.1$ billion as of September 30, 2021, a decline of $\$ 3.4$ billion from $\$ 87.5$ billion as of June 30, 2021, and consisted of $\$ 53.7$ billion Agency RMBS, $\$ 28.3$ billion TBA securities and $\$ 2.1$ billion CRT and non-Agency securities, including forward setting nonAgency securities. As of September 30, 2021, our portfolio remained positioned for a range of interest rate scenarios, with our Agency portfolio comprised roughly of $60 \%$ lower coupon generic securities and $40 \%$ higher coupon specified pools. Our forecasted life CPRs decreased during the quarter to $10.7 \%$ as of September 30, 2021, from $11.6 \%$ as of June 30, 2021, due to the combination of moderate changes in portfolio composition and
higher interest rates. Our actual prepayment rate for the third quarter also trended lower to $22.5 \%$ from $25.7 \%$ for the prior quarter.
Net spread and dollar roll income, excluding "catch-up" premium amortization as a result of changes in projected CPRs for securities acquired in prior quarters, a non-GAAP measure, was $\$ 0.75$ per diluted common share for the third quarter, and was largely unchanged from the first two quarters of the year as favorable short-term funding, attractive TBA dollar roll opportunities and stable hedge costs continued to offset our smaller asset base. (Please refer to Results of Operations for further information regarding non-GAAP measures).

As of September 30, 2021, our unencumbered cash and Agency MBS increased to $\$ 5.2$ billion, or $51 \%$ of our tangible equity, which excludes unencumbered credit assets and assets held at our captive broker-dealer subsidiary, compared to $\$ 4.7$ billion and $47 \%$, respectively, as of June 30, 2021. Looking ahead, we believe our current positioning and strong liquidity position offers us flexibility to increase leverage to take advantage of favorable investment opportunities as they arise.

## Market Information

The following table summarizes interest rates and prices of generic fixed rate Agency RMBS as of each date presented below:

| Interest Rate/Security Price ${ }^{1}$ | $\underset{2020}{\text { Sept. } 30}$ | $\begin{gathered} \text { Dec. 31, } \\ 2020 \end{gathered}$ | $\begin{gathered} \text { Mar. 31, } \\ 2021 \end{gathered}$ | $\begin{gathered} \text { June 30, } \\ 2021 \end{gathered}$ | $\underset{2021}{\text { Sept. } 30,}$ | $\begin{aligned} & \text { Sept. 30, } 2021 \\ & \text { vs } \mathbf{~ J u n e ~ 3 0 , ~} 2021 \end{aligned}$ | $\begin{aligned} & \text { Sept. 30, } 2021 \\ & \text { vs } \mathbf{D e c} .31,2020 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Target Federal Funds Rate: |  |  |  |  |  |  |  |
| Target Federal Funds Rate - Upper Band | 0.25\% | 0.25\% | 0.25\% | 0.25\% | 0.25\% | - bps | - bps |
| SOFR: |  |  |  |  |  |  |  |
| SOFR Rate | 0.08\% | 0.07\% | 0.01\% | 0.05\% | 0.05\% | - bps | -2 bps |
| SOFR Interest Rate Swap Rate: |  |  |  |  |  |  |  |
| 2-Year Swap | 0.03\% | 0.06\% | 0.12\% | 0.19\% | 0.24\% | +5 bps | +18 bps |
| 5-Year Swap | 0.13\% | 0.24\% | 0.82\% | 0.75\% | 0.83\% | +8 bps | +59 bps |
| 10-Year Swap | 0.47\% | 0.71\% | 1.52\% | 1.19\% | 1.26\% | +7 bps | +55 bps |
| 30-Year Swap | 0.86\% | 1.15\% | 1.92\% | 1.50\% | 1.52\% | +2 bps | +37 bps |
| U.S. Treasury Security Rate: |  |  |  |  |  |  |  |
| 2-Year U.S. Treasury | 0.13\% | 0.12\% | 0.16\% | 0.25\% | 0.28\% | +3 bps | +16 bps |
| 5-Year U.S. Treasury | 0.28\% | 0.36\% | 0.94\% | 0.89\% | 0.97\% | +8 bps | +61 bps |
| 10-Year U.S. Treasury | 0.69\% | 0.92\% | 1.74\% | 1.47\% | 1.49\% | +2 bps | +57 bps |
| 30-Year U.S. Treasury | 1.46\% | 1.65\% | 2.41\% | 2.09\% | 2.05\% | -4 bps | +40 bps |
| 30-Year Fixed Rate Agency Price: |  |  |  |  |  |  |  |
| 2.0\% | \$103.39 | \$103.88 | \$99.70 | \$101.09 | \$100.21 | -\$0.88 | -\$3.67 |
| 2.5\% | \$104.90 | \$105.41 | \$102.55 | \$103.48 | \$103.04 | -\$0.44 | -\$2.37 |
| 3.0\% | \$104.75 | \$104.77 | \$104.13 | \$104.27 | \$104.61 | +\$0.34 | -\$0.16 |
| 3.5\% | \$105.40 | \$105.66 | \$105.63 | \$105.28 | \$105.80 | +\$0.52 | +\$0.14 |
| 4.0\% | \$106.64 | \$106.78 | \$107.31 | \$106.53 | \$107.13 | +\$0.60 | +\$0.35 |
| 4.5\% | \$108.16 | \$108.39 | \$108.91 | \$107.66 | \$108.13 | +\$0.47 | -\$0.26 |
| 15-Year Fixed Rate Agency Price: |  |  |  |  |  |  |  |
| 1.5\% | \$102.31 | \$102.89 | \$100.40 | \$101.23 | \$100.95 | -\$0.28 | -\$1.94 |
| 2.0\% | \$103.95 | \$104.55 | \$102.61 | \$103.19 | \$102.96 | -\$0.23 | -\$1.59 |
| 2.5\% | \$104.44 | \$104.30 | \$104.06 | \$104.29 | \$104.16 | -\$0.13 | -\$0.14 |
| 3.0\% | \$104.94 | \$104.97 | \$105.59 | \$105.05 | \$105.14 | +\$0.09 | +\$0.17 |
| 3.5\% | \$105.81 | \$106.03 | \$106.69 | \$106.83 | \$106.56 | -\$0.27 | +\$0.53 |
| 4.0\% | \$106.15 | \$106.28 | \$106.34 | \$106.19 | \$106.06 | -\$0.13 | -\$0.22 |

1. Price information is for generic instruments only and is not reflective of our specific portfolio holdings. Price information is as of 3:00 p.m. (EST) on such date and can vary by source. Prices in the table above were obtained from Barclays. Interest and LIBOR rates were obtained from Bloomberg.

The following table summarizes mortgage rates and credit spreads as of each date presented below:

| Mortgage Rate/Credit Spread | $\begin{aligned} & \text { Sept. 30, } \\ & 2020 \end{aligned}$ | $\begin{gathered} \text { Dec. 31, } \\ 2020 \end{gathered}$ | $\begin{gathered} \text { Mar. 31, } \\ 2021 \end{gathered}$ | $\begin{aligned} & \text { June 30, } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { Sept. 30, } \\ & 2021 \end{aligned}$ | $\begin{aligned} & \text { Sept. 30, } 2021 \\ & \text { vune } \mathbf{3 0 ,} 2021 \end{aligned}$ | $\begin{aligned} & \text { Sept. 30, } 2021 \\ & \text { vs } \\ & \text { Dec. 31, } 2020 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mortgage Rate: ${ }^{1}$ |  |  |  |  |  |  |  |
| 30 Year Mortgage Rate | 3.08\% | 2.87\% | 3.27\% | 3.13\% | 3.18\% | +5 bps | +31 bps |
| 30 Year Agency Current Coupon | 1.40\% | 1.34\% | 2.04\% | 1.83\% | 1.97\% | +14 bps | +63 bps |
| 30 Year Primary to Secondary Spread | 1.68\% | 1.53\% | 1.23\% | 1.30\% | 1.21\% | -9 bps | -32 bps |
| Credit Spread (in bps): ${ }^{2}$ |  |  |  |  |  |  |  |
| CRT M2 | 302 | 216 | 235 | 179 | 171 | -8 | -45 |
| CMBS AAA | 86 | 66 | 69 | 65 | 66 | +1 | - |
| CDX IG | 59 | 50 | 54 | 48 | 53 | +5 | +3 |

1. 30 Year Mortgage rates are sourced from Bloomberg; 30 Year Current Coupon rates represent current coupon rates for new production Agency RMBS sourced from Bloomberg; and the 30 Year Primary to Secondary Spreads represent the 30 Year Mortgage Rate and 30 Year Agency Current Coupon rate spread differential as of each date.
2. CRT and CMBS spreads are averages of JP Morgan, Bank of America and Wells Fargo. CRT spreads are discount margins. CMBS spreads are spreads to the swap curve. CDX spreads are sourced from JP Morgan.

## FINANCIAL CONDITION

As of September 30, 2021 and December 31, 2020, our investment portfolio totaled $\$ 84.1$ billion and $\$ 97.9$ billion, respectively, consisting of: $\$ 55.4$ billion and $\$ 66.4$ billion investment securities, at fair value, respectively; $\$ 28.3$ billion and $\$ 31.5$ billion net TBA securities, at fair value, respectively; and $\$ 0.5$ billion and zero forward settling non-Agency securities, at fair value, respectively. The following table is a summary of our investment portfolio as of September 30, 2021 and December 31, 2020 (dollars in millions):

| Investment Portfolio (Includes TBAs) | September 30, 2021 |  |  |  |  |  | December 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AmortizedCost |  | Fair Value |  | Average Coupon | \% | Amortized Cost |  | Fair Value |  | Average Coupon | \% |
| Fixed rate Agency RMBS and TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year RMBS | \$ | 2,975 | \$ | 3,091 | 3.19 \% | 4 \% | \$ | 9,256 | \$ | 9,482 | 2.48 \% | 10 \% |
| 15 -year TBA securities, net ${ }^{1}$ |  | 2,025 |  | 2,016 | 1.73 \% | 2 \% |  | 6,916 |  | 6,980 | 1.74 \% | 7 \% |
| Total $\leq 15$-year |  | 5,000 |  | 5,107 | 2.60 \% | 6 \% |  | 16,172 |  | 16,462 | 2.16 \% | 17 \% |
| 20-year RMBS |  | 2,092 |  | 2,102 | 2.52 \% | 2 \% |  | 2,409 |  | 2,470 | 2.58 \% | 3 \% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 30-year RMBS |  | 47,118 |  | 48,202 | 3.13 \% | 57 \% |  | 50,312 |  | 52,663 | 3.55 \% | 54 \% |
| 30 -year TBA securities, net ${ }^{1}$ |  | 26,432 |  | 26,269 | 2.46 \% | 31 \% |  | 24,288 |  | 24,499 | 2.05 \% | 25 \% |
| Total 30-year |  | 73,550 |  | 74,471 | 2.89 \% | 89 \% |  | 74,600 |  | 77,162 | 3.06 \% | 79 \% |
| Total fixed rate Agency RMBS and TBA securities |  | 80,642 |  | 81,680 | 2.86 \% | $97 \%$ |  | 93,181 |  | 96,094 | 2.89 \% | 98 \% |
| Adjustable rate Agency RMBS |  | 49 |  | 51 | 2.27 \% | - \% |  | 69 |  | 70 | 2.35 \% | - \% |
| Multifamily |  | - |  | - | - \% | - \% |  | 17 |  | 19 | 3.31 \% | - \% |
| CMO Agency RMBS: |  |  |  |  |  |  |  |  |  |  |  |  |
| CMO |  | 200 |  | 207 | 3.14 \% | - \% |  | 289 |  | 301 | 3.30 \% | 1 \% |
| Interest-only strips |  | 34 |  | 43 | 5.61 \% | - \% |  | 45 |  | 59 | 5.57 \% | - \% |
| Principal-only strips |  | 42 |  | 47 | -\% | -\% |  | 60 |  | 67 | -\% | -\% |
| Total CMO Agency RMBS |  | 276 |  | 297 | 4.09 \% | -\% |  | 394 |  | 427 | 4.10 \% | $1 \%$ |
| Total Agency RMBS and TBA securities |  | 80,967 |  | 82,028 | 2.87 \% | $97 \%$ |  | 93,661 |  | 96,610 | 2.90 \% | 99 \% |
| Non-Agency RMBS ${ }^{2}$ |  | 644 |  | 653 | 3.01 \% | $1 \%$ |  | 178 |  | 188 | 4.28 \% | - \% |
| CMBS |  | 366 |  | 381 | 3.70 \% | - \% |  | 333 |  | 358 | 4.13 \% | - \% |
| CRT |  | 1,047 |  | 1,072 | 3.60 \% | 1 \% |  | 733 |  | 737 | 3.43 \% | 1 \% |
| Total investment portfolio | \$ | 83,024 | \$ | 84,134 | 2.86 \% | $100 \%$ | \$ | 94,905 | \$ | 97,893 | 2.91 \% | 100 \% |

