## TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

## Commission file number 001-34057



INVESTMENT CORP

## AGNC INVESTMENT CORP.

(Exact name of registrant as specified in its charter)

Delaware<br>(State or Other Jurisdiction of Incorporation or Organization)<br>\section*{2 Bethesda Metro Center, 12th Floor<br><br>Bethesda, Maryland 20814<br><br>(Address of principal executive offices)<br><br>(301) 968-9315<br><br>(Registrant's telephone number, including area code)}

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

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 $\mathbb{N}$ No $\square$

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes $\boxtimes$ No $\square$

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

| Large accelerated filer | $\boxed{x}$ |  | Accelerated filer |
| :--- | :--- | :--- | :--- |
| Non-accelerated filer | $\square$ | (Do not check if a smaller reporting company) | Smaller Reporting Company |

Emerging growth company
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.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No $\boldsymbol{\square}$
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 $7.750 \%$ Series B Cumulative Redeemable Preferred Stock | AGNCB | 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 |

The number of shares of the issuer's common stock, $\$ 0.01$ par value, outstanding as of October 31, 2019 was 540,917,953.

## 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)

|  | September 30, 2019 |  | December 31, 2018 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Unaudited) |  |  |  |
| Assets: |  |  |  |  |
| Agency securities, at fair value (including pledged securities of \$93,688 and \$78,619, respectively) | \$ | 98,577 | \$ | 82,291 |
| Agency securities transferred to consolidated variable interest entities, at fair value (pledged securities) |  | 393 |  | 436 |
| Credit risk transfer securities, at fair value (including pledged securities of \$358 and \$141, respectively) |  | 1,134 |  | 1,012 |
| Non-Agency securities, at fair value (including pledged securities of \$0 and \$45, respectively).. |  | 579 |  | 548 |
| U.S. Treasury securities, at fair value (including pledged securities of $\$ 162$ and $\$ 0$, respectively) |  | 215 |  | 46 |
| Cash and cash equivalents |  | 906 |  | 921 |
| Restricted cash |  | 734 |  | 599 |
| Derivative assets, at fair value |  | 175 |  | 273 |
| Receivable for investment securities sold (pledged securities) |  | 105 |  | 489 |
| Receivable under reverse repurchase agreements |  | 6,093 |  | 21,813 |
| Goodwill |  | 526 |  | 526 |
| Other assets |  | 324 |  | 287 |
| Total assets | \$ | 109,761 | \$ | 109,241 |
| Liabilities: |  |  |  |  |
| Repurchase agreements. | \$ | 90,612 | \$ | 75,717 |
| Debt of consolidated variable interest entities, at fair value............................................ |  | 238 |  | 275 |
| Payable for investment securities purchased |  | 3,094 |  | 1,204 |
| Derivative liabilities, at fair value |  | 22 |  | 84 |
| Dividends payable |  | 100 |  | 106 |
| Obligation to return securities borrowed under reverse repurchase agreements, at fair value ...... |  | 5,114 |  | 21,431 |
| Accounts payable and other liabilities ...................................................................... |  | 368 |  | 518 |
| Total liabilities |  | 99,548 |  | 99,335 |
| Stockholders' equity: |  |  |  |  |
| Preferred Stock - aggregate liquidation preference of \$735 and \$500, respectively .................. |  | 711 |  | 484 |
| Common stock - $\$ 0.01$ par value; 900 shares authorized; 540.9 and 536.3 shares issued and outstanding, respectively |  | 5 |  | 5 |
| Additional paid-in capital ....................................................................................... |  | 13,888 |  | 13,793 |
| Retained deficit |  | $(4,473)$ |  | $(3,433)$ |
| Accumulated other comprehensive income (loss) |  | 82 |  | (943) |
| Total stockholders' equity |  | 10,213 |  | 9,906 |
| Total liabilities and stockholders' equity.... | \$ | 109,761 | \$ | 109,241 |

See accompanying notes to consolidated financial statements.

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



See accompanying notes to consolidated financial statements.

# AGNC INVESTMENT CORP. <br> <br> CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY <br> <br> CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY <br> (Unaudited) <br> (in millions) 

| Balance, June 30, 2018 | Preferred Stock |  | Common Stock |  |  | Additional Paid-in Capital |  | Retained Deficit |  | Accumulated Other <br> Comprehensive Income (Loss) |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Shares | Amount |  |  |  |  |  |  |  |  |  |
|  | \$ | 484 | 434.1 | \$ | 4 | \$ | 11,964 | \$ | $(2,299)$ | \$ | $(1,111)$ | \$ | 9,042 |
| Net income |  | - | - |  | - |  | - |  | 216 |  | - |  | 216 |
| Other comprehensive loss: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized loss on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | (193) |  | (193) |
| Stock-based compensation. |  | - | - |  | - |  | 5 |  | - |  | - |  | 5 |
| Issuance of common stock, net of offering cost |  | - | 43.7 |  | 1 |  | 816 |  | - |  | - |  | 817 |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (9) |  | - |  | (9) |
| Common dividends declared |  | - | - |  | - |  | - |  | (251) |  | - |  | (251) |
| Balance, September 30, 2018 | \$ | 484 | 477.8 | \$ | 5 | \$ | 12,785 | \$ | $(2,343)$ | \$ | $(1,304)$ | \$ | 9,627 |
| Balance, June 30, 2019 | \$ | 711 | 547.8 | \$ | 5 | \$ | 13,988 | \$ | $(4,194)$ | \$ | (164) | \$ | 10,346 |
| Net loss. |  | - | - |  | - |  | - |  | (4) |  | - |  | (4) |
| Other comprehensive income: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized gain on available-for-sale securities, net. |  | - | - |  | - |  | - |  | - |  | 246 |  | 246 |
| Stock-based compensation |  | - | - |  | - |  | 3 |  | - |  | - |  | 3 |
| Repurchase of common stock |  | - | (6.9) |  | - |  | (103) |  | - |  | - |  | (103) |
| Preferred dividends declared. |  | - | - |  | - |  | - |  | (13) |  | - |  | (13) |
| Common dividends declared |  | - | - |  | - |  | - |  | (262) |  | - |  | (262) |
| Balance, September 30, 2019 | \$ | 711 | 540.9 | \$ | 5 | \$ | 13,888 | \$ | $(4,473)$ | \$ | 82 | \$ | 10,213 |
| Balance, December 31, 2017 | \$ | 484 | 391.3 | \$ | 4 | \$ | 11,173 | \$ | $(2,562)$ | \$ | (345) | \$ | 8,754 |
| Net income |  | - | - |  | - |  | - |  | 933 |  | - |  | 933 |
| Other comprehensive loss: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized loss on available-for-sale securities, net |  | - | - |  | - |  | - |  | - |  | (959) |  | (959) |
| Stock-based compensation. |  | - | - |  | - |  | 8 |  | - |  | - |  | 8 |
| Issuance of common stock, net of offering cost |  | - | 86.5 |  | 1 |  | 1,604 |  | - |  | - |  | 1,605 |
| Preferred dividends declared. |  | - | - |  | - |  | - |  | (27) |  | - |  | (27) |
| Common dividends declared |  | - | - |  | - |  | - |  | (687) |  | - |  | (687) |
| Balance, September 30, 2018 | \$ | 484 | 477.8 | \$ | 5 | \$ | 12,785 | \$ | $(2,343)$ | \$ | $(1,304)$ | \$ | 9,627 |
| Balance, December 31, 2018 | \$ | 484 | 536.3 | \$ | 5 | \$ | 13,793 | \$ | $(3,433)$ | \$ | (943) | \$ | 9,906 |
| Net loss. |  | - | - |  | - |  | - |  | (183) |  | - |  | (183) |
| Other comprehensive income: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unrealized gain on available-for-sale securities, net. |  | - | - |  | - |  | - |  | - |  | 1,025 |  | 1,025 |
| Stock-based compensation.. |  | - | 0.1 |  | - |  | 8 |  | - |  | - |  | 8 |
| Issuance of preferred stock, net of offering cost |  | 227.0 | - |  | - |  | - |  | - |  | - |  | 227 |
| Issuance of common stock, net of offering cost |  | - | 11.4 |  | - |  | 190 |  | - |  | - |  | 190 |
| Repurchase of common stock |  | - | (6.9) |  | - |  | (103) |  | - |  | - |  | (103) |
| Preferred dividends declared |  | - | - |  | - |  | - |  | (36) |  | - |  | (36) |
| Common dividends declared |  | - | - |  | - |  | - |  | (821) |  | - |  | (821) |
| Balance, September 30, 2019 | \$ | 711 | 540.9 | \$ | 5 | \$ | 13,888 | \$ | $(4,473)$ | \$ | 82 | \$ | 10,213 |

Amounts may not total due to rounding.
See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP. CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited) (in millions)

|  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  |
| Operating activities: |  |  |  |  |
| Net income (loss) | \$ | (183) | \$ | 933 |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: |  |  |  |  |
| Amortization of premiums and discounts on mortgage-backed securities, net |  | 517 |  | 224 |
| Amortization of intangible assets. |  | - |  | 25 |
| Stock-based compensation |  | 8 |  | 5 |
| (Gain) loss on sale of investment securities, net |  | (281) |  | 116 |
| Unrealized (gain) loss on investment securities measured at fair value through net income, net |  | $(2,174)$ |  | 980 |
| (Gain) loss on derivative instruments and other securities, net |  | 2,986 |  | $(1,466)$ |
| Increase in other assets |  | (35) |  | (71) |
| Increase (decrease) in accounts payable and other accrued liabilities |  | (31) |  | 94 |
| Net cash provided by operating activities |  | 807 |  | 840 |
| Investing activities: |  |  |  |  |
| Purchases of Agency mortgage-backed securities |  | $(37,199)$ |  | $(29,615)$ |
| Purchases of credit risk transfer and non-Agency securities |  | $(1,233)$ |  | $(1,051)$ |
| Proceeds from sale of Agency mortgage-backed securities |  | 17,620 |  | 6,696 |
| Proceeds from sale of credit risk transfer and non-Agency securities |  | 1,130 |  | 483 |
| Principal collections on Agency mortgage-backed securities |  | 8,508 |  | 5,317 |
| Principal collections on credit risk transfer and non-Agency securities |  | 15 |  | 9 |
| Payments on U.S. Treasury securities |  | $(26,169)$ |  | $(7,119)$ |
| Proceeds from U.S. Treasury securities |  | 8,313 |  | 12,381 |
| Net proceeds from (payments on) reverse repurchase agreements |  | 16,014 |  | $(5,175)$ |
| Net proceeds from (payments on) derivative instruments |  | $(1,990)$ |  | 1,087 |
| Net proceeds from other investing activity |  | - |  | 30 |
| Net cash used in investing activities |  | $(14,991)$ |  | $(16,957)$ |
| Financing activities: |  |  |  |  |
| Proceeds from repurchase arrangements, |  | 3,251,916 |  | 1,299,744 |
| Payments on repurchase agreements. |  | $(3,237,021)$ |  | $(1,284,306)$ |
| Payments on debt of consolidated variable interest entities. |  | (42) |  | (63) |
| Net proceeds from preferred stock issuance |  | 227 |  | - |
| Net proceeds from common stock issuance |  | 190 |  | 1,605 |
| Payments for common stock repurchases |  | (103) |  |  |
| Cash dividends paid |  | (863) |  | (699) |
| Net cash provided by financing activities |  | 14,304 |  | 16,281 |
| Net change in cash, cash equivalents and restricted cash |  | 120 |  | 164 |
| Cash, cash equivalents and restricted cash at beginning of period |  | 1,520 |  | 1,363 |
| Cash, cash equivalents and restricted cash at end of period | \$ | 1,640 | \$ | 1,527 |

See accompanying notes to consolidated financial statements.

## AGNC INVESTMENT CORP.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (Unaudited)

## Note 1. Basis of Presentation

The unaudited interim consolidated financial statements of AGNC Investment Corp. (referred throughout this report as the "Company," "we," "us" and "our") are 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 preparation of 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 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 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.

Our unaudited interim consolidated financial statements 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.

## Note 2. Organization

We were 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 are internally-managed, and our principal objective is to provide 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 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. As a REIT, we will generally not be subject to U.S. federal or state corporate taxes on our taxable income 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 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 mortgage-related 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 in other investments in, or related to, the housing, mortgage or real estate markets. We fund our investments primarily through borrowings structured as repurchase agreements.

## Note 3. Summary of Significant Accounting Policies

## 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 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, overcollateralization 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-tomaturity, 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"). 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) during the period in which they occur. Upon the sale of a security designated as available-for-sale, we determine the cost of the security and the amount of unrealized gains or losses 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, as the fair value changes for these assets are presented in a manner consistent with the presentation and timing of the fair value changes of our derivative instruments.

We estimate the fair value of our investment securities based on prices provided by multiple third-party pricing services and non-binding dealer quotes (collectively "pricing sources"). These pricing sources use various valuation approaches, including market and income approaches, using "Level 2 " inputs. The pricing sources primarily utilize a matrix pricing technique that interpolates the estimated fair value of our Agency RMBS 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, which may include maximum loan balance, loan vintage, loan-to-value ratio, geography and other characteristics as may be appropriate. The pricing sources may also utilize discounted cash flow model-derived pricing techniques to estimate the fair value of investment securities. Such models incorporate marketbased discount rate assumptions based on observable inputs such as recent trading activity, credit data, volatility statistics, benchmark interest rate 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. We review the pricing estimates obtained from the pricing sources and perform procedures to validate their reasonableness. Refer to Note 8 for further discussion of fair value measurements.

We evaluate our investments designated as available-for-sale for other-than-temporary impairment ("OTTI") on at least a quarterly basis. The determination of whether a security is other-than-temporarily impaired may involve judgments and assumptions based on subjective and objective factors. When a security is impaired, an OTTI is considered to have occurred if any one of the following three conditions exists as of the financial reporting date: (i) we intend to sell the security (that is, a decision has been made to sell the security), (ii) it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis or (iii) we do not expect to recover the security's amortized cost basis, even if we do not intend to sell the security and it is not more likely than not that we will be required to sell the security. A general allowance for unidentified impairments in a portfolio of securities is not permitted.

## 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 thirdparty service provider estimates prepayment speeds using models that incorporate the forward yield curve, 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 and compare the results to market consensus prepayment speeds, if available. We also consider historical prepayment speeds and current market conditions to validate the reasonableness of the third-party estimates. 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 previously estimated future prepayments and (ii) actual prepayments to date and our current estimated future prepayments. If the actual and estimated future prepayment experience differs from our prior estimate of prepayments, we are required to record an adjustment in the current period to the amortization or accretion of premiums and discounts for the cumulative difference in the effective yield 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 transactions under master repurchase agreements. Pursuant to ASC Topic 860, Transfers and Servicing, we account for repurchase transactions 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. Interest rates on our repurchase agreements generally correspond to short-term benchmark rates plus or minus a fixed spread. The fair value of our repurchase agreements is assumed to equal cost as the interest rates are considered to be at market.

## 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. The fair value of our reverse repurchase agreements is assumed to equal cost as the interest rates are considered to be at market.

## 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.

The use of derivative instruments creates exposure to credit risk relating to potential losses that could be recognized if the counterparties to these instruments fail to perform their obligations under the contracts. Our derivative agreements require that we post or receive collateral to mitigate such risk. We also attempt to minimize our risk of loss by limiting our counterparties to registered central clearing exchanges and major financial institutions with acceptable credit ratings, monitoring positions with individual counterparties and adjusting posted collateral as required.

## 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 three-month London Interbank Offered Rate ("LIBOR"), Overnight Index Swap Rate ("OIS") or Secured Overnight Financing Rate ("SOFR"). Our interest rate swaps typically have terms from one to 10 years but may extend up to 20 years or more. The majority of our interest rate swaps are centrally cleared through a registered commodities exchange. We value centrally cleared interest rate swaps 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. Our centrally cleared swaps require that we post an "initial margin" amount determined by the clearing 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.

We value non-centrally cleared swaps using a combination of third-party valuations obtained from pricing services and the swap counterparty. The third-party valuations are model-driven using observable inputs, including short-term benchmark rates, swap rates and the forward yield curve. We also consider both our own and our counterparties' nonperformance risk in estimating the fair value of our interest rate swaps. In considering the effect of nonperformance risk, we assess the impact of netting and credit enhancements, such as collateral postings and guarantees, and have concluded that our own and our counterparty risk is not significant to the overall valuation of these agreements.

## 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. We estimate the fair value of interest rate swaptions using a combination of inputs from counterparty and third-party pricing models based on the fair 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, adjusted for non-performance risk, if any. 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. We estimate the fair value of TBA securities based on similar methods used to value our Agency RMBS securities.

## 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.

## Recent Accounting Pronouncements

We consider the applicability and impact of all Accounting Standards Updates ("ASUs") issued by the Financial Accounting Standards Board. ASUs not listed below were determined to be either not applicable, are not expected to have a significant impact on our consolidated financial statements when adopted or did not have a significant impact on our consolidated financial statements upon adoption.

ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): ASU 2016-13 changes the impairment model for most financial assets and certain other instruments. Under ASU 2016-13, credit losses on available-for-sale investment securities are recorded as an allowance rather than as a direct reduction of amortized cost. Remaining losses unrelated to credit loss, such as due to changing interest rates, continue to be recorded through OCI. The new model also requires the estimation of lifetime expected credit losses and corresponding recognition of allowance for losses on trade and other receivables, held-to-maturity debt securities, loans, and other instruments held at amortized cost. The ASU requires certain recurring disclosures and is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2019, with early adoption permitted for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2018. ASU 2016-13 is not expected to have a significant impact on our consolidated financial statements.

## Note 4. Investment Securities

As of September 30, 2019 and December 31, 2018, our investment portfolio consisted of $\$ 100.7$ billion and $\$ 84.3$ billion of investment securities, at fair value, respectively, and $\$ 1.9$ billion and $\$ 7.3$ billion of net TBA securities, at fair value, respectively. Our net TBA position is reported at its net carrying value of $\$ 47$ million and $\$ 70$ million as of September 30, 2019 and December 31, 2018, respectively, in derivative assets / (liabilities) on our accompanying consolidated balance sheets. The net carrying value of our TBA position represents the difference between the fair value of the underlying Agency security in the TBA contract and the cost basis or the forward price to be paid or received for the underlying Agency security.

As of September 30, 2019 and December 31, 2018, our investment securities had a net unamortized premium balance of $\$ 3.1$ billion and $\$ 2.9$ billion, respectively.

The following tables summarize our investment securities as of September 30, 2019 and December 31, 2018, excluding TBA securities, (dollars in millions). Details of our TBA securities as of each of the respective dates are included in Note 6.

| Investment Securities | September 30, 2019 |  |  |  | December 31, 2018 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amortized Cost |  | Fair Value |  | Amortized Cost |  | Fair Value |  |
| Agency RMBS: |  |  |  |  |  |  |  |  |
| Fixed rate | \$ | 96,259 | \$ | 98,090 | \$ | 83,047 | \$ | 81,753 |
| Adjustable rate |  | 171 |  | 174 |  | 212 |  | 213 |
| CMO |  | 482 |  | 490 |  | 588 |  | 583 |
| Interest-only and principal-only strips |  | 152 |  | 176 |  | 172 |  | 178 |
| Multifamily |  | 37 |  | 40 |  | - |  | - |
| Total Agency RMBS |  | 97,101 |  | 98,970 |  | 84,019 |  | 82,727 |
| Non-Agency RMBS |  | 194 |  | 209 |  | 264 |  | 266 |
| CMBS |  | 345 |  | 370 |  | 280 |  | 282 |
| CRT securities |  | 1,123 |  | 1,134 |  | 1,006 |  | 1,012 |
| Total investment securities. | \$ | 98,763 | \$ | 100,683 | \$ | 85,569 | \$ | 84,287 |

September 30, 2019

| Investment Securities | September 30, 2019 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Agency RMBS |  |  |  |  |  | Non-Agency |  |  |  | CRT |  | Total |  |
|  | Fannie Mae |  | Freddie Mac |  | Ginnie Mae |  | RMBS |  | CMBS |  |  |  |  |  |
| Available-for-sale securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value. | \$ | 15,033 | \$ | 4,989 | \$ | 20 | \$ | - | \$ | - | \$ | - | \$ | 20,042 |
| Unamortized discount |  | (12) |  | (2) |  | - |  | - |  | - |  | - |  | (14) |
| Unamortized premium |  | 731 |  | 284 |  | - |  | - |  | - |  | - |  | 1,015 |
| Amortized cost |  | 15,752 |  | 5,271 |  | 20 |  | - |  | - |  | - |  | 21,043 |
| Gross unrealized gains |  | 142 |  | 29 |  | 1 |  | - |  | - |  | - |  | 172 |
| Gross unrealized losses |  | (60) |  | (30) |  | - |  | - |  | - |  | - |  | (90) |
| Total available-for-sale securities, at fair value |  | 15,834 |  | 5,270 |  | 21 |  | - |  | - |  | - |  | 21,125 |
| Securities remeasured at fair value through earnings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value |  | 42,642 |  | 31,305 |  | - |  | 204 |  | 340 |  | 1,096 |  | 75,587 |
| Unamortized discount |  | (64) |  | (2) |  | - |  | (10) |  | (2) |  | (2) |  | (80) |
| Unamortized premium |  | 1,179 |  | 997 |  | - |  | 1 |  | 7 |  | 29 |  | 2,213 |
| Amortized cost |  | 43,757 |  | 32,300 |  | - |  | 195 |  | 345 |  | 1,123 |  | 77,720 |
| Gross unrealized gains |  | 1,095 |  | 729 |  | - |  | 14 |  | 25 |  | 17 |  | 1,880 |
| Gross unrealized losses |  | (21) |  | (15) |  | - |  | - |  | - |  | (6) |  | (42) |
| Total securities remeasured at fair value through earnings |  | 44,831 |  | 33,014 |  | - |  | 209 |  | 370 |  | 1,134 |  | 79,558 |
| Total securities, at fair value | \$ | 60,665 | \$ | 38,284 | \$ | 21 | \$ | 209 | \$ | 370 | \$ | 1,134 | \$ | 100,683 |
| Weighted average coupon as of September 30, $2019 \ldots \ldots \ldots$. |  | 3.72\% |  | 3.78\% |  | 3.83\% |  | 4.06\% |  | 4.57\% |  | 5.18\% |  | 3.76\% |
| Weighted average yield as of September 30, $2019{ }^{1} \ldots \ldots \ldots$ |  | 3.06\% |  | 3.07\% |  | 2.09\% |  | 4.45\% |  | 4.36\% |  | 3.68\% |  | 3.08\% |

1. Incorporates a weighted average future constant prepayment rate assumption of $13.4 \%$ based on forward rates as of September 30,2019 .

| Investment Securities | December 31, 2018 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Agency RMBS |  |  |  |  |  | Non-Agency |  |  |  | CRT |  | Total |  |
|  | Fannie Mae |  | Freddie Mac |  | Ginnie Mae |  | RMBS |  | CMBS |  |  |  |  |  |
| Available-for-sale securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value | \$ | 17,591 | \$ | 5,673 | \$ | 25 | \$ | 6 | \$ | - | \$ | - | \$ | 23,295 |
| Unamortized discount |  | (10) |  | (2) |  | - |  | - |  | - |  | - |  | (12) |
| Unamortized premium |  | 912 |  | 343 |  | - |  | - |  | - |  | - |  | 1,255 |
| Amortized cost |  | 18,493 |  | 6,014 |  | 25 |  | 6 |  | - |  | - |  | 24,538 |
| Gross unrealized gains |  | 4 |  | 2 |  | 1 |  | - |  | - |  | - |  | 7 |
| Gross unrealized losses |  | (686) |  | (264) |  | - |  | - |  | - |  | - |  | (950) |
| Total available-for-sale securities, at fair value |  | 17,811 |  | 5,752 |  | 26 |  | 6 |  | - |  | - |  | 23,595 |
| Securities remeasured at fair value through earnings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Par value. |  | 39,453 |  | 18,428 |  | - |  | 268 |  | 281 |  | 968 |  | 59,398 |
| Unamortized discount |  | (78) |  | (9) |  | - |  | (10) |  | (6) |  | - |  | (103) |
| Unamortized premium |  | 1,055 |  | 638 |  | - |  | - |  | 5 |  | 38 |  | 1,736 |
| Amortized cost |  | 40,430 |  | 19,057 |  | - |  | 258 |  | 280 |  | 1,006 |  | 61,031 |
| Gross unrealized gains |  | 223 |  | 57 |  | - |  | 2 |  | 3 |  | 18 |  | 303 |
| Gross unrealized losses |  | (386) |  | (243) |  | - |  | - |  | (1) |  | (12) |  | (642) |
| Total securities remeasured at fair value through earnings |  | 40,267 |  | 18,871 |  | - |  | 260 |  | 282 |  | 1,012 |  | 60,692 |
| Total securities, at fair value | \$ | 58,078 | \$ | 24,623 | \$ | 26 | \$ | 266 | \$ | 282 | \$ | 1,012 | \$ | 84,287 |
| Weighted average coupon as of December 31, 2018 |  | 3.82\% |  | 3.87\% |  | 3.37\% |  | 3.83\% |  | 4.58\% |  | 5.86\% |  | 3.86\% |
| Weighted average yield as of December 31, $2018{ }^{1} \ldots \ldots \ldots$ |  | 3.28\% |  | 3.28\% |  | 2.04\% |  | 4.22\% |  | 4.68\% |  | 5.16\% |  | 3.31\% |

[^0]As of September 30, 2019 and December 31, 2018, our investments in CRT and non-Agency securities had the following credit ratings:

| CRT and Non-Agency Security Credit Ratings ${ }^{1}$ | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CRT |  | RMBS |  | CMBS |  | CRT |  | RMBS |  | CMBS |  |
| AAA. | \$ | - | \$ | - | \$ | 38 | \$ | - | \$ | 160 | \$ | 52 |
| AA |  | - |  | 84 |  | 237 |  | - |  | 17 |  | 152 |
| A |  | 5 |  | 26 |  | 28 |  | 17 |  | 33 |  | 15 |
| BBB |  | 21 |  | 70 |  | 57 |  | 25 |  | 43 |  | 53 |
| BB |  | 569 |  | 17 |  | 10 |  | 492 |  | 8 |  | 10 |
| B |  | 443 |  | 5 |  | - |  | 453 |  | 2 |  | - |
| Not Rated |  | 96 |  | 7 |  | - |  | 25 |  | 3 |  | - |
| Total | \$ | 1,134 | \$ | 209 | \$ | 370 | \$ | 1,012 | \$ | 266 | \$ | 282 |

[^1]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. As of September 30, 2019, our CRT securities had floating and fixed rate coupons ranging from $2.7 \%$ to $8.4 \%$, referenced to loans originated between 2011 and 2019 with weighted average coupons ranging from $3.7 \%$ to $5.1 \%$. As of December 31, 2018, our CRT securities had floating rate coupons ranging from $3.9 \%$ to $9.5 \%$, referenced to loans originated between 2011 and 2018 with weighted average coupons ranging from $3.8 \%$ to $4.8 \%$.

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, 2019 and December 31, 2018, 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 $13.4 \%$ and $7.9 \%$, 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, 2019 and December 31, 2018 according to their estimated weighted average life classification (dollars in millions):

|  | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Weighted Average Life of Investment Securities | Fair Value |  | Amortized Cost |  | Weighted Average Coupon | Weighted Average Yield |  | r Value |  | ortized Cost | Weighted Average Coupon | Weighted Average Yield |
| $\leq 3$ years | \$ | 7,108 | \$ | 6,965 | 3.92\% | 3.12\% | \$ | 1,690 | \$ | 1,716 | 3.99\% | 2.64\% |
| $>3$ years and $\leq 5$ years. |  | 18,359 |  | 17,934 | 3.81\% | 3.14\% |  | 5,518 |  | 5,586 | 3.35\% | 2.73\% |
| $>5$ years and $\leq 10$ years |  | 75,057 |  | 73,711 | 3.73\% | 3.06\% |  | 72,503 |  | 73,588 | 3.92\% | 3.37\% |
| $>10$ years |  | 159 |  | 153 | 3.61\% | 3.48\% |  | 4,576 |  | 4,679 | 3.57\% | 3.30\% |
| Total | \$ | 100,683 | \$ | 98,763 | 3.76\% | 3.08\% | \$ | 84,287 | \$ | 85,569 | 3.86\% | 3.31\% |

The following table presents the gross unrealized loss and fair values of securities classified as available-for-sale by length of time that such securities have been in a continuous unrealized loss position as of September 30, 2019 and December 31, 2018 (in millions):

| Securities Classified as Available-for-Sale | Unrealized Loss Position For |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 12 Months |  |  |  | 12 Months or More |  |  |  | Total |  |  |  |
|  | Fair <br> Value |  | Unrealized Loss |  | Fair Value |  | Unrealized Loss |  | Fair <br> Value |  | Unrealized Loss |  |
| September 30, 2019 | \$ | 10 | \$ | (1) | \$ | 9,651 | \$ | (89) | \$ | 9,661 | \$ | (90) |
| December 31, 2018 | \$ | 4,783 | \$ | (72) | \$ | 18,231 | \$ | (878) | \$ | 23,014 | \$ | (950) |

We did not recognize OTTI charges on our investment securities classified as available-for-sale during the periods presented on our consolidated statements of operations. As of the end of each respective reporting period, a decision had not been made to sell securities in an unrealized loss position and we did not believe it was more likely than not that we would be required to sell such securities before recovery of their amortized cost basis. The unrealized losses on our securities were not due to credit losses
given the GSE or U.S. Government agency guarantees, but rather were due to changes in interest rates and prepayment expectations. However, as we continue to actively manage our portfolio, we may recognize additional realized losses on our investment securities upon selecting specific securities to sell.

## 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, 2019 and 2018 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.
2. See Note 10 for a summary of changes in accumulated OCI.

## Consolidated Variable Interest Entities

As of September 30, 2019 and December 31, 2018, our consolidated financial statements reflect the consolidation of certain variable interest entities ("VIEs") for which we have determined we are the primary beneficiary. The consolidated VIEs consist of CMO trusts backed by fixed or adjustable-rate Agency RMBS. Fannie Mae or Freddie Mac guarantees the payment of interest and principal and acts as the trustee and administrator of their respective securitization trusts. Accordingly, we are not required to provide the beneficial interest holders of the CMO securities any financial or other support. Our maximum exposure to loss related to our involvement with the CMO trusts is the fair value of the CMO securities and interest and principal-only securities held by us, less principal amounts guaranteed by Fannie Mae and Freddie Mac.

## Note 5. Repurchase Agreements and Other Debt

## 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, 2019, we had met all margin call requirements. For additional information regarding our pledged assets, please refer to Note 7.

As of September 30, 2019 and December 31, 2018, we had $\$ 90.6$ billion and $\$ 75.7$ 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 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, 2019 and December 31, 2018 (dollars in millions):

| Remaining Maturity | September 30, 2019 |  |  |  | December 31, 2018 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Repurchase <br> Agreements |  | Weighted Average Interest Rate | Weighted Average Days to Maturity |  | urchase ements | Weighted Average Interest Rate | Weighted Average Days to Maturity |
| Agency repo: |  |  |  |  |  |  |  |  |
| $\leq 1$ month | \$ | 51,651 | 2.56\% | 10 | \$ | 48,533 | 2.88\% | 9 |
| $>1$ to $\leq 3$ months. |  | 14,886 | 2.28\% | 56 |  | 20,991 | 2.57\% | 56 |
| $>3$ to $\leq 6$ months. |  | 17,044 | 2.41\% | 102 |  | 2,218 | 2.65\% | 167 |
| $>6$ to $\leq 9$ months. |  | 4,118 | 2.43\% | 201 |  | 200 | 3.19\% | 208 |
| $>9$ to $\leq 12$ months |  | - | -\% | - |  | 950 | 2.80\% | 279 |
| $>12$ to $\leq 24$ months |  | 925 | 2.66\% | 464 |  | 2,200 | 2.91\% | 438 |
| $>24$ to $\leq 36$ months. |  | 1,600 | 2.50\% | 914 |  | 625 | 3.11\% | 776 |
| Total Agency repo. |  | 90,224 | 2.48\% | 64 |  | 75,717 | 2.79\% | 49 |
| U.S. Treasury repo: |  |  |  |  |  |  |  |  |
| $>1$ day to $\leq 1$ month. |  | 388 | 2.17\% | 1 |  | - | -\% | - |
| Total | \$ | 90,612 | 2.48\% | 64 | \$ | 75,717 | 2.79\% | 49 |

As of September 30, 2019 and December 31, 2018, $\$ 10.3$ billion and $\$ 19.5$ billion, respectively, of our repurchase agreements had a remaining maturity of one business day and none of our repurchase agreements were due on demand. As of September 30, 2019 , we had $\$ 4.0$ billion of forward commitments to enter into repurchase agreements, with a weighted average forward start date of 81 days and a weighted average interest rate of $2.43 \%$. As of December 31,2018 we had $\$ 10.7$ billion of forward commitments to enter into repurchase agreements, with a weighted average forward start date of 9 days and a weighted average interest rate of $2.90 \%$. As of September 30, 2019 and December 31, 2018, 40\% and 35\%, 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 $39 \%$ and $33 \%$ of our repurchase agreement funding outstanding as of September 30, 2019 and December 31, 2018, respectively.

