

TWO HARBORS INVESTMENT CORP.

Form 10-Q

November 03, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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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, 2016

Commission File Number 001-34506

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TWO HARBORS INVESTMENT CORP.

(Exact Name of Registrant as Specified in Its Charter)

Maryland 27-0312904  
(State or Other Jurisdiction of (I.R.S. Employer  
Incorporation or Organization) Identification No.)

590 Madison Avenue, 36th Floor 10022  
New York, New York  
(Address of Principal Executive Offices) (Zip Code)  
(612) 629-2500  
(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the registrant (1) has filed all reports required 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  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No   
Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of November 2, 2016 there were 347,643,717 shares of outstanding common stock, par value \$.01 per share, issued and outstanding.

Table of Contents

TWO HARBORS INVESTMENT CORP.  
INDEX

	Page
PART I - FINANCIAL INFORMATION	
<u>Item 1. Financial Statements (unaudited)</u>	<u>1</u>
<u>Condensed Consolidated Balance Sheets at September 30, 2016 and December 31, 2015</u>	<u>1</u>
<u>Condensed Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months Ended September 30, 2016 and 2015</u>	<u>2</u>
<u>Condensed Consolidated Statements of Stockholders' Equity for the Nine Months Ended September 30, 2016 and 2015</u>	<u>4</u>
<u>Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2016 and 2015</u>	<u>5</u>
<u>Notes to the Condensed Consolidated Financial Statements</u>	<u>8</u>
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>52</u>
<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>85</u>
<u>Item 4. Controls and Procedures</u>	<u>90</u>
PART II - OTHER INFORMATION	
<u>Item 1. Legal Proceedings</u>	<u>91</u>
<u>Item 1A. Risk Factors</u>	<u>91</u>
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>91</u>
<u>Item 3. Defaults Upon Senior Securities</u>	<u>91</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>91</u>
<u>Item 5. Other Information</u>	<u>91</u>
<u>Item 6. Exhibits</u>	<u>91</u>
<u>Signatures</u>	<u>92</u>
<u>Index of Exhibits</u>	<u>93</u>

Table of Contents

## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements

## TWO HARBORS INVESTMENT CORP.

## CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	September 30, 2016	December 31, 2015
	(unaudited)	
<b>ASSETS</b>		
Available-for-sale securities, at fair value	\$ 14,284,625	\$ 7,825,320
Residential mortgage loans held-for-sale, at fair value	723,174	811,431
Residential mortgage loans held-for-investment in securitization trusts, at fair value	3,620,037	3,173,727
Commercial real estate assets	1,114,548	660,953
Mortgage servicing rights, at fair value	455,629	493,688
Cash and cash equivalents	688,418	737,831
Restricted cash	264,872	262,562
Accrued interest receivable	67,089	49,970
Due from counterparties	56,095	17,206
Derivative assets, at fair value	199,013	271,509
Other assets	326,396	271,575
Total Assets <sup>(1)</sup>	\$ 21,799,896	\$ 14,575,772
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>Liabilities</b>		
Repurchase agreements	\$ 10,637,373	\$ 5,008,274
Collateralized borrowings in securitization trusts, at fair value	3,375,906	2,000,110
Federal Home Loan Bank advances	4,000,000	3,785,000
Revolving credit facilities	30,000	—
Derivative liabilities, at fair value	39,918	7,285
Due to counterparties	78,179	34,294
Dividends payable	79,956	92,016
Other liabilities	80,323	72,232
Total Liabilities <sup>(1)</sup>	18,321,655	10,999,211
<b>Stockholders' Equity</b>		
Preferred stock, par value \$0.01 per share; 50,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, par value \$0.01 per share; 900,000,000 shares authorized and 347,635,488 and 353,906,807 shares issued and outstanding, respectively	3,476	3,539
Additional paid-in capital	3,655,854	3,705,519
Accumulated other comprehensive income	538,443	359,061
Cumulative earnings	1,696,630	1,684,755
Cumulative distributions to stockholders	(2,416,162 )	(2,176,313 )
Total Stockholders' Equity	3,478,241	3,576,561
Total Liabilities and Stockholders' Equity	\$ 21,799,896	\$ 14,575,772