1. TBA securities are presented net of long and short positions. For further details of our TBA securities refer to Note 5 of our Consolidated Financial Statements in this Form 10-Q.
2. Includes $\$ 0.5$ billion of forward settling non-Agency securities.
3. Includes $\$ 0.5$ billion of forward settling non-Agency securities.

TBA and forward settling securities are recorded as derivative instruments in our accompanying consolidated financial statements, and our TBA dollar roll transactions represent a form of off-balance sheet financing. As of September 30, 2021 and December 31, 2020, our TBA position and forward settling securities had a net carrying value of $\$(171)$ million and $\$ 275$ million, respectively, reported in derivative assets /(liabilities) on our accompanying consolidated balance sheets. The net carrying value represents the difference between the fair value of the underlying security in the TBA contract or forward purchase agreement and the price to be paid or received for the underlying security.

As of September 30, 2021 and December 31, 2020, the weighted average yield on our investment securities (excluding TBA and forward settling securities) was $2.48 \%$ and $2.33 \%$, respectively.

The following tables summarize certain characteristics of our fixed rate Agency RMBS portfolio, inclusive of TBA securities, as of September 30, 2021 and December 31, 2020 (dollars in millions):

| Fixed Rate Agency RMBS and TBA Securities | September 30, 2021 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Includes Net TBA Position |  |  |  |  |  |  | Excludes Net TBA Position |  |  |  |  |
|  | Par Value |  | $\begin{gathered} \text { Amortized } \\ \text { Cost } \\ \hline \end{gathered}$ |  | Fair Value |  | $\begin{gathered} \text { Specified }{ }^{1} \end{gathered}$ | Amortized Cost Basis | Weighted Average |  |  | $\begin{gathered} \text { Projected } \\ \mathbf{C P R}^{3} \end{gathered}$ |
|  |  |  | WAC ${ }^{2}$ | Yield ${ }^{3}$ |  |  | Age (Months) |  |  |
| Fixed rate |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.5\% | \$ | 1,185 |  |  | \$ | 1,200 |  | \$ | 1,194 | -\% | 102.3\% | 2.33\% | 0.93\% | 11 | 13\% |
| 2.0\% |  | 996 |  | 1,030 |  | 1,024 | 6\% | 102.8\% | 2.69\% | 1.34\% | 10 | 10\% |
| 2.5\% |  | 330 |  | 348 |  | 347 | 100\% | 105.5\% | 3.03\% | 1.20\% | 24 | 12\% |
| 3.0\% |  | 915 |  | 929 |  | 971 | 95\% | 101.6\% | 3.55\% | 2.45\% | 53 | 15\% |
| 3.5\% |  | 950 |  | 970 |  | 1,023 | 100\% | 102.1\% | 4.03\% | 2.74\% | 49 | 17\% |
| $\geq 4.0 \%$ |  | 508 |  | 523 |  | 548 | 92\% | 103.0\% | 4.61\% | 2.89\% | 47 | 18\% |
| Total $\leq 15$-year |  | 4,884 |  | 5,000 |  | 5,107 | 56\% | 102.5\% | 3.76\% | 2.38\% | 44 | 16\% |
| 20-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.0\% |  | 1,108 |  | 1,141 |  | 1,127 | -\% | 103.0\% | 2.86\% | 1.44\% | 11 | 10\% |
| 2.5\% |  | 472 |  | 492 |  | 488 | -\% | 104.3\% | 3.28\% | 1.53\% | 15 | 13\% |
| 3.0\% |  | 38 |  | 39 |  | 40 | 98\% | 103.4\% | 3.78\% | 2.18\% | 26 | 14\% |
| 3.5\% |  | 181 |  | 184 |  | 196 | 81\% | 101.8\% | 4.05\% | 2.95\% | 98 | 13\% |
| $\geq 4.0 \%$ |  | 227 |  | 236 |  | 251 | 96\% | 104.1\% | 4.74\% | 3.09\% | 58 | 16\% |
| Total 20-year: |  | 2,026 |  | 2,092 |  | 2,102 | 21\% | 103.3\% | 3.29\% | 1.79\% | 25 | 12\% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.0\% |  | 16,909 |  | 17,068 |  | 16,946 | 2\% | 100.7\% | 2.87\% | 1.90\% | 5 | 6\% |
| 2.5\% |  | 26,543 |  | 27,532 |  | 27,367 | 9\% | 104.4\% | 3.26\% | 1.92\% | 4 | 7\% |
| 3.0\% |  | 3,613 |  | 3,740 |  | 3,798 | 13\% | 101.6\% | 3.62\% | 2.73\% | 60 | 10\% |
| 3.5\% |  | 9,162 |  | 9,585 |  | 9,970 | 87\% | 104.5\% | 4.05\% | 2.61\% | 79 | 11\% |
| 4.0\% |  | 9,730 |  | 10,238 |  | 10,719 | 92\% | 105.2\% | 4.51\% | 2.85\% | 62 | 14\% |
| $\geq 4.5 \%$ |  | 5,079 |  | 5,387 |  | 5,671 | 97\% | 106.1\% | 5.02\% | 3.12\% | 50 | 15\% |
| Total 30-year |  | 71,036 |  | 73,550 |  | 74,471 | 37\% | 103.8\% | 3.80\% | 2.41\% | 38 | 10\% |
| Total fixed rate | \$ | $\underline{77,946}$ | \$ | 80,642 | \$ | 81,680 | 38\% | 103.7\% | 3.78\% | 2.38\% | 38 | 11\% |

1. Specified pools include pools backed by lower balance loans with original loan balances of up to $\$ 200 \mathrm{~K}$, HARP pools (defined as pools that were issued between May 2009 and December 2018 and backed by $100 \%$ refinance loans with original LTVs $\geq 80 \%$ ), and pools backed by loans $100 \%$ originated in New York and Puerto Rico. As of September 30 , 2021, lower balance specified pools had a weighted average original loan balance of $\$ 119,000$ and $\$ 115,000$ for 15 -year and 30 -year securities, respectively, and HARP pools had a weighted average original LTV of $127 \%$ and $138 \%$ for 15 -year and 30 -year securities, respectively.
2. WAC represents the weighted average coupon of the underlying collateral
3. Portfolio yield incorporates a projected life CPR based on forward rate assumptions as of September 30, 2021.

| Fixed Rate Agency RMBS and TBA Securities | December 31, 2020 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Includes Net TBA Position |  |  |  |  |  |  | Excludes Net TBA Position |  |  |  |  |
|  | Par Value |  | $\underset{\text { Cost }}{\text { Amortized }}$ |  | Fair Value |  | $\underset{\%{ }^{1}}{\text { Specified Pool }}$ | Amortized Cost Basis | Weighted Average |  |  | $\begin{aligned} & \text { Projected } \\ & \mathbf{C P R}^{3} \end{aligned}$ |
|  |  |  | WAC ${ }^{2}$ | Yield ${ }^{3}$ |  |  | Age (Months) |  |  |
| Fixed rate |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.5\% | \$ | 5,001 |  |  | \$ | 5,107 |  | \$ | 5,144 | -\% | 102.4\% | 2.28\% | 0.91\% | 1 | 13\% |
| 2.0\% |  | 6,718 |  | 6,958 |  | 7,023 | -\% | 103.8\% | 2.62\% | 1.01\% | 2 | 15\% |
| 2.5\% |  | 795 |  | 836 |  | 840 | 59\% | 105.5\% | 3.07\% | 1.10\% | 13 | 15\% |
| 3.0\% |  | 1,168 |  | 1,186 |  | 1,248 | 94\% | 101.5\% | 3.55\% | 2.46\% | 44 | 16\% |
| 3.5\% |  | 1,249 |  | 1,275 |  | 1,356 | 100\% | 102.1\% | 4.03\% | 2.75\% | 40 | 18\% |
| $\geq 4.0 \%$ |  | 788 |  | 810 |  | 851 | 92\% | 102.8\% | 4.63\% | 2.92\% | 47 | 19\% |
| Total $\leq 15$-year |  | 15,719 |  | 16,172 |  | 16,462 | 23\% | 103.1\% | 3.09\% | 1.59\% | 17 | 16\% |
| 20-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 2.0 \%$ |  | 1,168 |  | 1,202 |  | 1,215 | -\% | 103.0\% | 2.87\% | 1.29\% | 3 | 15\% |
| 2.5\% |  | 597 |  | 620 |  | 630 | -\% | 103.9\% | 3.28\% | 1.33\% | 6 | 20\% |
| 3.0\% |  | 48 |  | 50 |  | 52 | 98\% | 103.0\% | 3.78\% | 2.10\% | 17 | 19\% |
| 3.5\% |  | 226 |  | 230 |  | 246 | 81\% | 101.6\% | 4.05\% | 2.93\% | 89 | 18\% |
| $\geq 4.0 \%$ |  | 296 |  | 307 |  | 327 | 96\% | 103.6\% | 4.73\% | 3.05\% | 48 | 20\% |
| Total 20-year: |  | 2,335 |  | 2,409 |  | 2,470 | 23\% | 103.2\% | 3.34\% | 1.70\% | 18 | 17\% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 2.0 \%$ |  | 23,805 |  | 24,445 |  | 24,628 | -\% | 103.2\% | 2.89\% | 1.51\% | - | 11\% |
| 2.5\% |  | 8,995 |  | 9,423 |  | 9,506 | 4\% | 105.2\% | 3.43\% | 1.35\% | 4 | 16\% |
| 3.0\% |  | 3,507 |  | 3,619 |  | 3,709 | 17\% | 102.9\% | 3.74\% | 2.03\% | 33 | 22\% |
| 3.5\% |  | 12,913 |  | 13,428 |  | 14,151 | 88\% | 104.0\% | 4.07\% | 2.48\% | 66 | 17\% |
| 4.0\% |  | 14,245 |  | 14,847 |  | 15,734 | 92\% | 104.2\% | 4.51\% | 2.81\% | 52 | 19\% |
| $\geq 4.5 \%$ |  | 8,417 |  | 8,838 |  | 9,434 | 98\% | 105.0\% | 5.01\% | 3.04\% | 38 | 21\% |
| Total 30-year |  | 71,882 |  | 74,600 |  | 77,162 | 48\% | 104.3\% | 4.17\% | 2.43\% | 42 | 18\% |
| Total fixed rate | \$ | 89,936 | \$ | 93,181 | \$ | 96,094 | 43\% | 104.0\% | 3.98\% | 2.28\% | 37 | 18\% |

[^4]For additional details regarding our CRT and non-Agency securities, including credit ratings, as of September 30, 2021 and December 31, 2020, please refer to Note 3 of our Consolidated Financial Statements in this Form 10-Q.