## Reverse Repurchase Agreements

As of September 30, 2019 and December 31, 2018, we had $\$ 6.1$ billion and $\$ 21.8$ 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 $\$ 5.1$ billion and $\$ 21.4$ billion, respectively. As of September 30, 2019 and December 31, 2018, $\$ 5.0$ billion and $\$ 4.5$ billion, respectively, of our reverse repurchase agreements were with the FICC sourced through BES.

## Other Debt

As of September 30, 2019 and December 31, 2018, we had debt of consolidated VIEs, at fair value, of $\$ 238$ million and $\$ 275$ million, respectively, which had a weighted average interest rate of LIBOR plus 43 and 40 basis points, respectively, and an estimated weighted average life of 5.4 years and 6.1 years, respectively.

## Note 6. 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 3.

## 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, 2019 and December 31, 2018 (in millions):

| Derivative and Other Hedging Instruments | Balance Sheet Location | $\begin{gathered} \text { September } 30, \\ 2019 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2018 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest rate swaps | Derivative assets, at fair value | \$ | 17 | \$ | 126 |
| Swaptions | Derivative assets, at fair value |  | 74 |  | 37 |
| TBA securities | Derivative assets, at fair value |  | 67 |  | 110 |
| U.S. Treasury futures - short | Derivative assets, at fair value |  | 17 |  | - |
| Total derivative assets, at fair value |  | \$ | 175 | \$ | 273 |
| Interest rate swaps ............................................ | Derivative liabilities, at fair value | \$ | (2) | \$ | - |
| TBA securities | Derivative liabilities, at fair value |  | (20) |  | (40) |
| U.S. Treasury futures - short | Derivative liabilities, at fair value |  | - |  | (44) |
| Total derivative liabilities, at fair value. |  | \$ | (22) | \$ | (84) |
| U.S. Treasury securities - long ............................... | U.S. Treasury securities, at fair value | \$ | 215 | \$ | 46 |
| U.S. Treasury securities - short ............................... | Obligation to return securities borrowed under reverse repurchase agreements, at fair value |  | $(5,114)$ |  | $(21,431)$ |
| Total U.S. Treasury securities, net at fair value ...... |  | \$ | $(4,899)$ | \$ | $(21,385)$ |

The following tables summarize certain characteristics of our derivative and other hedging instruments outstanding as of September 30, 2019 and December 31, 2018 (dollars in millions):

| Pay Fixed / Receive Variable Interest Rate Swaps | September 30, 2019 |  |  |  |  | December 31, 2018 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notional Amount |  | Average Fixed Pay Rate | Average Receive Rate | Average Maturity (Years) |  | otional mount ${ }^{1}$ | Average <br> Fixed Pay <br> Rate ${ }^{2}$ | Average <br> Receive Rate | Average Maturity (Years) |
| $\leq 3$ years. | \$ | 62,900 | 1.37\% | 1.98\% | 1.8 | \$ | 19,900 | 1.63\% | 2.62\% | 1.3 |
| $>3$ to $\leq 5$ years |  | 9,850 | 1.17\% | 1.90\% | 4.0 |  | 8,425 | 2.06\% | 2.61\% | 4.0 |
| $>5$ to $\leq 7$ years |  | 4,300 | 1.28\% | 1.94\% | 6.5 |  | 7,875 | 2.66\% | 2.66\% | 6.1 |
| $>7$ to $\leq 10$ years ........ |  | 3,700 | 1.42\% | 2.01\% | 8.7 |  | 10,550 | 2.36\% | 2.64\% | 8.8 |
| $>10$ years |  | 1,025 | 1.69\% | 2.12\% | 16.2 |  | 4,875 | 2.77\% | 2.63\% | 11.6 |
| Total | \$ | 81,775 | 1.35\% | 1.98\% | 2.8 | \$ | 51,625 | 2.11\% | 2.63\% | 5.0 |

[^2]| Pay Fixed / Receive Variable Interest Rate Swaps by Receive Index (\% of Notional Amount) | $\underset{2019}{\text { September 30, }}$ | $\underset{2018}{\text { December } 31,}$ |
| :---: | :---: | :---: |
| OIS | $79 \%$ | -\% |
| 3M LIBOR | 14\% | 100\% |
| SOFR | 7\% | -\% |
| Total | 100\% | 100\% |


| Swaptions | Option |  |  |  |  | Underlying Payer Swap |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Option Expiration Date | Cost Basis |  | Fair Value |  | Average <br> Months to Current Option <br> Expiration <br> Date | Notional <br> Amount |  | Average Fixed Pay Rate | Average Receive Rate (LIBOR) | $\begin{gathered} \text { Average } \\ \text { Term } \\ \text { (Years) } \\ \hline \end{gathered}$ |
| September 30, 2019 |  |  |  |  |  |  |  |  |  |  |
| $\leq 1$ year | \$ | 99 | \$ | 27 | 9 | \$ | 3,950 | 2.40\% | 3M | 9.0 |
| $>1$ year $\leq 2$ years. |  | 77 |  | 47 | 17 |  | 4,700 | 2.39\% | 3M | 10.0 |
| Total | \$ | 176 | \$ | 74 | 13 | S | 8,650 | 2.39\% | 3M | 9.5 |
| December 31, 2018 |  |  |  |  |  |  |  |  |  |  |
| $\leq 1$ year | \$ | 80 | \$ | 23 | 4 | \$ | 3,000 | 2.96\% | 3M | 7.0 |
| $>1$ year $\leq 2$ years. |  | 18 |  | 14 | 18 |  | 500 | 2.78\% | 3M | 10.0 |
| Total | \$ | 98 | \$ | 37 | 6 | \$ | 3,500 | 2.93\% | 3M | 7.4 |

1. As of September 30, 2019 and December 31, 2018, $\leq 1$ 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.
U.S. Treasury Securities

| U.S. Treasury Securities | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maturity | Face Amount Long/(Short) |  | Cost Basis ${ }^{1}$ |  | Fair Value |  | Face Amount Long/(Short) |  | Cost Basis ${ }^{1}$ |  | Fair Value |  |
| 5 years | \$ | 198 | \$ | 199 | \$ | 204 | \$ | (703) | \$ | (706) | \$ | (713) |
| 7 years |  | - |  | - |  | - |  | $(14,357)$ |  | $(14,325)$ |  | $(14,410)$ |
| 10 years |  | $(4,622)$ |  | $(4,707)$ |  | $(5,103)$ |  | $(6,240)$ |  | $(6,224)$ |  | $(6,262)$ |
| Total U.S. Treasury securities .............. | \$ | $(4,424)$ | \$ | $(4,508)$ | \$ | $(4,899)$ | \$ | $(21,300)$ | \$ | $(21,255)$ | \$ | $(21,385)$ |

1. As of September 30, 2019 and December 31, 2018, our short U.S. Treasury securities had a weighted average yield of $2.67 \%$ and $2.66 \%$, respectively, and our long U.S. Treasury securities had a weighted average yield of $2.21 \%$ and $2.98 \%$, respectively.

| U.S. Treasury Futures | September 30, 2019 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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 | September 30, 2019 |  |  |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Notional } \\ \text { Amount } \\ \text { Long (Short) } \end{gathered}$ |  | CostBasis |  | $\underset{\substack{\text { Fair } \\ \text { Value }}}{ }$ |  | $\begin{gathered} \text { Net } \\ \text { Carrying }_{\text {Value }^{1}} \end{gathered}$ |  | Notional <br> Amount <br> Long (Short) |  | $\begin{gathered} \text { Cost } \\ \text { Basis } \end{gathered}$ |  | Fair <br> Value |  | $\begin{gathered} \text { Net } \\ \text { Carrying }_{\text {Value }}{ }^{\text {an }} \end{gathered}$ |  |
| 15-Year TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.5\% ................................... | \$ | 195 | \$ | 196 | \$ | 197 | \$ | 1 | \$ | - | \$ | - | \$ | - | \$ | - |
| 3.0\% |  | 1,096 |  | 1,122 |  | 1,120 |  | (2) |  | 567 |  | 557 |  | 566 |  | 9 |
| 3.5\% |  | 330 |  | 343 |  | 341 |  | (2) |  | 1,706 |  | 1,708 |  | 1,726 |  | 18 |
| 4.0\% |  | 150 |  | 156 |  | 156 |  | - |  | 1,350 |  | 1,370 |  | 1,381 |  | 11 |
| Total 15-Year TBA securities |  | 1,771 |  | 1,817 |  | 1,814 |  | (3) |  | 3,623 |  | 3,635 |  | 3,673 |  | 38 |
| 30-Year TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 3.0 \%$, |  | 6,994 |  | 7,008 |  | 7,054 |  | 46 |  | 1,028 |  | 981 |  | 1,003 |  | 22 |
| 3.5\% |  | $(4,050)$ |  | $(4,158)$ |  | $(4,155)$ |  | 3 |  | $(2,979)$ |  | $(2,943)$ |  | $(2,977)$ |  | (34) |
| 4.0\% ..................................... |  | $(3,170)$ |  | $(3,291)$ |  | $(3,290)$ |  | 1 |  | 3,030 |  | 3,073 |  | 3,089 |  | 16 |
| $\geq 4.5 \%$.............................. |  | 422 |  | 444 |  | 444 |  | - |  | 2,450 |  | 2,506 |  | 2,534 |  | 28 |
| Total 30-Year TBA securities, net |  | 196 |  | 3 |  | 53 |  | 50 |  | 3,529 |  | 3,617 |  | 3,649 |  | 32 |
| Total TBA securities, net ............ | \$ | 1,967 | \$ | 1,820 | \$ | 1,867 | \$ | 47 | \$ | 7,152 | \$ | 7,252 | \$ | 7,322 | \$ | 70 |

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.

## 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, 2019 and 2018 (in millions):

| Derivative and Other Hedging Instruments | Beginning Notional Amount |  | Additions | Settlement, Termination, Expiration or Exercise | Ending <br> Notional <br> Amount |  | Gain/(Loss) on Derivative Instruments and Other Securities, Net ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Three months ended September 30, 2019: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 11,043 | 24,305 | $(33,381)$ | \$ | 1,967 | \$ | 144 |
| Interest rate swaps | \$ | 74,950 | 82,625 | $(75,800)$ | \$ | 81,775 |  | (482) |
| Payer swaptions | \$ | 4,400 | 4,500 | (250) | \$ | 8,650 |  | (19) |
| Receiver swaptions | \$ | - | (175) | 175 | \$ | - |  | - |
| U.S. Treasury securities - short position. | \$ | $(7,245)$ | (98) | 2,710 | \$ | $(4,633)$ |  | (154) |
| U.S. Treasury securities - long position. | \$ | 1,134 | 353 | $(1,278)$ | \$ | 209 |  | 5 |
| U.S. Treasury futures contracts - short position | \$ | $(1,650)$ | $(1,000)$ | 1,650 | \$ | $(1,000)$ |  | (40) |
|  |  |  |  |  |  |  | \$ | (546) |
| Three months ended September 30, 2018: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 19,805 | 55,702 | $(66,233)$ | \$ | 9,274 | \$ | (56) |
| Interest rate swaps | \$ | 47,875 | 2,150 | $(1,350)$ | \$ | 48,675 |  | 282 |
| Payer swaptions. | \$ | 5,600 | - | - | \$ | 5,600 |  | 30 |
| U.S. Treasury securities - short position. | \$ | $(13,394)$ | $(4,402)$ | 1,583 | \$ | $(16,213)$ |  | 150 |
| U.S. Treasury securities - long position. | \$ | - | 792 | (682) | \$ | 110 |  | - |
| U.S. Treasury futures contracts - short position | \$ | $(1,650)$ | $(1,650)$ | 1,650 | \$ | $(1,650)$ |  | 21 |
|  |  |  |  |  |  |  | \$ | 427 |


| Derivative and Other Hedging Instruments | Beginning Notional Amount |  | Additions | Settlement, Termination, Expiration or Exercise | Ending Notional Amount |  | Gain/(Loss) on Derivative Instruments and Other Securities, Net ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nine months ended September 30, 2019: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 7,152 | 70,606 | $(75,791)$ | \$ | 1,967 | \$ | 390 |
| Interest rate swaps | \$ | 51,625 | 152,975 | $(122,825)$ | \$ | 81,775 |  | $(2,097)$ |
| Payer swaptions | \$ | 3,500 | 7,150 | $(2,000)$ | \$ | 8,650 |  | (71) |
| Receiver swaptions | \$ | - | (175) | 175 | \$ | - |  | - |
| U.S. Treasury securities - short position. | \$ | $(21,345)$ | $(7,404)$ | 24,116 | \$ | $(4,633)$ |  | $(1,084)$ |
| U.S. Treasury securities - long position. | \$ | 45 | 1,776 | $(1,612)$ | \$ | 209 |  | 11 |
| U.S. Treasury futures contracts - short position | \$ | $(1,650)$ | $(4,300)$ | 4,950 | \$ | $(1,000)$ |  | (128) |
|  |  |  |  |  |  |  | \$ | $(2,979)$ |
| Nine months ended September 30, 2018: |  |  |  |  |  |  |  |  |
| TBA securities, net | \$ | 15,474 | 163,777 | $(169,977)$ | \$ | 9,274 | \$ | (362) |
| Interest rate swaps | \$ | 43,700 | 9,800 | $(4,825)$ | \$ | 48,675 |  | 1,161 |
| Payer swaptions | \$ | 6,650 | 1,100 | $(2,150)$ | \$ | 5,600 |  | 155 |
| U.S. Treasury securities - short position. | \$ | $(10,699)$ | $(10,693)$ | 5,179 | \$ | $(16,213)$ |  | 397 |
| U.S. Treasury securities - long position... | \$ | - | 1,841 | $(1,731)$ | \$ | 110 |  | - |
| U.S. Treasury futures contracts - short position | \$ | $(2,910)$ | $(6,209)$ | 7,469 | \$ | $(1,650)$ |  | 104 |
|  |  |  |  |  |  |  | \$ | 1,455 |

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.

## Note 7. 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 30,2019, our maximum amount at risk with any counterparty related to our repurchase agreements, excluding the Fixed Income Clearing Corporation, was less than $4 \%$ of our tangible stockholders' equity (measured as the excess of the value of collateral pledged over the amount of our repurchase liabilities). As of September 30, 2019, approximately $11 \%$ 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, 2019 and December 31, 2018 (in millions):


1. Includes repledged assets received as collateral from counterparties.
2. Includes $\$ 161$ million and $\$ 163$ million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30, 2019 and December 31, 2018, respectively.
3. Includes margin for TBAs cleared through prime brokers and other clearing deposits.

Securities transferred to our consolidated VIEs can only be used to settle the obligations of each respective VIE. However, we may pledge our retained interests in our consolidated VIEs as collateral under our repurchase agreements and derivative contracts. Please refer to Note 4 for additional information regarding our consolidated VIEs.

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, 2019 and December 31, 2018 (in millions). For the corresponding borrowings associated with the following amounts and the interest rates thereon, refer to Note 5.

| Securities Pledged by Remaining Maturity of Repurchase Agreements ${ }^{1,2}$ | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | \$ | 53,407 | \$ | 52,325 | \$ | 156 | \$ | 49,944 | \$ | 50,654 | \$ | 156 |
| $>30$ and $\leq 60$ days |  | 10,087 |  | 9,915 |  | 30 |  | 14,586 |  | 14,810 |  | 46 |
| $>60$ and $\leq 90$ days |  | 5,603 |  | 5,517 |  | 17 |  | 7,770 |  | 7,843 |  | 24 |
| $>90$ days |  | 24,757 |  | 24,264 |  | 74 |  | 6,882 |  | 7,079 |  | 21 |
| Total | \$ | 93,854 | \$ | 92,021 | \$ | 277 | \$ | 79,182 | \$ | 80,386 | \$ | 247 |

1. Includes $\$ 161$ million and $\$ 163$ million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30, 2019 and December 31, 2018, respectively.
2. Excludes $\$ 542$ million and $\$ 437$ million of repledged U.S. Treasury securities received as collateral from counterparties as of September 30,2019 and December 31, 2018, respectively.

## Assets Pledged from Counterparties

As of September 30, 2019 and December 31, 2018, 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 ${ }^{1}$ | September 30, 2019 |  |  |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ReverseRepurchaseAgreements |  | Derivative Agreements |  | Repurchase Agreements |  | Total |  | Reverse Repurchase Agreements |  | Derivative Agreements |  | Repurchase Agreements |  | Total |  |
| U.S. Treasury securities - fair value | \$ | 6,067 | \$ | - | \$ | 8 | \$ | 6,075 | \$ | 21,876 | \$ | 35 | \$ | 37 | \$ | 21,948 |
| Cash. |  | - |  | 63 |  | 11 |  | 74 |  | - |  | 129 |  | - |  | 129 |
| Total | \$ | 6,067 | \$ | 63 | \$ | 19 | \$ | 6,149 | \$ | 21,876 | \$ | 164 | \$ | 37 | \$ | 22,077 |

1. Includes $\$ 542$ million and $\$ 437$ million of repledged U.S. Treasury securities received as collateral from counterparties as of September 30 , 2019 and December 31, 2018, respectively.
U.S Treasury securities received as collateral under our reverse repurchase agreements for which we use to cover short sales of U.S. Treasury securities are accounted for as securities borrowing transactions. We recognize a corresponding obligation to return the borrowed securities at fair value on the accompanying consolidated balance sheets based on the value of the underlying borrowed securities as of the reporting date.

