UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 FORM 10-Q

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

For the quarterly period ended September 30, 2020

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

Commission file number 001-34057



(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)

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

2 Bethesda Metro Center, 12th Floor Bethesda, Maryland 20814 (Address of principal executive offices) (301) 968-9315 (Registrant's telephone number, including area code)

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 x No □

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

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

Large accelerated filer	×	Accelerated filer	
Non-accelerated filer		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. \Box

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes \Box No xSecurities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Exchange on Which Registered
Common Stock, par value \$0.01 per share	AGNC	The Nasdaq Global Select Market
Depositary shares of 7.000% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock	AGNCN	The Nasdaq Global Select Market
Depositary shares of 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock	AGNCM	The Nasdaq Global Select Market
Depositary shares of 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock	AGNCO	The Nasdaq Global Select Market
Depositary shares of 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock	AGNCP	The Nasdaq Global Select Market
The number of shares of the issuer's common stock, \$0.01 par value, outstanding as of Octobe	r 31, 2020 was 545,211,569.	

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, 2020			December 31, 2019
		(Unaudited)		
Assets:				
Agency securities, at fair value (including pledged securities of \$55,711 and \$92,608, respectively)	\$	66,556	\$	98,516
Agency securities transferred to consolidated variable interest entities, at fair value (pledged securities)		323		371
Credit risk transfer securities, at fair value (including pledged securities of \$413 and \$309, respectively)		653		976
Non-Agency securities, at fair value (including pledged securities of \$455 and \$0, respectively)		512		579
U.S. Treasury securities, at fair value (including pledged securities of \$0 and \$97, respectively)		_		97
Cash and cash equivalents		857		831
Restricted cash		1,557		451
Derivative assets, at fair value		130		190
Receivable for investment securities sold (including pledged securities of \$10 and \$0, respectively)		10		_
Receivable under reverse repurchase agreements		8,625		10,181
Goodwill		526		526
Other assets		219		364
Total assets	\$	79,968	\$	113,082
Liabilities:				
Repurchase agreements	\$	54,566	\$	89,182
Debt of consolidated variable interest entities, at fair value		192		228
Payable for investment securities purchased		5,887		2,554
Derivative liabilities, at fair value		13		6
Dividends payable		90		104
Obligation to return securities borrowed under reverse repurchase agreements, at fair value		8,372		9,543
Accounts payable and other liabilities		128		424
Total liabilities		69,248		102,041
Stockholders' equity:				
Preferred Stock - aggregate liquidation preference of \$1,538 and \$963, respectively		1,489		932
Common stock - \$0.01 par value; 1,500 and 900 shares authorized, respectively; 545.2 and 540.9 shares issued and outstanding, respectively		5		5
Additional paid-in capital		14,053		13,893
Retained deficit		(5,661)		(3,886)
Accumulated other comprehensive income		834		97
Total stockholders' equity		10,720		11,041
Total liabilities and stockholders' equity	\$	79,968	\$	113,082

AGNC INVESTMENT CORP. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Unaudited)

(in millions,	except per	share	data)
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	 Three Moi Septen			Nine Mon Septen		
	2020	 2019		2020		2019
Interest income:						
Interest income	\$ 364	\$ 676	\$	1,284	\$	2,074
Interest expense	 62	 557		622		1,668
Net interest income	 302	 119		662		406
Other gain (loss), net:						
Gain on sale of investment securities, net	346	89		993		281
Unrealized gain (loss) on investment securities measured at fair value through net income, net	(365)	355		511		2,174
Gain (loss) on derivative instruments and other securities, net	 400	 (548)		(3,139)		(2,986)
Total other gain (loss), net:	381	(104)		(1,635)		(531)
Expenses:						
Compensation and benefits	13	10		39		31
Other operating expense	 8	 9		29		27
Total operating expense	 21	 19		68		58
Net income (loss)	662	(4)		(1,041)		(183)
Dividends on preferred stock	 25	 13		71		36
Net income (loss) available (attributable) to common stockholders	\$ 637	\$ (17)	\$	(1,112)	\$	(219)
	_					
Net income (loss)	\$ 662	\$ (4)	\$	(1,041)	\$	(183)
Unrealized gain on investment securities measured at fair value through other comprehensive income, net	70	246		737		1,025
Comprehensive income (loss)	 732	242		(304)		842
Dividends on preferred stock	25	13		71		36
Comprehensive income (loss) available (attributable) to common stockholders	\$ 707	\$ 229	\$	(375)	\$	806
			_			
Weighted average number of common shares outstanding - basic	 553.2	 546.4		553.8		540.3
Weighted average number of common shares outstanding - diluted	554.3	546.4		553.8		540.3
Net income (loss) per common share - basic	\$ 1.15	\$ (0.03)	\$	(2.01)	\$	(0.41)
Net income (loss) per common share - diluted	\$ 1.15	\$ (0.03)	\$	(2.01)	\$	(0.41)
Dividends declared per common share	\$ 0.36	\$ 0.48	\$	1.20	\$	1.52

AGNC INVESTMENT CORP. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited) (in millions)

Salance, June 30, 2019 \$711 \$478 \$130 \$140 \$104 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$104 \$105 \$10		Preferred Common Stock I		Additional Paid-in		Retained	Accumulated Other Comprehensive						
Net loss Other comprehensive income: Unrealized gain on available-for-sale securities, net		9	Stock	Shares		Amount		Capital		Deficit			Total
Common dividends declared Common stock Common	Balance, June 30, 2019	\$	711	547.8	\$	5	\$	13,988	\$	(4,194)	\$ (164)	\$	10,346
Unrealized gain on available-for-sale securities, net Stock-based compensation Carbon of the comprehensive income: Carbon of the compensation Carbon of	Net loss		_	_		_		_		(4)	_		(4)
Stock-based compensation -	Other comprehensive income:												
Repurchase of common stock	Unrealized gain on available-for-sale securities, net		_	_		_		_		_	246		246
Perferred dividends declared	Stock-based compensation		_	_		_		3		_	_		3
Common dividends declared	Repurchase of common stock		_	(6.9)		_		(103)		_	_		(103)
Salance, September 30, 2019	Preferred dividends declared		_	_		_		_		(13)	_		(13)
Balance, June 30, 2020 \$ 1,489 555.5 \$ 6 \$ 14,191 \$ (6,100) \$ 764 \$ 10,30 Net income	Common dividends declared		_	_		_		_		(262)	_		(262)
Net income	Balance, September 30, 2019	\$	711	540.9	\$	5	\$	13,888	\$	(4,473)	\$ 82	\$	10,213
Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — 70 — 70 — Total Stock-based compensation —<	Balance, June 30, 2020	\$	1,489	555.5	\$	6	\$	14,191	\$	(6,100)	\$ 764	\$	10,350
Unrealized gain on available-for-sale securities, net	Net income		_	_		_		_		662	_		662
Stock-based compensation	Other comprehensive income:												
Repurchase of common stock	Unrealized gain on available-for-sale securities, net		_	_		_		_		_	70		70
Preferred dividends declared	Stock-based compensation		_	_		_		5		_	_		5
Common dividends declared	Repurchase of common stock		_	(10.3)		(1)		(143)		_	_		(144)
Salance, September 30, 2020 Salay	Preferred dividends declared		_	_		_		_		(25)	_		(25)
Balance, December 31, 2018	Common dividends declared		_	_		_		_		(198)	_		(198)
Net loss	Balance, September 30, 2020	\$	1,489	545.2	\$	5	\$	14,053	\$	(5,661)	\$ 834	\$	10,720
Net loss	Balance, December 31, 2018	\$	484	536.3	\$	5	\$	13.793	\$	(3.433)	\$ (943)	\$	9,906
Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — 1,025 1,0 Stock-based compensation — 0.1 — 8 — — Issuance of common stock, net of offering cost — 11.4 — 190 — — 1 Repurchase of common stock — (6.9) — (103) — — (1 Issuance of preferred stock, net of offering cost 227 — — — — — 2 Preferred dividends declared — — — — — — — — — (2 — <td></td> <td>•</td> <td>_</td> <td>_</td> <td>-</td> <td>_</td> <td>7</td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td>(183)</td>		•	_	_	-	_	7		-			-	(183)
Unrealized gain on available-for-sale securities, net — — — — 1,025										(200)			(===)
Stock-based compensation	•		_	_				_		_	1.025		1,025
Issuance of common stock, net of offering cost -			_	0.1		_		8		_			8
Repurchase of common stock			_			_				_	_		190
Issuance of preferred stock, net of offering cost 227			_			_				_	_		(103)
Preferred dividends declared — — — — (36) — (Common dividends declared) Balance, September 30, 2019 \$ 711 540.9 \$ 5 \$ 13,888 \$ (4,473) \$ 82 \$ 10,2 Balance, December 31, 2019 \$ 932 540.9 \$ 5 \$ 13,893 \$ (3,886) \$ 97 \$ 11,0 Net loss — — — — — — (1,041) — (1,0 Other comprehensive income: — — — — — — 737 7 Stock-based compensation — <	•		227	(0.0)		_		(100)		_	_		227
Common dividends declared				_		_		_		(36)	_		(36)
Balance, September 30, 2019 \$ 711 540.9 \$ 5 \$ 13,888 \$ (4,473) \$ 82 \$ 10,2 Balance, December 31, 2019 \$ 932 540.9 \$ 5 \$ 13,893 \$ (3,886) \$ 97 \$ 11,0 Net loss — — — — — (1,041) — (1,0 Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — — 737 7 Stock-based compensation — 0.1 — 12 — — — Issuance of preferred stock, net of offering cost 557 — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — </td <td></td> <td></td> <td>_</td> <td><u></u></td> <td></td> <td>_</td> <td></td> <td>_</td> <td></td> <td>. ,</td> <td>_</td> <td></td> <td>(821)</td>			_	<u></u>		_		_		. ,	_		(821)
Balance, December 31, 2019 \$ 932 540.9 \$ 13,893 (3,886) 97 \$ 11,00 Net loss — — — — — (1,041) — (1,0 Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — — 737 7 Stock-based compensation — 0.1 — 12 — — — Issuance of preferred stock, net of offering cost 557 — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — — — — — — — — (663) — — (6 <td></td> <td>\$</td> <td>711</td> <td>5/0.9</td> <td>\$</td> <td>5</td> <td>\$</td> <td>13 888</td> <td>\$</td> <td>`</td> <td>\$ 82</td> <td>\$</td> <td>10,213</td>		\$	711	5/0.9	\$	5	\$	13 888	\$	`	\$ 82	\$	10,213
Net loss — — — — — (1,041) — (1,000) Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — — — 737 7 Stock-based compensation — 0.1 — 12 — — Issuance of preferred stock, net of offering cost 557 — — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — — (2 Preferred dividends declared — — — — — (71) — (6 Common dividends declared — — — — — (663) — (6	Balance, September 30, 2019	Ψ	/11	340.3	Ψ		Ψ	13,000	Ψ	(4,473)	Ψ 02	Ψ	10,213
Other comprehensive income: Unrealized gain on available-for-sale securities, net — — — — — 737 7 Stock-based compensation — 0.1 — 12 — — Issuance of preferred stock, net of offering cost 557 — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — — — — (663) — (6	Balance, December 31, 2019	\$	932	540.9	\$	5	\$	13,893	\$	(3,886)	\$ 97	\$	11,041
Unrealized gain on available-for-sale securities, net — — — — 737 7 Stock-based compensation — 0.1 — 12 — — Issuance of preferred stock, net of offering cost 557 — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — — — — (663) — (6	Net loss		_	_		_		_		(1,041)	_		(1,041)
Stock-based compensation — 0.1 — 12 — — Issuance of preferred stock, net of offering cost 557 — — — — 5 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — — — — (663) — (6	Other comprehensive income:												
Issuance of preferred stock, net of offering cost 557 — — — — 55 Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (6 Common dividends declared — — — — (663) — (6	Unrealized gain on available-for-sale securities, net		_	_		_		_		_	737		737
Issuance of common stock, net of offering cost — 26.7 1 438 — — 4 Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (663) — <td>Stock-based compensation</td> <td></td> <td>_</td> <td>0.1</td> <td></td> <td>_</td> <td></td> <td>12</td> <td></td> <td>_</td> <td>_</td> <td></td> <td>12</td>	Stock-based compensation		_	0.1		_		12		_	_		12
Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — (71) — (63) — (66	•		557	_		_		_		_	_		557
Repurchase of common stock — (22.5) (1) (290) — — (2 Preferred dividends declared — — — — — (71) — (663) — (6 Common dividends declared — — — — (663) — (6	Issuance of common stock, net of offering cost		_	26.7		1		438		_	_		439
Preferred dividends declared — — — — (71) — (63) Common dividends declared — — — — (663) — (6			_							_	_		(291)
Common dividends declared	•		_	. ,						(71)	_		(71)
	Common dividends declared		_	_		_		_		(663)	_		(663)
· · · · · · · · · · · · · · · · · · ·	Balance, September 30, 2020	\$	1,489	545.2	\$	5	\$	14,053	\$	(5,661)	\$ 834	\$	10,720

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

Nine Months Ended September 30, 2020 2019 **Operating activities:** Net loss \$ (1,041) \$ (183)Adjustments to reconcile net income to net cash provided by operating activities: 816 517 Amortization of premiums and discounts on mortgage-backed securities, net Stock-based compensation 12 8 Gain on sale of investment securities, net (993) (281)Unrealized gain on investment securities measured at fair value through net income, net (511)(2,174)Loss on derivative instruments and other securities, net 3,139 2,986 104 (Increase) decrease in other assets (35)Decrease in accounts payable and other accrued liabilities (189)(31)Net cash provided by operating activities 1,337 807 **Investing activities:** Purchases of Agency mortgage-backed securities (44,753)(37,199)Purchases of credit risk transfer and non-Agency securities (609)(1,233)Proceeds from sale of Agency mortgage-backed securities 68,920 17,620 Proceeds from sale of credit risk transfer and non-Agency securities 838 1,130 Principal collections on Agency mortgage-backed securities 12,635 8,508 Principal collections on credit risk transfer and non-Agency securities 115 15 Payments on U.S. Treasury securities (22,090)(26,169)Proceeds from U.S. Treasury securities 20,112 8,313 Net proceeds from reverse repurchase agreements 1,590 16,014 (1,990)Net payments on derivative instruments (2,260)Net cash provided by (used in) investing activities 34,498 (14,991)Financing activities: Proceeds from repurchase arrangements 2,651,280 3,251,916 Payments on repurchase agreements (2,685,896)(3,237,021)Payments on debt of consolidated variable interest entities (44)(42)Net proceeds from preferred stock issuances 557 227 Net proceeds from common stock issuances 439 190 Payments for common stock repurchases (291)(103)Cash dividends paid (748)(863)Net cash provided by (used in) financing activities (34,703)14,304 Net change in cash, cash equivalents and restricted cash 1,132 120 Cash, cash equivalents and restricted cash at beginning of period 1,282 1,520 2,414 \$ 1,640 Cash, cash equivalents and restricted cash at end of period

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, and we will generally not be subject to U.S. federal or state corporate income tax to the extent that we distribute our annual taxable income to our stockholders on a timely basis. It is our intention to distribute 100% of our taxable income, after application of available tax attributes, within the limits prescribed by the Internal Revenue Code, which may extend into the subsequent tax year.

We 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 synthetically transfer a portion of the risk associated with credit losses within pools of conventional residential mortgage loans from the GSEs and/or third parties to private investors. Unlike Agency RMBS, full repayment of the original principal balance of CRT securities is not guaranteed by a GSE or U.S. Government agency; rather, "credit risk transfer" is achieved by writing down the outstanding principal balance of the CRT securities if credit losses on a related pool

of loans exceed certain thresholds. By reducing the amount that they are obligated to repay to holders of CRT securities, the GSEs and/or other third parties offset credit losses on the related loans.