## RESULTS OF OPERATIONS

## Non-GAAP Financial Measures

In addition to the results presented in accordance with GAAP, our results of operations discussed below include certain non-GAAP financial information, including "economic interest income," "economic interest expense," "net spread and dollar roll income," "net spread and dollar roll income, excluding 'catch-up' premium amortization," "estimated taxable income" and the related per common share measures and certain financial metrics derived from such non-GAAP information, such as "cost of funds" and "net interest spread."
"Economic interest income" is measured as interest income (GAAP measure), adjusted (i) to exclude "catch-up" premium amortization associated with changes in CPR estimates and (ii) to include TBA dollar roll implied interest income. "Economic interest expense" is measured as interest expense (GAAP measure) adjusted to include TBA dollar roll implied interest expense/(benefit) and interest rate swap periodic cost/(income). "Net spread and dollar roll income, excluding "catch-up" premium amortization" includes (i) the components of economic interest income and economic interest expense and other interest and dividend income (referred to as "adjusted net interest and dollar roll income"), less (ii) total operating expenses (GAAP measure).

By providing such measures, in addition to the related GAAP measures, we believe we give greater transparency into the information used by our management in its financial and operational decision-making. We also believe it is important for users of our financial information to consider information related to our current financial performance without the effects of certain measures and one-time events that are not necessarily indicative of our current investment portfolio performance and operations.

Specifically, in the case of "adjusted net interest and dollar roll income," we believe the inclusion of TBA dollar roll income is meaningful as TBAs, which are accounted for under GAAP as derivative instruments with gains and losses recognized in other gain (loss) in our consolidated statement of comprehensive income, are economically equivalent to holding and financing generic Agency RMBS using short-term repurchase agreements. Similarly, we believe that the inclusion of periodic interest rate swap settlements in "economic interest expense" is meaningful as interest rate swaps are the primary instrument we use to economically hedge against fluctuations in our borrowing costs and it is more indicative of our total cost of funds than interest expense alone. In the case of "economic interest income" and "net spread and dollar roll income, excluding 'catch-up' premium amortization," we believe the exclusion of "catch-up" adjustments to premium amortization cost or benefit is meaningful as it excludes the cumulative effect from prior reporting periods due to current changes in future prepayment expectations and, therefore, exclusion of such cost or benefit is more indicative of the current earnings potential of our investment portfolio. In the case of estimated taxable income, we believe it is meaningful information because it directly relates to the amount of dividends that we are required to distribute to maintain our REIT qualification status.

However, because such measures are incomplete measures of our financial performance and involve differences from results computed in accordance with GAAP, they should be considered as supplementary to, and not as a substitute for, results computed in accordance with GAAP. In addition, because not all companies use identical calculations, our presentation of such non-GAAP measures may not be comparable to other similarly-titled measures of other companies. Furthermore, estimated taxable income can include certain information that is subject to potential adjustments up to the time of filing our income tax returns, which occurs after the end of our fiscal year.

## Selected Financial Data

The following selected financial data is derived from our interim consolidated financial statements and the notes thereto. The tables below present our condensed consolidated balance sheets as of September 30, 2021 and December 31, 2020 and condensed consolidated statements of comprehensive income and key statistics for the three and nine months ended September 30, 2021 and 2020 (in millions, except per share amounts):

| Balance Sheet Data | $\begin{gathered} \text { September 30, } \\ 2021 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2020 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Unaudited) |  |  |  |
| Investment securities, at fair value | \$ | 55,393 | \$ | 66,414 |
| Total assets | \$ | 68,805 | \$ | 81,817 |
| Repurchase agreements and other debt | \$ | 46,666 | \$ | 52,543 |
| Total liabilities | \$ | 58,126 | \$ | 70,738 |
| Total stockholders' equity | \$ | 10,679 | \$ | 11,079 |
| Net book value per common share ${ }^{1}$ | \$ | 17.41 | \$ | 17.68 |
| Tangible net book value per common share ${ }^{2}$ | \$ | 16.41 | \$ | 16.71 |


| Statement of Comprehensive Income Data (Unaudited) | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Interest income | \$ | 293 | \$ | 364 | \$ | 1,099 | \$ | 1,284 |
| Interest expense |  | 14 |  | 62 |  | 60 |  | 622 |
| Net interest income |  | 279 |  | 302 |  | 1,039 |  | 662 |
| Other gain (loss), net |  | (45) |  | 381 |  | (195) |  | $(1,635)$ |
| Operating expenses |  | 22 |  | 21 |  | 68 |  | 68 |
| Net income (loss) |  | 212 |  | 662 |  | 776 |  | $(1,041)$ |
| Dividends on preferred stock |  | 25 |  | 25 |  | 75 |  | 71 |
| Net income (loss) available (attributable) to common stockholders | \$ | 187 | \$ | 637 | \$ | 701 | \$ | $(1,112)$ |
|  |  |  |  |  |  |  |  |  |
| Net income (loss) | \$ | 212 | \$ | 662 | \$ | 776 | \$ | $(1,041)$ |
| Other comprehensive income (loss), net |  | 6 |  | 70 |  | (308) |  | 737 |
| Comprehensive income (loss) |  | 218 |  | 732 |  | 468 |  | (304) |
| Dividends on preferred stock |  | 25 |  | 25 |  | 75 |  | 71 |
| Comprehensive income (loss) available (attributable) to common stockholders | \$ | 193 | \$ | 707 | \$ | 393 | \$ | (375) |
|  |  |  |  |  |  |  |  |  |
| Weighted average number of common shares outstanding - basic |  | 526.7 |  | 553.2 |  | 529.0 |  | 553.8 |
| Weighted average number of common shares outstanding - diluted |  | 528.6 |  | 554.3 |  | 530.8 |  | 553.8 |
| Net income (loss) per common share - basic | \$ | 0.36 | \$ | 1.15 | \$ | 1.33 | \$ | (2.01) |
| Net income (loss) per common share - diluted | \$ | 0.35 | \$ | 1.15 | \$ | 1.32 | \$ | (2.01) |
| Comprehensive income (loss) per common share - basic | \$ | 0.37 | \$ | 1.28 | \$ | 0.74 | \$ | (0.68) |
| Comprehensive income (loss) per common share - diluted | \$ | 0.37 | \$ | 1.28 | \$ | 0.74 | \$ | (0.68) |
| Dividends declared per common share | \$ | 0.36 | \$ | 0.36 | \$ | 1.08 | \$ | 1.20 |


| Other Data (Unaudited) * | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Average investment securities - at par | \$ | 49,077 | \$ | 61,398 | \$ | 53,655 | \$ | 75,108 |
| Average investment securities - at cost | \$ | 50,866 | \$ | 63,893 | \$ | 55,579 | \$ | 77,783 |
| Average net TBA portfolio - at cost | \$ | 30,312 | \$ | 27,785 | \$ | 30,132 | \$ | 17,017 |
| Average total assets - at fair value | \$ | 68,472 | \$ | 80,058 | \$ | 74,952 | \$ | 93,541 |
| Average repurchase agreements and other debt outstanding ${ }^{3}$ | \$ | 45,847 | \$ | 61,008 | \$ | 50,909 | \$ | 74,649 |
| Average stockholders' equity ${ }^{4}$ | \$ | 10,638 | \$ | 10,527 | \$ | 11,018 | \$ | 10,595 |
| Average tangible net book value "at risk" leverage ${ }^{5}$ |  | 7.5:1 |  | 8.9:1 |  | 7.7:1 |  | 9.1:1 |
| Tangible net book value "at risk" leverage (as of period end) ${ }^{6}$ |  | 7.5:1 |  | 8.8:1 |  | 7.5:1 |  | 8.8:1 |
| Economic return on tangible common equity - unannualized ${ }^{7}$ |  | 2.3 \% |  | 8.8 \% |  | 4.7 \% |  | (3.3)\% |
| Expenses \% of average total assets - annualized |  | 0.13 \% |  | 0.10 \% |  | 0.12 \% |  | 0.10 \% |
| Expenses \% of average assets, including average net TBA position - annualized |  | 0.09 \% |  | 0.08 \% |  | 0.09 \% |  | 0.08 \% |
| Expenses \% of average stockholders' equity - annualized |  | 0.83 \% |  | 0.80 \% |  | 0.82 \% |  | 0.86 \% |

[^5]
## Economic Interest Income and Asset Yields

The following table summarizes our economic interest income (a non-GAAP measure) for the three and nine months ended September 30, 2021 and 2020, which includes the combination of interest income (a GAAP measure) on our holdings reported as investment securities on our consolidated balance sheets, adjusted to exclude estimated "catch-up" premium amortization adjustments for the cumulative effect from prior reporting periods of changes in our CPR forecast, and implied interest income on our TBA securities (dollars in millions):

|  | Three Months Ended September 30, |  |  |  |  |  | Nine Months Ended September 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  |  | 2020 |  |  | 2021 |  |  | 2020 |  |  |
|  | Amount |  | Yield | Amount |  | Yield | Amount |  | Yield | Amount |  | Yield |
| Interest income: |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash/coupon interest income | \$ | 399 | 3.25 \% | \$ | 573 | 3.73 \% | \$ | 1,330 | 3.31 \% | \$ | 2,100 | 3.72 \% |
| Net premium amortization benefit (cost) |  | (106) | (0.95)\% |  | (209) | (1.45)\% |  | (231) | (0.67)\% |  | (816) | (1.52)\% |
| Interest income (GAAP measure) |  | 293 | 2.30 \% |  | 364 | 2.28 \% |  | 1,099 | 2.64 \% |  | 1,284 | 2.20 \% |
| Estimated "catch-up" premium amortization cost (benefit) due to change in CPR forecast |  | 2 | 0.02 \% |  | 50 | 0.31 \% |  | (140) | (0.34)\% |  | 350 | 0.60 \% |
| Interest income, excluding "catch-up" premium amortization |  | 295 | 2.32 \% |  | 414 | 2.59 \% |  | 959 | 2.30 \% |  | 1,634 | 2.80 \% |
| TBA dollar roll income - implied interest income ${ }^{1,2}$ |  | 142 | 1.88 \% |  | 114 | 1.64 \% |  | 397 | 1.75 \% |  | 236 | 1.86 \% |
| Economic interest income, excluding "catch-up" amortization (non-GAAP measure) ${ }^{3}$ | \$ | 437 | 2.16 \% | \$ | 528 | 2.30 \% | \$ | 1,356 | 2.11 \% | \$ | 1,870 | 2.63 \% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weighted average actual portfolio CPR for investment securities held during the period |  | 22.5 \% |  |  | 24.3 \% |  |  | 24.5 \% |  |  | 18.0 \% |  |
| Weighted average projected CPR for the remaining life of investment securities held as of period end |  | 10.7 \% |  |  | 15.9 \% |  |  | 10.7 \% |  |  | 15.9 \% |  |
| 30 -year fixed rate mortgage rate as of period end ${ }^{4}$ |  | 3.18 \% |  |  | 3.08 \% |  |  | 3.18 \% |  |  | 3.08 \% |  |
| 10-year U.S. Treasury rate as of period end |  | 1.49 \% |  |  | 0.69 \% |  |  | 1.49 \% |  |  | 0.69 \% |  |