Cash collateral received is recognized in cash and cash equivalents with a corresponding amount recognized in accounts payable and other accrued liabilities on the accompanying consolidated balance sheets.

## 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, 2019 and December 31, 2018 (in millions):


## December 31, 2018

Interest rate swap and swaption agreements, at fair value $^{1}$............ TBA securities, at fair value.........................................

| \$ | 163 | \$ | - | \$ | 163 | \$ | - | \$ | (158) | \$ | 570 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 110 |  | - |  | 110 |  | (40) |  | - |  |  |
|  | 21,813 |  | - |  | 21,813 |  | $(17,236)$ |  | $(4,575)$ |  | 2 |
| \$ | 22,086 | \$ | - | \$ | 22,086 | \$ | $(17,276)$ | \$ | $(4,733)$ | \$ | 77 |



[^3]
## Note 8. Fair Value Measurements

We determine the fair value of our 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 typically obtain price estimates from multiple third-party pricing services and dealers or, if applicable, the clearing exchange (see Note 3 for further details.) We utilize a three-level valuation hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. A financial instrument's categorization within the hierarchy is 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 availability of observable inputs can vary by instrument and is 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. Third-party pricing sources may also use certain unobservable inputs, such as assumptions of future levels of prepayment, defaults and loss severities, especially when estimating fair values for securities with lower levels of recent trading activity.

We make inquiries of third-party pricing sources to understand the significant inputs and assumptions they used to determine their prices. 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 validation procedures described above also influence our determination of the appropriate fair value measurement categorization. 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, 2019 and December 31, 2018 based on their categorization within the valuation hierarchy (in millions). There were no transfers between valuation hierarchy levels during the periods presented.

|  | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 |  | Level 2 |  | Level 3 |  | Level 1 |  | Level 2 |  | Level 3 |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |  |  |
| Agency securities .......................................................... | \$ | - | \$ | 98,577 | \$ | - | \$ | - | \$ | 82,291 | \$ | - |
| Agency securities transferred to consolidated VIEs ................ |  | - |  | 393 |  | - |  | - |  | 436 |  | - |
| Credit risk transfer securities ............................................. |  | - |  | 1,134 |  | - |  | - |  | 1,012 |  | - |
| Non-Agency securities ................................................... |  | - |  | 579 |  | - |  | - |  | 548 |  | - |
| U.S. Treasury securities ................................................. |  | 215 |  | - |  | - |  | 46 |  | - |  | - |
| Interest rate swaps ..................................................... |  | - |  | 17 |  | - |  | - |  | 126 |  | - |
| Swaptions ................................................................... |  | - |  | 74 |  | - |  | - |  | 37 |  | - |
| TBA securities ........................................................... |  | - |  | 67 |  | - |  | - |  | 110 |  | - |
| U.S. Treasury futures .................................................... |  | 17 |  | - |  | - |  | - |  | - |  | - |
| Total ............................................................................ | \$ | 232 | \$ | 100,841 | \$ | - | \$ | 46 | \$ | 84,560 | \$ | - |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Debt of consolidated VIEs .............................................. | \$ | - | \$ | 238 | \$ | - | \$ | - | \$ | 275 | \$ | - |
| Obligation to return U.S. Treasury securities borrowed under reverse repurchase agreements |  | 5,114 |  | - |  | - |  | 21,431 |  | - |  | - |
| Interest rate swaps ......................................................... |  | - |  | 2 |  | - |  | - |  | - |  | - |
| TBA securities............................................................ |  | - |  | 20 |  | - |  | - |  | 40 |  | - |
| U.S. Treasury futures .................................................... |  | - |  | - |  | - |  | 44 |  | - |  | - |
| Total | \$ | 5,114 | \$ | 260 | \$ | - | \$ | 21,475 | \$ | 315 | \$ | - |

Excluded from the table above are financial instruments, including cash and cash equivalents, restricted cash and cash equivalents, receivables, payables and borrowings under repurchase agreements, which are presented in our consolidated financial statements at cost. The cost basis of these instruments is determined to approximate fair value due to their short duration or, in the case of longer-term repo, due to floating rates of interest corresponding on an index plus or minus a fixed spread which is consistent with fixed spreads demanded in the market. We estimate the fair value of these instruments using "Level 1" or "Level $2^{\prime \prime}$ inputs.

## Note 9. Net Income (Loss) Per Common Share

Basic net income (loss) per common share is computed by dividing net income (loss) available (attributable) to common stockholders by the sum of our weighted-average number of common shares outstanding and the weighted-average number of vested but not yet issued time and performance-based restricted stock units (collectively "RSUs") outstanding for the respective period. Diluted earnings per common share includes the impact of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include unvested RSUs. Vested and unvested RSUs outstanding were granted under our long-term incentive program to employees and non-employee Board of Directors. The following table presents the computations of basic and diluted net income per common share for the periods indicated (shares and dollars in millions):

|  | Three Months Ended September 30, |  | Nine Months Ended September 30, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2019 | 2018 | 2019 | 2018 |
| Weighted average number of common shares issued and outstanding | 546.0 | 462.2 | 539.9 | 419.7 |
| Weighted average number of fully vested RSUs outstanding | 0.4 | 0.1 | 0.4 | 0.1 |
| Weighted average number of common shares outstanding - basic | 546.4 | 462.3 | 540.3 | 419.8 |
| Weighted average number of dilutive unvested RSUs outstanding | - | 0.4 | - | 0.3 |
| Weighted average number of common shares outstanding - diluted | 546.4 | 462.7 | 540.3 | 420.1 |
| Net income (loss) available (attributable) to common stockholders | \$ (17) | \$ 207 | \$ (219) | \$ 906 |
| Net income (loss) per common share - basic | \$ (0.03) | \$ 0.45 | \$ (0.41) | \$ 2.16 |
| Net income (loss) per common share - diluted | \$ (0.03) | \$ 0.45 | \$ (0.41) | \$ 2.16 |

For the three and nine months ended September 30, 2019, 0.7 million and 0.6 million, respectively, of potentially dilutive 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 such periods.

## Note 10. 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, 2019 and December 31, 2018, 8,050 shares were designated as $7.750 \%$ Series B Cumulative Redeemable Preferred Stock ("Series B Preferred Stock") and 13,800 shares were designated as $7.00 \%$ Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock ("Series C Preferred Stock"). During March 2019, we designated an additional 9,400 shares as 6.875\% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock ("Series D Preferred Stock"). Each share of Series B, C, and D Preferred Stock is represented by 1,000 depositary shares.

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 ranks on parity with each other. 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, such shares will be redeemable at $\$ 25.00$ per depositary share, plus accumulated and unpaid dividends (whether or not declared), exclusively at our option.

The following is a summary of our preferred stock issued and outstanding as of September 30, 2019 (dollars and shares in millions). Please see Note 11, Subsequent Events, for additional information related to our preferred stock.

| Preferred Stock | Issuance Date | Depositary <br> Shares <br> Issued and Outstanding | CarryingValue |  | Aggregate Liquidation Preference |  | Fixed Rate | Optional Redemption Date ${ }^{2}$ | Fixed-to- <br> Floating Rate Conversion Date | Floating Annual Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed Rate |  |  |  |  |  |  |  |  |  |  |
| Series B | May 8, 2014 | 7.0 | \$ | 169 | \$ | 175 | 7.750\% | May 8, 2019 | N/A | N/A |
| Fixed-to-Floating Rate ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |
| Series C | $\begin{gathered} \text { August } 22, \\ 2017 \end{gathered}$ | 13.0 |  | 315 |  | 325 | 7.000\% | $\begin{gathered} \text { October } 15, \\ 2022 \end{gathered}$ | $\begin{aligned} & \text { October } 15, \\ & 2022 \end{aligned}$ | $\begin{gathered} 3 \mathrm{M} \text { LIBOR }+ \\ 5.111 \% \end{gathered}$ |
| Series D ....................... | $\begin{gathered} \text { March 6 } \\ 2019 \end{gathered}$ | 9.4 |  | 227 |  | 235 | 6.875\% | $\begin{gathered} \text { April } 15, \\ 2024 \end{gathered}$ | $\underset{2024}{ } \text { April } 15$ | $\begin{gathered} 3 \mathrm{M} \text { LIBOR }+ \\ 4.332 \% \end{gathered}$ |
| Total........................... |  | 29.4 | \$ | 711 | \$ | 735 |  |  |  |  |

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.

## Common Stock Offering

In May 2018, we completed a public offering in which 34.5 million shares of our common stock were sold to the underwriters for proceeds of $\$ 633$ million, or $\$ 18.35$ per common share, net of offering costs. In August 2018, we completed a follow-on public offering of 43.7 million shares of our common stock for proceeds of $\$ 817$ million, or $\$ 18.68$ per common share, net of estimated offering costs.

## 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 through June 14, 2021. During the three months ended September 30, 2019 and September 30, 2018 we did not sell any shares of common stock under the sales agreements. During the nine months ended September 30, 2019, we sold 11.4 million shares of our common stock under the sales agreements for proceeds of $\$ 190$ million, or $\$ 16.67$ per common share, net of offering costs. During the nine months ended September 30, 2018, we sold 8.3 million shares of our common stock under the sales agreements for proceeds of $\$ 155$ million, or $\$ 18.73$ per common share, net of offering costs. As of September 30, 2019, shares of our common stock with an aggregate offering price of $\$ 466$ million remained authorized for issuance under this program.

## Common Stock Repurchase Program

In July 2019, our Board of Directors authorized the repurchase of up to $\$ 1$ billion of our outstanding shares of common stock through December 31, 2020. During the three months ended September 30, 2019, we repurchased 6.9 million shares, or $\$ 103$ million, of our common stock for an average repurchase price of $\$ 14.90$ per common share, inclusive of transaction costs. As of September 30, 2019, we had $\$ 0.9$ billion of common stock remaining available for repurchase.

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 Securities and Exchange Act of 1934, as amended. We intend to repurchase shares under the stock repurchase program only when the repurchase price is less than our then-current estimate of our tangible net book value per common share.

## Accumulated Other Comprehensive Income (Loss)

The following table summarizes changes to accumulated OCI for the three and nine months ended September 30, 2019 and 2018 (in millions):

| Accumulated Other Comprehensive Income (Loss) | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Beginning Balance | \$ | (164) | \$ | $(1,111)$ | \$ | (943) | \$ | (345) |
| OCI before reclassifications |  | 246 |  | (229) |  | 1,016 |  | $(1,014)$ |
| (Gain) loss amounts for available-for-sale securities reclassified from accumulated OCI to realized gain (loss) on sale of investment securities |  | - |  | 36 |  | 9 |  | 55 |
| Ending Balance | \$ | 82 | \$ | $(1,304)$ | \$ | 82 | \$ | $(1,304)$ |

## Note 11. Subsequent Events

## Preferred Stock Offering

On October 3, 2019, we issued $\$ 403$ million, or 16.1 million depositary shares, of $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock ("Series E Preferred Stock"), for net proceeds of $\$ 390$ million. Each depositary share represents a $1 / 1,000$ th interest in a share of Series E Preferred Stock. At the conclusion of the Series E fixed rate period on October 15, 2024, the Series E Preferred Stock dividend will accrue at a floating rate equal to three-month LIBOR plus a spread of $4.993 \%$ per annum, and commencing on such date, the Series E Preferred Stock is redeemable at our option at the liquidation preference of $\$ 25.00$ per depositary share, plus any accrued and unpaid dividends.

## Redemption of Preferred Stock

On October 25, 2019, we announced that we will redeem all 7,000 outstanding shares of our Series B Preferred Stock and the corresponding 7.0 million depositary shares, each representing a $1 / 1,000$ th interest in a share of the Series B Preferred Stock, on November 26, 2019 (the "Redemption Date"). The Series B Preferred Stock will be redeemed at the redemption amount of
$\$ 25.00$ per depositary share, plus $\$ 0.22066$ per depositary share of accrued and unpaid dividends to, but not including, the Redemption Date.

## Common Stock Dividend Declaration

On October 10, 2019, our Board of Directors declared a monthly dividend of $\$ 0.16$ per common share payable on November 12, 2019 to common stockholders of record as of October 31, 2019.

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, 2019. 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 an internally-managed Real Estate Investment Trust ("REIT"). We 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."

As a REIT, we are required to distribute annually $90 \%$ of our taxable income. As a REIT, we will generally not be subject to U.S. federal or state corporate taxes on our taxable income to the extent that we distribute all our annual taxable income to our stockholders on a timely basis. It is our intention to distribute $100 \%$ of our taxable income within the time limits prescribed by the Internal Revenue Code, which may extend into the subsequent taxable year.

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 also invest in other types of mortgage and mortgage-related residential and commercial mortgage-backed securities where repayment of principal and interest is not guaranteed by a GSE or U.S. Government agency and in other investments in, or related to, the housing, mortgage or real estate markets.

Our principal objective is to provide 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 borrowings structured as repurchase agreements.

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

During the first three quarters of 2019, weaker global economic growth, ongoing trade tensions, and benign inflation indicators led to a sharp decline in U.S. Treasury and swap rates as many major central banks initiated short-term rate cuts and other forms of monetary policy accommodation. Consistent with this slowing global growth, the U.S. Federal Reserve (the "Fed") pivoted sharply from its multi-year campaign of raising short-term interest rates and began lowering short-term rates through 25 basis point rate cuts at each of its July, September, and October 2019 meetings. These cuts represented the first reductions in the federal funds target rate since 2008.

In August 2019, the Fed also suspended the runoff of its U.S. Treasury portfolio and subsequently began redeploying up to $\$ 20$ billion per month of paydowns from its Agency RMBS portfolio into Treasury securities, with any excess reinvested into Agency RMBS, thus maintaining a larger balance sheet than the market previously expected. Despite the Fed's more accommodative stance, a confluence of events led to a large spike in overnight repo rates in mid-September of 2019. The pronounced and widely publicized disruption in the repo market prompted the Fed to immediately reinstitute daily open market repurchase operations. These overnight and term operations added significant liquidity to the repo market and quickly reduced funding levels
to more normalized levels. Additionally, in mid-October, the Fed announced its plan to purchase approximately $\$ 60$ billion of Treasury bills per month for at least six months and to upsize its overnight and term open market operations to $\$ 120$ billion and $\$ 45$ billion, respectively. Together, these actions could add more than $\$ 500$ billion of liquidity to the system over the next six months. As such, we expect that the elevated repo funding levels, especially relative to other short-term rates, that AGNC has experienced throughout 2019 will likely begin to abate and return to more normal levels in 2020.
U.S. equities and other risk assets performed well during the first three quarters of the year as the expectations of greater central bank accommodation outweighed concerns over global economic weakness. The performance of Agency RMBS, however, was mixed. Agency RMBS outperformed U.S. Treasury and interest rate swap hedges in the first quarter but underperformed in the second and third quarters due to elevated prepayment concerns and the flattening of the yield curve. Despite spread widening and increased interest rate volatility, tangible net book value per common share remained stable due to our significant holdings of pools with favorable pre-payment characteristics and the positioning of our hedge portfolio. For the first, second and third quarters of 2019 , our economic return on tangible common equity was $7.3 \%,-0.9 \%$ and $2.7 \%$, respectively, for a cumulative year-to-date economic return of $9.1 \%$.

Our net spread and dollar roll income was $\$ 0.52, \$ 0.49$ and $\$ 0.59$ per common share for the first, second and third quarters of 2019, respectively, excluding "catch-up" premium amortization cost associated with changes in projected CPR estimates. The third quarter improvement in our net spread and dollar roll income, excluding "catch-up" premium amortization cost, was largely due to hedge repositioning, while ongoing elevated repo funding costs and higher amortization expense from faster prepayment expectations due to declining rates negatively impacted earnings.

Our net interest spread, which represents the difference in the yield on our assets (excluding "catch-up" amortization and including TBA securities) and our cost of funds, was $1.06 \%, 1.00 \%$ and $1.31 \%$ for the first, second and third quarters of 2019, respectively. Our tangible net book value "at risk" leverage increased to 9.8 x as of September 30, 2019, from 9.0x as of December 31,2018 , while our average quarterly "at risk" leverage was $9.3 \mathrm{x}, 10.0 \mathrm{x}$ and 10.0 x for the first, second and third quarters of 2019, respectively.