Non-Agency RMBS and CMBS (together, "Non-Agency MBS") are backed by residential and commercial mortgage loans, respectively, packaged and securitized by a private institution, such as a commercial bank. Non-Agency MBS typically benefit from credit enhancements derived from structural elements, such as subordination, 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-to-maturity, available-for-sale or trading, depending on our ability and intent to hold such security to maturity. Alternatively, we may elect the fair value option of accounting for securities pursuant to ASC Topic 825, *Financial Instruments*. Prior to fiscal year 2017, we primarily designated our investment securities as available-for-sale. On January 1, 2017, we began electing the fair value option of accounting for all investment securities newly acquired after such date. Unrealized gains and losses on securities classified as available-for-sale are reported in accumulated other comprehensive income ("OCI"), whereas unrealized gains and losses on securities for which we elected the fair value option, or are classified as trading, are reported in net income through other gain (loss). Upon the sale of a security designated as available-for-sale, we determine the cost of the security and the amount of unrealized gain or loss to reclassify out of accumulated OCI into earnings based on the specific identification method. In our view, the election of the fair value option simplifies the accounting for investment securities and more appropriately reflects the results of our operations for a reporting period by presenting the fair value changes for these assets in a manner consistent with the presentation and timing of the fair value changes for our derivative instruments.

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

Interest Income

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

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

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

Repurchase Agreements

We finance the acquisition of securities for our investment portfolio primarily through repurchase 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.

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

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

Derivative Instruments

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

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

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

Interest rate swap agreements

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

Interest rate swaptions

We purchase interest rate swaptions to help mitigate the potential impact of larger, more rapid changes in interest rates on the performance of our investment portfolio. Interest rate swaptions provide us the option to enter into an interest rate swap agreement for a predetermined notional amount, stated term and pay and receive interest rates in the future. Our interest rate swaption agreements are not subject to central clearing. The premium paid for interest rate swaptions is reported as an asset in

our consolidated balance sheets. The difference between the premium paid and the fair value of the swaption is reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income. If a swaption expires unexercised, the realized loss on the swaption would be equal to the premium paid. If we sell or exercise a swaption, the realized gain or loss on the swaption would be equal to the difference between the cash or the fair value of the underlying interest rate swap and the premium paid.

TBA securities

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

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

U.S. Treasury securities

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

Recent Accounting Pronouncements

In June 2016 the Financial Account Standards Board ("FASB") issued *Accounting Standards Update 2016-13, Financial Instruments - Credit Losses (Topic 326)*, which replaces the incurred loss impairment methodology in prior GAAP with a methodology that better reflects expected credit losses. For financial instruments carried at amortized cost, impairment will be measured as a current estimate of expected lifetime credit losses. For available-for-sale investment securities with changes in fair value recorded in accumulated other comprehensive income, the FASB made targeted improvements eliminating the write-down of available-for-sale securities under the "other-than-temporary" impairment model replacing it with an allowance for credit loss model. We adopted ASU 2016-13 effective January 1, 2020, which had no material effect on our financial results.

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

Note 4. Investment Securities

As of September 30, 2020 and December 31, 2019, our investment portfolio consisted of \$68.0 billion and \$100.4 billion of investment securities, at fair value, respectively, and \$29.5 billion and \$7.4 billion of net TBA securities, at fair value, respectively. Our net TBA position is reported at its net carrying value of \$76 million and \$25 million as of September 30, 2020 and December 31, 2019, 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, 2020 and December 31, 2019, our investment securities had a net unamortized premium balance of \$2.6 billion and \$3.1 billion, respectively.

The following tables summarize our investment securities as of September 30, 2020 and December 31, 2019, excluding TBA securities, (dollars in millions). Details of our TBA securities as of each of the respective dates are included in Note 6.

		Septembe	r 30	, 2020	December 31, 2019						
Investment Securities	-	Amortized Cost		Fair Value	Amortized Cost		Fair Value				
Agency RMBS:	'										
Fixed rate	\$	63,307	\$	66,278	\$ 96,375	\$	98,074				
Adjustable rate		96		99	160		163				
CMO		327		341	441		447				
Interest-only and principal-only strips		117		142	146		164				
Multifamily		17		19	37		39				
Total Agency RMBS		63,864		66,879	97,159		98,887				
Non-Agency RMBS		172		177	198		209				
CMBS		310		335	352		370				
CRT securities		678		653	961		976				
Total investment securities	\$	65,024	\$	68,044	\$ 98,670	\$	100,442				

		September 30, 2020													
			ency RMBS			Non-A	Age r	ісу							
Investment Securities	Fa	annie Mae	Fr	eddie Mac		Ginnie Mae		RMBS		CMBS		CRT		Total	
Available-for-sale securities:															
Par value	\$	10,703	\$	4,046	\$	14	\$	_	\$	_	\$	_	\$	14,763	
Unamortized discount		(6)		(1)		_		_		_		_		(7)	
Unamortized premium		479		204		_		_		_		_		683	
Amortized cost		11,176		4,249		14		_				_		15,439	
Gross unrealized gains		618		215		1		_		_		_		834	
Gross unrealized losses		_		_		_		_		_		_		_	
Total available-for-sale securities, at fair value		11,794		4,464		15		_		_		_		16,273	
Securities remeasured at fair value through earnings:															
Par value		31,624		14,891		3		181		309		678		47,686	
Unamortized discount		(20)		(1)		_		(11)		(4)		(12)		(48)	
Unamortized premium		1,285		641		_		3		6		12		1,947	
Amortized cost		32,889		15,531		3		173		311		678		49,585	
Gross unrealized gains		1,411		782		_		8		28		3		2,232	
Gross unrealized losses		(7)		(3)		_		(4)		(4)		(28)		(46)	
Total securities remeasured at fair value through earnings		34,293		16,310		3		177		335		653		51,771	
Total securities, at fair value	\$	46,087	\$	20,774	\$	18	\$	177	\$	335	\$	653	\$	68,044	
Weighted average coupon as of September 30, 2020		3.49 %		3.79 %		3.58 %		4.20 %	_	4.13 %		3.31 %		3.59 %	
Weighted average yield as of September 30, 2020 1		2.49 %		2.66 %		2.22 %		0.53 %		4.40 %		3.47 %		2.56 %	

^{1.} Incorporates a weighted average future constant prepayment rate assumption of 15.9% based on forward rates as of September 30, 2020.

Decem	L	21	2010	ı
Decem	ner	.31.	2019	

	Agency RMBS							Non-A	\ge	ncy			
Investment Securities		Fannie Mae	Fı	reddie Mac		Ginnie Mae		RMBS		CMBS	CRT		Total
Available-for-sale securities:						·							
Par value	\$	14,301	\$	4,762	\$	18	\$	_	\$	_	\$	_	\$ 19,081
Unamortized discount		(10)		(2)		_		_		_		_	(12)
Unamortized premium		711		276		_		_		_		_	987
Amortized cost		15,002		5,036		18				_			20,056
Gross unrealized gains		142		29		1		_		_		_	172
Gross unrealized losses		(50)		(25)		_		_		_		_	(75)
Total available-for-sale securities, at fair value		15,094		5,040		19				_			20,153
Securities remeasured at fair value through earnings:			_										
Par value		45,106		29,881		_		208		348		937	76,480
Unamortized discount		(68)		(2)		_		(10)		(3)		(2)	(85)
Unamortized premium		1,218		967		_		1		7		26	2,219
Amortized cost		46,256		30,846				199		352		961	78,614
Gross unrealized gains		991		691		_		10		19		18	1,729
Gross unrealized losses		(32)		(18)		_		_		(1)		(3)	(54)
Total securities remeasured at fair value through earnings		47,215		31,519		_		209		370		976	80,289
Total securities, at fair value	\$	62,309	\$	36,559	\$	19	\$	209	\$	370	\$	976	\$ 100,442
Weighted average coupon as of December 31, 2019		3.62 %		3.75 %		3.77 %		4.05 %		4.49 %		5.07 %	3.68 %
Weighted average yield as of December 31, 2019 $^{\rm 1}$		3.03 %		3.09 %		2.08 %		4.39 %		4.38 %		4.05 %	3.07 %

^{1.} Incorporates a weighted average future constant prepayment rate assumption of 10.8% based on forward rates as of December 31, 2019.

As of September 30, 2020 and December 31, 2019, our investments in CRT and non-Agency securities had the following credit ratings:

		Sep	ptember 30, 2020)						
CRT and Non-Agency Security Credit Ratings ¹	CRT		RMBS		CMBS		CRT	RMBS		CMBS
AAA	\$ -	- \$		\$	39	\$		\$ 	\$	43
AA	_	-	20		181		_	81		214
A	_	-	33		22		13	25		34
BBB	42	2	82		55		67	71		69
BB	204	ļ	27		34		471	21		10
В	252	2	5		4		308	4		_
Not Rated	155	5	10		_		117	7		_
Total	\$ 653	\$	177	\$	335	\$	976	\$ 209	\$	370

^{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.

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, 2020 and December 31, 2019, 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 15.9% and 10.8%, 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, 2020 and December 31, 2019 according to their estimated weighted average life classification (dollars in millions):

				September	r 30, 2020			December 31, 2019								
Estimated Weighted Average Life of Investment Securities	Fa	ir Value	A	mortized Cost	Weighted Average Coupon	Weighted Average Yield	F	air Value	I	Amortized Cost	Weighted Average Coupon	Weighted Average Yield				
≤ 3 years	\$	2,420	\$	2,387	3.65%	2.01%	\$	2,671	\$	2,654	3.54%	2.61%				
> 3 years and ≤ 5 years		37,564		35,873	3.76%	2.62%		10,822		10,563	3.85%	3.20%				
> 5 years and ≤10 years		27,961		26,665	3.35%	2.51%		86,492		85,002	3.67%	3.07%				
> 10 years		99		99	4.08%	3.71%		457		451	3.31%	3.06%				
Total	\$	68,044	\$	65,024	3.59%	2.56%	\$	100,442	\$	98,670	3.68%	3.07%				

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, 2020 and December 31, 2019 (in millions):

				Olirealized Lo	55 P	OSILIOII FOF					
	 Less than	12 N	Months	12 Month	s or	More		To	otal		
Securities Classified as Available-for-Sale	Fair Value		Unrealized Loss	Fair Value	Unreal Value Los			Fair Value		Unrealized Loss	
September 30, 2020	\$ 13	\$	_	\$ _	\$	_	\$	13	\$	_	
December 31, 2019	\$ 1,653	\$	(12)	\$ 6,984	\$	(63)	\$	8,637	\$	(75)	

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, 2020 and 2019 by investment classification of accounting (in millions):

	Three Months Ended June 30,													
				2020						2019				
Investment Securities	Available Secur		Fai	ir Value Option Securities		Total		able-for-Sale curities ²		Value Option Securities		Total		
Investment securities sold, at cost	\$		\$	(13,430)	\$	(13,430)	\$		\$	(5,048)	\$	(5,048)		
Proceeds from investment securities sold 1		_		13,776		13,776		_		5,137		5,137		
Net gain (loss) on sale of investment securities	\$		\$	346	\$	346	\$		\$	89	\$	89		
Gross gain on sale of investment securities	\$	_	\$	354	\$	354	\$	_	\$	90	\$	90		
Gross loss on sale of investment securities		_		(8)		(8)		_		(1)		(1)		
Net gain (loss) on sale of investment securities	\$		\$	346	\$	346	\$		\$	89	\$	89		

				N	ed September 30,								
			2020						2019				
Investment Securities	llable-for-Sale Securities ²	Fa	air Value Option Securities		Total	Av	ailable-for-Sale Securities ²	Fa	nir Value Option Securities		Total		
Investment securities sold, at cost	\$ (1,433)	\$	(67,342)	\$	(68,775)	\$	(705)	\$	(17,379)	\$	(18,084)		
Proceeds from investment securities sold ¹	1,473		68,295		69,768		696		17,669		18,365		
Net gain (loss) on sale of investment securities	\$ 40	\$	953	\$	993	\$	(9)	\$	290	\$	281		
Gross gain on sale of investment securities	\$ 40	\$	1,050	\$	1,090	\$	_	\$	294	\$	294		
Gross loss on sale of investment securities	_		(97)		(97)		(9)		(4)		(13)		
Net gain (loss) on sale of investment securities	\$ 40	\$	953	\$	993	\$	(9)	\$	290	\$	281		

^{1.} Proceeds include cash received during the period, plus receivable for investment securities sold during the period as of period end.

Note 5. Repurchase Agreements and Reverse Repurchase Agreements

Repurchase Agreements

We pledge our securities as collateral under our borrowings structured as repurchase agreements with financial institutions. Amounts available to be borrowed are dependent upon the fair value of the securities pledged as collateral, which

^{2.} See Note 10 for a summary of changes in accumulated OCI.

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, 2020, we had met all margin call requirements. For additional information regarding our pledged assets, please refer to Note 7.

As of September 30, 2020 and December 31, 2019, we had \$54.6 billion and \$89.2 billion, respectively, of repurchase agreements outstanding used to fund our investment portfolio and temporary holdings of U.S. Treasury securities. The terms and conditions of our repurchase agreements are typically negotiated on a transaction-by-transaction basis. Our repurchase agreements with original maturities greater than one year may have floating interest rates based on an index plus or minus a fixed spread. The following table summarizes our borrowings under repurchase agreements by their remaining maturities as of September 30, 2020 and December 31, 2019 (dollars in millions):

		September 30, 2020			December 31, 2019	
Remaining Maturity	purchase greements	Weighted Average Interest Rate	Weighted Average Days to Maturity	epurchase greements	Weighted Average Interest Rate	Weighted Average Days to Maturity
Agency repo:				 		
≤ 1 month	\$ 28,119	0.21 %	10	\$ 56,664	2.19 %	10
> 1 to ≤ 3 months	12,906	0.21 %	50	20,761	2.01 %	53
$>$ 3 to \leq 6 months	7,642	1.27 %	104	5,683	2.19 %	100
> 6 to ≤ 9 months	5,041	0.32 %	216	1,500	2.66 %	182
$>$ 9 to \leq 12 months	658	0.62 %	282	2,152	2.41 %	351
> 12 to ≤ 24 months	_	— %	_	625	2.38 %	411
> 24 to ≤ 36 months	_	— %	_	1,700	2.45 %	833
Total Agency repo	 54,366	0.37 %	55	 89,085	2.17 %	55
U.S. Treasury repo:						
> 1 day to ≤ 1 month	200	0.10 %	1	97	1.63 %	2
Total	\$ 54,566	0.37 %	55	\$ 89,182	2.17 %	55

As of September 30, 2020 and December 31, 2019, \$8.9 billion and \$17.0 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, 2020, we had \$1.5 billion of forward commitments to enter into repurchase agreements, with a weighted average forward start date of 93 days and a weighted average interest rate of 0.25%. As of December 31, 2019, we had \$4.5 billion of forward commitments to enter into repurchase agreements, with a weighted average forward start date of 12 days and a weighted average interest rate of 1.60%. As of September 30, 2020 and December 31, 2019, 48% and 40%, 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 48% and 38% of our repurchase agreement funding outstanding as of September 30, 2020 and December 31, 2019, respectively.

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

Reverse Repurchase Agreements

As of September 30, 2020 and December 31, 2019, we had \$8.6 billion and \$10.2 billion, respectively, of reverse repurchase agreements outstanding used primarily to borrow securities to cover short sales of U.S. Treasury securities, for which we had associated obligations to return borrowed securities at fair value of \$8.4 billion and \$9.5 billion, respectively. As of September 30, 2020 and December 31, 2019, \$3.6 billion and \$5.4 billion, respectively, of our reverse repurchase agreements were with the FICC sourced through BES.