1. Reported in gain (loss) on derivatives instruments and other securities, net in the accompanying consolidated statements of operations.
2. Implied interest income from TBA dollar roll transactions is computed as the sum of (i) TBA dollar roll income and (ii) estimated TBA implied funding cost (see Economic Interest Expense and Aggregate Cost of Funds below). TBA dollar roll income represents the price differential, or "price drop," between the TBA price for current month settlement versus the TBA price for forward month settlement and is the economic equivalent to interest income on the underlying Agency securities, less an implied funding cost, over the forward settlement period. Amount is net of TBAs used for hedging purposes. Amount excludes TBA mark-to-market adjustments,
3. The combined asset yield is calculated on a weighted average basis based on our average investment and TBA balances outstanding during the period and their respective yields.
4. Source: Bloomberg

The principal elements impacting our economic interest income are the size of our average investment portfolio and the yield (actual and implied) on our securities. The following table includes a summary of the estimated impact of each of these elements on our economic interest income for the three and nine months ended September 30, 2021 compared to the prior year period (in millions):

|  | Periods ended September 30, 2021 vs. September 30, 2020 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Our average investment portfolio, inclusive of TBAs (at cost), decreased $11 \%$ and $10 \%$ for the three and nine months ended September 30 , 2021 , respectively, compared to the prior year period, primarily due to lower operating leverage and a decline in our average stockholders' equity. The decrease in the average yield on our investment portfolio, including TBA implied asset yields and excluding "catch-up" premium amortization, of 14 basis points and 52 basis points for the three and nine months ended September 30, 2021, respectively, was largely due to changes in asset composition and lower prevailing yields on new asset purchases.

## Leverage

Our primary measure of leverage is our tangible net book value "at risk" leverage ratio, which is measured as the sum of our repurchase agreements and other debt used to fund our investment securities and net TBA and forward settling securities position (at cost) (together referred to as "mortgage borrowings") and our net receivable/payable for unsettled investment securities, divided by our total stockholders' equity adjusted to exclude goodwill.

We include our net TBA position in our measure of leverage because a forward contract to acquire Agency RMBS in the TBA market carries similar risks to Agency RMBS purchased in the cash market and funded with on-balance sheet liabilities. Similarly, a TBA contract for the forward sale of Agency securities has substantially the same effect as selling the underlying Agency RMBS and reducing our on-balance sheet funding commitments. (Refer to Liquidity and Capital Resources for further discussion of TBA securities and dollar roll transactions). Repurchase agreements used to fund short-term investments in U.S. Treasury securities ("U.S. Treasury repo") are excluded from our measure of leverage due to the temporary and highly liquid nature of these investments. The following table presents a summary of our leverage ratios for the periods listed (dollars in millions):

|  | Repurchase Agreements and Other Debt ${ }^{1}$ |  |  |  |  |  | Net TBA Position Long/(Short) ${ }^{2}$ |  |  |  | Average Tangible Net Book Value "At Risk" Leverage during the Period | Tangible Net Book Value "At Risk" Leverage as of Period End ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quarter Ended | $\begin{gathered} \text { Average Daily } \\ \text { Amount } \\ \hline \end{gathered}$ |  | Maximum Daily Amount |  | Ending Amount |  | Average DailyAmount |  | Ending Amount |  |  |  |
| September 30, 2021 | \$ | 45,847 | \$ | 49,021 | \$ | 45,723 | \$ | 30,312 | \$ | 28,912 | 7.5:1 | 7.5:1 |
| June 30, 2021 | \$ | 52,374 | \$ | 60,186 | \$ | 48,488 | \$ | 28,082 | \$ | 27,611 | 7.6:1 | 7.9:1 |
| March 31, 2021 | \$ | 54,602 | \$ | 57,153 | \$ | 55,221 | \$ | 32,022 | \$ | 25,355 | 8.0:1 | 7.7:1 |
| December 31, 2020 | \$ | 53,645 | \$ | 55,249 | \$ | 52,543 | \$ | 33,753 | \$ | 31,204 | 8.4:1 | 8.5:1 |
| September 30, 2020 | \$ | 61,008 | \$ | 69,628 | \$ | 54,558 | \$ | 27,785 | \$ | 29,460 | 8.9:1 | 8.8:1 |
| June 30, 2020 | \$ | 69,552 | \$ | 72,399 | \$ | 69,370 | \$ | 15,662 | \$ | 20,413 | 8.8:1 | 9.2:1 |
| March 31, 2020 | \$ | 93,538 | \$ | 104,773 | \$ | 63,241 | \$ | 7,487 | \$ | 20,648 | 9.9:1 | 9.4:1 |

[^6]3. Average tangible net book value "at risk" leverage during the period represents the sum of our daily weighted average repurchase agreements and other debt used to fund acquisitions of investment securities and net TBA and forward settling securities position outstanding, divided by the sum of our average month-ended stockholders' equity, adjusted to exclude goodwill.
4. Tangible net book value "at risk" leverage as of period end represents the sum of our repurchase agreements and other debt used to fund acquisitions of investments securities, net TBA and forward settling securities position (at cost), and net receivable/payable for unsettled investment securities outstanding as of period end, divided by total stockholders' equity, adjusted to exclude goodwill as of period end.

## Economic Interest Expense and Aggregate Cost of Funds

The following table summarizes our economic interest expense and aggregate cost of funds (non-GAAP measures) for the three and nine months ended September 30, 2021 and 2020 (dollars in millions), which includes the combination of interest expense on Agency repurchase agreements and other debt (GAAP measure), implied financing cost (benefit) of our TBA securities and interest rate swap periodic cost:

| Economic Interest Expense and Aggregate Cost of Funds ${ }^{1}$ | Three Months Ended September 30, |  |  |  |  |  | Nine Months Ended September 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  |  | 2020 |  |  | 2021 |  |  | 2020 |  |  |
|  | Amount |  | Cost of Funds | Amount |  | Cost of Funds | Amount |  | Cost of Funds | Amount |  | Cost of Funds |
| Repurchase agreement and other debt - interest expense (GAAP measure) | \$ | 14 | 0.12 \% | \$ | 62 | 0.40 \% | \$ | 60 | 0.16 \% | \$ | 622 | 1.09 \% |
| TBA dollar roll income - implied interest expense (benefit) ${ }^{2,3}$ |  | (33) | (0.42)\% |  | (41) | (0.58)\% |  | (94) | (0.41)\% |  | (13) | (0.10)\% |
| Economic interest expense (benefit) - before interest rate swap periodic cost, net ${ }^{4}$ |  | (19) | (0.10)\% |  | 21 | 0.09 \% |  | (34) | (0.05)\% |  | 609 | 0.87 \% |
| Interest rate swap periodic cost ${ }^{2,5}$ |  | 13 | 0.07 \% |  | 13 | 0.06 \% |  | 44 | 0.07 \% |  | 41 | 0.06 \% |
| Total economic interest expense (benefit) (non-GAAP measure) | \$ | (6) | (0.03)\% | \$ | 34 | 0.15 \% | \$ | 10 | 0.02 \% | \$ | 650 | 0.93 \% |

1. Amounts exclude interest rate swap termination fees and variation margin settlements paid or received, forward starting swaps and the impact of other supplemental hedges, such as swaptions and U.S. Treasury positions.
2. Reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income.
3. The implied funding cost (benefit) of TBA dollar roll transactions is determined using the price differential, or "price drop," between the TBA price for current month settlement versus the TBA price for forward month settlement and market based assumptions regarding the "cheapest-to-deliver" collateral that can be delivered to satisfy the TBA contract, such as the anticipated collateral's weighted average coupon, weighted average maturity and projected 1-month CPR. The average implied funding cost (benefit) for all TBA transactions is weighted based on our daily average TBA balance outstanding for the period.
4. The combined cost of funds for total mortgage borrowings outstanding, before interest rate swap costs, is calculated on a weighted average basis based on average repo, other debt and TBA balances outstanding during the period and their respective cost of funds.
5. Interest rate swap periodic cost is measured as a percent of average mortgage borrowings outstanding for the period.

The principal elements impacting our economic interest expense are (i) the size of our average mortgage borrowings and interest rate swap portfolio outstanding during the period, (ii) the average interest rate (actual and implied) on our mortgage borrowings and (iii) the average net interest rate paid/received on our interest rate swaps. The following table includes a summary of the estimated impact of these elements on our economic interest expense for the three and nine months ended September 30, 2021 compared to the prior year period (in millions):

Impact of Changes in the Principal Elements of Economic Interest Expense
Periods ended September 30, 2021 vs. September 30, 2020

|  | Periods ended September 30, 2021 vs. September 30, 2020 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

Our average mortgage borrowings, inclusive of TBAs, decreased $14 \%$ and $12 \%$ for the three and nine months ended September 30, 2021, respectively, compared to the prior year period, consistent with the decline in our average investment portfolio. The decline in the average interest rate (actual and implied) on our mortgage borrowings for the three and nine months ended September 30, 2021 of 19 basis points and 92 basis points, respectively, was due to the combination of lower short-term interest rates and favorable technical supply and demand factors in the repo and TBA dollar roll markets.

The change in our interest rate swap periodic cost for the three and nine months ended September 30, 2021 was a function of our average swap balance outstanding and the average fixed rate paid and floating rate received on our interest rate swaps as compared to the prior year periods. The following is a summary of our average interest rate swaps outstanding and the related average swap pay and receive rates for each of the periods presented (dollars in millions). Amounts exclude forward starting swaps not yet in effect.

| Average Ratio of Interest Rate Swaps (Excluding Forward Starting Swaps) to Mortgage Borrowings Outstanding | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Average Agency repo and other debt outstanding | \$ | 45,847 | \$ | 61,008 | \$ | 50,909 | \$ | 74,649 |
| Average net TBA portfolio outstanding - at cost | \$ | 30,312 | \$ | 27,785 | \$ | 30,132 | \$ | 17,017 |
| Average mortgage borrowings outstanding | \$ | 76,159 | \$ | 88,793 | \$ | 81,041 | \$ | 91,666 |
| Average notional amount of interest rate swaps outstanding (excluding forward starting swaps) | \$ | 49,268 | \$ | 41,094 | \$ | 48,108 | \$ | 52,268 |
| Ratio of average interest rate swaps to mortgage borrowings outstanding |  | 65 \% |  | 46 \% |  | 59 \% |  | 57 \% |
|  |  |  |  |  |  |  |  |  |
| Average interest rate swap pay-fixed rate (excluding forward starting swaps) |  | 0.17 \% |  | 0.22 \% |  | 0.17 \% |  | 0.80 \% |
| Average interest rate swap receive-floating rate |  | (0.07)\% |  | (0.09)\% |  | (0.05)\% |  | (0.70)\% |
| Average interest rate swap net pay/(receive) rate |  | 0.10 \% |  | 0.13 \% |  | 0.12 \% |  | 0.10 \% |

For the three and nine months ended September 30, 2021, we had a forward starting swap average balance of $\$ 9$ million and $\$ 0.1$ billion, respectively, and, for the three and nine months ended September 30, 2020, an average balance of $\$ 0.7$ billion and $\$ 1.0$ billion, respectively. Forward starting interest rate swaps do not impact our economic interest expense and aggregate cost of funds until they commence accruing net interest settlements on their forward start dates. Including forward starting swaps, our average ratio of interest rate swaps outstanding to our average mortgage borrowings for the three and nine months ended September 30, 2021 was $65 \%$ and $59 \%$, respectively, and $47 \%$ and $58 \%$ for the three and nine months ended September 30 , 2020, respectively.