Forecasted CPRs increased during the first three quarters of the year to $13.4 \%$ as of September 30, 2019, from $7.9 \%$ as of December 31, 2018, as a result of the decline in interest rates. Our actual CPRs also increased over the period, averaging $6.3 \%$, $10.0 \%$ and $13.5 \%$ for the first, second and third quarters, respectively. These prepayment levels were well below those observed on other generic, higher coupon Agency RMBS due to the favorable prepayment characteristics of the majority of our holdings.

The funding cost associated with our repurchase agreements was largely unchanged for the first two quarters of 2019, averaging $2.64 \%$ and $2.62 \%$ for the first and second quarters, respectively. In the third quarter, our repo funding cost decreased only 14 basis points, for an average of $2.48 \%$ for the third quarter, despite more significant declines in the fed funds target and other short-term benchmark rates. Our total cost of funds, which includes the cost of repurchase agreements, the implied funding costs of TBA securities and periodic interest settlements associated with our interest rate swap hedges, was $2.27 \%, 2.24 \%$ and $1.85 \%$ for the first, second and third quarters, respectively.

The notional value of our interest rate hedge portfolio represented $77 \%$ of our aggregate funding liabilities as of the end of the first quarter of 2019 , down from $94 \%$ as of December 31,2018 , in response to the sharp decline in interest rates during the quarter. During the second quarter, material repricing actions in the swap market led us to significantly alter the size and composition of our hedge portfolio to lock-in more attractive funding levels. During the second and third quarters, we increased our swap portfolio through the addition of shorter-dated swaps and correspondingly reduced our U.S. Treasury hedges. We also added payer swaptions, or option-based hedges, to provide incremental protection against extension risk in the event of a sudden rise in interest rates. In aggregate, our interest rate hedge portfolio was $91 \%$ and $101 \%$ of our funding liabilities as of June 30 and September 30,2019 , respectively. Our duration gap, which is a measure of the mismatch between the interest sensitivity of our assets and liabilities, inclusive of interest rate hedges, remained relatively stable at $0.2,-0.1$ and 0.0 years as of the end of the first, second and third quarters of 2019, respectively, despite the significant decline in rates and associated reduction in our asset duration. (For additional information regarding our interest rate and spread sensitivity please refer to Item 3. Quantitative and Qualitative Disclosures about Market Risk of this Form 10-Q.)

## 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 ${ }^{1}$ | $\begin{gathered} \text { Sept. 30, } \\ 2018 \end{gathered}$ | $\begin{gathered} \text { Dec. 31, } \\ 2018 \end{gathered}$ | $\begin{gathered} \text { Mar. 31, } \\ 2019 \end{gathered}$ | $\begin{gathered} \text { June 30, } \\ 2019 \end{gathered}$ | $\begin{gathered} \text { Sept. 30, } \\ 2019 \end{gathered}$ | $\begin{gathered} \text { Sept. 30, } 2019 \\ \text { vs } \\ \text { June 31, } 2019 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Sept. 30, } 2019 \\ \text { vs } \\ \text { Dec. 31, } 2018 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LIBOR: |  |  |  |  |  |  |  |
| 1-Month | 2.26\% | 2.50\% | 2.49\% | 2.40\% | 2.02\% | -0.38 bps | -0.48 bps |
| 3-Month | 2.40\% | 2.81\% | 2.60\% | 2.32\% | 2.09\% | -0.23 bps | -0.72 bps |
| U.S. Treasury Security Rate: |  |  |  |  |  |  |  |
| 2-Year U.S. Treasury | 2.82\% | 2.49\% | 2.26\% | 1.75\% | 1.62\% | -0.13 bps | -0.87 bps |
| 5-Year U.S. Treasury | 2.95\% | 2.51\% | 2.23\% | 1.77\% | 1.54\% | -0.23 bps | -0.97 bps |
| 10-Year U.S. Treasury | 3.06\% | 2.68\% | 2.41\% | 2.01\% | 1.66\% | -0.35 bps | -1.02 bps |
| 30-Year U.S. Treasury | 3.21\% | 3.01\% | 2.81\% | 2.53\% | 2.11\% | -0.42 bps | -0.90 bps |
| Interest Rate Swap Rate: |  |  |  |  |  |  |  |
| 2-Year Swap | 2.99\% | 2.66\% | 2.38\% | 1.81\% | 1.63\% | -0.18 bps | -1.03 bps |
| 5-Year Swap | 3.07\% | 2.57\% | 2.28\% | 1.77\% | 1.50\% | -0.27 bps | $-1.07 \mathrm{bps}$ |
| 10-Year Swap | 3.12\% | 2.71\% | 2.41\% | 1.96\% | 1.56\% | -0.40 bps | -1.15 bps |
| 30-Year Swap | 3.13\% | 2.84\% | 2.58\% | 2.21\% | 1.71\% | -0.50 bps | -1.13 bps |
| 30-Year Fixed Rate Agency Price: |  |  |  |  |  |  |  |
| 3.0\% | \$95.67 | \$97.54 | \$99.55 | \$100.84 | \$101.51 | +\$0.67 | +\$3.97 |
| 3.5\% | \$98.41 | \$99.95 | \$101.35 | \$102.24 | \$102.58 | +\$0.34 | +\$2.63 |
| 4.0\% | \$100.97 | \$101.94 | \$102.86 | \$103.36 | \$103.77 | +\$0.41 | +\$1.83 |
| 4.5\% | \$103.16 | \$103.53 | \$104.20 | \$104.49 | \$105.29 | +\$0.80 | +\$1.76 |
| 15-Year Fixed Rate Agency Price: |  |  |  |  |  |  |  |
| 2.5\% | \$96.47 | \$97.70 | \$99.39 | \$100.67 | \$100.85 | +\$0.18 | +\$3.15 |
| 3.0\% | \$98.77 | \$99.80 | \$100.89 | \$101.95 | \$102.21 | +\$0.26 | +\$2.41 |
| 3.5\% | \$100.51 | \$101.23 | \$102.28 | \$103.20 | \$103.42 | +\$0.22 | +\$2.19 |
| 4.0\% | \$101.98 | \$102.34 | \$103.00 | \$103.84 | \$104.08 | +\$0.24 | +\$1.74 |

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 and interest rates in the table above were obtained from Barclays. LIBOR rates were obtained from Bloomberg.

## FINANCIAL CONDITION

As of September 30, 2019 and December 31, 2018, our investment portfolio consisted of $\$ 100.7$ billion and $\$ 84.3$ billion of investment securities, at fair value, respectively, and $\$ 1.9$ billion and $\$ 7.3$ billion of TBA securities, at fair value, respectively. The following table is a summary of our investment portfolio as of September 30, 2019 and December 31, 2018 (dollars in millions):

| Investment Portfolio (Includes TBAs) | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Amortized } \\ \text { Cost } \end{gathered}$ |  | Fair Value |  | Average Coupon | \% | $\begin{aligned} & \text { Amortized } \\ & \text { Cost } \end{aligned}$ |  | Fair <br> Value |  | Average Coupon | \% |
| Fixed rate Agency RMBS and TBA securities: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year RMBS | \$ | 7,101 | \$ | 7,212 | 3.32 \% | 7 \% | \$ | 7,386 | \$ | 7,294 | 3.30\% | 8\% |
| 15-year TBA securities, net ${ }^{1}$ |  | 1,817 |  | 1,814 | 3.12 \% | 2 \% |  | 3,635 |  | 3,673 | 3.61\% | 4\% |
| Total $\leq 15$-year |  | 8,918 |  | 9,026 | 3.28 \% | $9 \%$ |  | 11,021 |  | 10,967 | 3.40\% | 12\% |
| 20-year RMBS |  | 787 |  | 809 | 3.87 \% | $1 \%$ |  | 778 |  | 774 | 3.95\% | 1\% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 30-year RMBS |  | 88,371 |  | 90,069 | 3.76 \% | 88 \% |  | 74,883 |  | 73,685 | 3.87\% | 80\% |
| 30 -year TBA securities, net ${ }^{1}$ |  | 3 |  | 53 | (25.66)\% | -\% |  | 3,617 |  | 3,649 | 4.47\% | 4\% |
| Total 30-year |  | 88,374 |  | 90,122 | 3.69 \% | 88 \% |  | 78,500 |  | 77,334 | 3.90\% | 84\% |
| Total fixed rate Agency RMBS and TBA securities |  | 98,079 |  | 99,957 | 3.65 \% | 97\% |  | 90,299 |  | 89,075 | 3.84\% | 97\% |
| Adjustable rate Agency RMBS |  | 171 |  | 174 | 3.11 \% | -\% |  | 212 |  | 213 | 3.10\% | -\% |
| Multifamily |  | 37 |  | 40 | 3.37 \% | -\% |  | - |  | - | -\% | -\% |
| CMO Agency RMBS: |  |  |  |  |  |  |  |  |  |  |  |  |
| CMO |  | 482 |  | 490 | 3.46 \% | -\% |  | 588 |  | 583 | 3.46\% | 1\% |
| Interest-only strips |  | 67 |  | 83 | 4.03 \% | -\% |  | 77 |  | 84 | 3.61\% | -\% |
| Principal-only strips.. |  | 85 |  | 93 | -\% | -\% |  | 95 |  | 94 | -\% | -\% |
| Total CMO Agency RMBS |  | 634 |  | 666 | $3.39 \%$ | $1 \%$ |  | 760 |  | 761 | 3.21\% | 1\% |
| Total Agency RMBS and TBA securities. |  | 98,921 |  | 100,837 | 3.65 \% | 98\% |  | 91,271 |  | 90,049 | 3.83\% | 98\% |
| Non-Agency RMBS |  | 194 |  | 209 | 4.06 \% | -\% |  | 264 |  | 266 | 3.83\% | 1\% |
| CMBS |  | 345 |  | 370 | 4.57 \% | $1 \%$ |  | 280 |  | 282 | 4.58\% | -\% |
| CRT |  | 1,123 |  | 1,134 | 5.18 \% | $1 \%$ |  | 1,006 |  | 1,012 | 5.86\% | 1\% |
| Total investment portfolio | \$ | 100,583 | \$ | 102,550 | 3.67 \% | $100 \%$ | \$ | $\underline{92,821}$ | \$ | 91,609 | 3.85\% | 100\% |

1. TBA securities are presented net of long and short positions. As of September 30, 2019, 30-year TBA securities consisted of $\$ 8.6$ billion long and $\$(8.5)$ billion short TBA securities (at fair value) at an average coupon of $2.95 \%$ and $3.63 \%$, respectively, and 15 -year TBA securities consisted of $\$ 1.9$ billion long and $\$(0.1)$ billion short TBA securities at an average coupon of $3.14 \%$ and $3.50 \%$, respectively. As of December 31, 2018, 30-year TBA securities consisted of $\$ 6.9$ billion long and $\$(3.3)$ billion short TBA securities at an average coupon of $4.03 \%$ and $3.56 \%$, respectively, and 15-year TBA securities consisted entirely of long TBA securities at an average coupon of $3.61 \%$. For further details of our TBA securities held as of each date refer to Note 6 of the accompanying consolidated financial statements.

TBA 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, 2019 and December 31, 2018, our TBA positions had a net carrying value of $\$ 47$ million and $\$ 70$ 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 Agency security in the TBA contract and the contract price to be paid or received for the underlying Agency security.

As of September 30, 2019 and December 31, 2018, the weighted average yield on our investment securities (excluding TBA securities) was $3.08 \%$ and $3.31 \%$, respectively.

The following tables summarize certain characteristics of our fixed rate Agency RMBS portfolio, inclusive of TBAs, as of September 30, 2019 and December 31, 2018 (dollars in millions):

September 30, 2019

| Fixed Rate Agency RMBS and TBA Securities | September 30, 2019 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Includes Net TBA Position |  |  |  |  |  |  | Excludes Net TBA Position |  |  |  |  |
|  | $\underset{\text { Par }}{\text { Par }}$ |  | $\underset{\text { Cost }}{\text { Amortized }}$ |  | Fair Value |  | Specified <br> Pool \% | Amortized Cost Basis | Weighted Average |  |  | Projected $^{\text {B }}$ CPR |
|  |  |  | WAC ${ }^{2}$ | Yield ${ }^{3}$ |  |  | $\begin{gathered} \text { Age } \\ \text { (Months) } \end{gathered}$ |  |  |
| Fixed rate |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.5\% | \$ | 1,168 |  |  | \$ | 1,180 |  | \$ | 1,181 | 62\% | 101.1\% | 2.98\% | 2.11\% | 83 | 10\% |
| 3.0\% |  | 2,988 |  | 3,045 |  | 3,063 | 58\% | 101.6\% | 3.52\% | 2.44\% | 61 | 11\% |
| 3.5\% |  | 3,228 |  | 3,305 |  | 3,363 | 53\% | 102.3\% | 4.06\% | 2.78\% | 18 | 17\% |
| 4.0\% |  | 1,216 |  | 1,254 |  | 1,284 | 80\% | 103.1\% | 4.60\% | 3.04\% | 23 | 15\% |
| 4.5\% |  | 128 |  | 132 |  | 133 | 98\% | 103.6\% | 4.87\% | 3.00\% | 108 | 13\% |
| $\geq 5.0 \%$, |  | 1 |  | 2 |  | 2 | 100\% | 102.0\% | 6.57\% | 4.57\% | 143 | 15\% |
| Total $\leq 15$-year |  | 8,729 |  | 8,918 |  | 9,026 | 60\% | 102.1\% | 3.86\% | 2.64\% | 41 | 14\% |
| 20-year |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.0\% |  | 54 |  | 55 |  | 55 | 100\% | 103.3\% | 3.78\% | 2.40\% | 2 | 9\% |
| 3.5\% |  | 297 |  | 304 |  | 312 | 81\% | 102.0\% | 4.05\% | 2.96\% | 74 | 13\% |
| 4.0\% |  | 206 |  | 213 |  | 220 | 92\% | 103.3\% | 4.44\% | 3.16\% | 31 | 14\% |
| 4.5\% |  | 204 |  | 214 |  | 221 | 100\% | 104.8\% | 5.00\% | 3.23\% | 34 | 15\% |
| $\geq 5.0 \%$, |  | 1 |  | 1 |  | 1 | -\% | 105.2\% | 5.94\% | 3.33\% | 137 | 18\% |
| Total 20-year: |  | 762 |  | 787 |  | 809 | 90\% | 103.2\% | 4.40\% | 3.05\% | 46 | 13\% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.0\% |  | 22,273 |  | 22,528 |  | 22,597 | 2\% | 101.6\% | 3.89\% | 2.68\% | 9 | 13\% |
| 3.5\% |  | 21,120 |  | 21,751 |  | 22,157 | 70\% | 102.9\% | 4.06\% | 2.99\% | 44 | 12\% |
| 4.0\% |  | 28,359 |  | 29,465 |  | 30,264 | 84\% | 103.9\% | 4.52\% | 3.23\% | 33 | 14\% |
| 4.5\% |  | 13,448 |  | 14,118 |  | 14,584 | 92\% | 105.0\% | 4.98\% | 3.40\% | 20 | 15\% |
| 5.0\% |  | 408 |  | 440 |  | 448 | 92\% | 107.9\% | 5.50\% | 3.24\% | 35 | 15\% |
| $\geq 5.5 \%$, |  | 66 |  | 72 |  | 72 | 49\% | 109.5\% | 6.18\% | 3.33\% | 155 | 13\% |
| Total 30-year |  | 85,674 |  | 88,374 |  | 90,122 | 61\% | 103.4\% | 4.35\% | 3.09\% | 30 | 13\% |
| Total fixed rate | \$ | 95,165 | \$ | 98,079 |  | 99,957 | 62\% | 103.3\% | 4.32\% | 3.06\% | 31 | 13\% |