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, 2020 and December 31, 2019 (in millions):

Derivative and Other Hedging Instruments	Balance Sheet Location	Sept	ember 30, 2020	De	cember 31, 2019
Interest rate swaps	Derivative assets, at fair value	\$	41	\$	21
Swaptions	Derivative assets, at fair value		5		126
TBA securities	Derivative assets, at fair value		84		29
U.S. Treasury futures - short	Derivative assets, at fair value		_		14
Total derivative assets, at fair value		\$	130	\$	190
Interest rate swaps	Derivative liabilities, at fair value	\$	_	\$	(2)
TBA securities	Derivative liabilities, at fair value		(8)		(4)
U.S. Treasury futures - short	Derivative liabilities, at fair value		(5)		_
Total derivative liabilities, at fair value		\$	(13)	\$	(6)
U.S. Treasury securities - long	U.S. Treasury securities, at fair value	\$	_	\$	97
U.S. Treasury securities - short	Obligation to return securities borrowed under reverse repurchase agreements, at fair value		(8,372)		(9,543)
Total U.S. Treasury securities, net at fair value		\$	(8,372)	\$	(9,446)

The following tables summarize certain characteristics of our derivative and other hedging instruments outstanding as of September 30, 2020 and December 31, 2019 (dollars in millions):

		Septembe	r 30, 2020		December 31, 2019						
Pay Fixed / Receive Variable Interest Rate Swaps	Votional Amount	Average Fixed Pay Rate	Average Receive Rate	Average Maturity (Years)		Notional Amount	Average Fixed Pay Rate	Average Receive Rate	Average Maturity (Years)		
≤ 3 years	\$ 8,750	0.04%	0.08%	2.6	\$	59,700	1.30%	1.58%	1.6		
> 3 to ≤ 5 years	16,750	0.10%	0.08%	4.3		9,850	1.17%	1.55%	3.8		
> 5 to ≤ 7 years	9,800	0.21%	0.08%	6.0		5,650	1.34%	1.70%	6.4		
> 7 to ≤ 10 years	6,200	0.28%	0.08%	8.8		2,850	1.36%	1.58%	8.9		
> 10 years	1,475	0.47%	0.08%	14.4		1,025	1.64%	1.78%	15.4		
Total	\$ 42,975	0.15%	0.08%	5.3	\$	79,075	1.29%	1.59%	2.7		

Pay Fixed / Receive Variable Interest Rate Swaps by Receive Index (% of Notional Amount)	September 30, 2020	December 31, 2019
SOFR	69 %	3 %
OIS	31 %	86 %
3M LIBOR	— %	11 %
Total	100 %	100 %

Swaptions			Option		 Un	derlying Payer Sw	ар
Current Option Expiration Date	(Cost Basis	Fair Value	Average Months to Current Option Expiration Date ¹	Notional Amount	Average Fixed Pay Rate ²	Average Term (Years)
September 30, 2020							
≤ 1 year	\$	133	\$ 3	6	\$ 6,400	2.35%	9.2
> 1 year ≤ 2 years		8	2	17	500	1.87%	10.0
Total	\$	141	\$ 5	7	\$ 6,900	2.32%	9.3
December 31, 2019							
≤ 1 year	\$	123	\$ 80	8	\$ 5,650	2.26%	9.3
> 1 year ≤ 2 years		53	46	16	3,200	2.50%	10.0
Total	\$	176	\$ 126	11	\$ 8,850	2.34%	9.5

As of September 30, 2020 and December 31, 2019, ≤ 1 year notional amount includes \$700 million of Bermudan swaptions where the options may be exercised on predetermined 1.

dates up to their final exercise date, which is six months prior to the underlying swaps' maturity date.
As of September 30, 2020, 71% and 29% of the underlying swap receive rates were tied to 3-Month LIBOR and SOFR, respectively, and, as of December 31, 2019, 100% of the underlying payer swap receive rates were tied to 3-Month LIBOR.

U.S. Treasury Securities		Sept	ember 30, 2020		December 31, 2019							
Maturity	Amount /(Short)	(Cost Basis 1	Fair Value		Face Amount Long/(Short)		Cost Basis 1		Fair Value		
5 years	\$ (425)	\$	(425)	\$ (426)	\$	95	\$	95	\$	97		
7 years	(1,083)		(1,081)	(1,097)		_		_		_		
10 years	(6,220)		(6,386)	(6,849)		(9,224)		(9,329)		(9,543)		
Total U.S. Treasury securities	\$ (7,728)	\$	(7,892)	\$ (8,372)	\$	(9,129)	\$	(9,234)	\$	(9,446)		

As of September 30, 2020 and December 31, 2019, short U.S. Treasury securities had a weighted average yield of 1.32% and 2.19%, respectively, and, as of December 31, 2019, long U.S. Treasury securities had a weighted average yield of 2.21%.

U.S. Treasury Futures		September 3	30, 2	2020				December 3	31, 2	2019		
Maturity	Notional Amount Long (Short)	Cost Basis		Fair Value	N	let Carrying Value ¹	Notional Amount Long (Short)	Cost Basis		Fair Value	N	Net Carrying Value ¹
10 years	\$ (1,000)	\$ (1,390)	\$	(1,395)	\$	(5)	\$ (1,000)	\$ (1,298)	\$	(1,284)	\$	14

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.

		September	30,	2020		December 31, 2019							
TBA Securities by Coupon	Notional Amount Long (Short)	Cost Basis		Fair Value	Net Carrying Value ¹		Notional Amount Long (Short)		Cost Basis		Fair Value		nrrying ue ¹
15-Year TBA securities:													
≤ 2.0%	\$ 10,228	\$ 10,514	\$	10,552	38	\$	_	\$	_	\$	_	\$	_
2.5%	866	907		904	(3)		805		811		812		1
3.0%	_	_		_	_		1,059		1,083		1,086		3
3.5%	_	_		_	_		241		250		250		_
4.0%	_	_		_	_		75		78		78		_
Total 15-Year TBA securities	11,094	11,421		11,456	35		2,180		2,222		2,226		4
30-Year TBA securities:													
2.0%	11,375	11,694		11,736	42		_		_		_		_
2.5%	5,489	5,752		5,753	1		_		_		_		_
3.0%	395	415		413	(2)		5,008		5,052		5,073		21
3.5%	168	178		178	_		1,226		1,259		1,261		2
4.0%	_	_		_	_		(1,507)		(1,565)		(1,568)		(3)
≥ 4.5%	_	_			_		415		436		437		1
Total 30-Year TBA securities, net	17,427	18,039		18,080	41		5,142		5,182		5,203		21
Total TBA securities, net	\$ 28,521	\$ 29,460	\$	29,536	\$ 76	\$	7,322	\$	7,404	\$	7,429	\$	25

^{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, 2020 and 2019 (in millions):

Derivative and Other Hedging Instruments	eginning onal Amount	Additions	Settlement, Termination, Expiration or Exercise	No	Ending tional Amount	on Inst	ain/(Loss) Derivative ruments and er Securities, Net ¹
Three months ended September 30, 2020:							
TBA securities, net	\$ 19,760	80,599	(71,838)	\$	28,521	\$	283
Interest rate swaps - payer	\$ 42,075	24,975	(24,075)	\$	42,975		140
Payer swaptions	\$ 9,350	_	(2,450)	\$	6,900		(1)
U.S. Treasury securities - short position	\$ (7,247)	(2,735)	2,255	\$	(7,727)		(15)
U.S. Treasury securities - long position	\$ 1,132	_	(1,133)	\$	(1)		1
U.S. Treasury futures contracts - short position	\$ (1,000)	(1,000)	1,000	\$	(1,000)		(5)
						\$	403
Three months ended September 30, 2019:						· -	
TBA securities, net	\$ 11,043	24,305	(33,381)	\$	1,967	\$	144
Interest rate swaps - payer	\$ 74,950	82,625	(75,800)	\$	81,775		(482)
Interest rate swaps - receiver	\$ _	(175)	175	\$	_		_
Payer swaptions	\$ 4,400	4,500	(250)	\$	8,650		(19)
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)

Nine months ended September 30, 2020:					
TBA securities, net	\$ 7,322	193,535	(172,336)	\$ 28,521	\$ 1,196
Interest rate swaps - payer	\$ 79,075	100,700	(136,800)	\$ 42,975	(3,034)
Payer swaptions	\$ 8,850	2,000	(3,950)	\$ 6,900	(149)
U.S. Treasury securities - short position	\$ (9,224)	(12,967)	14,464	\$ (7,727)	(1,012)
U.S. Treasury securities - long position	\$ 95	7,011	(7,107)	\$ (1)	102
U.S. Treasury futures contracts - short position	\$ (1,000)	(3,000)	3,000	\$ (1,000)	(117)
					\$ (3,014)
Nine months ended September 30, 2019:					
TBA securities, net	\$ 7,152	70,606	(75,791)	\$ 1,967	\$ 390
Interest rate swaps - payer	\$ 51,625	152,975	(122,825)	\$ 81,775	(2,097)
Interest rate swaps - receiver	\$ _	(175)	175	\$ _	_
Payer swaptions	\$ 3,500	7,150	(2,000)	\$ 8,650	(71)
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)

^{1.} Amounts exclude \$146 million of losses on debt extinguishment for the nine months ended September 30, 2020 (see Note 5) and other miscellaneous gains and losses for all periods presented 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, 2020, our maximum amount at risk with any counterparty related to our repurchase agreements, excluding the Fixed Income Clearing Corporation, was less than 2% of our tangible stockholders' equity (measured as the excess of the value of collateral pledged over the amount of our repurchase liabilities). As of September 30, 2020, approximately 10% 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, 2020 and December 31, 2019 (in millions):

			36	Pic	111001 30, 2020		
Assets Pledged to Counterparties ¹	 Repurchase Agreements ²	C	Debt of Consolidated VIEs		Derivative Agreements	Brokerage and Clearing Agreements ³	Total
Agency RMBS - fair value	\$ 55,136	\$	323	\$	405	\$ 301	\$ 56,165
CRT - fair value	423		_		_	_	423
Non-Agency - fair value	455		_		_	_	455
U.S. Treasury securities - fair value	200		_		_	_	200
Accrued interest on pledged securities	158		1		1	1	161
Restricted cash	648		_		909	_	1,557
Total	\$ 57,020	\$	324	\$	1,315	\$ 302	\$ 58,961

	December 31, 2019													
Assets Pledged to Counterparties ¹		Repurchase Agreements ²	C	Debt of Consolidated VIEs		Derivative Agreements		rokerage and Clearing Agreements ³		Total				
Agency RMBS - fair value	\$	92,142	\$	371	\$	404	\$	206	\$	93,123				
CRT - fair value		309		_		_		_		309				
U.S. Treasury securities - fair value		453		_		_		28		481				
Accrued interest on pledged securities		267		1		1		1		270				
Restricted cash		111		_		340		_		451				
Total	\$	93,282	\$	372	\$	745	\$	235	\$	94,634				

- Includes repledged assets received as collateral from counterparties and securities sold but not yet settled.
- Includes \$131 million and \$144 million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30, 2020 and December 31,
- Includes margin for TBAs cleared through prime brokers and other clearing deposits.

The following table summarizes our securities pledged as collateral under our repurchase agreements by the remaining maturity of our borrowings, including securities pledged related to sold but not yet settled securities, as of September 30, 2020 and December 31, 2019 (in millions). For the corresponding borrowings associated with the following amounts and the interest rates thereon, refer to Note 5.

	September 30, 2020 December 31, 2019										
Securities Pledged by Remaining Maturity of Repurchase Agreements ^{1,2}	Fair Value of Pledged Securities			Amortized Cost of Pledged Securities		Accrued Interest on Pledged Securities		Fair Value of ledged Securities	Amortized Cost of Pledged Securities		Accrued Interest on Pledged Securities
≤ 30 days	\$	28,729	\$	27,243	\$	82	\$	56,990	\$ 55,951	\$	167
> 30 and ≤ 60 days		8,666		8,214		24		14,410	14,114		42
> 60 and ≤ 90 days		4,568		4,378		12		7,637	7,536		20
> 90 days		14,051		13,380		40		13,510	13,286		38
Total	\$	56,014	\$	53,215	\$	158	\$	92,547	\$ 90,887	\$	267

- Includes \$131 million and \$144 million of retained interests in our consolidated VIEs pledged as collateral under repurchase agreements as of September 30, 2020 and December 31,
- 2019, respectively.

 Excludes \$200 million and \$357 million of repledged U.S. Treasury securities received as collateral from counterparties as of September 30, 2020 and December 31, 2019, respectively.

Assets Pledged from Counterparties

As of September 30, 2020 and December 31, 2019, we had assets pledged to us from counterparties as collateral under our reverse repurchase and derivative agreements summarized in the tables below (in millions).

			Septembe	r 30,	2020		December 31, 2019									
Assets Pledged to AGNC	R	Reverse epurchase greements	erivative reements	_	Repurchase Agreements	Total	Reverse Repurchase Agreements		Derivative greements		Repurchase Agreements		Total			
U.Ş. Treasury securities - fair value	\$	8,579	\$ 	\$	211	\$ 8,790	\$ 10,099	\$	_	\$	1	\$	10,100			
Cash		_	5		4	9	_		116		_		116			
Total	\$	8,579	\$ 5	\$	215	\$ 8,799	\$ 10,099	\$	116	\$	1	\$	10,216			

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, 2020 and December 31, 2019 (in millions):

				0	ffsett	ing of Financia	l an	d Derivative Ass	ets			
					Ne	t Amounts of		Gross Amour in t Consolidated l	he			
	of R	s Amounts ecognized Assets	Of Co	ss Amounts fset in the nsolidated ance Sheets	C	ets Presented in the onsolidated lance Sheets		Financial Instruments		Collateral Received ²	Net	Amount
September 30, 2020						,		,				
Interest rate swap and swaption agreements, at fair value $^{\mathrm{1}}$	\$	46	\$	_	\$	46	\$	_	\$	(3)	\$	43
TBA securities, at fair value		84		_		84		(8)		_		76
Receivable under reverse repurchase agreements		8,625		_		8,625		(5,463)		(3,147)		15
Total	\$	8,755	\$		\$	8,755	\$	(5,471)	\$	(3,150)	\$	134
December 31, 2019												
Interest rate swap and swaption agreements, at fair value ¹	\$	147	\$	_	\$	147	\$	(2)	\$	(116)	\$	29
TBA securities, at fair value		29		_		29		(4)		_		25
Receivable under reverse repurchase agreements		10,181		_		10,181		(9,852)		(329)		_
Total	\$	10,357	\$		\$	10,357	\$	(9,858)	\$	(445)	\$	54
				Off	fsettin	g of Financial	and	Derivative Liabi	litie	s		
			Gro	es Amounts	N	et Amounts of	_	Gross Amou in Consolidated	the			

					Ne	t Amounts of		Gross Amou in Consolidated	the			
	of Re	s Amounts ecognized abilities	Off Con	s Amounts set in the solidated nce Sheets	C	Liabilities esented in the consolidated alance Sheets	1	Financial Instruments		Collateral Pledged ²	Ne	t Amount
September 30, 2020												
Interest rate swap agreements, at fair value ¹	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
TBA securities, at fair value		8		_		8		(8)		_		_
Repurchase agreements		54,566		_		54,566		(5,463)		(49,103)		_
Total	\$	54,574	\$	_	\$	54,574	\$	(5,471)	\$	(49,103)	\$	_
December 31, 2019												
Interest rate swap agreements, at fair value ¹	\$	2	\$	_	\$	2	\$	(2)	\$	_	\$	_
TBA securities, at fair value		4		_		4		(4)		_		_
Repurchase agreements		89,182		_		89,182		(9,852)		(79,330)		_
Total	\$	89,188	\$		\$	89,188	\$	(9,858)	\$	(79,330)	\$	_

As of September 30, 2020 and December 31, 2019, \$200 million and \$357 million, respectively, of U.S. Treasury securities received from counterparties were repledged as collateral and \$8.4 billion and \$9.5 billion, respectively, were used to cover short sales of U.S. Treasury securities.

- 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.

Note 8. Fair Value Measurements

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

The three levels of valuation hierarchy are defined as follows:

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

We typically obtain price estimates from multiple third-party pricing services and dealers or, if applicable, the registered clearing exchange. The following is a description of the valuation methodologies used for instruments carried at fair value on a recurring basis.

U.S. Treasury securities and futures prices - are valued based on quoted prices for identical instruments in active markets and are classified as Level 1 assets.

TBA securities - are valued using prices obtained from third-party pricing sources based on pricing models that reference recent trading activity.

Interest rate swaps - are valued using the daily settlement price, or fair value, determined by the clearing exchange based on a pricing model that references observable market inputs, including current benchmark rates and the forward yield curve.

Interest rate swaptions - are valued using prices obtained from the counterparty and other third-party pricing models. The pricing models are based on the value of the future interest rate swap that we have the option to enter into as well as the remaining length of time that we have to exercise the option based on observable market inputs, adjusted for non-performance risk, if any.