## Net Interest Spread

The following table presents a summary of our net interest spread (including the impact of TBA dollar roll income, interest rate swaps and excluding "catch-up" premium amortization) for the three and nine months ended September 30, 2021 and 2020:

| Investment and TBA Securities - Net Interest Spread | Three Months Ended September30, |  | Nine Months Ended September 30, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2021 | 2020 | 2021 | 2020 |
| Average asset yield, excluding "catch-up" premium amortization | 2.16 \% | 2.30 \% | 2.11 \% | 2.63 \% |
| Average aggregate cost of funds | 0.03 \% | (0.15)\% | (0.02)\% | (0.93)\% |
| Average net interest spread, excluding "catch-up" premium amortization | 2.19 \% | 2.15 \% | 2.09 \% | 1.70 \% |

## Net Spread and Dollar Roll Income

The following table presents a summary of our net spread and dollar roll income, excluding estimated "catch-up" premium amortization, per diluted common share (a non-GAAP financial measure) and a reconciliation to our net interest income (the most comparable GAAP financial measure) for the three and nine months ended September 30, 2021 and 2020 (dollars in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Net interest income (GAAP measure) | \$ | 279 | \$ | 302 | \$ | 1,039 | \$ | 662 |
| TBA dollar roll income, net ${ }^{1}$ |  | 175 |  | 155 |  | 491 |  | 249 |
| Interest rate swap periodic cost, net ${ }^{1}$ |  | (13) |  | (13) |  | (44) |  | (41) |
| Other interest and dividend income ${ }^{1}$ |  | - |  | - |  | - |  | 3 |
| Adjusted net interest and dollar roll income |  | 441 |  | 444 |  | 1,486 |  | 873 |
| Operating expense |  | (22) |  | (21) |  | (68) |  | (68) |
| Net spread and dollar roll income |  | 419 |  | 423 |  | 1,418 |  | 805 |
| Dividend on preferred stock |  | 25 |  | 25 |  | 75 |  | 71 |
| Net spread and dollar roll income available to common stockholders (non-GAAP measure) |  | 394 |  | 398 |  | 1,343 |  | 734 |
| Estimated "catch-up" premium amortization cost (benefit) due to change in CPR forecast |  | 2 |  | 50 |  | (140) |  | 350 |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, available to common stockholders (non-GAAP measure) | \$ | 396 | \$ | 448 | \$ | 1,203 | \$ | 1,084 |
|  |  |  |  |  |  |  |  |  |
| Weighted average number of common shares outstanding - basic |  | 526.7 |  | 553.2 |  | 529.0 |  | 553.8 |
| Weighted average number of common shares outstanding - diluted |  | 528.6 |  | 554.3 |  | 530.8 |  | 554.8 |
| Net spread and dollar roll income per common share - basic | \$ | 0.75 | \$ | 0.72 | \$ | 2.54 | \$ | 1.33 |
| Net spread and dollar roll income per common share - diluted | \$ | 0.75 | \$ | 0.72 | \$ | 2.53 | \$ | 1.32 |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share - basic | \$ | 0.75 | \$ | 0.81 | \$ | 2.27 | \$ | 1.96 |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share - diluted | \$ | 0.75 | \$ | 0.81 | \$ | 2.27 | \$ | 1.95 |

1. Reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income

## Gain (Loss) on Investment Securities, Net

The following table is a summary of our net gain (loss) on investment securities for the three and nine months ended September 30, 2021 and 2020 (in millions):

| Gain (Loss) on Investment Securities, Net ${ }^{1}$ | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Gain (loss) on sale of investment securities, net | \$ | (5) | \$ | 346 | \$ | 7 | \$ | 993 |
| Unrealized gain (loss) on investment securities measured at fair value through net income, net ${ }^{2}$ |  | (141) |  | (365) |  | $(1,124)$ |  | 511 |
| Unrealized gain (loss) on investment securities measured at fair value through other comprehensive income, net |  | 6 |  | 70 |  | (308) |  | 737 |
| Total gain (loss) on investment securities, net | \$ | (140) | \$ | 51 | \$ | $\stackrel{(1,425)}{ }$ | \$ | 2,241 |

[^7]
## Gain (Loss) on Derivative Instruments and Other Securities, Net

The following table is a summary of our gain (loss) on derivative instruments and other securities, net for the three and nine months ended September 30, 2021 and 2020 (in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| TBA securities, dollar roll income | \$ | 175 | \$ | 155 | \$ | 491 | \$ | 249 |
| TBA securities, mark-to-market gain/(loss) |  | (145) |  | 128 |  | (991) |  | 947 |
| Forward settling non-Agency, mark-to-market gain/(loss) |  | 3 |  | - |  | 3 |  | - |
| Interest rate swaps, periodic cost |  | (13) |  | (13) |  | (44) |  | (41) |
| Interest rate swaps, mark-to-market gain/(loss) |  | 70 |  | 153 |  | 825 |  | $(2,993)$ |
| Payer swaptions |  | 28 |  | (1) |  | 102 |  | (149) |
| U.S. Treasury securities - short position |  | (11) |  | (15) |  | 463 |  | $(1,012)$ |
| U.S. Treasury securities - long position |  | (8) |  | 1 |  | (19) |  | 102 |
| U.S. Treasury futures contracts - short position |  | 5 |  | (5) |  | 37 |  | (117) |
| Other |  | (3) |  | (3) |  | 55 |  | (125) |
| Total gain (loss) on derivative instruments and other securities, net | \$ | 101 | \$ | 400 | \$ | 922 | \$ | $(3,139)$ |

For further details regarding our use of derivative instruments and related activity refer to Notes 2 and 5 of our Consolidated Financial Statements in this Form 10-Q.

## Estimated Taxable Income (Loss)

For the three months ended September 30, 2021 and 2020, we had estimated taxable income attributed to common stockholders of $\$ 45$ million and $\$ 508$ million, respectively, or $\$ 0.09$ and $\$ 0.92$ per diluted common share, respectively. For the nine months ended September 30, 2021 and 2020, we had estimated taxable income (loss) available (attributable) to common stockholders of $\$(277)$ million and $\$ 615$ million, respectively, or $\$(0.52)$ and $\$ 1.11$ per diluted common share, respectively. Income determined under GAAP differs from income determined under U.S. federal income tax rules because of both temporary and permanent differences in income and expense recognition. The primary differences are (i) unrealized gains and losses on investment securities and derivative instruments marked-to-market in current income for GAAP purposes, but excluded from taxable income until realized, settled or amortized over the instrument's original term, (ii) timing differences, both temporary and potentially permanent, in the recognition of certain realized gains and losses and (iii) temporary differences related to the amortization of premiums and discounts on investments. Furthermore, our estimated taxable income is subject to potential adjustments up to the time of filing our appropriate tax returns, which occurs after the end of our fiscal year. The following is a reconciliation of our GAAP net income to our estimated taxable income for the three and nine months ended September 30, 2021 and 2020 (dollars in millions, except per share amounts):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2021 |  | 2020 |  | 2021 |  | 2020 |  |
| Net income/(loss) | \$ | 212 | \$ | 662 | \$ | 776 | \$ | $(1,041)$ |
| Book to tax differences: |  |  |  |  |  |  |  |  |
| Premium amortization, net |  | (45) |  | (11) |  | (313) |  | 248 |
| Realized gain/loss, net |  | (342) |  | (472) |  | $(1,793)$ |  | 2,083 |
| Net capital loss/(utilization of net capital loss carryforward) |  | (141) |  | - |  | - |  | (394) |
| Unrealized (gain)/loss, net |  | 358 |  | 354 |  | 1,055 |  | (200) |
| Other |  | 3 |  | - |  | (2) |  | (10) |
| Total book to tax differences |  | (167) |  | (129) |  | $(1,053)$ |  | 1,727 |
| REIT taxable income (loss) |  | 45 |  | 533 |  | (277) |  | 686 |
| REIT taxable income atributed to preferred stock |  | - |  | 25 |  | - |  | 71 |
| REIT taxable income (loss), attributed to common stock | \$ | 45 | \$ | 508 | \$ | (277) | \$ | 615 |
| Weighted average common shares outstanding - basic |  | 526.7 |  | 553.2 |  | 529.0 |  | 553.8 |
| Weighted average common shares outstanding - diluted |  | 528.6 |  | 554.3 |  | 529.0 |  | 554.8 |
| REIT taxable income (loss) per common share - basic | \$ | 0.09 | \$ | 0.92 | \$ | (0.52) | \$ | 1.11 |
| REIT taxable income (loss) per common share - diluted | \$ | 0.09 | \$ | 0.92 | \$ | (0.52) | \$ | 1.11 |
|  |  |  |  |  |  |  |  |  |
| Beginning net capital loss carryforward | \$ | 141 | \$ | - | \$ | - | \$ | 394 |
| Increase (decrease) in net capital loss carryforward |  | (141) |  | - |  | - |  | (394) |
| Ending net capital loss carryforward | \$ | - | \$ | - | \$ | - | \$ | - |
| Ending net capital loss carryforward per common share | \$ | - | \$ | - | \$ | - | \$ | - |

## LIQUIDITY AND CAPITAL RESOURCES

Our business is dependent on our ability to maintain adequate levels of liquidity and capital resources to fund day-to-day operations, fulfill collateral requirements under our funding and derivative agreements, and to satisfy our dividend distribution requirement of at least $90 \%$ of our taxable income to maintain our qualification as a REIT. Our primary sources of liquidity are unencumbered cash and securities, borrowings available under repurchase agreements, TBA dollar roll financing and monthly receipts of principal and interest payments. We may also conduct asset sales, change our asset or funding mix, issue equity or undertake other capital enhancing actions to maintain adequate levels of liquidity and capital resources.

We believe that we have sufficient liquidity and capital resources available to meet our obligations and execute our business strategy. In assessing our liquidity, we consider a number of factors, including our current leverage, collateral levels, access to capital markets, overall market conditions, and the sensitivity of our tangible net book value over a range of scenarios. However, these and other factors impacting our liquidity are subject to numerous risks and uncertainties, including as described in the Quantitative and Qualitative Disclosures of Market Risks and Risk Factors sections of this Form 10-Q.

## Leverage and Financing Sources

Our leverage will vary depending on market conditions and our assessment of relative risks and returns, but we generally expect our leverage to be between six and twelve times the amount of our tangible stockholders' equity, measured as the sum of our total mortgage borrowings and net payable / (receivable) for unsettled investment securities, divided by the sum of our total stockholders' equity adjusted to exclude goodwill. Our tangible net book value "at risk" leverage ratio was 7.5 x and 8.5 x as of September 30, 2021 and December 31, 2020, respectively. The following table includes a summary of our mortgage borrowings outstanding as of September 30, 2021 and December 31, 2020 (dollars in millions). For additional details of our mortgage borrowings refer to Notes 2, 4 and 5 to our Consolidated Financial Statements in this Form 10-Q.

| Mortgage Borrowings | September 30, 2021 |  |  | December 31, 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | \% |  |  | \% |
| Repurchase agreements ${ }^{1}$ | \$ | 45,589 | 61 \% | \$ | 52,366 | 63 \% |
| Debt of consolidated variable interest entities, at fair value |  | 134 | -\% |  | 177 | - \% |
| Total debt |  | 45,723 | 61 \% |  | 52,543 | 63 \% |
| TBA and forward settling non-Agency securities, at cost |  | 28,912 | 39 \% |  | 31,204 | 37 \% |
| Total mortgage borrowings | \$ | 74,635 | 100 \% | \$ | 83,747 | $100 \%$ |

1. As of September 30, 2021 and December 31, 2020, $42 \%$ and $46 \%$, respectively, of our repurchase agreements were funded through the Fixed Income Clearing Corporation's GCF Repo service.