[^4]| Fixed Rate Agency RMBS and TBA Securities | Includes Net TBA Position |  |  |  |  |  |  | Excludes Net TBA Position |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Par Value |  | $\begin{gathered} \text { Amortized } \\ \text { Cost } \\ \hline \end{gathered}$ |  | Fair Value |  | Specified <br> Pool \% | Amortized Cost Basis | Weighted Average |  |  | Projected CPR ${ }^{3}$ |
|  |  |  | WAC ${ }^{2}$ | Yield ${ }^{3}$ |  |  | $\begin{gathered} \text { Age } \\ \text { (Months) } \end{gathered}$ |  |  |
| Fixed rate |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 15$-year |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 2.5 \%$ | \$ | 1,157 |  |  | \$ | 1,170 |  | \$ | 1,139 | 75\% | 101.2\% | 2.98\% | 2.11\% | 74 | 9\% |
| 3.0\% |  | 2,651 |  | 2,677 |  | 2,650 | 75\% | 101.7\% | 3.51\% | 2.44\% | 56 | 9\% |
| 3.5\% |  | 4,444 |  | 4,498 |  | 4,502 | 43\% | 101.9\% | 4.07\% | 2.96\% | 25 | 10\% |
| 4.0\% |  | 2,449 |  | 2,507 |  | 2,509 | 40\% | 103.5\% | 4.47\% | 2.96\% | 44 | 10\% |
| 4.5\% |  | 160 |  | 167 |  | 165 | 99\% | 104.0\% | 4.87\% | 3.01\% | 99 | 11\% |
| $\geq 5.0 \%$ |  | 2 |  | 2 |  | 2 | 100\% | 102.4\% | 6.55\% | 4.57\% | 134 | 14\% |
| Total $\leq 15$-year |  | 10,863 |  | 11,021 |  | 10,967 | 54\% | 102.0\% | 3.82\% | 2.68\% | 46 | 10\% |
| 20-year |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.5\% |  | 314 |  | 320 |  | 318 | 80\% | 102.0\% | 4.05\% | 3.00\% | 70 | 10\% |
| 4.0\% |  | 206 |  | 214 |  | 213 | 91\% | 103.4\% | 4.45\% | 3.28\% | 24 | 10\% |
| 4.5\% |  | 230 |  | 242 |  | 241 | 100\% | 105.2\% | 5.00\% | 3.35\% | 25 | 11\% |
| $\geq 5.0 \%$, |  | 2 |  | 2 |  | 2 | -\% | 105.7\% | 5.94\% | 3.34\% | 128 | 16\% |
| Total 20-year: |  | 752 |  | 778 |  | 774 | 89\% | 103.4\% | 4.46\% | 3.19\% | 44 | 11\% |
| 30-year: |  |  |  |  |  |  |  |  |  |  |  |  |
| $\leq 3.0 \%$ |  | 3,178 |  | 3,133 |  | 3,108 | 3\% | 100.1\% | 3.58\% | 2.97\% | 47 | 6\% |
| 3.5\% |  | 22,410 |  | 23,258 |  | 22,496 | 71\% | 103.2\% | 4.06\% | 3.05\% | 38 | 6\% |
| 4.0\% |  | 37,230 |  | 38,564 |  | 38,147 | 61\% | 103.8\% | 4.54\% | 3.44\% | 24 | 8\% |
| 4.5\% |  | 12,777 |  | 13,319 |  | 13,361 | 69\% | 104.7\% | 4.99\% | 3.75\% | 14 | 9\% |
| 5.0\% |  | 133 |  | 143 |  | 142 | 117\% | 106.8\% | 5.53\% | 3.80\% | 61 | 9\% |
| $\geq 5.5 \%$, |  | 75 |  | 83 |  | 80 | 49\% | 110.5\% | 6.17\% | 3.35\% | 147 | 12\% |
| Total 30-year |  | 75,803 |  | 78,500 |  | 77,334 | 63\% | 103.6\% | 4.41\% | 3.34\% | 28 | 8\% |
| Total fixed rate | \$ | 87,418 | \$ | 90,299 | \$ | 89,075 | 62\% | 103.5\% | 4.36\% | 3.28\% | 30 | 8\% |

1. See Note 1 of preceding table for specified pool composition. As of December 31, 2018, lower balance specified pools have a weighted average original loan balance of $\$ 102,000$ and $\$ 113,000$ for 15 -year and 30 -year securities, respectively, and HARP pools have a weighted average original LTV of $119 \%$ and $136 \%$ 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, 2018.

As of September 30, 2019 and December 31, 2018, our investments in CRT and non-Agency securities had the following credit ratings:

| CRT and Non-Agency Security Credit Ratings ${ }^{1}$ | September 30, 2019 |  |  |  |  |  | December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CRT |  | RMBS |  | CMBS |  | CRT |  | RMBS |  | CMBS |  |
| AAA | \$ | - | \$ | - | \$ | 38 | \$ | - | \$ | 160 | \$ | 52 |
| AA |  | - |  | 84 |  | 237 |  | - |  | 17 |  | 152 |
| A. |  | 5 |  | 26 |  | 28 |  | 17 |  | 33 |  | 15 |
| BBB |  | 21 |  | 70 |  | 57 |  | 25 |  | 43 |  | 53 |
| BB |  | 569 |  | 17 |  | 10 |  | 492 |  | 8 |  | 10 |
| B |  | 443 |  | 5 |  | - |  | 453 |  | 2 |  | - |
| Not Rated |  | 96 |  | 7 |  | - |  | 25 |  | 3 |  | - |
| Total | \$ | 1,134 | \$ | 209 | \$ | 370 | \$ | 1,012 | \$ | 266 | \$ | 282 |

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 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. As of September 30, 2019, our CRT securities had floating and fixed rate coupons ranging from $2.7 \%$ to $8.4 \%$, referenced to loans originated between 2011 and 2019 with weighted average coupons ranging from $3.7 \%$ to $5.1 \%$. As of December 31, 2018, our CRT securities had floating rate coupons ranging from
$3.9 \%$ to $9.5 \%$, referenced to loans originated between 2011 and 2018 with weighted average coupons ranging from $3.8 \%$ to $4.8 \%$.

## 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 and interest rate swap periodic income/(cost). "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), net of management fee income (GAAP measure), adjusted, as applicable, to exclude one-time expenses and non-recurring termination fee income recognized in connection with the sale of MTGE Investment Corp. and corresponding termination of the Company's management agreement with MTGE.

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 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, 2019 and December 31, 2018 and our condensed consolidated statements of comprehensive income and key statistics for the three and nine months ended September 30, 2019 and 2018 (in millions, except per share amounts):
(\$ in Millions, Except Per Share Amounts)

| Balance Sheet Data | $\underset{2019}{\text { September 30, }}$ |  | $\begin{gathered} \text { December 31, } \\ 2018 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Unaudited) |  |  |  |
| Investment securities, at fair value | \$ | 100,683 | \$ | 84,287 |
| Total assets | \$ | 109,761 | \$ | 109,241 |
| Repurchase agreements and other debt. | \$ | 90,850 | \$ | 75,992 |
| Total liabilities | \$ | 99,548 | \$ | 99,335 |
| Total stockholders' equity | \$ | 10,213 | \$ | 9,906 |
| Net book value per common share ${ }^{1}$ | \$ | 17.52 | \$ | 17.54 |
| Tangible net book value per common share ${ }^{2}$ | \$ | 16.55 | \$ | 16.56 |



Weighted average number of common shares outstanding - basic
Weighted average number of common shares outstanding - diluted
Net income (loss) per common share - basic
Net income (loss) per common share - diluted
Comprehensive income (loss) per common share - basic and diluted
Dividends declared per common share

|  | 546.4 |
| :--- | :--- | :--- |
|  | 546.4 | |  | 462.3 |
| :--- | :--- |


| Other Data (Unaudited) * | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Average investment securities - at par | \$ | 89,741 | \$ | 61,696 | \$ | 88,783 | \$ | 56,179 |
| Average investment securities - at cost. | \$ | 92,764 | \$ | 64,346 | \$ | 91,736 | \$ | 58,705 |
| Average net TBA portfolio - at cost | \$ | 10,146 | \$ | 18,270 | \$ | 10,012 | \$ | 16,932 |
| Average total assets - at fair value |  | 104,819 | \$ | 82,169 | \$ | 11,059 | \$ | 73,236 |
| Average Agency repurchase agreements and other debt outstanding ${ }^{3}$ | \$ | 87,938 | \$ | 56,265 | \$ | 85,406 | \$ | 51,243 |
| Average stockholders' equity ${ }^{4}$ | \$ | 10,347 | \$ | 9,345 | \$ | 10,277 | \$ | 8,875 |
| Average tangible net book value "at risk" leverage ${ }^{5}$. |  | 10.0:1 |  | 8.5:1 |  | 9.8:1 |  | 8.2:1 |
| Tangible net book value "at risk" leverage (as of period end) ${ }^{6}$ |  | 9.8:1 |  | 8.2:1 |  | 9.8:1 |  | 8.2:1 |
| Economic return on tangible common equity ${ }^{7}$ |  | 2.7\% |  | 0.7\% |  | 9.1\% |  | (0.4)\% |
| Expenses \% of average total assets. |  | 0.07\% |  | 0.09\% |  | 0.07\% |  | 0.10 \% |
| Expenses \% of average assets, including average net TBA position. |  | 0.07\% |  | 0.08\% |  | 0.06\% |  | 0.08 \% |
| Expenses \% of average stockholders' equity . |  | 0.73\% |  | 0.81\% |  | 0.75\% |  | 0.83 \% |

* 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 includes repurchase agreements for non-Agency securities. 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 mortgage borrowings outstanding (Agency repo, other debt and TBA securities (at cost)) for the period by the sum of average stockholders' equity adjusted to exclude goodwill and other intangible assets for the period. Leverage excludes U.S. Treasury repurchase agreements.
6. "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 on common stock during the period over beginning tangible net book value per common share.

## 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, 2019 and 2018, 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, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  |  | 2019 |  | 2018 |  |
|  | Amount | Yield |  | ount | Yield | Amount | Yield | Amount | Yield |
| Interest income: |  |  |  |  |  |  |  |  |  |
| Cash/coupon interest income | \$ 868 | 3.87 \% | \$ | 581 | 3.78 \% | \$ 2,591 | 3.87 \% | \$ 1,569 | 3.72 \% |
| Net premium amortization | (192) | (0.96)\% |  | (81) | (0.67)\% | (517) | (0.86)\% | (224) | (0.67)\% |
| Interest income (GAAP measure) | 676 | 2.91 \% |  | 500 | 3.11 \% | 2,074 | 3.01 \% | 1,345 | 3.05 \% |
| Estimated "catch-up" premium amortization cost (benefit) due to change in CPR forecast | 55 | 0.24 \% |  | (6) | (0.04)\% | 152 | 0.23 \% | (39) | (0.08)\% |
| Interest income, excluding "catch-up" premium amortization. | 731 | 3.15 \% |  | 494 | 3.07 \% | 2,226 | 3.24 \% | 1,306 | 2.97 \% |
| TBA dollar roll income - implied interest income ${ }^{1,2}$ | 81 | 3.19 \% |  | 162 | 3.54 \% | 248 | 3.28 \% | 426 | 3.35 \% |
| Economic interest income, excluding "catch-up" amortization (non-GAAP measure) | \$ 812 | 3.16 \% | \$ | 656 | 3.18 \% | \$ 2,474 | 3.24 \% | \$ 1,732 | 3.05 \% |

Weighted average actual portfolio CPR for investment securities held during the period
Weighted average projected CPR for the remaining life of investment securities held as of period end.
Average 30-year fixed rate mortgage rate as of period end ${ }^{4}$ 10-year U.S. Treasury rate as of period end
$13.5 \%$
13.4\%
3.64\%
1.66\%
9.7\%
6.8\%
4.72\%
3.06\%
$10.0 \%$

|  |  |
| :--- | ---: |
| $13.4 \%$ | $6.8 \%$ |
| $3.64 \%$ | $4.72 \%$ |
| $1.66 \%$ | $3.06 \%$ |

[^5]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, 2019 compared to corresponding the prior year period (in millions):

Impact of Changes in the Principal Elements Impacting Economic Interest Income

|  | Periods ended September 30, 2019 vs. September 30, 2018 |  |  |
| :--- | :--- | :--- | :--- |

Our average investment portfolio, inclusive of TBAs, increased $25 \%$ and $35 \%$ (at cost) for the three and nine months ended September 30, 2019, respectively, compared to the corresponding prior year period, as a function of the deployment of new equity capital and an increase in our tangible equity "at risk" leverage ratio. The increase in our average asset yield, excluding "catchup" amortization and including TBAs, over the corresponding prior year period was due to changes in asset composition, which was partly offset by an increase in premium amortization expense as a result of faster CPR projections.

## 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 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 and other intangible assets.

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.

Our leverage varies depending on market conditions and our assessment of risks and returns, but we generally would expect our leverage to be within six to twelve times the amount of our tangible net book value. As of September 30, 2019, our tangible net book value "at risk" leverage was 9.8 x , compared to 9.0 x as of December 31, 2018. The table below presents a summary of our leverage ratios for the periods listed (dollars in millions):

| Quarter Ended | Repurchase Agreements and Other Debt ${ }^{1}$ |  |  |  |  |  | Net TBA PositionLong/(Short) ${ }^{2}$ |  |  |  | Average Tangible Net Book Value "At Risk" <br> Leverage during the Period ${ }^{3}$ | Tangible Net Book Value "At Risk" Leverage as of Period End ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average <br> Daily <br> Amount |  | Maximum Daily Amount |  | Ending Amount |  | Average <br> Daily <br> Amount |  | Ending Amount |  |  |  |
| September 30, 2019. | \$ | 87,938 | \$ | 92,420 | \$ | 90,462 | \$ | 10,146 | \$ | 1,820 | 10.0:1 | 9.8:1 |
| June 30, 2019 | \$ | 86,147 | \$ | 86,969 | \$ | 85,367 | \$ | 11,864 | \$ | 11,086 | 10.0:1 | 9.8:1 |
| March 31, 2019 | \$ | 82,070 | \$ | 87,877 | \$ | 86,590 | \$ | 8,002 | \$ | 6,885 | 9.3:1 | 9.4:1 |
| December 31, 2018 | \$ | 68,499 | \$ | 77,442 | \$ | 75,992 | \$ | 8,066 | \$ | 7,252 | 8.4:1 | 9.0:1 |
| September 30, 2018 | \$ | 56,265 | \$ | 66,969 | \$ | 65,975 | \$ | 18,270 | \$ | 9,436 | 8.5:1 | 8.2:1 |
| June 30, 2018 | \$ | 47,823 | \$ | 49,892 | \$ | 49,152 | \$ | 16,912 | \$ | 19,898 | 8.0:1 | 8.3:1 |
| March 31, 2018. | \$ | 49,567 | \$ | 50,645 | \$ | 49,292 | \$ | 15,585 | \$ | 13,529 | 8.2:1 | 8.2:1 |

[^6]
## 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 30,2019 and 2018 (dollars in millions), which includes the combination of interest expense on Agency repurchase agreements and other debt (GAAP measure), implied interest expense on our TBA securities and interest rate swap periodic interest (income) cost:

| Economic Interest Expense and Aggregate Cost of Funds ${ }^{1}$ | Three Months Ended September 30, |  |  |  |  |  | Nine Months Ended September 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  |  | 2018 |  |  | 2019 |  |  | 2018 |  |  |
|  | 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) | \$ | 557 | 2.48 \% | \$ | 312 | 2.20 \% | \$ | 1,668 | 2.58 \% | \$ | 755 | 1.97 \% |
| TBA dollar roll income - implied interest expense ${ }^{2,3}$ |  | 52 | 2.00 \% |  | 94 | 2.05 \% |  | 178 | 2.32 \% |  | 226 | 1.78 \% |
| Economic interest expense - before interest rate swap periodic (income) costs, net ${ }^{4}$ |  | 609 | 2.43 \% |  | 406 | 2.18 \% |  | 1,846 | 2.55 \% |  | 981 | . 92 \% |
| Interest rate swap periodic interest (income) cost, net ${ }^{2,5} \ldots$ |  | (146) | (0.58)\% |  | (56) | (0.30)\% |  | (317) | (0.44)\% |  | (88) | (0.17)\% |
| Total economic interest expense (non-GAAP measure) | \$ | 463 | 1.85 \% | \$ | 350 | 1.88 \% | \$ | 1,529 | 2.11 \% | \$ | 893 | 1.75 \% |

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 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 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 interest (income) 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, 2019 compared to the corresponding prior year period (in millions):


Our average mortgage borrowings, inclusive of TBAs, increased by $32 \%$ and $40 \%$ for the three and nine months ended September 30, 2019, respectively, compared to the corresponding prior year period as a function of our higher asset base. The increase in the average interest rate (actual and implied) on our mortgage borrowings was largely driven by increases in the Federal Funds rate during fiscal year 2018. The increase in our interest rate swap periodic interest income for the three months ended September 30, 2019, was due an increase in our average swap position and a decline in the average pay rate on our interest rate swaps as a result of hedge repositioning. The increase for the nine months ended September 30, 2019, was primarily due the receive-floating rate leg of our interest rate swaps resetting to higher prevailing rates.