(1) The condensed consolidated balance sheets include assets of consolidated variable interest entities, or VIEs, that can only be used to settle obligations of these VIEs, and liabilities of the consolidated VIEs for which creditors do not have recourse to Two Harbors Investment Corp. At September 30, 2016 and December 31, 2015, assets of the VIEs totaled \$3,686,340 and \$3,237,918, and liabilities of the VIEs totaled \$3,398,215 and \$2,017,677,

respectively. See Note 3 - Variable Interest Entities for additional information.  
The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

TWO HARBORS INVESTMENT CORP.  
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
(in thousands, except share data)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
	(unaudited)		(unaudited)	
Interest income:				
Available-for-sale securities	\$ 111,393	\$ 116,318	\$ 292,333	\$ 369,972
Trading securities	—	—	—	8,676
Residential mortgage loans held-for-sale	7,627	9,479	19,789	21,268
Residential mortgage loans held-for-investment in securitization trusts	33,495	24,841	100,765	64,908
Commercial real estate assets	15,907	1,947	40,279	2,841
Cash and cash equivalents	440	249	1,235	667
Total interest income	168,862	152,834	454,401	468,332
Interest expense:				
Repurchase agreements	27,056	18,235	65,782	58,198
Collateralized borrowings in securitization trusts	26,422	15,562	70,965	39,401
Federal Home Loan Bank advances	6,744	3,282	18,804	8,012
Revolving credit facilities	128	—	128	—
Total interest expense	60,350	37,079	155,679	105,611
Net interest income	108,512	115,755	298,722	362,721
Other-than-temporary impairments:				
Total other-than-temporary impairment losses	(1,015 )	(238 )	(1,822 )	(535 )
Other income (loss):				
Gain on investment securities	28,290	64,123	66,095	263,512
Gain (loss) on interest rate swap and swaption agreements	5,584	(171,656 )	(132,608 )	(253,147 )
Loss on other derivative instruments	(12,028 )	(455 )	(44,064 )	(2,972 )
(Loss) gain on residential mortgage loans held-for-sale	(889 )	16,040	17,648	18,300
Servicing income	38,708	32,010	108,657	94,613
Loss on servicing asset	(33,451 )	(61,549 )	(211,426 )	(96,317 )
Other income (loss)	5,757	2,201	(977 )	(16,265 )
Total other income (loss)	31,971	(119,286 )	(196,675 )	7,724
Expenses:				
Management fees	11,387	12,617	35,268	38,024
Securitization deal costs	2,080	2,676	6,241	7,771
Servicing expenses	9,073	7,234	24,510	19,849
Other operating expenses	14,780	16,150	47,280	48,032
Restructuring charges	1,189	—	1,189	—
Total expenses	38,509	38,677	114,488	113,676
Income (loss) before income taxes	100,959	(42,446 )	(14,263 )	256,234
Benefit from income taxes	(16,827 )	(7,656 )	(26,138 )	(25,270 )
Net income (loss)	\$ 117,786	\$ (34,790 )	\$ 11,875	\$ 281,504
Basic and diluted earnings (loss) per weighted average common share	\$ 0.34	\$ (0.09 )	\$ 0.03	\$ 0.77
Dividends declared per common share	\$ 0.23	\$ 0.26	\$ 0.69	\$ 0.78
	347,627,226	67,365,973	348,218,234	66,985,731

Basic and diluted weighted average number of shares of common  
stock outstanding

The accompanying notes are an integral part of these condensed consolidated financial statements.

2

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Table of Contents

TWO HARBORS INVESTMENT CORP.  
 CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS), continued  
 (in thousands, except share data)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
	(unaudited)		(unaudited)	
Comprehensive income (loss):				
Net income (loss)	\$ 117,786	\$(34,790)	\$ 11,875	\$ 281,504
Other comprehensive income (loss), net of tax:				
Unrealized gain (loss) on available-for-sale securities	18,746	(58,031 )	179,382	(282,788 )
Other comprehensive income (loss)	18,746	(58,031 )	179,382	(282,788 )
Comprehensive income (loss)	\$ 136,532	\$(92,821)	\$ 191,257	\$(1,284 )

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

TWO HARBORS INVESTMENT CORP.  
 CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY  
 (in thousands, except share data)