Our primary financing sources are collateralized borrowings structured as repurchase agreements. We enter into repurchase agreements, or "repo," through bi-lateral arrangements with financial institutions and independent dealers. We also enter into third-party repurchase agreements through our wholly-owned registered broker-dealer subsidiary, Bethesda Securities, LLC, such as tri-party repo offered through the FICC's GCF Repo service. We manage our repurchase agreement funding position through a variety of methods, including diversification of counterparties, maintaining a staggered maturity profile and utilization of interest rate hedging strategies. We also use TBA dollar roll transactions as a means of synthetically financing Agency RMBS.

The terms and conditions of our repurchase agreements are determined on a transaction-by-transaction basis when each such borrowing is initiated or renewed and, in the case of GCF Repo, by the variable margin requirements calculated by the FICC, which acts as the central counterparty. The amount borrowed is generally equal to the fair value of the securities pledged, as determined by the lending counterparty, less an agreed-upon discount, referred to as a "haircut," which reflects the underlying risk of the specific collateral and protects the counterparty against a change in its value. Interest rates are generally fixed based on prevailing rates corresponding to the term of the borrowing. None of our repo counterparties are obligated to renew or otherwise enter into new borrowings at the conclusion of our existing borrowings.

The use of TBA dollar roll transactions increases our funding diversification, expands our available pool of assets, and increases our overall liquidity position, as TBA contracts typically have lower implied haircuts relative to Agency RMBS pools funded with repo financing. TBA dollar roll transactions may also have a lower implied cost of funds than comparable repo funded transactions (referred to as "dollar roll specialness") offering incremental return potential. However, if it were to become uneconomical to roll our TBA contracts into future months it may be necessary to take physical delivery of the underlying securities and fund those assets with cash or other financing sources, which could reduce our liquidity position.

## Collateral Requirements and Unencumbered Assets

Amounts available to be borrowed under our repurchase agreements are dependent upon prevailing interest rates, the lender's "haircut" requirements and collateral value. Each of these elements may fluctuate with changes in interest rates, credit quality and liquidity conditions within the financial markets. To help manage the adverse impact of interest rate changes on our borrowings, we utilize an interest rate risk management strategy involving the use of derivative financial instruments. In particular, we attempt to mitigate the risk of the cost of our short-term funding liabilities increasing at a faster rate than the earnings of our long-term fixed rate assets during a period of rising interest rates.

The collateral requirements, or haircut levels, under our repo agreements are typically determined on an individual transaction basis or by the prevailing requirements established by the FICC for GCF tri-party repo. Consequently, haircut levels and minimum margin requirements can change over time and may increase during periods of elevated market volatility. If the fair value of our collateral declines, our counterparties will typically require that we post additional collateral to re-establish the agreed-upon collateral levels, referred to as "margin calls." Similarly, if the estimated fair value of our investment securities increases, we may request that counterparties release collateral back to us. Our counterparties typically have the sole discretion to determine the value of pledged collateral but are required to act in good faith in making determinations of value. Our agreements generally provide that in the event of a margin call, collateral must be posted on the same business day, subject to notice requirements. As of September 30, 2021, we had met all our margin requirements.

The value of Agency RMBS collateral is impacted by market factors and is reduced by monthly principal pay-downs on the underlying mortgage pools. Fannie Mae and Freddie Mac publish monthly security pay-down factors for their mortgage pools on the fifth day after month-end, but do not remit payment to security holders until generally the 25th day after month-end. Bi-lateral repo counterparties assess margin to account for the reduction in value of Agency collateral when factors are released. The FICC assesses margin on the last day of each month, prior to the factor release date, based on its internally projected pay-down rates (referred to as the "blackout period exposure adjustment" or "blackout margin"). On the factor release date, the blackout margin is released and collateralization requirements are adjusted to actual factor data. Due to the timing difference between associated margin calls and our receipt of principal pay-downs, our liquidity is temporarily reduced each month for principal repayments. We attempt to manage the liquidity risk associated with principal pay-downs by monitoring conditions impacting prepayment rates and through asset selection. As of September 30, 2021, our portfolio largely consisted of lower coupon 30 and 15 -year TBA securities, which are not subject to monthly principal pay-downs, and higher coupon holdings concentrated in high quality, specified Agency RMBS pools, which have a lower risk of prepayment than similar coupon generic Agency RMBS.

Collateral requirements under our derivative agreements are subject to our counterparties' assessment of their maximum risk of loss associated with the derivative instrument measured over a certain period of time, referred to as the initial or minimum margin requirement. We are also subject to daily variation margin requirements based on changes in the value of the derivative instrument and/or collateral pledged. Daily variation margin requirements also entitle us to receive collateral if the value of amounts owed to us under the derivative agreement exceeds the minimum margin requirement. The collateral requirements under our TBA contracts are governed by the Mortgage-Backed Securities Division ("MBSD") of the FICC and, if applicable, by our third-party brokerage agreements, which may establish margin levels in excess of the MBSD. Collateral levels for interest rate derivative agreements are typically governed by the central clearing exchange and the associated futures commission merchants ("FCMs"), which may establish margin levels in excess of the clearing exchange. Collateral levels for interest rate derivative agreements not subject to central clearing are established by the counterparty financial institution.

Haircut levels and minimum margin requirements imposed by our counterparties reduce the amount of our unencumbered assets and limit the amount we can borrow against our investment securities. During the nine months ended September 30, 2021, haircuts remained stable, and, as of September 30, 2021, the weighted average haircut on our repurchase agreements was approximately $4.0 \%$ of the value of our collateral, compared to $4.6 \%$ as of December 31, 2020.

To mitigate the risk of future margins calls, we seek to maintain excess liquidity by holding unencumbered liquid assets that can be used to satisfy collateral requirements, collateralize additional borrowings or sold for cash. As of September 30, 2021, our unencumbered assets totaled $66 \%$ of our tangible net equity, compared to $60 \%$ as of December 31, 2020. The majority of our liquidity is held at AGNC, but we also maintain capital and excess liquidity at Bethesda Securities to meet regulatory standards, satisfy counterparty and clearing organization expectations, and for risk management purposes. As of September 30, 2021, we had cash and unencumbered Agency RMBS and U.S. Treasury securities totaling $\$ 5.2$ billion, or $51 \%$ of our tangible equity, which excludes unencumbered CRT securities, non-Agency securities and assets held at Bethesda Securities, compared to $\$ 5.4$ billion and $51 \%$, respectively, as of December 31, 2020.

## Counterparty Risk

Collateral requirements imposed by counterparties subject us to the risk that the counterparty does not return pledged assets to us as and when required. We attempt to manage this risk by monitoring our collateral positions and limiting our counterparties to registered clearinghouses and major financial institutions with acceptable credit ratings. We also diversify our funding across multiple counterparties and by region.

As of September 30, 2021, our maximum amount at risk (or the excess/shortfall of the value of collateral pledged/received over our repurchase agreement liabilities/reverse repurchase agreement receivables) with any of our repurchase agreement counterparties, excluding the FICC, was less than $2 \%$ of our tangible stockholders' equity, with our top five repo counterparties, excluding the FICC, representing less than $5 \%$ of our tangible stockholders' equity. As of September 30, 2021, approximately 7\% of our tangible stockholder's equity was at risk with the FICC. Excluding central clearing exchanges, as of September 30, 2021, our amount at risk with any counterparty to our derivative agreements was less than $1 \%$ of our stockholders' equity.

## Asset Sales

Agency RMBS securities are among the most liquid fixed income securities, and the TBA market is the second most liquid market (after the U.S. Treasury market). The vitality of these markets enables us to sell assets under most market conditions to generate liquidity through direct sales or delivery into TBA contracts, subject to "good delivery" provisions promulgated by the Securities Industry and Financial Markets Association ("SIFMA"). Under certain market conditions, however, we may be unable to realize the full "pay-up" value of our specified pool securities, or premium relative to generic Agency RMBS. We attempt to manage this risk by maintaining a minimum level of securities that trade at or near TBA values that in our estimation enhances our portfolio liquidity across a wide range of market conditions.

## Capital Markets

The equity capital markets serve as a source of capital to grow our business and to meet potential liquidity needs of our business. The availability of equity capital is dependent on market conditions and investor demand for our common and preferred stock. We will typically not issue common stock when the price of our common stock trades below our tangible net book value or issue preferred equity when its cost exceeds acceptable hurdle rates of return on our equity. There can be no assurance that we will be able to raise additional equity capital at any particular time or on any particular terms. Furthermore, when the trading price of our common stock is less than our estimate of our current tangible net book value per common share, among other conditions, we may repurchase shares of our common stock. Please refer to Note 9 and 10 of our Consolidated Financial Statements in this Form 10-Q for further details regarding our recent equity capital transactions and stock repurchase plan.

## OFF-BALANCE SHEET ARRANGEMENTS

As of September 30, 2021, we did not maintain relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance, or special purpose or variable interest entities, established to facilitate off-balance sheet arrangements or other contractually narrow or limited purposes. Additionally, as of September 30, 2021, we had not guaranteed obligations of unconsolidated entities or entered into a commitment or intent to provide funding to such entities.

## FORWARD-LOOKING STATEMENTS

The statements contained in this Quarterly Report that are not historical facts, including estimates, projections, beliefs, expectations concerning conditions, events, or the outlook for our business, strategy, performance, operations or the markets or industries in which we operate, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Forward-looking statements are typically identified by words such as "believe," "plan," "expect," "anticipate," "see," "intend," "outlook," "potential," "forecast," "estimate," "will," "could," "should," "likely" and other similar, correlative or comparable words and expressions.

Forward looking statements are based on management's assumptions, projections and beliefs as of the date of this Quarterly Report, but they involve a number of risks and uncertainties. Actual results may differ materially from those anticipated in forward-looking statements, as well as from historical performance. Factors that could cause actual results to vary from our forward-looking statements include, but are not limited to, the following:

- the impact of the COVID-19 pandemic and of measures taken in response to the COVID-19 pandemic by various governmental authorities, businesses and other third parties;
- actions by the federal, state, or local governments to stabilize the economy, the housing sector or financial markets;
- changes in U.S. monetary policy or interest rates, including Fed purchases of Agency RMBS;
- fluctuations in the yield curve;
- fluctuations in mortgage prepayment rates on the loans underlying our Agency RMBS;
- the availability and terms of financing;
- changes in the market value of our assets, including from changes in net interest spreads, and changes in market liquidity or depth;
- the effectiveness of our risk mitigation strategies;
- conditions in the market for Agency RMBS and other mortgage securities;
- legislative or regulatory changes that affect our status as a REIT, our exemption from the Investment Company Act of 1940 or the mortgage markets in which we participate; and
- other risks discussed under the heading "Risk Factors" herein and in our Annual Report on Form 10-K.