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

The availability of observable inputs can be affected by a wide variety of factors, including the type of instrument, whether the instrument is new and not yet established in the marketplace and other characteristics particular to the instrument. We make inquiries of third-party pricing sources to understand the significant inputs and assumptions they used to determine their prices and that they are derived from orderly transactions, particularly during periods of elevated market turbulence and reduced market liquidity. We also review third-party price estimates and perform procedures to validate their reasonableness, including an analysis of the range of estimates for each position, comparison to recent trade activity for similar securities and for consistency with market conditions observed as of the measurement date. While we do not adjust prices we obtain from pricing sources, we will exclude prices for securities from our estimation of fair value if we determine based on our validation

procedures and our market knowledge and expertise that the price is significantly different from what observable market data would indicate and we cannot obtain an understanding from the third-party source as to the significant inputs used to determine the price.

The markets for interest rate swap, swaption and TBA derivatives and for the investment securities that we invest in are considered to be active markets such that participants transact with sufficient frequency and volume to provide transparent pricing information on an ongoing basis. The liquidity of these markets and the similarity of our securities and derivative instruments to those actively traded enable our pricing sources and us to observe quoted prices in the market and utilize those prices as a basis for formulating fair value measurements. Consequently, we classify these instruments as Level 2 inputs in the fair value hierarchy.

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, 2020 and December 31, 2019, based on their categorization within the valuation hierarchy (in millions). There were no transfers between valuation hierarchy levels during the periods presented.

	September 30, 2020							Dece	mber 31, 2019	9	
		Level 1		Level 2		Level 3	 Level 1		Level 2		Level 3
Assets:											
Agency securities	\$	_	\$	66,556	\$	_	\$ _	\$	98,516	\$	_
Agency securities transferred to consolidated VIEs		_		323		_	_		371		_
Credit risk transfer securities		_		653		_	_		976		_
Non-Agency securities		_		512		_	_		579		_
U.S. Treasury securities		_		_		_	97		_		_
Interest rate swaps		_		41		_	_		21		_
Swaptions		_		5		_	_		126		_
TBA securities		_		84		_	_		29		_
U.S. Treasury futures		_		_		_	14		_		_
Total	\$	_	\$	68,174	\$	_	\$ 111	\$	100,618	\$	_
Liabilities:											
Debt of consolidated VIEs	\$	_	\$	192	\$	_	\$ _	\$	228	\$	_
Obligation to return U.S. Treasury securities borrowed under reverse repurchase agreements		8,372		_		_	9,543		_		_
Interest rate swaps		_		_		_	_		2		_
TBA securities		_		8		_	_		4		_
U.S. Treasury futures		5		_		_	_		_		_
Total	\$	8,377	\$	200	\$		\$ 9,543	\$	234	\$	

Excluded from the table above are financial instruments presented in our consolidated financial statements at cost. The fair value of our repurchase agreements approximated cost as of September 30, 2020 and December 31, 2019, as the rates on our outstanding repurchase agreements largely corresponded to prevailing rates observed in the repo market. The fair value of cash and cash equivalents, restricted cash, receivables and other payables were determined to approximate cost as of September 30, 2020 and December 31, 2019 due to their short duration. We estimate the fair value of these instruments carried at cost using "Level 1" or "Level 2" inputs.

Note 9. Net Income (Loss) Per Common Share

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

	Т	hree Moi Septen]	Nine Mon Septen	
	20	020	2	019	2	2020	2019
Weighted average number of common shares issued and outstanding		552.1		546.0		552.9	539.9
Weighted average number of fully vested restricted stock units outstanding		1.1	_	0.4		0.9	0.4
Weighted average number of common shares outstanding - basic		553.2		546.4		553.8	540.3
Weighted average number of dilutive unvested restricted stock units outstanding		1.1		_			
Weighted average number of common shares outstanding - diluted		554.3		546.4		553.8	540.3
Net income (loss) available (attributable) to common stockholders	\$	637	\$	(17)	\$	(1,112)	\$ (219)
Net income (loss) per common share - basic	\$	1.15	\$	(0.03)	\$	(2.01)	\$ (0.41)
Net income (loss) per common share - diluted	\$	1.15	\$	(0.03)	\$	(2.01)	\$ (0.41)

For the nine months ended September 30, 2020 and for the three and nine months ended September 30, 2019, 1.0 million, 0.7 million and 0.6 million, respectively, of potentially dilutive unvested time and performance based RSUs outstanding were excluded from the computation of diluted net income (loss) per common share because to do so would have been anti-dilutive for the period.

Note 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, 2020, 13.800, 10,350, 16,100 and 23,000 shares of preferred stock were designated as 7.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock and 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, respectively, (referred to as "Series C, D, E and F Preferred Stock", respectively). During February 2020, we issued \$575 million, or 23,000 shares, of 6.125% Series F Preferred Stock, for net proceeds of \$557 million. As of September 30, 2020, 13,000, 9,400, 16,100 and 23,000 shares of Series C, D, E and F Preferred Stock, respectively, were issued and outstanding, with an aggregate carrying value of \$1,489 million and aggregate liquidation preference of \$1,538 million. Each share of 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 each series of preferred stock ranks on parity with one another. Under certain circumstances upon a change of control, our preferred stock is convertible to shares of our common stock. Holders of our preferred stock and depositary shares underlying our preferred stock have no voting rights, except under limited conditions. Beginning on each series' optional redemption date, we may redeem shares at \$25.00 per depositary share, plus accumulated and unpaid dividends (whether or not declared), exclusively at our option.

The following table includes a summary of preferred stock depositary shares issued and outstanding as of September 30, 2020 (dollars and shares in millions):

Denositary

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

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.

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.

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. During the nine months ended September 30, 2020, we sold 26.7 million shares of our common stock under the sales agreements for proceeds of \$439 million, or \$16.46 per common share, net of offering costs. As of September 30, 2020, shares of our common stock with an aggregate offering price of \$26 million remained authorized for issuance under this program through June 14, 2021.

Common Stock Repurchase Program

From time-to-time we are authorized by our Board of Directors to repurchase shares of our common stock under certain conditions. 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 and nine months ended September 30, 2020, we repurchased 11.0 million and 23.3 million shares, or \$154 million and \$301 million, respectively, of our common stock for an average repurchase price of \$13.95 and \$12.92 per common share, respectively, including 0.7 million shares, or \$10 million, of share repurchases settling in October 2020 and inclusive of transaction costs. As of September 30, 2020, we had \$597 million of common stock remaining available for repurchase. See also Note 11. Subsequent Events for additional information pertaining to our common stock repurchase program.

Accumulated Other Comprehensive Income (Loss)

The following table summarizes changes to accumulated OCI for the three and nine months ended September 30, 2020 and 2019 (in millions):

	Three Mor Septen			Nine Mor Septen	
Accumulated Other Comprehensive Income (Loss)	2020	2019		2020	2019
Beginning Balance	\$ 764	\$	(164)	\$ 97	\$ (943)
OCI before reclassifications	70		246	777	1,016
Net loss amounts for available-for-sale securities reclassified from accumulated OCI to realized gain (loss) on sale of investment securities, net	_		_	(40)	9
Ending Balance	\$ 834	\$	82	\$ 834	\$ 82

Note 11. Subsequent Events

Common Stock Dividend Declaration

On October 8, 2020, our Board of Directors declared a monthly dividend of \$0.12 per common share payable on November 11, 2020 to common stockholders of record as of October 31, 2020.

Common Stock Repurchase Program

On October 22, 2020 our Board of Directors terminated our existing stock repurchase plan (see Note 10) that was due to expire on December 31, 2020 and replaced it with a new plan authorizing us to repurchase up to \$1 billion of common stock through December 31, 2021. Under the new plan, we may repurchase shares in the open market or through privately negotiated transactions or pursuant to a trading plan that may be adopted in accordance with Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. Our stock repurchase program may be limited or terminated at any time without prior notice. We intend to repurchase shares under the stock repurchase program only when the repurchase price is less than our then-current estimate of tangible net book value per common share.

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

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is designed to provide a reader of AGNC Investment Corp.'s consolidated financial statements with a narrative from the perspective of management and should be read in conjunction with the consolidated financial statements and accompanying notes included in this Quarterly Report on Form 10-Q for quarterly period ended September 30, 2020. 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, and we will generally not be subject to U.S. federal or state corporate income tax 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

Despite continued uncertainty regarding the COVID-19 virus and the broader macroeconomic outlook, financial markets posted significant gains for the second quarter in a row since the peak of the financial dislocations in March, driven in large part by the monetary support provided by global central banks.

During the third quarter, stable interest rates and incremental purchases of Agency RMBS by the Federal Reserve (the "Fed") of approximately \$40 billion per month, supplementing its reinvestment of paydowns on its existing portfolio, were supportive of the Agency mortgage market. As mortgage rates maintain historically low levels, the prepayment risk for mortgage investors remains elevated but appears to have plateaued for several cohorts. The size of our investment portfolio, including TBA securities, for the third quarter was largely unchanged at \$97.6 billion as of September 30, 2020, compared to \$97.7 billion as of the end of the second quarter. We continued to shift the composition of our portfolio to lower coupon 30- and 15-year TBA securities with our higher coupon holdings concentrated in high quality, specified Agency RMBS pools, which have slower prepayment characteristics than similar coupon generic securities. Inclusive of TBA securities, the weighted average coupon on our fixed rate securities declined to 3.08% as of September 30, 2020 from 3.40% as of June 30, 2020.

Our investment portfolio outperformed relative to our interest rate hedges during the third quarter. As a result, our tangible net book value per common share increased to \$15.88 per share as of September 30, 2020 from \$14.92 per share as of June 30, 2020, an increase of 6.4%. The increase in book value was the primary driver of a decline in our "at risk" leverage to 8.8x from 9.2x tangible common equity as of September 30 and June 30, 2020, respectively. Our economic return on tangible common equity was 8.8% for the quarter, which includes both the increase in our tangible net asset value and dividends declared of \$0.36 per common share.

The TBA dollar roll market benefited in the third quarter from the combination of heavy origination volume and ongoing Fed purchases. As such, implied financing rates in the dollar roll market were well below comparable repo levels for most coupons. Given these favorable financing terms, we increased our average TBA position to \$27.8 billion for the quarter from \$15.7 billion for the second quarter. As of September 30, 2020, our TBA position totaled \$29.5 billion, or approximately 30% of our investment portfolio.

Our weighted average repo rate for the third quarter declined to 0.40% from 0.76% for the second quarter. Our aggregate cost of funds, which includes the implied funding cost associated with our TBA position and interest rate swap costs, declined to 0.15% for the third quarter, compared to 0.88% for the second quarter. The combination of strong TBA dollar roll performance and very low funding rates more than offset lower asset yields on our portfolio for the quarter and drove a significant increase in our net spread and dollar roll income, excluding "catch-up" premium amortization cost, a non-GAAP measure, to \$0.81 per common share for the third quarter from \$0.58 per common share for the second quarter. (Refer to *Results of Operations* below for further information regarding non-GAAP measures.)

Our net interest margin, including TBA securities and interest rate swaps and excluding "catch-up" premium amortization, increased to 2.15% for the third quarter from 1.68% for the second quarter. Looking ahead, the Fed's recently announced policy shift to average inflation targeting should cause the current low cost funding environment to persist for a prolonged period and continue to benefit our net interest margin. Notwithstanding this, our net interest margin is likely biased marginally lower, as we expect the implied funding advantage of TBA dollar rolls to contract over time to more modest levels and our average asset yield to decline as portfolio turnover is reinvested at lower prevailing asset yields.

Our investment portfolio, excluding TBA holdings, prepaid at an annualized rate of 24.3% during the third quarter, compared to 19.9% during the second quarter. Our weighted average projected CPR for the remaining life of our securities decreased to 15.9% as of September 30, 2020 from 16.6% as of June 30, 2020 largely due to changes in asset composition. Our liquidity position, consisting of unencumbered Agency RMBS and cash, totaled \$5.2 billion at the end of the third quarter, which excludes unencumbered CRT securities, non-Agency securities and assets held at our broker-dealer subsidiary.

Our interest rate hedge position increased to 71% of our funding liabilities, inclusive of our net TBA position (at cost), as of September 30, 2020, compared to 66% as of June 30, 2020. Our duration gap, which is a measure of the difference between the interest rate sensitivity of our assets and liabilities, inclusive of all of our interest rate hedges, was largely unchanged during the third quarter at 0.0 years as of September 30, 2020 compared to -0.1 year as of June 30, 2020.

Our interest rate swap portfolio totaled \$43.0 billion as of September 30, 2020, largely unchanged from \$42.1 billion as of June 30, 2020. We continued to alter the composition of our swap portfolio during the third quarter, shifting to SOFR-indexed swaps and extending the maturity profile to 5.3 years as of September 30, 2020 from 5.1 years as of June 30, 2020. SOFR-indexed swaps are expected to highly correlate to changes in repo funding levels. As of September 30, 2020, 69% of our interest rate swaps were indexed to SOFR and the remainder to OIS. As of June 30, 2020, 16%, 79% and 5% of our interest rate swaps were indexed to SOFR, OIS and 3M LIBOR, respectively. Our interest rate swap repositioning in recent quarters also led to a decline in our average swap cost, as the majority of our interest swaps now reflect prevailing market rates. For the third quarter, the average pay rate on our interest rates swaps decreased to 0.15% as of September 30, 2020 from 0.39% as of June 30, 2020.

Although the ongoing economic uncertainties associated with the COVID-19 pandemic and U.S. fiscal policy continue as risks to the financial markets and prepayments will likely remain elevated, our earnings profile should continue to benefit from the broad availability of repo funding at rates near zero, muted interest rate volatility and continued Fed acquisitions of Agency RMBS. As such, in the current environment, we remain optimistic about our ability to generate positive risk-adjusted returns for our stockholders through a combination of dividends and book value growth over the near term.

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	Sept. 30, 2019	Dec. 31, 2019	Mar. 31, 2020	June 30, 2020	Sept. 30, 2020	Sept. 30, 2020 vs June 30, 2020	Sept. 30, 2020 vs Dec. 31, 2019
Target Federal Funds Rate:							
Target Federal Funds Rate - Upper Band	2.00%	1.75%	0.25%	0.25%	0.25%	— bps	-150 bps
LIBOR:							
1-Month	2.02%	1.76%	0.99%	0.16%	0.15%	-1 bps	-161 bps
3-Month	2.09%	1.91%	1.45%	0.30%	0.23%	-7 bps	-168 bps
U.S. Treasury Security Rate:							
2-Year U.S. Treasury	1.62%	1.57%	0.25%	0.15%	0.13%	-2 bps	-144 bps
5-Year U.S. Treasury	1.54%	1.69%	0.38%	0.29%	0.28%	-1 bps	-141 bps
10-Year U.S. Treasury	1.66%	1.92%	0.67%	0.66%	0.69%	+3 bps	-123 bps
30-Year U.S. Treasury	2.11%	2.39%	1.32%	1.41%	1.46%	+5 bps	-93 bps
Interest Rate Swap Rate:							
2-Year Swap	1.63%	1.70%	0.49%	0.23%	0.22%	-1 bps	-148 bps
5-Year Swap	1.50%	1.73%	0.52%	0.33%	0.35%	+2 bps	-138 bps
10-Year Swap	1.56%	1.90%	0.72%	0.64%	0.71%	+7 bps	-119 bps
30-Year Swap	1.71%	2.09%	0.88%	0.92%	1.12%	+20 bps	-97 bps
30-Year Fixed Rate Agency Price:							
2.0%	\$95.49	\$94.89	\$100.91	\$102.33	\$103.39	+\$1.06	+\$8.50
2.5%	\$99.55	\$98.89	\$103.59	\$104.26	\$104.90	+\$0.64	+\$6.01
3.0%	\$101.51	\$101.42	\$104.83	\$105.33	\$104.75	-\$0.58	+\$3.33
3.5%	\$102.58	\$102.86	\$105.70	\$105.18	\$105.40	+\$0.22	+\$2.54
4.0%	\$103.77	\$104.01	\$106.67	\$105.98	\$106.64	+\$0.66	+\$2.63
15-Year Fixed Rate Agency Price:							
2.0%	\$99.11	\$98.68	\$102.66	\$103.46	\$103.95	+\$0.49	+\$5.27
2.5%	\$100.85	\$100.91	\$103.72	\$104.70	\$104.44	-\$0.26	+\$3.53
3.0%	\$102.21	\$102.50	\$104.61	\$105.09	\$104.94	-\$0.15	+\$2.44
3.5%	\$103.42	\$103.69	\$105.19	\$105.06	\$105.81	+\$0.75	+\$2.12
4.0%	\$104.08	\$104.28	\$105.56	\$105.75	\$106.15	+\$0.40	+\$1.87