The table below presents a summary of the ratio of our average interest rates swaps outstanding, excluding forward starting swaps, to our average mortgage borrowings for the three and nine months ended September 30, 2019 and 2018 (dollars in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Ratio of Interest Rate Swaps (Excluding Forward Starting Swaps) to Mortgage Borrowings Outstanding | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Average Agency repo and other debt outstanding | \$ | 87,938 | \$ | 56,265 | \$ | 85,406 | \$ | 51,243 |
| Average net TBA portfolio outstanding - at cost | \$ | 10,146 | \$ | 18,270 | \$ | 10,012 | \$ | 16,932 |
| Average mortgage borrowings outstanding | \$ | 98,084 | \$ | 74,535 | \$ | 95,418 | \$ | 68,175 |
| Average notional amount of interest rate swaps outstanding (excluding forward starting swaps) | \$ | 77,824 | \$ | 44,032 | \$ | 58,459 | \$ | 42,630 |
| Ratio of average interest rate swaps to mortgage borrowings outstanding |  | 79 \% |  | 59 \% |  | $61 \%$ |  | 63 \% |
| Average interest rate swap pay-fixed rate (excluding forward starting swaps). |  | 1.52 \% |  | 1.86 \% |  | 1.75 \% |  | 1.79 \% |
| Average interest rate swap receive-floating rate |  | (2.26)\% |  | (2.36)\% |  | (2.48)\% |  | (2.07)\% |
| Average interest rate swap net pay/(receive) rate |  | (0.74)\% |  | (0.50)\% |  | (0.73)\% |  | (0.28)\% |

For the three and nine months ended September 30, 2019, we had an average forward starting swap balance of $\$ 2.4$ billion and $\$ 3.7$ billion, respectively. For the three and nine months ended September 30, 2018, we had an average forward starting swap balance of $\$ 4.2$ billion and $\$ 3.8$ 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, 2019 was $82 \%$ and $65 \%$, respectively, and $65 \%$ and $68 \%$, respectively, for the corresponding prior year period.

## 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, 2019 and 2018:

| Investment and TBA Securities - Net Interest Spread | Three Months Ended September 30, |  | Nine Months Ended September 30, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2019 | 2018 | 2019 | 2018 |
| Average asset yield, excluding "catch-up" premium amortization | 3.16 \% | 3.18 \% | 3.24 \% | 3.05 \% |
| Average aggregate cost of funds | (1.85)\% | (1.88)\% | (2.11)\% | (1.75)\% |
| Average net interest spread, excluding "catch-up" premium amortiz | 1.31 \% | 1.30 \% | 1.13 \% | 1.30 \% |

## 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, 2019 and 2018 (dollars in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Net interest income (GAAP measure) | \$ | 119 | \$ | 188 | \$ | 406 | \$ | 590 |
| TBA dollar roll income, net ${ }^{1}$ |  | 29 |  | 68 |  | 70 |  | 200 |
| Interest rate swap periodic interest income (cost), net ${ }^{1}$ |  | 146 |  | 56 |  | 317 |  | 88 |
| Other interest and dividend income ${ }^{1}$ |  | 4 |  | 1 |  | 11 |  | 3 |
| Adjusted net interest and dollar roll income |  | 298 |  | 313 |  | 804 |  | 881 |
| Other operating income (expense): |  |  |  |  |  |  |  |  |
| Operating expenses |  | (19) |  | (45) |  | (58) |  | (81) |
| Less non-recurring write-off of intangible asset and other expenses associated with termination of management agreement |  | - |  | 26 |  | - |  | 26 |
| Management fee income |  | - |  | 46 |  | - |  | 54 |
| Less management agreement termination fee income |  | - |  | (42) |  | - |  | (42) |
| Adjusted other operating income (expense), net |  | (19) |  | (15) |  | (58) |  | (43) |
| Net spread and dollar roll income |  | 279 |  | 298 |  | 746 |  | 838 |
| Dividend on preferred stock |  | 13 |  | 9 |  | 36 |  | 27 |
| Net spread and dollar roll income available to common stockholders (non-GAAP measure) ............... |  | 266 |  | 289 |  | 710 |  | 811 |
| Estimated "catch-up" premium amortization cost (benefit) due to change in CPR forecast. |  | 55 |  | (6) |  | 152 |  | (39) |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, available to common stockholders (non-GAAP measure) | \$ | 321 | \$ | 283 | \$ | 862 | \$ | 772 |
| Weighted average number of common shares outstanding - basic |  | 546.4 |  | 462.3 |  | 540.3 |  | 419.8 |
| Weighted average number of common shares outstanding - diluted |  | 547.1 |  | 462.7 |  | 540.9 |  | 420.1 |
| Net spread and dollar roll income per common share - basic | \$ | 0.49 | \$ | 0.63 | \$ | 1.31 | \$ | 1.93 |
| Net spread and dollar roll income per common share - diluted | \$ | 0.49 | \$ | 0.62 | \$ | 1.31 | \$ | 1.93 |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share basic | \$ | 0.59 | \$ | 0.61 | \$ | 1.60 | \$ | 1.84 |
| Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share diluted | \$ | 0.59 | \$ | 0.61 | \$ | 1.59 | \$ | 1.84 |

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

During the three and nine months ended September 30, 2019, the fair value of our investment portfolio increased due to a decline in long-term interest rates and an increase in the premium, or pay-up values, for specified Agency RMBS, which have a lower likelihood of prepayment than generic Agency securities in low interest rate environments. During the prior year periods, the opposite occurred as the average fair value of our investment portfolio declined due to an increase in long-term interest rates and and a decline in pay-up values for specified Agency RMBS. The following table is a summary of our net gain (loss) on investment securities for the three and nine months ended September 30, 2019 and 2018 (in millions):

| Gain (Loss) on Investment Securities, Net ${ }^{1}$ | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Gain (loss) on sale of investment securities, net | \$ | 89 | \$ | (40) | \$ | 281 | \$ | (116) |
| Unrealized gain (loss) on investment securities measured at fair value through net income, net ${ }^{2} \ldots \ldots$. |  | 355 |  | (363) |  | 2,174 |  | (980) |
| Unrealized gain (loss) on investment securities measured at fair value through other comprehensive income, net |  | 246 |  | (193) |  | 1,025 |  | (959) |
| Total gain (loss) on investment securities, net | \$ | 690 | \$ | (596) | \$ | 3,480 | \$ | $(2,055)$ |

[^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, 2019 and 2018 (in millions):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Interest rate swap periodic interest income (cost), net | \$ | 146 | \$ | 56 | \$ | 317 | \$ | 88 |
| Realized gain (loss) on derivative instruments and other securities, net: |  |  |  |  |  |  |  |  |
| TBA securities - dollar roll income, net |  | 29 |  | 68 |  | 70 |  | 200 |
| TBA securities - mark-to-market net gain (loss) |  | 151 |  | 26 |  | 342 |  | (514) |
| Payer swaptions |  | (3) |  | - |  | (30) |  | 36 |
| U.S. Treasury securities - long position |  | 6 |  | - |  | 7 |  | - |
| U.S. Treasury securities - short position |  | (203) |  | (3) |  | (820) |  | (4) |
| U.S. Treasury futures - short position |  | (94) |  | (1) |  | (189) |  | 103 |
| Interest rate swaps - termination fees and variation margin settlements, net |  | (653) |  | 232 |  | $(2,292)$ |  | 948 |
| Other |  | - |  | 5 |  | (8) |  | 7 |
| Total realized gain (loss) on derivative instruments and other securities, net |  | (767) |  | 327 |  | $(2,920)$ |  | 776 |
| Unrealized gain (loss) on derivative instruments and other securities, net: |  |  |  |  |  |  |  |  |
| TBA securities - mark-to-market net gain (loss) |  | (36) |  | (150) |  | (22) |  | (48) |
| Interest rate swaps |  | 25 |  | (6) |  | (122) |  | 125 |
| Payer swaptions |  | (16) |  | 30 |  | (41) |  | 119 |
| U.S. Treasury securities - long position |  | (1) |  | - |  | 4 |  | - |
| U.S. Treasury securities - short position |  | 49 |  | 153 |  | (264) |  | 401 |
| U.S. Treasury futures - short position |  | 54 |  | 22 |  | 61 |  | 1 |
| Other |  | (2) |  | (2) |  | 1 |  | 4 |
| Total unrealized gain (loss) on derivative instruments and other securities, net |  | 73 |  | 47 |  | (383) |  | 602 |
| Total gain (loss) on derivative instruments and other securities, net | \$ | (548) | \$ | 430 | \$ | $\underline{(2,986)}$ | \$ | 1,466 |

For further details regarding our use of derivative instruments and related activity refer to Notes 3 and 6 of our Consolidated Financial Statements in this Form 10-Q.

## Estimated Taxable Income

For the three months ended September 30,2019 and 2018, we had estimated taxable income available to common stockholders of $\$ 156$ million and $\$ 142$ million (or $\$ 0.29$ and $\$ 0.31$ per diluted common share), respectively. For the nine months ended September 30, 2019 and 2018, we had estimated taxable income available to common stockholders of $\$ 523$ million and $\$ 326$ million (or $\$ 0.97$ and $\$ 0.78$ 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 derivative instruments and other securities marked-to-market in current income for GAAP purposes, but excluded from taxable income until realized or settled, (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, 2019 and 2018 (dollars in millions, except per share amounts):

|  | Three Months Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2019 |  | 2018 |  | 2019 |  | 2018 |  |
| Net income (loss) | \$ | (4) | \$ | 216 | \$ | (183) | \$ | 933 |
| Estimated book to tax differences: |  |  |  |  |  |  |  |  |
| Premium amortization, net |  | 47 |  | (21) |  | 168 |  | (66) |
| Realized gain/loss, net |  | 521 |  | (291) |  | 2,034 |  | $(1,164)$ |
| Net capital loss/(utilization of net capital loss carryforward) |  | 34 |  | (67) |  | 342 |  | 287 |
| Unrealized (gain)/loss, net |  | (428) |  | 316 |  | $(1,791)$ |  | 378 |
| Other |  | (1) |  | (2) |  | (11) |  | (15) |
| Total book to tax differences |  | 173 |  | (65) |  | 742 |  | (580) |
| Estimated REIT taxable income |  | 169 |  | 151 |  | 559 |  | 353 |
| Dividend on preferred stock |  | 13 |  | 9 |  | 36 |  | 27 |
| Estimated REIT taxable income available to common stockholders | \$ | 156 | \$ | 142 | \$ | 523 | \$ | 326 |
| Weighted average number of common shares outstanding - basic |  | 546.4 |  | 462.3 |  | 540.3 |  | 419.8 |
| Weighted average number of common shares outstanding - diluted |  | 547.1 |  | 462.7 |  | 540.9 |  | 420.1 |
| Estimated REIT taxable income per common share - basic | \$ | 0.29 | \$ | 0.31 | \$ | 0.97 | \$ | 0.78 |
| Estimated REIT taxable income per common share - diluted | \$ | 0.29 | \$ | 0.31 | \$ | 0.97 | \$ | 0.78 |
| Beginning cumulative non-deductible net capital loss | \$ | 490 | \$ | 711 | \$ | 182 | \$ | 357 |
| Increase (decrease) in net capital loss carryforward |  | 34 |  | (67) |  | 342 |  | 287 |
| Ending cumulative non-deductible net capital loss. | \$ | 524 | \$ | 644 | \$ | 524 | \$ | 644 |
| Ending cumulative non-deductible net capital loss per common shar | \$ | 0.97 | \$ | 1.35 | \$ | 0.97 | \$ | 1.35 |

## LIQUIDITY AND CAPITAL RESOURCES

Our primary sources of funds are borrowings under master repurchase agreements, asset sales, receipts of monthly principal and interest payments on our investment portfolio and equity offerings. We may also enter into TBA contracts to acquire or dispose of Agency RMBS and TBA dollar roll transactions to finance Agency RMBS purchases. Because the level of our borrowings can be adjusted daily, the level of cash and cash equivalents carried on our balance sheet is significantly less important than the potential liquidity available under our borrowing arrangements. Our leverage will vary periodically depending on market conditions and our assessment of risks and returns. We generally would expect our leverage to be within six to twelve times the amount of our tangible stockholders' equity. However, under certain market conditions, we may operate at leverage levels outside of this range for extended periods of time.

We currently believe that we have sufficient liquidity and capital resources available for the acquisition of additional investments, repayments on borrowings, maintenance of any margin requirements and the payment of cash dividends as required for our continued qualification as a REIT. We currently expect to distribute $100 \%$ of our taxable income so that we are not subject to U.S. federal and state corporate income taxes. Our REIT distribution requirement of at least $90 \%$ of our taxable income limits our ability to retain earnings and thereby replenish or increase capital from operations.

## Debt Capital

As of September 30, 2019 and December 31, 2018, our mortgage borrowings consisted of the following (dollars in millions):


1. Amount excludes $\$ 388$ million of repurchase agreements used to fund purchases of U.S. Treasury securities as of September 30, 2019.

Our tangible net book value "at risk" leverage was 9.8 x and 9.0x as of September 30, 2019 and December 31, 2018, respectively, 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.

## Repurchase Agreements

As part of our investment strategy, we borrow against our investment portfolio pursuant to master repurchase agreements. We expect that the majority of our borrowings under repurchase agreements will have maturities ranging up to one year but may have terms ranging up to five years or longer. Borrowings with maturities greater than one year typically have floating rates of interest based on a short-term benchmark rate plus or minus a fixed spread.

As of September 30, 2019, we had $\$ 90.2$ billion of repurchase agreements outstanding used to fund acquisitions of investment securities with a weighted average interest rate of $2.48 \%$ and a weighted average remaining days-to-maturity of 64 days, compared $\$ 75.7$ billion, $2.79 \%$ and 49 days, respectively, as of December 31, 2018.

To limit our counterparty exposure, we diversify our funding across multiple counterparties and by counterparty region. As of September 30, 2019, we had master repurchase agreements with 47 financial institutions located throughout North America, Europe and Asia, including counterparties accessed through our wholly-owned captive broker-dealer subsidiary, Bethesda Securities, LLC ("BES"). BES has direct access to bilateral and triparty funding, including the General Collateral Finance Repo service offered by the Fixed Income Clearing Corporation, or "FICC," which provides us greater depth and diversity of funding at favorable terms relative to traditional bilateral repurchase agreement funding. As of September 30, 2019, $\$ 36.1$ billion of our repurchase agreement funding was sourced through BES.

The table below includes a summary of our Agency RMBS repurchase agreement funding by number of repo counterparties and counterparty region as of September 30, 2019. For further details regarding our borrowings under repurchase agreements as of September 30, 2019, please refer to Notes 5 and 7 to our Consolidated Financial Statements in this Form 10-Q.

| Counter-Party Region | September 30, 2019 |  |
| :---: | :---: | :---: |
|  | Number of Counter-Parties | Percent of Repurchase Agreement Funding |
| North America: |  |  |
| FICC | 1 | 39\% |
| Other | 27 | 42\% |
| Total North America | 28 | 81\% |
| Europe | 14 | 13\% |
| Asia | 5 | 6\% |
| Total | 47 | 100\% |

Amounts available to be borrowed under our repurchase agreements are dependent upon lender collateral requirements and the lender's 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. In addition, our counterparties apply a "haircut" to our pledged collateral, which means our collateral is valued at slightly less than market value. This haircut reflects the underlying risk of the specific collateral and protects our counterparty against a change in its value, but conversely subjects us to counterparty credit risk and limits the amount we can borrow against our investment securities. Our master repurchase agreements do not specify the haircut; rather haircuts are determined on an individual repurchase transaction basis. Throughout the nine months ended September 30, 2019, haircuts on our pledged collateral remained stable and, as of September 30, 2019, our weighted average haircut was approximately $4.2 \%$ of the value of our collateral, inclusive of collateral funded through BES. As of September 30, 2019, our maximum amount at risk (or the excess of the value of collateral pledged over our repurchase liabilities) with any counterparty related to our repurchase agreements, excluding the FICC, was less than $4 \%$ of our tangible stockholders' equity, with our top five repo counterparties, excluding the FICC, representing less than $13 \%$ of our tangible stockholders' equity. As of September 30, 2019, approximately $11 \%$ of our tangible stockholder's equity was at risk with the FICC. We could be exposed to credit risk if the FICC or an FICC netting member defaults on its obligations. However, we believe that the risk is minimal due to the FICC's initial and daily mark-to-market margin requirements, guarantee funds and other resources that are available in the event of a default.

We may be required to pledge additional assets to our counterparties in the event the estimated fair value of the existing collateral pledged under our agreements declines and our counterparties demand additional collateral (a "margin call"), which may take the form of additional securities or cash. Specifically, margin calls would result from a decline in the fair value of our investment securities securing our repurchase agreements as well as due to prepayments on the mortgages securing such securities. Similarly, if the estimated fair value of our investment securities increases due to changes in interest rates or other factors, counterparties may release collateral back to us. Our repurchase agreements generally provide that the valuations of securities securing our repurchase agreements are to be obtained from a generally recognized source agreed to by the parties. In certain circumstances, however, our lenders have the sole discretion to determine the value of pledged collateral. In such instances, our lenders are required to act in good faith in making determinations of value. Our repurchase agreements generally provide that in the event of a margin call, we must provide additional securities or cash on the same business day that a margin call is made if the lender provides us notice prior to the margin notice deadline on such day.

As of September 30, 2019, we had met all of our margin requirements and we had unrestricted cash and cash equivalents of $\$ 0.9$ billion and unpledged securities of approximately $\$ 3.6$ billion, including securities pledged to us and unpledged interests in our consolidated VIEs, available to meet margin calls on our repurchase agreements and other funding liabilities, derivative instruments and for other corporate purposes.