Forward-looking statements speak only as of the date made, and we do not assume any duty and do not undertake to update forward-looking statements. A further discussion of risks and uncertainties that could cause actual results to differ from any of our forward-looking statements is included in our most recent Annual Report on Form 10-K and this document under Item 1A. Risk Factors. We caution readers not to place undue reliance on our forward-looking statements.

## Item 3. Quantitative and Qualitative Disclosures about Market Risk

Market risk is the exposure to loss resulting from changes in market factors such as interest rates, foreign currency exchange rates, commodity prices and equity prices. The primary market risks that we are exposed to are interest rate, prepayment, spread, liquidity, extension and credit risk.

## Interest Rate Risk

We are subject to interest rate risk in connection with the fixed income nature of our assets and the short-term, variable rate nature of our financing obligations. Our operating results depend in large part on differences between the income earned on our assets and our cost of borrowing and hedging activities. The costs associated with our borrowings are generally based on prevailing market interest rates. During a period of rising interest rates, our borrowing costs generally will increase while the yields earned on our existing portfolio of leveraged fixed-rate assets will largely remain static. This can result in a decline in our net interest spread. Changes in the level of interest rates can also affect the rate of mortgage prepayments and the value of our assets.

Interest rates are highly sensitive to many factors, including fiscal and monetary policies and domestic and international economic and political considerations, as well as other factors beyond our control. Subject to maintaining our qualification as a REIT, we engage in a variety of interest rate management techniques to mitigate the influence of interest rate changes on our net interest income and fluctuations of our tangible net book value. The principal instruments that we use to hedge our interest rate risk are interest rate swaps, swaptions, U.S. Treasury securities and U.S. Treasury futures contracts. Our hedging techniques are highly complex and are partly based on assumed levels of prepayments of our assets. If prepayments are slower or faster than assumed, the maturity of our investments will also differ from our expectations, which could reduce the effectiveness of our hedging strategies and may cause losses on such transactions and adversely affect our cash flow.

The severity of potential declines in our tangible net book value due to fluctuations in interest rates would depend on our asset, liability, and hedge composition at the time, as well as the magnitude and duration of the interest rate change. Primary measures of an instrument's price sensitivity to interest rate fluctuations are its duration and convexity. Duration measures the estimated percentage change in market value of an instrument that would be caused by a parallel change in short and long-term interest rates. The duration of our assets will vary with changes in interest rates and tends to increase when interest rates rise and decrease when interest rates fall. This "negative convexity" generally increases the interest rate exposure of our investment portfolio in excess of what is measured by duration alone.

We estimate the duration and convexity of our assets using a third-party risk management system and market data. We review the duration estimates from the third-party model and may make adjustments based on our judgment to better reflect any unique characteristics and market trading conventions associated with certain types of securities.

The table below quantifies the estimated changes in the fair value of our investment portfolio (including derivatives and other securities used for hedging purposes) and in our tangible net book value per common share as of September 30, 2021 and December 31, 2020 should interest rates go up or down by 25,50 and 75 basis points, assuming instantaneous parallel shifts in the yield curve and including the impact of both duration and convexity. All values in the table below are measured as
percentage changes from the base interest rate scenario. The base interest rate scenario assumes interest rates and prepayment projections as of September 30, 2021 and December 31, 2020.

To the extent that these estimates or other assumptions do not hold true, which may be more likely during periods of elevated market volatility, actual results could differ materially from our projections. Moreover, if different models were employed in the analysis, materially different projections could result. Lastly, while the table below reflects the estimated impact of interest rate changes on a static portfolio, we actively manage our portfolio and we continuously adjust the size and composition of our asset and hedge portfolio.

| Interest Rate Sensitivity ${ }^{1,2}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | September 30, 2021 |  | December 31, 2020 |  |
| Change in Interest Rate | Estimated Change in Portfolio Market Value | Estimated Change in Tangible Net Book Value Per Common Share | Estimated Change in Portfolio Market Value | Estimated Change in Tangible Net Book Value Per Common Share |
| -75 Basis Points | -0.5\% | -5.2\% | -0.9\% | -9.7\% |
| -50 Basis Points | -0.2\% | -2.0\% | -0.5\% | -5.8\% |
| -25 Basis Points | -\% | -\% | -0.2\% | -2.1\% |
| +25 Basis Points | -0.2\% | -1.9\% | -\% | 0.4\% |
| +50 Basis Points | -0.5\% | -5.2\% | -0.1\% | -1.1\% |
| +75 Basis Points | -1.0\% | -9.6\% | -0.4\% | -4.0\% |

[^8]
## Prepayment Risk

Prepayment risk is the risk that our assets will be repaid at a faster rate than anticipated. Interest rates and numerous other factors affect the rate of prepayments, such as housing prices, general economic conditions, loan age, size and loan-to-value ratios, and GSE buyouts of delinquent loans underlying our securities. Generally, lower mortgage rates increase the rate of prepayments, while higher rates have the opposite effect.

If our assets prepay at a faster rate than anticipated, we may be unable to reinvest the repayments at acceptable yields. If the proceeds are reinvested at lower yields than our existing assets, our net interest income would be negatively impacted. We also amortize or accrete premiums and discounts we pay or receive at purchase relative to the stated principal of our assets into interest income over their projected lives using the effective interest method. If the actual and estimated future prepayment experience differs from our prior estimates, we are required to record an adjustment to interest income for the impact of the cumulative difference in the effective yield.

## Extension Risk

Extension risk is the risk that our assets will be repaid at a slower rate than anticipated and generally increases when interest rates rise. In a rising or higher interest rate environment, we may be required to finance our investments at potentially higher costs without the ability to reinvest principal into higher yielding securities as a result of borrowers prepaying their mortgages at a slower pace than originally anticipated, adversely impacting our net interest spread, and thus our net interest income.

As of September 30, 2021 and December 31, 2020, our investment securities (excluding TBAs) had a weighted average projected CPR of $10.7 \%$ and $17.6 \%$, respectively, and a weighted average yield of $2.48 \%$ and $2.33 \%$, respectively. The table below presents estimated weighted average projected CPRs and yields for our investment securities should interest rates go up or down instantaneously by 25, 50 and 75 basis points. Estimated yields exclude the impact of retroactive "catch-up" premium amortization adjustments for prior periods due to changes in the projected CPR assumption.

| Interest Rate Sensitivity ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Change in Interest Rate | September 30, 2021 |  | December 31, 2020 |  |
|  | Weighted Average Projected CPR | Weighted Average Asset Yield ${ }^{2}$ | Weighted Average Projected CPR | Weighted Average Asset Yield ${ }^{2}$ |
| -75 Basis Points | 16.8\% | 2.23\% | 23.9\% | 1.99\% |
| -50 Basis Points | 14.1\% | 2.33\% | 21.9\% | 2.09\% |
| -25 Basis Points | 12.1\% | 2.42\% | 19.7\% | 2.20\% |
| Actual as of Period End | 10.7\% | 2.48\% | 17.6\% | 2.33\% |
| +25 Basis Points | 9.6\% | 2.53\% | 15.9\% | 2.38\% |
| +50 Basis Points | 8.9\% | 2.56\% | 14.3\% | 2.45\% |
| +75 Basis Points | 8.2\% | 2.60\% | 13.0\% | 2.51\% |

[^9]
## Spread Risk

Spread risk is the risk that the market spread between the yield on our assets and the yield on benchmark interest rates linked to our interest rate hedges, such as U.S. Treasury rates and interest rate swap rates, may vary. As a levered investor in mortgage-backed securities, spread risk is an inherent component of our investment strategy. Therefore, although we use hedging instruments to attempt to protect against moves in interest rates, our hedges are generally not designed to protect against spread risk, and our tangible net book value could decline if spreads widen.

Fluctuations in mortgage spreads can occur due to a variety of factors, including changes in interest rates, prepayment expectations, actual or anticipated monetary policy actions by the U.S. and foreign central banks, liquidity conditions, required rates of returns on different assets and other market supply and demand factors. The table below quantifies the estimated changes in the fair value of our assets, net of hedges, and our tangible net book value per common share as of September 30, 2021 and December 31, 2020 should spreads widen or tighten by 10,25 and 50 basis points. The estimated impact of changes in spreads is in addition to our interest rate shock sensitivity included in the interest rate shock table above. The table below assumes a spread duration of 5.6 and 4.4 years as of September 30, 2021 and December 31, 2020, respectively, based on interest rates and prices as of such dates; however, our portfolio's sensitivity to mortgage spread changes will vary with changes in interest rates and in the size and composition of our portfolio. Therefore, actual results could differ materially from our estimates.

| Spread Sensitivity ${ }^{1,2}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Change in MBS Spread | September 30, 2021 |  | December 31, 2020 |  |
|  | Estimated Change in Portfolio Market Value | Estimated Change in Tangible Net Book Value Per Common Share | Estimated Change in Portfolio Market Value | Estimated Change in Tangible Net Book Value Per Common Share |
| -50 Basis Points | +2.8\% | +27.2\% | +2.2\% | +23.9\% |
| -25 Basis Points | +1.4\% | +13.6\% | +1.1\% | +11.9\% |
| -10 Basis Points | +0.6\% | +5.4\% | +0.4\% | +4.8\% |
| +10 Basis Points | -0.6\% | -5.4\% | -0.4\% | -4.8\% |
| +25 Basis Points | -1.4\% | -13.6\% | -1.1\% | -11.9\% |
| +50 Basis Points | -2.8\% | -27.2\% | -2.2\% | -23.9\% |

[^10]
## Liquidity Risk

Our liquidity risk principally arises from financing long-term fixed rate assets with shorter-term variable rate borrowings. Future borrowings are dependent upon the willingness of lenders to finance our investments, lender collateral
requirements and the lenders' determination of the fair value of the securities pledged as collateral, which fluctuates with changes in interest rates and liquidity conditions within the commercial banking and mortgage finance industries.

As of September 30, 2021, we believe that we have sufficient liquidity and capital resources available to execute our business strategy (see Liquidity and Capital Resources in this Form 10-Q for additional details). However, should the value of our collateral or the value of our derivative instruments suddenly decrease, margin calls relating to our funding liabilities and derivative agreements could increase, causing an adverse change in our liquidity position. Furthermore, there is no assurance that we will always be able to renew (or roll) our short-term funding liabilities. In addition, our counterparties have the option to increase our haircuts (margin requirements) on the assets we pledge against our funding liabilities, thereby reducing the amount that can be borrowed against an asset even if they agree to renew or roll our funding liabilities. Significantly higher haircuts can reduce our ability to leverage our portfolio or may even force us to sell assets, especially if correlated with asset price declines or faster prepayment rates on our assets.

## Credit Risk

Our credit sensitive investments, such as CRT and non-Agency securities, expose us to the risk of nonpayment of principal, interest or other remuneration we are contractually entitled to. We are also exposed to credit risk in the event our repurchase agreement counterparties default on their obligations to resell the underlying collateral back to us at the end of the repo term or in the event our derivative counterparties do not perform under the terms of our derivative agreements.

We accept credit exposure related to our credit sensitive assets at levels we deem prudent within the context of our overall investment strategy. We attempt to manage this risk through careful asset selection, pre-acquisition due diligence, post-acquisition performance monitoring, and the sale of assets where we identify negative credit trends. We may also manage credit risk with credit default swaps or other financial derivatives that we believe are appropriate. Additionally, we may vary the mix of our interest rate and credit sensitive assets or our duration gap to adjust our credit exposure and/or improve the return profile of our assets, such as when we believe credit performance is inversely correlated with changes in interest rates. Our credit risk related to derivative and repurchase agreement transactions is largely mitigated by limiting our counterparties to major financial institutions with acceptable credit ratings or to registered central clearinghouses and monitoring concentration levels with any one counterparty. We also continuously monitor and adjust the amount of collateral pledged based on changes in market value.