^{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, 2020 and December 31, 2019, our investment portfolio consisted of \$68.0 billion and \$100.4 billion of investment securities, at fair value, respectively, and \$29.5 billion and \$7.4 billion of TBA securities, at fair value, respectively. The following table is a summary of our investment portfolio as of September 30, 2020 and December 31, 2019 (dollars in millions):

				September 3	30, 2020		December 31, 2019					
Investment Portfolio (Includes TBAs)	A	mortized Cost	Fair Value		Average Coupon	%	A	Amortized Cost	F	air Value	Average Coupon	%
Fixed rate Agency RMBS and TBA securities:												
≤ 15-year:												
≤ 15-year RMBS	\$	4,772	\$	4,970	3.12 %	5 %	\$	6,140	\$	6,239	3.29 %	6 %
15-year TBA securities, net ¹		11,421		11,456	1.86 %	12 %		2,222		2,226	2.91 %	2 %
Total ≤ 15-year		16,193		16,426	2.23 %	17 %		8,362		8,465	3.19 %	8 %
20-year RMBS		2,395		2,445	2.67 %	3 %		752		773	3.87 %	1 %
30-year:												
30-year RMBS		56,140		58,863	3.63 %	60 %		89,483		91,062	3.67 %	84 %
30-year TBA securities, net ¹		18,039		18,080	2.19 %	18 %		5,182		5,203	2.92 %	5 %
Total 30-year		74,179		76,943	3.28 %	79 %		94,665		96,265	3.63 %	89 %
Total fixed rate Agency RMBS and TBA securities		92,767		95,814	3.08 %	98 %		103,779		105,503	3.60 %	98 %
Adjustable rate Agency RMBS		96		99	2.54 %	— %		160		163	3.04 %	— %
Multifamily		17		19	3.31 %	— %		37		39	3.37 %	— %
CMO Agency RMBS:												
CMO		327		341	3.35 %	— %		441		447	3.44 %	1 %
Interest-only strips		51		66	5.58 %	— %		63		77	4.22 %	— %
Principal-only strips		66		76	— %	— %		83		87	— %	— %
Total CMO Agency RMBS		444		483	4.11 %	— %		587		611	3.48 %	1 %
Total Agency RMBS and TBA securities		93,324		96,415	3.09 %	99 %		104,563		106,316	3.59 %	99 %
Non-Agency RMBS		172		177	4.20 %	— %		198		209	4.05 %	1 %
CMBS		310		335	4.13 %	1 %		352		370	4.49 %	— %
CRT		678		653	3.31 %	1 %		961		976	5.07 %	1 %
Total investment portfolio	\$	94,484	\$	97,580	3.09 %	100 %	\$	106,074	\$	107,871	3.61 %	100 %

^{1.} TBA securities are presented net of long and short positions. For further details of our TBA securities 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, 2020 and December 31, 2019, our TBA positions had a net carrying value of \$76 million and \$25 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, 2020 and December 31, 2019, the weighted average yield on our investment securities (excluding TBA securities) was 2.56% and 3.07%, respectively.

The following tables summarize certain characteristics of our fixed rate Agency RMBS portfolio, inclusive of TBAs, as of September 30, 2020 and December 31, 2019 (dollars in millions):

September 30, 2020

							Se	ptember 30, 2020				
			1	Includes Net	ГВА	Position			Exclu	des Net TBA	Position	
										Weighted Av	erage	
Fixed Rate Agency RMBS and TBA Securities	Pa	r Value	Amortized Cost		Fa	ir Value	Specified Pool % 1	Amortized Cost Basis	WAC ²	Yield ³	Age (Months)	Projected CPR ³
Fixed rate												
≤ 15-year:												
≤ 2.0%	\$	11,135	\$	11,456	\$	11,493	%	103.8%	2.62%	1.09%	_	12%
2.5%		1,114		1,165		1,164	10%	104.0%	3.08%	1.42%	22	15%
3.0%		1,264		1,285		1,348	94%	101.6%	3.55%	2.49%	41	13%
3.5%		1,357		1,386		1,474	100%	102.2%	4.03%	2.79%	37	15%
4.0%		784		807		850	91%	103.0%	4.60%	2.97%	35	16%
≥ 4.5%		92		94		97	97%	102.9%	4.89%	2.98%	121	17%
Total ≤ 15-year		15,746		16,193		16,426	23%	102.6%	3.69%	2.33%	31	14%
20-year:												
≤ 2.5%		1,697		1,757		1,767	%	103.6%	3.07%	1.36%	1	15%
3.0%		54		55		58	98%	102.9%	3.78%	2.14%	14	19%
3.5%		242		247		263	81%	101.8%	4.05%	2.94%	85	15%
4.0%		159		164		175	92%	103.1%	4.45%	3.06%	43	17%
≥ 4.5%		164		172		182	100%	104.5%	5.01%	3.15%	47	18%
Total 20-year:		2,316		2,395		2,445	25%	103.4%	3.42%	1.79%	17	15%
30-year:							·					
2.0%		13,375		13,749		13,801	%	102.8%	2.92%	1.60%	_	8%
2.5%		11,713		12,254		12,302	%	104.5%	3.40%	1.61%	2	14%
3.0%		4,131		4,259		4,368	15%	102.9%	3.74%	2.21%	32	18%
3.5%		15,475		16,131		16,949	84%	104.2%	4.07%	2.50%	61	15%
4.0%		17,014		17,784		18,841	93%	104.5%	4.51%	2.86%	50	17%
≥ 4.5%		9,514		10,002		10,682	98%	105.1%	5.01%	3.14%	35	19%
Total 30-year		71,222		74,179		76,943	56%	104.4%	4.23%	2.58%	42	16%
Total fixed rate	\$	89,284	\$	92,767	\$	95,814	49%	104.2%	4.16%	2.53%	40	16%

Specified pools include pools backed by lower balance loans with original loan balances of up to \$200K, HARP pools (defined as pools that were issued between May 2009 and December 2018 and backed by 100% refinance loans with original LTVs ≥ 80%), and pools backed by loans 100% originated in New York and Puerto Rico. As of September 30, 2020, lower balance specified pools had a weighted average original loan balance of \$115,000 and \$117,000 for 15-year and 30-year securities, respectively, and HARP pools had a weighted average original LTV of 126% and 137% for 15-year and 30-year securities, respectively.

WAC represents the weighted average coupon of the underlying collateral.

Portfolio yield incorporates a projected life CPR based on forward rate assumptions as of September 30, 2020.

December 31, 2019

			In	cludes Net	TBA	N Position		Excludes Net TBA Position									
							<u></u>			Weighted Av	erage						
Fixed Rate Agency RMBS and TBA Securities	Pa	r Value		nortized Cost	F	air Value	Specified Pool % 1	Amortized Cost Basis	WAC ²	Yield ³	Age (Months)	Projected CPR ³					
Fixed rate																	
≤ 15-year:																	
≤ 2.5%	\$	1,720	\$	1,735	\$	1,738	40%	101.0%	2.98%	2.11%	86	11%					
3.0%		2,985		3,041		3,067	59%	101.7%	3.52%	2.45%	58	10%					
3.5%		2,299		2,354		2,401	71%	102.2%	4.04%	2.86%	25	13%					
4.0%		1,075		1,109		1,135	84%	103.1%	4.60%	3.05%	26	14%					
4.5%		117		122		123	98%	103.5%	4.87%	3.00%	111	13%					
≥ 5.0%		1		1		1	100%	101.9%	6.55%	4.55%	146	15%					
Total ≤ 15-year		8,197		8,362		8,465	63%	102.0%	3.82%	2.65%	47	12%					
20-year:																	
3.5%		284		289		297	81%	102.0%	4.05%	2.97%	77	12%					
4.0%		196		202		209	92%	103.3%	4.45%	3.18%	34	13%					
4.5%		194		204		210	100%	104.8%	5.00%	3.23%	37	15%					
≥ 5.0%		1		1		1	%	105.1%	5.95%	3.33%	141	18%					
Total 20-year:		675		696		717	90%	103.2%	4.40%	3.05%	49	13%					
30-year:																	
≤ 3.0%		27,864		28,218		28,252	3%	101.4%	3.85%	2.73%	8	9%					
3.5%		23,760		24,525		24,902	60%	103.3%	4.05%	2.97%	49	10%					
4.0%		26,934		28,062		28,795	84%	104.2%	4.51%	3.25%	37	11%					
4.5%		12,730		13,381		13,831	93%	105.1%	4.98%	3.45%	23	13%					
5.0%		380		410		416	94%	108.0%	5.50%	3.28%	39	14%					
≥ 5.5%		63		69		69	49%	109.6%	6.18%	3.33%	158	13%					
Total 30-year		91,731		94,665		96,265	55%	103.3%	4.29%	3.07%	31	11%					
Total fixed rate	\$	100,603	\$	103,723	\$	105,447	56%	103.3%	4.26%	3.04%	32	11%					

See Note 1 of preceding table for specified pool composition. As of December 31, 2019, lower balance specified pools had a weighted average original loan balance of \$115,000 and \$118,000 for 15-year and 30-year securities, respectively, and HARP pools had a weighted average original LTV of 119% and 136% for 15-year and 30-year securities, respectively. WAC represents the weighted average coupon of the underlying collateral.

Portfolio yield incorporates a projected life CPR based on forward rate assumptions as of December 31, 2019. 1.

As of September 30, 2020 and December 31, 2019, our investments in CRT and non-Agency securities had the following credit ratings:

		Sept	tember 30, 2020								
CRT and Non-Agency Security Credit Ratings 1	CRT ²		RMBS		CMBS		CRT ²		RMBS		CMBS
AAA	\$ 	\$		\$	39	\$		\$		\$	43
AA	_		20		181		_		81		214
A	_		33		22		13		25		34
BBB	42		82		55		67		71		69
BB	204		27		34		471		21		10
В	252		5		4		308		4		_
Not Rated	155		10		_		117		7		_
Total	\$ 653	\$	177	\$	335	\$	976	\$	209	\$	370

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.

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

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).

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, 2020 and December 31, 2019 and our condensed consolidated statements of comprehensive income and key statistics for the three and nine months ended September 30, 2020 and 2019 (in millions, except per share amounts):

(\$ in Millions, Except Per Share Amounts)

Balance Sheet Data		September 30, 2020	D	ecember 31, 2019
		(Unaudited)		
Investment securities, at fair value	\$	68,044	\$	100,442
Total assets	\$	79,968	\$	113,082
Repurchase agreements and other debt	\$	54,758	\$	89,410
Total liabilities	\$	69,248	\$	102,041
Total stockholders' equity	\$	10,720	\$	11,041
Net book value per common share ¹	\$	16.84	\$	18.63
Tangible net book value per common share ²	\$	15.88	\$	17.66
	Three Months Ended	Nin	o Ma	onthe Ended

	Three Mo Septen				onths Ended mber 30,		
Statement of Comprehensive Income Data (Unaudited)	 2020	2019		2020		2019	
Interest income	\$ 364	\$ 676	\$	1,284	\$	2,074	
Interest expense	62	557		622		1,668	
Net interest income	302	119		662		406	
Other gain (loss), net	381	(104)		(1,635)		(531)	
Operating expenses	21	19		68		58	
Net income (loss)	662	(4)		(1,041)		(183)	
Dividends on preferred stock	25	 13		71		36	
Net income (loss) available (attributable) to common stockholders	\$ 637	\$ (17)	\$	(1,112)	\$	(219)	
			_				
Net income (loss)	\$ 662	\$ (4)	\$	(1,041)	\$	(183)	
Other comprehensive income, net	 70	 246		737		1,025	
Comprehensive income (loss)	732	242		(304)		842	
Dividends on preferred stock	 25	 13		71		36	
Comprehensive income (loss) available (attributable) to common stockholders	\$ 707	\$ 229	\$	(375)	\$	806	
Weighted average number of common shares outstanding - basic	553.2	 546.4		553.8		540.3	
Weighted average number of common shares outstanding - diluted	554.3	546.4		553.8		540.3	
Net income (loss) per common share - basic	\$ 1.15	\$ (0.03)	\$	(2.01)	\$	(0.41)	
Net income (loss) per common share - diluted	\$ 1.15	\$ (0.03)	\$	(2.01)	\$	(0.41)	
Comprehensive income (loss) per common share - basic	\$ 1.28	\$ 0.42	\$	(0.68)	\$	1.49	
Comprehensive income (loss) per common share - diluted	\$ 1.28	\$ 0.42	\$	(0.68)	\$	1.49	
Dividends declared per common share	\$ 0.36	\$ 0.48	\$	1.20	\$	1.52	

	Three M Septe	onths I mber 3			Nine Months E September 3		
Other Data (Unaudited) *	 2020		2019		2020		2019
Average investment securities - at par	\$ 61,398	\$	89,741	\$	75,108	\$	88,783
Average investment securities - at cost	\$ 63,893	\$	92,764	\$	77,783	\$	91,736
Average net TBA portfolio - at cost	\$ 27,785	\$	10,146	\$	17,017	\$	10,012
Average total assets - at fair value	\$ 80,058	\$	104,819	\$	93,541	\$	111,059
Average repurchase agreements and other debt outstanding ³	\$ 61,008	\$	87,938	\$	74,649	\$	85,406
Average stockholders' equity ⁴	\$ 10,527	\$	10,347	\$	10,595	\$	10,277
Average tangible net book value "at risk" leverage ⁵	8.9:1		10.0:1		9.1:1		9.8:1
Tangible net book value "at risk" leverage (as of period end) ⁶	8.8:1		9.8:1		8.8:1		9.8:1
Economic return on tangible common equity ⁷	8.8 %)	2.7 %)	(3.3)%)	9.1 %
Expenses % of average total assets	0.10 %)	0.07 %)	0.10 %)	0.07 %
Expenses % of average assets, including average net TBA position	0.08 %		0.07 %)	0.08 %))	0.06 %
Expenses % of average stockholders' equity	0.80 %)	0.73 %)	0.86 %)	0.75 %

^{*} Except as noted below, average numbers for each period are weighted based on days on our books and records.

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, 2020 and 2019, 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 En	30,	Nine Months Ended September 30,							
		2020		201	19		202	20		20	19
	Amou	nt Yield	Ar	nount	Yield		Amount	Yield		Amount	Yield
Interest income:											
Cash/coupon interest income	\$ 5	73 3.73 %	\$	868	3.87 %	\$	2,100	3.72	6 \$	2,591	3.87 %
Net premium amortization	(20	09) (1.45)%		(192)	(0.96)%		(816)	$(1.52)^{\circ}$	6	(517)	(0.86)%
Interest income (GAAP measure)	3	54 2.28 %		676	2.91 %		1,284	2.20	6	2,074	3.01 %
Estimated "catch-up" premium amortization cost (benefit) due to change in CPR forecast		50 0.31 %		55	0.24 %		350	0.60	6	152	0.23 %
Interest income, excluding "catch-up" premium amortization	4	14 2.59 %		731	3.15 %		1,634	2.80	6	2,226	3.24 %
TBA dollar roll income - implied interest income 1,2	1	1.64 %		81	3.19 %		236	1.86	6	248	3.28 %
Economic interest income, excluding "catch-up" amortization (non-GAAP measure) $^{\rm 3}$	\$ 5	28 2.30 %	\$	812	3.16 %	\$	1,870	2.63	6 \$	2,474	3.24 %
				<u>.</u>							
Weighted average actual portfolio CPR for investment securities held during the period	24	.3 %		13.5 %			18.0 %			10.0 %	
Weighted average projected CPR for the remaining life of investment securities held as of period end	15	.9 %		13.4 %			15.9 %			13.4 %	
Average 30-year fixed rate mortgage rate as of period end 4	2.	90 %		3.64 %			2.90 %			3.64 %	
10-year U.S. Treasury rate as of period end	0.	69 %		1.66 %			0.69 %			1.66 %	

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

² Tangible net book value per common share excludes goodwill.