Although we believe we will have adequate sources of liquidity available to us through repurchase agreement financing to execute our business strategy, there can be no assurances that repurchase agreement financing will be available to us upon the maturity of our current repurchase agreements to allow us to renew or replace our repurchase agreement financing on favorable terms or at all. If our repurchase agreement lenders default on their obligations to resell the underlying collateral back to us at the end of the term, we could incur a loss equal to the difference between the value of the collateral and the cash we originally received.

To help manage the adverse impact of interest rate changes on the value of our investment portfolio as well as our cash flows, we utilize an interest rate risk management strategy under which we use derivative financial instruments. In particular, we attempt to mitigate the risk of the cost of our variable rate liabilities increasing at a faster rate than the earnings of our long-term fixed rate assets during a period of rising interest rates. The primary derivative instruments that we use are interest rate swaps, interest rate swaptions, U.S. Treasury securities and U.S. Treasury futures contracts. Please refer to Notes 3 and 6 to our Consolidated Financial Statements in this Form 10-Q for further details regarding our use of derivative instruments.

As with repurchase agreements, our derivative agreements typically require that we pledge/receive collateral to/from our counterparties. Our counterparties, or the central clearing agency, typically have the sole discretion to determine the value of the derivative instruments and the value of the collateral securing such instruments. In the event of a margin call, we must provide additional collateral generally on the same or next business day. We minimize counterparty credit risk associated with our derivative instruments by limiting our counterparties to registered central clearing exchanges and major financial institutions with acceptable credit ratings and by monitoring positions with individual counterparties. Excluding centrally cleared derivative instruments, as of September 30, 2019, our amount at risk with any counterparty related to our interest rate swap and swaption agreements was less than $1 \%$ of our stockholders' equity. In the case of centrally cleared derivative instruments, we could be exposed to credit risk if the exchange or a central clearing member defaults on its obligations. However, we believe that the risk is minimal due to initial and daily mark-to-market margin requirements, guarantee funds and other resources that are available in the event of a default.

## TBA Dollar Roll Transactions

TBA dollar roll transactions used to finance the purchase of Agency RMBS represent a form of off-balance sheet financing accounted for as derivative instruments. (See Notes 3 and 6 to our Consolidated Financial Statements in this Form 10-Q additional details on of our TBA transactions). Under certain market conditions, it may be uneconomical for us to roll our TBA contracts into future months and we may need to take or make physical delivery of the underlying securities. If we were required to take physical delivery to settle a long TBA contract, we would have to fund our total purchase commitment with cash or other financing sources and our liquidity position could be negatively impacted. As of September 30, 2019, we had a net long TBA position with a total market value of $\$ 1.9$ billion and a net carrying value of $\$ 47$ million recognized in derivative assets/(liabilities), at fair value, on our Consolidated Balance Sheets in this Form 10-Q.

Our TBA dollar roll contracts are also subject to margin requirements governed by the Mortgage-Backed Securities Division ("MBSD") of the FICC and by our prime brokerage agreements, which may establish margin levels in excess of the MBSD. Such provisions require that we establish an initial margin based on the notional value of the TBA contract, which is subject to increase if the estimated fair value of our TBA contract or the estimated fair value of our pledged collateral declines. The MBSD has the sole discretion to determine the value of our TBA contracts and of the pledged collateral securing such contracts. In the event of a margin call, we must generally provide additional collateral on the same business day.

Settlement of our TBA obligations by taking delivery of the underlying securities as well as satisfying margin requirements could negatively impact our liquidity position. However, since we do not use TBA dollar roll transactions as our primary source of financing, we believe that we will have adequate sources of liquidity to meet such obligations.

## Bethesda Securities Regulatory Capital Requirements

BES is subject to regulations of the securities business that include but are not limited to trade practices, capital structure, recordkeeping and conduct of directors, officers and employees. As a self-clearing registered broker-dealer, BES is required to maintain minimum net regulatory capital as defined by SEC Rule 15c3-1 (the "Rule"). As of September 30, 2019, the minimum net capital required was $\$ 0.3$ million and BES had excess net capital of $\$ 613.4$ million. Regulatory capital in excess of the minimum required by the Rule is held to meet levels required by clearing organizations, the clearing bank and other repo counterparties.

## Asset Sales and TBA Eligible Securities

We maintain a portfolio of highly liquid mortgage-backed securities. We may sell our Agency securities through the TBA market by delivering them into TBA contracts, subject to "good delivery" provisions promulgated by Securities Industry and Financial Markets Association ("SIFMA"). We may alternatively sell Agency securities that have more unique attributes on a specified basis when such securities trade at a premium over generic TBA securities or if the securities are not otherwise eligible for TBA delivery. Since the TBA market is the second most liquid market (after the U.S. Treasury market), maintaining a significant level of Agency securities eligible for TBA delivery enhances our liquidity profile and provides price support for our TBA eligible securities at or above generic TBA prices. As of September 30, 2019, approximately $95 \%$ of our fixed rate Agency RMBS portfolio was eligible for TBA delivery.

## Equity Capital

To the extent we raise additional equity capital, we may use cash proceeds from such transactions to purchase additional investment securities, to make scheduled payments of principal and interest on our funding liabilities and/or for other general corporate purposes. There can be no assurance, however, 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 Notes 10 and 11 to our Consolidated Financial Statements in this Form 10-Q for further details regarding equity capital transactions.

## OFF-BALANCE SHEET ARRANGEMENTS

As of September 30, 2019, 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 30,2019, we had not guaranteed obligations of unconsolidated entities or entered into a commitment or intent to provide funding to such entities.

## FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on estimates, projections, beliefs and assumptions of our management as of the date of this Quarterly Report on Form 10-Q and involve risks and uncertainties in predicting future results and conditions. Our actual performance could differ materially from those projected or anticipated in any forward looking statements due to a variety of factors, including, without limitation, changes in interest rates, the yield curve or prepayment rates; the availability and terms of financing; changes in the market value of our assets; the effectiveness of our risk mitigation strategies; conditions in the market for Agency and other mortgage securities; or legislative or regulatory changes that affect our status as a REIT or our exemption from the Investment Company Act of 1940 or that affect the GSE's or secondary mortgage market in which we participate. A 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 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 both 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, 2019 and December 31, 2018 should interest rates go up or down by 50 and 100 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, 2019 and December 31, 2018.

To the extent that these estimates or other assumptions do not hold true, which is likely in a period of high 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 ${ }^{\text {1,2 }}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |

[^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, including housing prices, general economic conditions, loan age, size and loan-to-value ratios, and the pace of GSE buyouts of delinquent loans underlying our securities among other factors. Generally, prepayments increase during periods of falling mortgage interest rates and decrease during periods of rising mortgage interest rates. However, this may not always be the case.

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 which case, we may have to finance our investments at potentially higher costs without the ability to reinvest principal into higher yielding securities because borrowers prepay their mortgages at a slower pace than originally expected, adversely impacting our net interest spread, and thus our net interest income.

As of September 30, 2019 and December 31, 2018, our investment securities (excluding TBAs) had a weighted average projected CPR of $13.4 \%$ and $7.9 \%$, respectively, and a weighted average yield of $3.08 \%$ and $3.31 \%$, respectively. The table below presents estimated weighted average projected CPRs and yields for our investment securities should interest rates go up or down by 50 and 100 basis points.

Interest Rate Sensitivity ${ }^{1}$

| Change in Interest Rate | September 30, 2019 |  | December 31, 2018 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Weighted } \\ \text { Average } \\ \text { Projected CPR } \\ \hline \end{gathered}$ | Weighted Average Asset Yield ${ }^{2}$ | $\begin{gathered} \text { Weighted } \\ \text { Average } \\ \text { Projected CPR } \\ \hline \end{gathered}$ | Weighted Average Asset Yield ${ }^{2}$ |
| -100 Basis Points | 23.6\% | 2.73\% | 14.1\% | 3.15\% |
| -50 Basis Points | 18.5\% | 2.89\% | 10.3\% | 3.25\% |
| Actual as of Period End | 13.4\% | 3.08\% | 7.9\% | 3.31\% |
| +50 Basis Points | 9.4\% | 3.18\% | 6.5\% | 3.33\% |
| +100 Basis Points | 7.3\% | 3.24\% | 5.7\% | 3.38\% |

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.

## 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. The inherent spread risk associated with our investment securities and the resulting fluctuations in fair value of these securities can occur independent of interest rates and may relate to other factors impacting the mortgage and fixed income markets, such as actual or anticipated monetary policy actions by U.S. and foreign central banks, liquidity, or changes in required rates of return on different assets. Our strategies are generally not specifically designed to protect against spread risk, thus while we use interest rate swaps and other hedges to attempt to protect against moves in interest rates, our tangible net book value could decline if spreads widen.

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, 2019 and December 31, 2018 should spreads widen or tighten by 10 and 25 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 4.6 and 5.6 years as of September 30, 2019 and December 31, 2018, 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 ${ }^{1,2}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | September 30, 2019 |  | December 31, 2018 |  |
| Change in MBS Spread | 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 |
| -25 Basis Points | +1.2\% | +13.2\% | +1.4\% | +14.3\% |
| -10 Basis Points | +0.5\% | +5.3\% | +0.6\% | +5.7\% |
| +10 Basis Points. | -0.5\% | -5.3\% | -0.6\% | -5.7\% |
| +25 Basis Points.............. | -1.2\% | -13.2\% | -1.4\% | -14.3\% |

[^9]
## Liquidity Risk

Our liquidity risk principally arises from financing long-term fixed rate assets with shorter-term variable rate borrowings. As of September 30, 2019, we had unrestricted cash and cash equivalents of $\$ 0.9$ billion and unpledged securities of approximately $\$ 3.6$ billion available to meet margin calls on our funding liabilities and derivative contracts and for other corporate purposes. 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 even force us to sell assets, especially if correlated with asset price declines or faster prepayment rates on our assets.

In addition, we often utilize TBA dollar roll transactions to invest in and finance Agency RMBS. Under certain conditions it may be uneconomical to roll our TBA dollar roll transactions beyond the next settlement date and we could have to take physical delivery of the underlying securities and settle our obligations for cash, which could negatively impact our liquidity position, result in defaults or force us to sell assets under adverse conditions.

## 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 to be prudent within the context of our overall investment strategy. We attempt to manage this risk through prudent asset selection, pre-acquisition due diligence, postacquisition 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 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 amounts cleared through a central clearing exchange, as of September 30, 2019, our maximum amount at risk with any counterparty related to our repurchase agreements was less than $4 \%$ of our tangible stockholders' equity and less than $1 \%$ of tangible stockholders' equity related to our interest rate swap and swaption agreements.

## Item 4. Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Securities Exchange Act of 1934, as amended (the "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 costbenefit 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, 2019. 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

The Company is a party to three stockholder derivative lawsuits filed against the Company, as nominal defendant, certain of our current and former directors and officers, and Ares Capital Corporation and certain of its affiliates as previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018. On October 15, 2019, a hearing was held on the proposed settlement in the matter called H\&N Management Group \& Aff Cos. Frozen Money Pension Plan v. Couch, et al., pending in the Chancery Court for the State of Delaware (the "Delaware Court") as described in the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2019. Under the terms of the settlement, as proposed, the Company would receive an aggregate settlement payment of $\$ 35.5$ million on behalf of all defendants less amounts awarded by the Court for plaintiff attorneys' fees, costs of providing notice and other costs awarded by the Court. The proposed settlement would also provide for a release of the Company and the defendants and certain of their respective affiliates from liability, subject to the terms and conditions of the settlement. At the hearing, the Delaware Court stated that the settlement will be approved on the terms as proposed, but that it would issue a final order to resolve a dispute among the plaintiffs' attorneys regarding their respective entitlement to the attorneys' fee award. The settlement is subject to, among other things, a final order issued by the Delaware Court and dismissal with prejudice of the two consolidated stockholder derivative lawsuits pending in the United States District Court for the District of Maryland.

## 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, 2018.

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

## Stock Repurchase Program

In July of 2019, our Board of Directors authorized the repurchase of up to $\$ 1$ billion of our outstanding shares of common stock through December 31, 2020. As of September 30, 2019, we have repurchased $\$ 103$ million of our common stock under the program. The following table presents information with respect to purchases of our common stock made during the three months ended September 30, 2019 by us or any "affiliated purchaser" of us, as defined in Rule 10b-18(a)(3) under the Exchange Act (in millions, except per share amounts):

| Settlement Date | $\begin{aligned} & \text { Total Number } \\ & \text { of Shares } \\ & \text { Purchased } \end{aligned}$ | Average Net Price Paid Per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ${ }^{1}$ | Maximum Number of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs |
| :---: | :---: | :---: | :---: | :---: |
| September 3, 2019 - September 10, 2019 | 6.9 | \$14.90 | 6.9 | N/A |
| Total | 6.9 | \$14.90 | 6.9 | N/A |

1. All shares were purchased by us pursuant to the stock repurchase program described in Note 10 of our accompanying Consolidated Financial Statements in this Form 10-Q.

## 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 herein by reference to Exhibit 3.1 of Form 10-Q for the quarter ended March 31, 2018 (File No. 001-34057), filed May 7, 2018.
*3.2 AGNC Investment Corp. Third Amended and Restated Bylaws, as amended, incorporated herein by reference to Exhibit 3.2 of Form 10-Q for the quarter ended September 30, 2016 (File No. 001-34057), filed November 7, 2016.
*3.3 Certificate of Designations of 7.750\% Series B Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.4 of Form 8-A (File No. 001-34057), filed May 7, 2014.

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.

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.

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.
*3.7 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.
*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, 2018 (File No. 001-34057) filed May 7, 2018.
*4.2 Instruments defining the rights of holders of securities: See Article VI of our Third Amended and Restated Bylaws, as amended, incorporated herein by reference to Exhibit 3.2 of Form $10-\mathrm{Q}$ for the quarter ended September 30, 2016 (File No. 001-34057) filed November 7, 2016.
*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.

Specimen $7.750 \%$ Series B Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed May 7, 2014.

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.

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.
*4.7 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.
*4.8 Deposit Agreement relating to 7.750\% Series B Cumulative Redeemable Preferred Stock, dated May 8, 2014, among American Capital Agency 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 May 8, 2014.
*4.9 Form of Depositary Receipt representing 1/1,000th of a share of $7.750 \%$ Series B Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.7), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057), filed May 8, 2014.
*4.10
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.

| *4.11 | 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 4.9), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed August 22, 2017. |
| :---: | :---: |
| *4.12 | Deposit Agreement relating to 6.875\% Series DFixed-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. |
| *4.13 | Form of Depositary Receipt representing $1 / 1,000$ th of a share of $6.875 \%$ Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.11), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed March 6, 2019. |
| *4.14 | 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. |
| *4.15 | Form of Depositary Receipt representing 1/1,000th of a share of $6.50 \%$ Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.14), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed October 3, 2019. |
| 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 |

[^10](b) Exhibits

See the exhibits filed herewith.
(c) Additional financial statement schedules

None.

## SIGNATURES

Pursuant to the requirements of Section 13 or $15(\mathrm{~d})$ 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: $\qquad$
Gary D. Kain
Chief Executive Officer and Chief Investment Officer (Principal Executive Officer)
Date: November 5, 2019
By: $\frac{\text { /s/ BerNice E. BELL }}{\substack{\text { Bernice E. Bell } \\ \text { Chief Financial Officerior (Price President and } \\ \text { Accounting Officer) Officer and Principal }}}$

Date: November 5, 2019


[^0]:    1. Incorporates a weighted average future constant prepayment rate assumption of $7.9 \%$ based on forward rates as of December $31,2018$.
[^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 $\mathrm{S} \& \mathrm{P}$ equivalent rating as of each date.
[^2]:    1. As of December 31, 2018, notional amount includes forward starting swaps of $\$ 5.7$ billion with an average forward start date of 0.5 years.
    2. Average fixed pay rate as of December 31, 2018 includes forward starting swaps. Excluding forward starting swaps, the average fixed pay rate was $1.98 \%$ as of December 31, 2018.
[^3]:    1. Reported under derivative assets / liabilities, at fair value in the accompanying consolidated balance sheets. Refer to Note 6 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.
[^4]:    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, 2019, lower balance specified pools have a weighted average original loan balance of $\$ 113,000$ and $\$ 118,000$ for 15 -year and 30 -year securities, respectively, and HARP pools have a weighted average original LTV of $119 \%$ and $136 \%$ 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, 2019.
[^5]:    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: Freddie Mac Primary Fixed Mortgage Rate Mortgage Market Survey
[^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.
    3. Average Tangible "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 position outstanding divided by the sum of our average month-ended stockholders' equity, adjusted to exclude goodwill, other intangible asset and investment in REIT equity securities for the period.
    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 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, other intangible asset and investment in REIT equity securities as of period end.
[^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 3 of our Consolidated Financial Statements in this Form $10-\mathrm{Q}$ ).
[^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.
[^9]:    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.
[^10]:    * 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
    $\dagger \quad$ Management contract or compensatory plan or arrangement