There is no guarantee that our efforts to manage credit risk will be successful and we could suffer losses if credit performance is worse than our expectations or our counterparties default on their obligations. Excluding central clearing exchanges, as of September 30, 2021, our maximum amount at risk with any counterparty related to our repurchase agreements and derivative agreements was less than $2 \%$ and $1 \%$, respectively, of tangible stockholders' equity.

## Item 4. Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure based on the definition of "disclosure controls and procedures" as promulgated under the Exchange Act and the rules and regulations thereunder. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

We, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2021. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective.

## Changes in Internal Control over Financial Reporting

There have been no changes in our "internal control over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

## Item 1. Legal Proceedings

Neither we, nor any of our consolidated subsidiaries, are currently subject to any material litigation nor, to our knowledge, is any material litigation threatened against us or any consolidated subsidiary, other than routine litigation and administrative proceedings arising in the ordinary course of business. Such proceedings are not expected to have a material adverse effect on the business, financial conditions, or results of our operations.

## Item 1A. Risk Factors

There have been no material changes to the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020.

## Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

## Item 3. Defaults upon Senior Securities

None.

## Item 4. Mine Safety Disclosures

Not applicable.

## Item 5. Other Information

None.

## Item 6. Exhibits and Financial Statement Schedules

(a) Exhibit Index

## Exhibit No. Description

*3.1 AGNC Investment Corp. Amended and Restated Certificate of Incorporation, as amended, incorporated by reference from Exhibit 3.1 of Form 10-Q for the quarter ended March 31, 2020 (File No. 001-34057), filed May 11, 2020.
*3.2 AGNC Investment Corp. Fourth Amended and Restated Bylaws, as amended, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No. 001-34057), filed March 11, 2021.
*3.3 Certificate of Designations of 7.00\% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.5 of Form 8-A (File No. 001-34057), filed August 18, 2017.
*3.4 Certificate of Elimination of $8.000 \%$ Series A Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No 001-34057), filed October 26, 2017.
*3.5 Certificate of Designations of 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.5 of Form 8-A (File No 001-34057), filed March 6, 2019.
*3.6 Certificate of Designations of $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.6 of Form 8-A (File No 001-34057), filed October 3, 2019.
*3.7 Certificate of Elimination of 7.750\% Series B Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No 001-34057), filed December 13, 2019.
*3.8 Certificate of Designations of 6.125\% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.6 of Form 8-A (File No 001-34057), filed February 11, 2020.
*4.1 Instruments defining the rights of holders of securities: See Article IV of our Amended and Restated Certificate of Incorporation, as amended, incorporated herein by reference to Exhibit 3.1 of Form 10-Q for the quarter ended March 31, 2020 (File No. 001-34057) filed May 11, 2020.
*4.2 Instruments defining the rights of holders of securities: See Article VI of our Fourth Amended and Restated Bylaws, as amended, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No. 001-34057) filed March 11, 2021.
*4.3 Form of Certificate for Common Stock, incorporated herein by reference to Exhibit 4.3 of Form 10-Q for the quarter ended September 30, 2016 (File No. 001-34057), filed November 7, 2016.
*4.4 Specimen $7.00 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed August 18, 2017.
*4.5 Specimen 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed March 6, 2019.
*4.6 Specimen $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed October 3, 2019.
*4.7 Specimen $6.125 \%$ Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No 001-34057), filed February 11, 2020.
*4.8 Deposit Agreement relating to $7.00 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated August 22, 2017, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed August 22, 2017.
*4.9 Form of Depositary Receipt representing $1 / 1,000$ th of a share of $7.00 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.8), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed August 22, 2017.
*4.10 Deposit Agreement relating to 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated March 6, 2019, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed March 6, 2019.
*4.11 Form of Depositary Receipt representing 1/1,000th of a share of 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.10), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed March 6, 2019.
*4.12 Deposit Agreement relating to 6.50\% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated October 3, 2019, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed October 3, 2019.
*4.13 Form of Depositary Receipt representing $1 / 1,000$ th of a share of $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.12), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed October 3, 2019.
*4.14 Deposit Agreement relating to 6.125\% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated February 11, 2020, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.1 of Form 8-K (File No. 001-34057) filed February 11, 2020.
*4.15 Form of Depositary Receipt representing 1/1,000th of a share of $6.125 \%$ Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.14), incorporated herein by reference to Exhibit A of Exhibit 4.1 of Form 8-K (File No. 001-34057) filed February 11, 2020.
*10 Form of Indemnification Agreement, incorporated herein by reference to Exhibit 10.1 of Form 8-K (File No. 001-34057) filed October 25, 2021.
31.1 Certification of CEO Pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.
31.2 Certification of CFO Pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.

32 Certification of CEO and CFO Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS** The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document
101.SCH** XBRL Taxonomy Extension Schema Document
101.CAL** XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB** XBRL Taxonomy Extension Labels Linkbase Document
101.PRE** XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF** XBRL Taxonomy Extension Definition Linkbase Document

* Previously filed
** This exhibit is being furnished rather than filed, and shall not be deemed incorporated by reference into any filing, in accordance with Item 601 of Regulation S-K
(b) Exhibits

See the exhibits filed herewith.
(c) Additional financial statement schedules None.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AGNC Investment Corp.
By:
/s/ Peter J. Federico
Peter J. Federico
President and
Chief Executive Officer (Principal Executive Officer)
Date: November 5, 2021

By: /s/ Bernice E. Bell

## Bernice E. Bell

Senior Vice President and
Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
Date: November 5, 2021

## AGNC Investment Corp.

Certification Pursuant to Section 302(a)
of the Sarbanes-Oxley Act of 2002
I, Peter J. Federico, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AGNC Investment Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 5, 2021
/s/ Peter J. Federico
Peter J. Federico
President and Chief Executive Officer (Principal
Executive Officer)

## AGNC Investment Corp. <br> Certification Pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002

## I, Bernice E. Bell, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AGNC Investment Corp;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entitles, particularly during the period in which this report is being prepared;
(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
(a) All significant deficiencies and material weakness in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 5, 2021
/s/ Bernice E. Bell
Bernice E. Bell
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

## AGNC Investment Corp.

Certification of CEO and CFO Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section $\mathbf{9 0 6}$ of the Sarbanes-Oxley Act of 2002

We, Peter J. Federico, President and Chief Executive Officer, and Bernice E. Bell, Senior Vice President and Chief Financial Officer of AGNC Investment Corp. (the "Company"), certify pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350 that:

1. The Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2021 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

|  | /s/ Peter J. Federico |
| :---: | :---: |
| Name: | Peter J. Federico |
| Title: | President and Chief Executive Officer (Principal Executive Officer) |
| Date: | November 5, 2021 |
|  | /s/ Bernice E. Bell |
| Name: | Bernice E. Bell |
| Title: | Senior Vice President and Chief Financial Officer (Principal Financial Officer) |
| Date: | November 5, 2021 |

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.


[^0]:    1. Incorporates a weighted average future constant prepayment rate assumption of $10.7 \%$ based on forward rates as of September 30 , 2021.
[^1]:    1. Represents the lowest of Standard and Poor's ("S\&P"), Moody's, Fitch, DBRS, Kroll Bond Rating Agency ("KBRA") and Morningstar credit ratings, stated in terms of the S\&P
[^2]:    1. Includes $\$ 89$ million and $\$ 119$ million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30, 2021 and December 31, 2020, respectively.
    2. Excludes $\$ 0.6$ billion of repledged U.S. Treasury securities received as collateral from counterparties as of September $30,2021$.
[^3]:    1. Fixed-to-floating rate redeemable preferred stock accrue dividends at an annual fixed rate of the $\$ 25.00$ liquidation preference per depositary share from the issuance date up to, but not including, the fixed-to-floating rate conversion date; thereafter, dividends will accrue on a floating rate basis equal to 3-month LIBOR plus a fixed spread.
    2. Shares may be redeemed prior to our optional redemption date under certain circumstances intended to preserve our qualification as a REIT for U.S federal income tax purposes.
[^4]:    1. See Note 1 of preceding table for specified pool composition. As of December 31, 2020, lower balance specified pools had a weighted average original loan balance of $\$ 117,000$ and $\$ 117,000$ for 15 -year and 30 -year securities, respectively, and HARP pools had a weighted average original LTV of $126 \%$ and $137 \%$ for 15 -year and 30 -year securities, respectively.
    2. WAC represents the weighted average coupon of the underlying collateral.
    3. Portfolio yield incorporates a projected life CPR based on forward rate assumptions as of December 31, 2020.
[^5]:    * Except as noted below, average numbers for each period are weighted based on days on our books and records.

    1. Net book value per common share is calculated as total stockholders' equity, less preferred stock liquidation preference, divided by number of common shares outstanding as of period end.
    2. Tangible net book value per common share excludes goodwill.
    3. Amount excludes U.S. Treasury repurchase agreements and TBA contracts. Other debt includes debt of consolidated VIEs.
    4. Average stockholders' equity calculated as average month-ended stockholders' equity during the period.
    5. Average tangible net book value "at risk" leverage is calculated by dividing the sum of daily weighted average repurchase agreements used to fund our investment securities, other debt, and TBA and forward settling securities (at cost) (together "mortgage borrowings") outstanding for the period by the sum of average stockholders' equity adjusted to exclude goodwill for the period. Leverage excludes U.S. Treasury repurchase agreements.
    6. Tangible net book value "at risk" leverage as of period end is calculated by dividing the sum of mortgage borrowings outstanding and receivable/payable for unsettled investment securities as of period end (at cost) by the sum of total stockholders' equity adjusted to exclude goodwill as of period end. Leverage excludes U.S. Treasury repurchase agreements.
    7. Economic return on tangible common equity represents the sum of the change in tangible net book value per common share and dividends declared per share of common stock during the period over beginning tangible net book value per common share.
[^6]:    1. Other debt includes debt of consolidated VIEs. Amounts exclude U.S. Treasury repo agreements.
    2. Daily average and ending net TBA position outstanding measured at cost. Includes forward settling non-Agency securities.
[^7]:    1. Amounts exclude gain (loss) on TBA securities, which are reported in gain (loss) on derivative instruments and other securities, net in our Consolidated Statements of Comprehensive Income.
    2. Investment securities acquired after fiscal year 2016 are measured at fair value through net income (see Note 2 of our Consolidated Financial Statements in this Form 10-Q).
[^8]:    1. Derived from models that are dependent on inputs and assumptions provided by third parties, assumes there are no changes in mortgage spreads and assumes a static portfolio. Actual results could differ materially from these estimates.
    2. Includes the effect of derivatives and other securities used for hedging purposes. Interest rates are assumed to be floored at 0\% in down rate scenarios.
[^9]:    1. Derived from models that are dependent on inputs and assumptions provided by third parties and assumes a static portfolio. Actual results could differ materially from these estimates. Table excludes TBA securities
    2. Asset yield based on historical cost basis and does not include the impact of retroactive "catch-up" premium amortization adjustments due to changes in projected CPR.
[^10]:    1. Spread sensitivity is derived from models that are dependent on inputs and assumptions provided by third parties, assumes there are no changes in interest rates and assumes a static portfolio. Actual results could differ materially from these estimates.
    2. Includes the effect of derivatives and other securities used for hedging purposes.