Amount excludes U.S. Treasury repurchase agreements and TBA contracts. Other debt includes debt of consolidated VIEs. 3

Average stockholders' equity calculated as average month-ended stockholders' equity during the period.

Average tangible net book value "at risk" leverage is calculated by dividing the sum of daily weighted average mortgage borrowings outstanding (Agency and non-Agency MBS) repurchase agreements, other debt and TBA securities (at cost)) for the period by the sum of average stockholders' equity adjusted to exclude goodwill for the period. Leverage excludes U.S. Treasury repurchase agreements.

[&]quot;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.

Economic return on tangible common equity represents the sum of the change in tangible net book value per common share and dividends declared per share of common stock during the period over beginning tangible net book value per common share.

- 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

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, 2020 compared to the prior year period (in millions):

Impact of Changes in the Principal Elements Impacting Economic Interest Income

Periods ended September 30, 2020 vs. September 30, 2019											
				Due to Chan	ge in	Average					
		Total Increase / (Decrease)		Portfolio Size		Asset Yield					
Three months ended:											
Interest Income (GAAP measure)	\$	(312)	\$	(211)	\$	(101)					
Estimated "catch-up" premium amortization due to change in CPR forecast		(5)		_		(5)					
Interest income, excluding "catch-up" premium amortization		(317)		(211)		(106)					
TBA dollar roll income - implied interest income		33		141		(108)					
Economic interest income, excluding "catch-up" amortization (non-GAAP measure)	\$	(284)	\$	(70)	\$	(214)					
Nine months ended:											
Interest Income (GAAP measure)	\$	(790)	\$	(315)	\$	(475)					
Estimated "catch-up" premium amortization due to change in CPR forecast		198		_		198					
Interest income, excluding "catch-up" premium amortization		(592)		(315)		(277)					
TBA dollar roll income - implied interest income		(12)		174		(186)					
Economic interest income, excluding "catch-up" amortization (non-GAAP measure)	\$	(604)	\$	(141)	\$	(463)					

Our average investment portfolio, inclusive of TBAs (at cost), decreased -11% and -7% for the three and nine months ended September 30, 2020, respectively, compared to the prior year periods primarily due to lower operating leverage. The decrease in our average asset yield for the three and nine months ended September 30, 2020 was due to the combination of changes in asset composition and higher premium amortization cost resulting from faster prepayment expectations.

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. The following table presents a summary of our leverage ratios for the periods listed (dollars in millions):

	 	and	Other Debt 1		Long/(Shor	t) ²	Average Tangible Net	Tangible Net Book Value "At Risk"
Quarter Ended	erage Daily Amount		Maximum illy Amount	Ending Amount	Book Value		Book Value "At Risk" Leverage	Leverage as of Period End ⁴	
September 30, 2020	\$ 61,008	\$	69,628	\$ 54,558	\$ 27,785	\$	29,460	8.9:1	8.8:1
June 30, 2020	\$ 69,552	\$	72,399	\$ 69,370	\$ 15,662	\$	20,413	8.8:1	9.2:1
March 31, 2020	\$ 93,538	\$	104,773	\$ 63,241	\$ 7,487	\$	20,648	9.9:1	9.4:1
December 31, 2019	\$ 88,677	\$	92,672	\$ 89,313	\$ 7,038	\$	7,404	9.5:1	9.4:1
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

Repurchase Agreements

Net TBA Position

- 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.
- Average tangible net book value "at risk" leverage during the period represents the sum of our daily weighted average repurchase agreements and other debt used to fund acquisitions of investment securities and net TBA position outstanding divided by the sum of our average month-ended stockholders' equity, adjusted to exclude goodwill.
 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
- 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 as of period end.

Economic Interest Expense and Aggregate Cost of Funds

The following table summarizes our economic interest expense and aggregate cost of funds (non-GAAP measures) for the three and nine months ended September 30, 2020 and 2019 (dollars in millions), which includes the combination of interest expense on Agency repurchase agreements and other debt (GAAP measure), implied financing cost (benefit) of our TBA securities and interest rate swap periodic interest cost (income):

	Three Months Ended September 30,				Nine Months Ended September 30,						
	20)20	2019		20	020	2019				
Economic Interest Expense and Aggregate Cost of Funds ¹	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)	\$ 62	0.40 %	\$ 557	2.48 %	\$ 622	1.09 %	\$ 1,668	2.58 %			
TBA dollar roll income - implied interest expense (benefit) ^{2,3}	(41)	(0.58)%	52	2.00 %	(13)	(0.10)%	178	2.32 %			
Economic interest expense - before interest rate swap periodic cost (income), net ⁴	21	0.09 %	609	2.43 %	609	0.87 %	1,846	2.55 %			
Interest rate swap periodic interest cost (income), net ^{2,5}	13	0.06 %	(146)	(0.58)%	41	0.06 %	(317)	(0.44)%			
Total economic interest expense (non-GAAP measure)	\$ 34	0.15 %	\$ 463	1.85 %	\$ 650	0.93 %	\$ 1,529	2.11 %			

- Amounts exclude interest rate swap termination fees and variation margin settlements paid or received, forward starting swaps and the impact of other supplemental hedges, such as swaptions and U.S. Treasury positions.
- 2. Reported in gain (loss) on derivative instruments and other securities, net in our consolidated statements of comprehensive income.
- 3. The implied funding cost (benefit) of TBA dollar roll transactions is determined using the price differential, or "price drop," between the TBA price for current month settlement versus the TBA price for forward month settlement and market based assumptions regarding the "cheapest-to-deliver" collateral that can be delivered to satisfy the TBA contract, such as the anticipated collateral's weighted average coupon, weighted average maturity and projected 1-month CPR. The average implied funding cost (benefit) for all TBA transactions is weighted based on our daily average TBA balance outstanding for the period.
- 4. The combined cost of funds for total mortgage borrowings outstanding, before interest rate swap costs, is calculated on a weighted average basis based on average repo, other debt and TBA balances outstanding during the period and their respective cost of funds.
- 5. Interest rate swap periodic 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, 2020 compared to the prior year period (in millions):

Impact of Changes in the Principal Elements of Economic Interest Expense

Periods ended September 30, 2020	vs. Septeml	oer 30, 2019				
			nge in Average			
		Total Increase / (Decrease)	Borrowing / Swap Balance		Bo	rowing / Swap Rate
Three months ended:	_					
Repurchase agreements and other debt interest expense	\$	(495)	\$	(170)	\$	(325)
TBA dollar roll income - implied interest expense		(93)		90		(183)
Interest rate swap periodic interest income/cost		159		69		90
Total change in economic interest expense	\$	(429)	\$	(11)	\$	(418)
Nine months ended:						
Repurchase agreements and other debt interest expense	\$	(1,046)	\$	(210)	\$	(836)
TBA dollar roll income - implied interest expense		(191)		125		(316)
Interest rate swap periodic interest income/cost		358		34		324
Total change in economic interest expense	\$	(879)	\$	(51)	\$	(828)

Our average mortgage borrowings, inclusive of TBAs, decreased by -9% and -4% for the three and nine months ended September 30, 2020, respectively, largely due to lower operating leverage. The decline in our average interest rate (actual and implied) on our mortgage borrowings these periods was due to lower short-term interest rates.

Additionally, during the nine months ended September 30, 2020, we terminated \$3.7 billion of longer-dated repurchase agreements and replaced them with shorter duration repurchase agreements at lower prevailing market rates. We recognized losses on debt extinguishment totaling \$146 million in other gain (loss) during the period associated with the terminated agreements. We did not terminate any repurchase agreements during the three months ended September 30, 2020 or the prior year periods.

The increase in our interest rate swap periodic cost for the three and nine months ended September 30, 2020 was due to declines in the average rate received on our interest rate swaps as the receive leg of our pay-fixed interest rate swaps reset to lower prevailing rates, which were partially offset by a decline in our average pay-rate. The following table presents a summary of the ratio of our average interest rates swaps outstanding, excluding forward starting swaps, to our average mortgage borrowings and the weighted average pay-fixed / receive-floating rates on our interest rate swaps for the three and nine months ended September 30, 2020 and 2019 (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		2020		2019		2020		2019	
Average Agency repo and other debt outstanding	\$	61,008	\$	87,938	\$	74,649	\$	85,406	
Average net TBA portfolio outstanding - at cost	\$	27,785	\$	10,146	\$	17,017	\$	10,012	
Average mortgage borrowings outstanding	\$	88,793	\$	98,084	\$	91,666	\$	95,418	
Average notional amount of interest rate swaps outstanding (excluding forward starting swaps)	\$	41,094	\$	77,824	\$	52,268	\$	58,459	
Ratio of average interest rate swaps to mortgage borrowings outstanding	46 %			79 %		57 %		61 %	
Average interest rate swap pay-fixed rate (excluding forward starting swaps)		0.22 %		1.52 %		0.80 %		1.75 %	
Average interest rate swap receive-floating rate		(0.09)%		(2.26)%		(0.70)%		(2.48)%	
Average interest rate swap net pay/(receive) rate		0.13 %		(0.74)%		0.10 %		(0.73)%	

For the three and nine months ended September 30, 2020, we had an average forward starting swap balance of \$0.7 billion and \$1.0 billion, respectively. 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. 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, 2020 was 47% and 58%, respectively, and 82% and 65%, respectively, for the corresponding prior year periods.

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, 2020 and 2019:

	Three Months End 30,	led September	Nine Mont Septeml	
Investment and TBA Securities - Net Interest Spread	2020	2019	2020	2019
Average asset yield, excluding "catch-up" premium amortization	2.30 %	3.16 %	2.63 %	3.24 %
Average aggregate cost of funds	(0.15)%	(1.85)%	(0.93)%	(2.11)%
Average net interest spread, excluding "catch-up" premium amortization	2.15 %	1.31 %	1.70 %	1.13 %

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, 2020 and 2019 (dollars in millions):

	Three Months Ended September 30,				Nine Months Ended September 30,			
		2020		2019	2019 2020			2019
Net interest income (GAAP measure)	\$	302	\$	119	\$	662	\$	406
TBA dollar roll income, net ¹		155		29		249		70
Interest rate swap periodic interest (cost) income, net ¹		(13)		146		(41)		317
Other interest and dividend income ¹				4		3		11
Adjusted net interest and dollar roll income		444		298		873		804
Operating expense		(21)		(19)		(68)		(58)
Net spread and dollar roll income		423		279		805		746
Dividend on preferred stock		25		13		71		36
Net spread and dollar roll income available to common stockholders (non-GAAP measure)		398		266		734		710
Estimated "catch-up" premium amortization cost due to change in CPR forecast		50		55		350		152
Net spread and dollar roll income, excluding "catch-up" premium amortization, available to common stockholders (non-GAAP measure)	\$	448	\$	321	\$	1,084	\$	862
Weighted average number of common shares outstanding - basic		553.2		546.4		553.8		540.3
Weighted average number of common shares outstanding - diluted		554.3		547.1		554.8		540.9
Net spread and dollar roll income per common share - basic	\$	0.72	\$	0.49	\$	1.33	\$	1.31
Net spread and dollar roll income per common share - diluted	\$	0.72	\$	0.49	\$	1.32	\$	1.31
Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share - basic	\$	0.81	\$	0.59	\$	1.96	\$	1.60
Net spread and dollar roll income, excluding "catch-up" premium amortization, per common share - diluted	\$	0.81	\$	0.59	\$	1.95	\$	1.59

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

Gain (Loss) on Investment Securities, Net

The following table is a summary of our net gain (loss) on investment securities for the three and nine months ended September 30, 2020 and 2019 (in millions):

	Three Months Ended Nine Month September 30, September					
Gain (Loss) on Investment Securities, Net ¹		2020		2019	2020	2019
Gain on sale of investment securities, net	\$	346	\$	89	\$ 993	\$ 281
Unrealized gain (loss) on investment securities measured at fair value through net income, net ²		(365)		355	511	2,174
Unrealized gain (loss) on investment securities measured at fair value through other comprehensive income, net		70		246	737	1,025
Total gain (loss) on investment securities, net	\$	51	\$	690	\$ 2,241	\$ 3,480

- 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-Q).

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, 2020 and 2019 (in millions):

	Three Months Ended September 30,				Nine Months Ended September 30,		
	2020		2019	2020	2019		
Interest rate swap periodic interest income (cost), net	\$ (13)	\$ 146	\$ (41)	\$ 317		
Realized gain (loss) on derivative instruments and other securities, net:							
TBA securities - dollar roll income, net	1	.55	29	249	70		
TBA securities - mark-to-market net gain (loss)	1	.83	151	896	342		
Payer swaptions	((33)	(3)	(63)	(30)		
U.S. Treasury securities - long position		18	6	104	7		
U.S. Treasury securities - short position	((32)	(203)	(745)	(820)		
U.S. Treasury futures - short position		(2)	(94)	(97)	(189)		
Interest rate swaps - termination fees and variation margin settlements, net	1	13	(653)	(3,013)	(2,292)		
Losses on debt extinguishment		_	_	(146)	_		
Other		_	_	28	(8)		
Total realized gain (loss) on derivative instruments and other securities, net		102	(767)	(2,787)	(2,920)		
Unrealized gain (loss) on derivative instruments and other securities, net:							
TBA securities - mark-to-market net gain (loss)	((55)	(36)	51	(22)		
Interest rate swaps		40	25	20	(122)		
Payer swaptions		32	(16)	(86)	(41)		
U.S. Treasury securities - long position	(17)	(1)	(2)	4		
U.S. Treasury securities - short position		17	49	(267)	(264)		
U.S. Treasury futures - short position		(3)	54	(20)	61		
Other		(3)	(2)	(7)	1		
Total unrealized gain (loss) on derivative instruments and other securities, net		11	73	(311)	(383)		
Total gain (loss) on derivative instruments and other securities, net	\$ 4	100	\$ (548)	\$ (3,139)	\$ (2,986)		

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, 2020 and 2019, we had estimated taxable income (loss) available (attributable) to common stockholders of \$508 million and \$156 million, or \$0.92 and \$0.29 per diluted common share, respectively. For the nine months ended September 30, 2020 and 2019, we had estimated taxable income available to common stockholders of \$615 million and \$523 million, or \$1.11 and \$0.97 per diluted common share, respectively. Income determined under GAAP differs from income determined under U.S. federal income tax rules because of both temporary and permanent differences in income and expense recognition. The primary differences are (i) unrealized gains and losses on investment securities and derivative instruments marked-to-market in current income for GAAP purposes, but excluded from taxable income until realized, settled or amortized over the instrument's original term, (ii) timing differences, both temporary and potentially permanent, in the recognition of certain realized gains and losses and (iii) temporary differences related to the amortization of premiums and discounts on investments. Furthermore, our estimated taxable income is subject to potential adjustments up to the time of filing our appropriate tax returns, which occurs after the end of our fiscal year. The following is a reconciliation of our GAAP net income to our estimated taxable income for the three and nine months ended September 30, 2020 and 2019 (dollars in millions, except per share amounts):

	Three Months Ended September 30,			Nine Months Ended September 30,				
		2020		2019		2020		2019
Net income (loss)	\$	662	\$	(4)	\$	(1,041)	\$	(183)
Estimated book to tax differences:								
Premium amortization, net		(11)		47		248		168
Realized gain/loss, net		(472)		521		2,083		2,034
Net capital loss/(utilization of net capital loss carryforward)		_		34		(394)		342
Unrealized (gain)/loss, net		354		(428)		(200)		(1,791)
Other				(1)		(10)		(11)
Total book to tax differences		(129)		173		1,727		742
Estimated REIT taxable income		533		169		686		559
Dividends on preferred stock		25		13		71		36
Estimated REIT taxable income (loss) available (attributable) to common stockholders	\$	508	\$	156	\$	615	\$	523
Weighted average number of common shares outstanding - basic		553.2		546.4		553.8		540.3
Weighted average number of common shares outstanding - diluted		554.3		547.1		554.8		540.9
Estimated REIT taxable income (loss) per common share - basic	\$	0.92	\$	0.29	\$	1.11	\$	0.97
Estimated REIT taxable income (loss) per common share - diluted	\$	0.92	\$	0.29	\$	1.11	\$	0.97
Beginning cumulative non-deductible net capital loss	\$	_	\$	490	\$	394	\$	182
Increase (decrease) in net capital loss carryforward		_		34		(394)		342
Ending cumulative non-deductible net capital loss	\$		\$	524	\$		\$	524
Ending cumulative non-deductible net capital loss per common share	\$		\$	0.97	\$		\$	0.97

LIQUIDITY AND CAPITAL RESOURCES

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

We believe that we have sufficient liquidity and capital resources available to meet our obligations and execute our business strategy. In assessing our liquidity, we consider a number of factors, including our current leverage, haircut and minimum collateral levels, access to capital markets, overall market conditions, and the sensitivity of our tangible net book value over a range of scenarios. However, these and other factors impacting our liquidity are subject to numerous risks and uncertainties, including as described in the *Quantitative and Qualitative Disclosures of Market Risks* and *Risk Factors* sections of our Annual Report on Form 10-K for the year ended December 31, 2019, as amended (our "2019 Form 10-K") and this Form 10-Q.

Leverage

Our leverage will vary depending on market conditions and our assessment of relative risks and returns, but we generally would expect our leverage to be between six and twelve times the amount of our tangible stockholders' equity, measured as the sum of our total mortgage borrowings and net payable / (receivable) for unsettled investment securities, divided by the sum of our total stockholders' equity adjusted to exclude goodwill. Our tangible net book value "at risk" leverage ratio was 8.8x and 9.4x as of September 30, 2020 and December 31, 2019, respectively. The following table includes a summary of our mortgage borrowings outstanding as of September 30, 2020 and December 31, 2019 (dollars in millions). For additional details of our mortgage borrowings refer to Notes 3, 5 and 6 to our Consolidated Financial Statements in this Form 10-Q.

September 30, 2020			December 31, 2019				
Mortgage Borrowings		Amount	%	Amount	%		
Repurchase agreements ¹	\$	54,366	65 %	\$ 89,085	92 %		
Debt of consolidated variable interest entities, at fair value		192	— %	228	— %		
Total debt		54,558	65 %	89,313	92 %		
Net TBA position, at cost		29,460	35 %	7,404	8 %		
Total mortgage borrowings	\$	84,018	100 %	\$ 96,717	100 %		

^{1.} Amount excludes \$200 million and \$97 million of repurchase agreements used to fund purchases of U.S. Treasury securities as of September 30, 2020 and December 31, 2019, respectively.

Repurchase arrangements involve the sale and a simultaneous agreement to repurchase the transferred assets at a future date and are accounted for as collateralized financing transactions. We maintain a beneficial interest in the specific securities pledged during the term of each repurchase arrangement and we receive the related principal and interest payments.

The terms and conditions of secured borrowings are negotiated on a transaction-by-transaction basis when each such borrowing is initiated or renewed. The amount borrowed is generally equal to the fair value of the securities pledged, as determined by the lending counterparty, less an agreed-upon discount, referred to as a "haircut." 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. Interest rates are generally fixed based on prevailing rates corresponding to the terms of the borrowings. Interest may be paid monthly or at the termination of a borrowing at which time we may enter into a new borrowing at prevailing haircuts and rates with the same lending counterparty or repay that counterparty and negotiate financing with a different lending counterparty. None of our repo counterparties are obligated to renew or otherwise enter into new borrowings at the conclusion of our existing borrowings.

The use of TBA dollar roll transactions increases our funding diversification, expands our available pool of assets, and increases our overall liquidity position, as TBA contracts have lower implied haircuts relative to Agency RMBS pools held on balance sheet funded with repo financing. However, if it were to become uneconomical to roll our TBA contracts into future months it may be necessary to take physical delivery of the underlying securities and fund those assets with cash or other financing sources, which could reduce our liquidity position. The collateral requirements under our TBA contracts are governed by the Mortgage-Backed Securities Division ("MBSD") of the FICC and by our brokerage agreements, which may establish margin levels in excess of the MBSD.

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 involving the use of 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. Collateral levels for interest rate derivative agreements are typically governed by the central clearing exchange and the associated futures commission merchants ("FCMs"), which may establish margin levels in excess of the clearing exchange. Collateral levels for interest rate derivative agreements not subject to central clearing are established by the counterparty financial institution.

Collateral Requirements and Unencumbered Assets

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. If the fair value of our collateral declines due to changes in market conditions or the publishing of monthly security pay-down factors, our counterparties will typically require that we post additional collateral to re-establish the agreed-upon collateral requirements, referred to as "margin calls." Similarly, if the estimated fair value of our investment securities increases due to changes in interest rates or other factors, we may request that counterparties release collateral back to us. Our derivative agreements also require that we maintain a minimum collateral balance regardless of the value of the derivative instrument based on our counterparties' assessment of risk specific to the derivative instrument and clearing exchange rules.

Collateral requirements under our repurchase and derivative agreements are dependent on our counterparties' determination of the fair value of securities pledged and the "haircut" levels they apply against the value of our securities. Haircuts under repo agreements are typically determined on an individual transaction basis and reflect our counterparties' assessment of the underlying risk associated with the specific collateral. Haircut levels and minimum margin requirements can change overtime and could be expected to increase during periods of elevated market volatility. We are also subject to daily variation margin requirements based on changes in the value of our collateral and, in the case of derivative agreements, changes in the value of the derivative instrument. Daily variation margin requirements under our interest rate derivative agreements also entitle us to receive collateral if the value of amounts owed to us under the derivative instrument exceeds a minimum margin requirement. Our agreements may provide that the valuations of securities securing our obligations under the agreement are to be obtained from a generally recognized source agreed to by both parties to the agreement. Other agreements provide that our counterparty has the sole discretion to determine the value of pledged collateral, but is required to act in good faith in making determinations of value. Our agreements generally provide that in the event of a margin call, collateral must be posted on the same business day, subject to notice requirements. As of September 30, 2020, we had met all our margin requirements.

The value of Agency RMBS is reduced by principal pay-downs on the mortgage pools underlying them. Fannie Mae and Freddie Mac publish monthly security pay-down factors for their mortgage pools on the fifth day after month-end and remit payment based on these factors generally on the 25th day after month-end. Counterparties to our bi-lateral repurchase agreements typically assess margin to account for these principal pay-downs prior to our receipt of the principal repayment when pool level principal payment data becomes available. The FICC assesses margin based on its internally projected pay-down rates on the last day of each month (referred to as the "blackout period exposure adjustment" or "blackout margin"). On the fifth day of the month, the blackout margin is released and collateralization requirements are adjusted to the actual published factor data. Consequently, our liquidity is temporarily reduced each month until we receive payment of the pay-down amounts. We attempt to manage the liquidity risk associated with principal pay-downs by monitoring conditions impacting prepayment rates and through asset selection. As of September 30, 2020, given the current market conditions and elevated prepayment risk associated with historically low interest rates, our portfolio largely consisted of higher coupon specified pool securities, which have a lower risk of prepayment compared to generic Agency RMBS, and TBA securities, which do not expose us to margin calls due to prepayments.

Haircut levels and minimum margin requirements imposed by counterparties reduce the amount of our unencumbered assets and limit the amount we can borrow against our investment securities. For the nine months ended September 30, 2020, haircuts on Agency RMBS collateral remained stable. Haircuts and funding levels for our less liquid, credit-oriented securities, however, were adversely impacted by the dislocation in the financial markets in the first quarter, but have since improved to more normal levels. As of September 30, 2020, the weighted average haircut on our repurchase agreements was approximately 4.4% of the value of our collateral, inclusive of collateral funded through BES, largely unchanged from December 31, 2019.

As of September 30, 2020, our unencumbered assets totaled 60% of our tangible net equity, compared to 54% as of December 31, 2019. The majority of our liquidity is held at AGNC, but we also maintain capital and excess liquidity at BES for regulatory standards, risk management purposes, and to meet expectations of its counterparties, clearing banks and clearing organizations. As of September 30, 2020, we had cash and unencumbered Agency RMBS totaling \$5.2 billion, which excludes unencumbered CRT securities, non-Agency securities and assets held at BES.

Collateral haircuts and minimum margin requirements imposed by counterparties subject us to counterparty credit risk. We attempt to manage this risk by monitoring our collateral positions and limiting our counterparties to registered clearinghouses and major financial institutions with acceptable credit ratings. We also diversify our funding across multiple counterparties and by region. Additionally, BES' direct access to the General Collateral Finance Repo service offered by the FICC and other triparty and bi-lateral repo funding provides us greater depth and diversity of funding at favorable terms relative to traditional bilateral repurchase agreement funding. As of September 30, 2020, \$26.2 billion of our repurchase agreement funding was sourced through BES.

As of September 30, 2020, our maximum amount at risk (or the excess value of collateral pledged over our repurchase liabilities) with any of our repurchase agreement counterparties, excluding the FICC, was less than 2% of our tangible stockholders' equity, with our top five repo counterparties, excluding the FICC, representing less than 6% of our tangible stockholders' equity. As of September 30, 2020, approximately 10% of our tangible stockholder's equity was at risk with the FICC. Excluding central clearing exchanges, as of September 30, 2020, our amount at risk with any counterparty to our derivative agreements was less than 1% of our stockholders' equity.

Asset Sales

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

Capital Markets

The equity capital markets serve as a source of capital to grow our business and to meet potential liquidity needs of our business. The availability of equity capital is dependent on market conditions and investor demand for our common and preferred stock. We will typically not issue common stock when the price of our common stock trades below our tangible net book value or issue preferred equity when its cost exceeds acceptable hurdle rates of return on our equity. There can be no assurance that we will be able to raise additional equity capital at any particular time or on any particular terms. Furthermore, when the trading price of our common stock is less than our estimate of our current tangible net book value per common share, among other conditions, we may repurchase shares of our common stock. Please refer to Notes 10 and 11 of our Consolidated Financial Statements in this Form 10-Q for further details regarding our recent equity capital transactions and our stock repurchase plan.

OFF-BALANCE SHEET ARRANGEMENTS

As of September 30, 2020, 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, 2020, we had not guaranteed obligations of unconsolidated entities or entered into a commitment or intent to provide funding to such entities.

FORWARD-LOOKING STATEMENTS

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

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

- the impact of the COVID-19 pandemic and of measures taken in response to the COVID-19 pandemic by various governmental authorities, businesses and other third parties;
- · actions by the federal, state, or local governments to stabilize the economy, the housing sector or financial markets;

- changes in U.S. monetary policy or interest rates;
- fluctuations in the yield curve;
- fluctuations in mortgage prepayment rates on the loans underlying our Agency RMBS;
- the availability and terms of financing;
- changes in the market value of our assets, including from changes in net interest spreads, and changes in market liquidity or depth;
- the effectiveness of our risk mitigation strategies;
- · conditions in the market for Agency RMBS and other mortgage securities;
- legislative or regulatory changes that affect our status as a REIT, our exemption from the Investment Company Act of 1940 or the mortgage markets in which we participate; and
- · other risks discussed under the heading "Risk Factors" herein and in our Annual Report on Form 10-K.

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

Item 3. Quantitative and Qualitative Disclosures about Market Risk

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

Interest Rate Risk

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

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

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

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

The table below quantifies the estimated changes in the fair value of our investment portfolio (including derivatives and other securities used for hedging purposes) and in our tangible net book value per common share as of September 30, 2020 and December 31, 2019 should interest rates go up or down by 50, 75 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, 2020 and December 31, 2019.

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 1,2		
	Septemb	er 30, 2020	Decembe	r 31, 2019
Change in Interest Rate	Estimated Change in Portfolio Market Value	Estimated Change in Tangible Net Book Value Per Common Share	Estimated Change in Portfolio Market Value	Estimated Change in Tangible Net Book Value Per Common Share
-100 Basis Points	%	-0.1%	-0.5%	-6.0%
-75 Basis Points	0.0%	+0.6%	-0.3%	-3.0%
-50 Basis Points	+0.1%	+0.8%	-0.1%	-0.9%
+50 Basis Points	-0.3%	-3.3%	-0.4%	-4.7%
+75 Basis Points	-0.6%	-7.2%	-0.8%	-9.1%
+100 Basis Points	-1.1%	-12.6%	-1.3%	-14.8%

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.

Prepayment Risk

Prepayment risk is the risk that our assets will be repaid at a faster rate than anticipated. Interest rates and numerous other factors affect the rate of prepayments, such as housing prices, general economic conditions, loan age, size and loan-to-value ratios, and GSE buyouts of delinquent loans underlying our securities among. 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, 2020 and December 31, 2019, our investment securities (excluding TBAs) had a weighted average projected CPR of 15.9% and 10.8%, respectively, and a weighted average yield of 2.56% and 3.07%, respectively. The table below presents estimated weighted average projected CPRs and yields for our investment securities should interest rates go up or down instantaneously by 50, 75 and 100 basis points. Estimated yields exclude the impact of retroactive "catch-up" premium amortization adjustments from prior periods due to changes in the projected CPR assumption.

^{2.} Includes the effect of derivatives and other securities used for hedging purposes. Interest rates are assumed to be floored at 0% in down rate scenarios.

Interest Rate Sensitivity 1

	Septembe	Decembe	r 31, 2019	
Change in Interest Rate	Weighted Average Projected CPR	Weighted Average Asset Yield ²	Weighted Average Projected CPR	Weighted Average Asset Yield ²
-100 Basis Points	21.8%	2.26%	20.3%	2.73%
-75 Basis Points	20.9%	2.30%	17.7%	2.82%
-50 Basis Points	19.4%	2.37%	15.0%	2.90%
Actual as of Period End	15.9%	2.56%	10.8%	3.07%
+50 Basis Points	12.8%	2.68%	8.1%	3.12%
+75 Basis Points	11.5%	2.74%	7.5%	3.15%
+100 Basis Points	10.4%	2.80%	6.8%	3.16%

- 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. As a levered investor in mortgage-backed securities, spread risk is an inherent component of our investment strategy. Consequently, although we use hedging instruments to attempt to protect against moves in interest rates, our hedges are generally not designed to protect against spread risk, and our tangible net book value could decline if spreads widen.

Fluctuations in mortgage spreads can occur due to a variety of factors, including changes in interest rates, prepayment expectations, actual or anticipated monetary policy actions by the U.S. and foreign central banks, liquidity conditions, required rates of returns on different assets and other market supply and demand factors. The table below quantifies the estimated changes in the fair value of our assets, net of hedges, and our tangible net book value per common share as of September 30, 2020 and December 31, 2019 should spreads widen or tighten by 10, 25 and 50 basis points. The estimated impact of changes in spreads is in addition to our interest rate shock sensitivity included in the interest rate shock table above. The table below assumes a spread duration of 4.5 and 5.0 years as of September 30, 2020 and December 31, 2019, 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

	- F			
	Septemb	er 30, 2020	Decembe	er 31, 2019
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
-50 Basis Points	+2.3%	+25.4%	+2.5%	+28.0%
-25 Basis Points	+1.1%	+12.7%	+1.2%	+14.0%
-10 Basis Points	+0.5%	+5.1%	+0.5%	+5.6%
+10 Basis Points	-0.5%	-5.1%	-0.5%	-5.6%
+25 Basis Points	-1.1%	-12.7%	-1.2%	-14.0%
+50 Basis Points	-2.3%	-25.4%	-2.5%	-28.0%

^{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.

Liquidity Risk

Our liquidity risk principally arises from financing long-term fixed rate assets with shorter-term variable rate borrowings. Future borrowings are dependent upon the willingness of lenders to finance our investments, lender collateral requirements and

Includes the effect of derivatives and other securities used for hedging purposes.

the lenders' determination of the fair value of the securities pledged as collateral, which fluctuates with changes in interest rates and liquidity conditions within the commercial banking and mortgage finance industries.

As of September 30, 2020, we believe that we have sufficient liquidity and capital resources available to execute our business strategy (see *Liquidity and Capital Resources* in this Form 10-Q for additional details). However, should the value of our collateral or the value of our derivative instruments suddenly decrease, margin calls relating to our funding liabilities and derivative agreements could increase, causing an adverse change in our liquidity position. Furthermore, there is no assurance that we will always be able to renew (or roll) our short-term funding liabilities. In addition, our counterparties have the option to increase our haircuts (margin requirements) on the assets we pledge against our funding liabilities, thereby reducing the amount that can be borrowed against an asset even if they agree to renew or roll our funding liabilities. Significantly higher haircuts can reduce our ability to leverage our portfolio or even force us to sell assets, especially if correlated with asset price declines or faster prepayment rates on our assets.

Credit Risk

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

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

There is no guarantee that our efforts to manage credit risk will be successful and we could suffer losses if credit performance is worse than our expectations or our counterparties default on their obligations. Excluding central clearing exchanges, as of September 30, 2020, our maximum amount at risk with any counterparty related to our repurchase agreements was less than 2% of tangible stockholders' equity and related to our derivative agreements was less than 1% of tangible stockholders' equity.

Item 4. Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our 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 cost-benefit relationship of possible controls and procedures.

We, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2020. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

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

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Neither we, nor any of our consolidated subsidiaries, are currently subject to any material litigation nor, to our knowledge, is any litigation threatened against us or any consolidated subsidiary, in each case, that is expected to have a material adverse effect on our business, financial condition or operations. You may refer to Part I. Item 3 of our 2019 Form 10-K concerning the resolution and dismissal of litigation involving the Company.

Item 1A. Risk Factors

Except provided below, there have been no material updates to the risk factors previously disclosed in our 2019 Form 10-K. The following supplement should be read in conjunction with the "Risk Factors" identified in Part I, Item 1A of our 2019 Form 10-K.

The risks we face could materially adversely affect our business, results of operations, financial condition, liquidity and tangible net book value, and could cause our actual results to differ materially from our past results or the results contemplated by any forward-looking statements we make. The risks described in this report and our 2019 Form 10-K are not the only risks we face. Additional risks and uncertainties not presently known to us, or not presently deemed material by us, may also impair our operations and performance.

The economic and financial market turbulence resulting from the COVID-19 pandemic (the "Pandemic") has adversely affected our financial results and financial position and could continue to negatively impact our business.

The rapid global outbreak of COVID-19, a respiratory disease caused by a novel coronavirus, has led to substantial financial market volatility and has significantly adversely affected both the U.S. and global economies. On March 11, 2020, the World Health Organization characterized COVID-19 as a pandemic, and on, March 13, 2020, President Trump declared the COVID-19 outbreak in the United States a national emergency. The COVID-19 outbreak in the United States has resulted in stay-at-home orders, school closures and widespread business shutdowns across the country. These shutdowns and other reductions in business activity have resulted in a contraction of U.S. GDP for the first quarter of 2020 and substantially increased current and projected unemployment levels. While the U.S. federal government and the Federal Reserve (the "Fed") have taken actions to reduce the negative economic impact of the Pandemic, the extent to which these actions will mitigate the short-term and long-term negative impacts of the Pandemic on the U.S. economy, financial markets and our business is unclear, and the drop in the level of U.S. economic activity from these events could be sustained. The sudden and dramatic change to U.S. and global economic activity due to the Pandemic has resulted in severe financial market dislocations, varying degrees of illiquidity among fixed income assets, and a significant increase in market volatility, and such events may recur, persist or worsen.

The economic and financial market turbulence resulting from the Pandemic negatively impacted our results of operations and our tangible net book value and could continue to negatively impact our business. Each of the "Risk Factors" described in our 2019 Form 10-K could be materially impacted by conditions resulting from the Pandemic. Risks that we believe may be heightened during and following the Pandemic and related developments are described below; however, you should review each of the risk factors described in our 2019 Form 10-K carefully in light of the Pandemic and related developments. Because

the direct and indirect impacts of the Pandemic and related developments are uncertain and depend on future events, they may also affect our operating and financial results in a manner that is not presently known to us or that we currently do not expect to present significant risks.

Model and forecast risks - The Pandemic and its impact on the U.S. and global economies, and the related governmental responses, have been unprecedented. It is difficult to assess or predict the impact of unprecedented events on our business, financial results and condition. Our forecasts and expectations relating to these developments are subject to many uncertainties and may change, perhaps substantially, from our current forecasts and expectations. Furthermore, our analytical models were not designed to incorporate the unique circumstances associated with the Pandemic and related developments. We use analytical models (both those supplied by third parties and proprietary models developed by us) and information supplied by our third-party vendors to value assets; forecast prepayment, default and foreclosure rates; and to manage risk. These predictive models are usually constructed based on historical trends, and the success of relying on such models depends heavily on the correlation between the reported historical data and future events or behavior. As such, the unprecedented economic and financial market events associated with the Pandemic reduce the ability of our models to predict future outcomes and could even render them invalid. Consequently, actual results could differ materially from our projections.

Spread and credit risks - Spread risk is an inherent component of our business and is increased by the use of leverage. Our hedging strategies are not designed to mitigate spread risk, and, thus, wider spreads negatively impact our tangible net book value. Spreads can widen due to a variety of factors, including changes in interest rates, prepayment expectations, actual or anticipated monetary policy actions by the U.S. and foreign central banks, liquidity conditions, required rates of returns on different assets and other market supply and demand factors, nearly all of which have been impacted by the Pandemic and related developments and are likely to continue to be impacted over at least the short to intermediate term as markets continue to grapple with their effects. The unprecedented decline in interest rates, extreme market volatility, and illiquidity across the fixed income markets stemming from these developments resulted in historically wide and volatile spread movements during the first quarter of 2020. The Fed's unprecedented purchases of Agency RMBS and U.S. Treasury securities that began in March have eased conditions somewhat, but markets remain fragile. The Fed has committed its continued support of the U.S. Treasury and Agency RMBS markets and to the liquidity of repo funding markets backed by U.S. Treasury and Agency collateral. However, should the Fed fail to maintain an adequate level of support, prematurely reduce its support or stop its support altogether any number of adverse market reactions could occur, including materially wider spread movements. It is also possible that despite substantial Fed support, the funding market for Agency MBS could still deteriorate if primary dealers are unwilling to pass along the liquidity provided by the Fed to broader market participants. Additionally, an unwinding of the Fed's purchases of Agency and U.S. Treasury securities could severely disrupt the fixed income markets, resulting in interest rate volatility and wider spreads. Should any of these events occur, our tangible net book value and our financial position could be materially adversely impacted. In addition to spread risks, our investments in CRT and non-agency RMBS and CMBS are subject to credit risk, and the Pandemic and related developments may adversely impact the credit quality of those investments and result in our experiencing a loss on these investments.

Prepayment risk - The Pandemic has led to historically low interest rates. Prepayments on our investment securities typically increase when interest rates fall. An increase in prepayments can negatively impact our net interest margin and tangible net book value, which could be material. Mortgage rates have declined to historic lows and could continue to decline. It is also possible that after the Pandemic induced extended forbearance periods offered by the GSEs, which may extend up to 12 months, borrowers may be unable to resume monthly payments leading to a large scale buyouts of delinquent loans from mortgage pools by the GSE's. Additionally, technological advances throughout origination channels and changes to GSE underwriting requirements, potentially implemented in part or in whole in response to the Pandemic, could increase and/or accelerate the pace of mortgage origination activity. Any one of these factors could lead to materially faster prepayments. Furthermore, since prepayment models were not designed to incorporate the unique circumstances associated with the Pandemic, they may be less predictive of prepayment activity, hindering our ability to accurately forecast prepayment rates

Extension risk - The social distancing measures instituted to combat the Pandemic have resulted in curtailed or ceased activity in many parts of the economy and have raised fears that the U.S. and global economies will enter a deep and protracted recession, or even depression. These fears have led to a historic decline in interest rates; however, should the U.S. economy recover faster than anticipated, interest rates could rise rapidly. Should this occur, the duration of our mortgage portfolio could extend faster than we expect and negatively impact our net book value. Although we expect to hedge against an increase in interest rates and manage our net duration gap, we cannot guarantee that our hedges or other funding and liability management activities will adequately protect us against extension risk and, thus, our tangible net book value could be materially adversely impacted should this occur.

Hedging and interest rate risks - Our hedges are intended to limit the adverse effect of changes in interest rates on our assets and cost of funds. Hedging strategies are complex and we use analytical models to help manage our risk. Since analytical models may be less reliable given the unprecedented events stemming from the Pandemic, there is an increased risk that our hedging strategies may be less effective, or even ineffective, which could materially adversely affect our financial

position and tangible net book value. There are also many uncertainties associated with the Pandemic and the short and long-term economic and fiscal tolls are difficult to predict. With interest rates at or near their zero-bound range, an actual or anticipated severe economic recession or depression could cause interest rates to fall below zero. Negative rates could result in material losses on our interest rate hedges and negatively impact our net interest margin, adversely affecting our net income and tangible net book value. Although we expect that the Fed would use all its monetary policy tools to prevent negative rates, there is no guarantee that it will do so or that it would be successful at keeping rates above zero.

Liquidity risks - Turbulent market conditions resulting from the Pandemic increase the risk of margin calls under our funding and derivative agreements. If the value of our pledged collateral or if the value of our interest rate hedges declines, we will be required to post additional collateral. Counterparties may also increase haircut levels or overall margin requirements and generally have the right to unilaterally value our collateral. Counterparties to certain agreements, such as TBA clearing agreements, may only post collateral to us up to certain limits, resulting in our inability to receive collateral when it would otherwise have been due. Certain assets, such as credit assets, may not be financeable, or haircuts and pricing for such assets could increase substantially, particularly in periods of market volatility. Lastly, to the extent we are entitled to receive collateral from counterparties, they may be unwilling or unable to return collateral in a timely manner. If conditions result in our inability to meet margin calls, we could default on our obligations and be forced to sell assets under adverse conditions. In addition, if counterparties fail to fulfill their obligations to us, we could experience a loss. We may be unable to raise additional equity capital or procure funding, at all or on favorable terms, to address liquidity or other needs.

Human capital and business resiliency risks - Since mid-March, all of our workforce has been working remotely consistent with our business continuity plan. Stay-at-home orders and other Pandemic related restrictions in effect in the states and localities where our workforce is located may be extended in whole or in part for several additional months. The strain on our workforce and our business operations caused by this shift in our operating environment may result in business interruptions, reduced productivity and other adverse impacts on our operations. While our technological systems to date have continued to function with our workforce working remotely, this telework arrangement increases the risk of technological or cybersecurity incidents that could negatively affect our business operations. This telework arrangement, the risk that our employees or their family members could contract COVID-19 and our reliance for some services and functions on third parties, which are largely working under similar conditions, could also adversely affect our ability to maintain effective controls and procedures, which could result in material errors in our reported results or disclosures that are not complete or accurate.

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, 2020, the Company has repurchased shares at an aggregate amount of \$403 million under the program. As of September 30, 2020, \$597 million of common stock remained available for repurchase under the program. See also Note 11. *Subsequent Events* of our Consolidated Financial Statements in this Form 10-Q for additional information pertaining to our common stock repurchase program. The following table presents information with respect to purchases of our common stock made during the three months ended September 30, 2020 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):

Period	Total Number of Shares Purchased	Average Net Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ¹	Maximum Number (or Approximate Dollar Value) of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs (in millions)
July 1, 2020 - July 31, 2020	0.0	\$—	0.0	\$750
August 1, 2020 - August 31, 2020	5.9	\$13.92	5.9	669
September 1, 2020 - September 30, 2020	5.1	\$13.98	5.1	597
Total	11.0	\$13.95	11.0	\$597

All shares purchased by the Company were 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 by reference from Exhibit 3.1 of Form 10-Q for the quarter ended March 31, 2020 (File No. 001-34057), filed May 11, 2020.
- *3.2 AGNC Investment Corp. 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 7.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.5 of Form 8-A (File No. 001-34057), filed August 18, 2017.
- *3.4 Certificate of Elimination of 8.000% Series A Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No 001-34057), filed October 26, 2017.
- *3.5 Certificate of Designations of 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.5 of Form 8-A (File No 001-34057), filed March 6, 2019.
- *3.6 Certificate of Designations of 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.6 of Form 8-A (File No 001-34057), filed October 3, 2019.
- *3.7 Certificate of Elimination of 7.750% Series B Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.1 of Form 8-K (File No 001-34057), filed December 13, 2019.
- *3.8 Certificate of Designations of 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, incorporated herein by reference to Exhibit 3.6 of Form 8-A (File No 001-34057), filed February 11, 2020.
- *4.1 Instruments defining the rights of holders of securities: See Article IV of our Amended and Restated Certificate of Incorporation, as amended, incorporated herein by reference to Exhibit 3.1 of Form 10-Q for the quarter ended March 31, 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-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.
- *4.4 Specimen 7.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed August 18, 2017.
- *4.5 Specimen 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed March 6, 2019.
- *4.6 Specimen 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No. 001-34057), filed October 3, 2019.
- *4.7 Specimen 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock Certificate, incorporated herein by reference to Exhibit 4.1 of Form 8-A (File No 001-34057), filed February 11, 2020.
- *4.8 Deposit Agreement relating to 7.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated August 22, 2017, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed August 22, 2017.

- *4.9 Form of Depositary Receipt representing 1/1,000th of a share of 7.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.8), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed August 22, 2017.
- *4.10 Deposit Agreement relating to 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated March 6, 2019, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed March 6, 2019.
- *4.11 Form of Depositary Receipt representing 1/1,000th of a share of 6.875% Series D Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.10), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed March 6, 2019.
- *4.12 Deposit Agreement relating to 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated October 3, 2019, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.2 of Form 8-K (File No. 001-34057) filed October 3, 2019.
- *4.13 Form of Depositary Receipt representing 1/1,000th of a share of 6.50% Series E Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.12), incorporated herein by reference to Exhibit A of Exhibit 4.2 of Form 8-K (File No. 001-34057) filed October 3, 2019.
- *4.14 Deposit Agreement relating to 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock, dated February 11, 2020, among AGNC Investment Corp., Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, incorporated herein by reference to Exhibit 4.1 of Form 8-K (File No. 001-34057) filed February 11, 2020.
- *4.15 Form of Depositary Receipt representing 1/1,000th of a share of 6.125% Series F Fixed-to-Floating Rate Cumulative Redeemable Preferred Stock (included as part of Exhibit 4.14), incorporated herein by reference to Exhibit A of Exhibit 4.1 of Form 8-K (File No. 001-34057) filed February 11, 2020.
- 31.1 Certification of CEO Pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of CFO Pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.
- 32 Certification of CEO and CFO Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS** The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document
- 101.SCH** XBRL Taxonomy Extension Schema Document
- 101.CAL** XBRL Taxonomy Extension Calculation Linkbase Document
- 101.LAB** XBRL Taxonomy Extension Labels Linkbase Document
- 101.PRE** XBRL Taxonomy Extension Presentation Linkbase Document
- 101.DEF** XBRL Taxonomy Extension Definition Linkbase Document
- * Previously filed
- ** This exhibit is being furnished rather than filed, and shall not be deemed incorporated by reference into any filing, in accordance with Item 601 of Regulation S-K
 - (b) Exhibits
 See the exhibits filed herewith.
 - (c) Additional financial statement schedules None.

SIGNATURES

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

AGNO	CINVESTMENT CORP.
By:	/s/ Gary D. Kain
	Gary D. Kain Chief Executive Officer and Chief Investment Officer (Principal Executive Officer)
By:	/s/ Bernice E. Bell
	Bernice E. Bell Senior Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

Date: November 5, 2020

Date: November 5, 2020

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

I, Gary D. Kain, certify that:

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

Date: November 5, 2020

/s/ GARY D. KAIN

Gary D. Kain Chief Executive Officer and Chief Investment Officer (Principal Executive Officer)

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

I, Bernice E. Bell, certify that:

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

Date: November 5, 2020

/s/ BERNICE E. BELL

Bernice E. Bell Senior Vice President and Chief Financial Officer (Principal Financial Officer)

AGNC Investment Corp. Certification of CEO and CFO Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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

- 1. The Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2020 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ GARY D. KAIN

Name: Gary D. Kain

Title: Chief Executive Officer and

Chief Investment Officer (Principal Executive Officer)

Date: November 5, 2020

/s/ BERNICE E. BELL

Name: Bernice E. Bell

Title: Senior Vice President and

Chief Financial Officer (Principal Financial Officer)

Date: November 5, 2020

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