	Common Stock						
	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (unaudited)	Cumulative Earnings	Cumulative Distributions to Stockholders	Total Stockholders' Equity
Balance, December 31, 2014	366,395,920	\$3,664	\$3,811,027	\$ 855,789	\$1,195,536	\$(1,797,974)	\$4,068,042
Cumulative effect of adoption of new accounting principle	—	—	—	—	(2,991 )	—	(2,991 )
Adjusted balance, January 1, 2015	366,395,920	3,664	3,811,027	855,789	1,192,545	(1,797,974 )	4,065,051
Net income	—	—	—	—	281,504	—	281,504
Other comprehensive loss before reclassifications, net of tax	—	—	—	(54,805 )	—	—	(54,805 )
Amounts reclassified from accumulated other comprehensive income, net of tax	—	—	—	(227,983 )	—	—	(227,983 )
Net other comprehensive loss, net of tax	—	—	—	(282,788 )	—	—	(282,788 )
Issuance of common stock, net of offering costs	54,088	1	403	—	—	—	404
Repurchase of common stock	(1,391,887 )	(14 )	(12,462 )	—	—	—	(12,476 )
Common dividends declared	—	—	—	—	—	(286,323 )	(286,323 )
Non-cash equity award compensation	1,098,638	11	7,355	—	—	—	7,366
Balance, September 30, 2015	366,156,759	\$3,662	\$3,806,323	\$ 573,001	\$1,474,049	\$(2,084,297)	\$3,772,738
Balance, December 31, 2015	353,906,807	\$3,539	\$3,705,519	\$ 359,061	\$1,684,755	\$(2,176,313)	\$3,576,561
Net income	—	—	—	—	11,875	—	11,875
Other comprehensive income before reclassifications, net of tax	—	—	—	232,212	—	—	232,212



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Amounts reclassified from accumulated other comprehensive income, net of tax	—	—	—	(52,830	)	—	—	(52,830	)	
Net other comprehensive income, net of tax	—	—	—	179,382	—	—	—	179,382		
Issuance of common stock, net of offering costs	43,764	—	356	—	—	—	—	356		
Repurchase of common stock	(8,020,000	)	(80	)	(61,227	)	—	—	(61,307	)
Common dividends declared	—	—	—	—	—	—	(239,849	)	(239,849	)
Non-cash equity award compensation	1,704,917	17	11,206	—	—	—	—	11,223		
Balance, September 30, 2016	347,635,488	\$3,476	\$3,655,854	\$ 538,443	\$1,696,630	\$	(2,416,162)	\$3,478,241		

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

TWO HARBORS INVESTMENT CORP.  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (in thousands)

	Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
Cash Flows From Operating Activities:		
Net income	\$ 11,875	\$ 281,504
Adjustments to reconcile net income to net cash used in operating activities:		
Amortization of premiums and discounts on investment securities and commercial real estate assets, net	29,469	32,556
Other-than-temporary impairment losses	1,822	535
Realized and unrealized gains on investment securities, net	(66,095 )	(263,512 )
Gain on residential mortgage loans held-for-sale	(17,648 )	(18,300 )
Loss on residential mortgage loans held-for-investment and collateralized borrowings in securitization trusts	5,173	19,441
Loss on servicing asset	211,426	96,317
Loss on termination and option expiration of interest rate swaps and swaptions	119,548	124,984
Unrealized (gain) loss on interest rate swaps and swaptions	(5,080 )	55,079
Unrealized loss (gain) on other derivative instruments	2,025	(15,563 )
Equity based compensation	11,223	7,366
Depreciation of fixed assets	981	1,002
Purchases of residential mortgage loans held-for-sale	(1,159,782)	(2,166,494 )
Proceeds from sales of residential mortgage loans held-for-sale	95,331	137,612
Proceeds from repayment of residential mortgage loans held-for-sale	117,092	80,152
Net change in assets and liabilities:		
(Increase) decrease in accrued interest receivable	(17,119 )	9,279
Increase in deferred income taxes, net	(24,581 )	(19,592 )
Decrease (increase) in income taxes receivable	3,667	(6,854 )
Increase in prepaid and fixed assets	(62 )	(221 )
Decrease in other receivables	5,721	8,563
Increase in servicing advances	(8,965 )	(3,465 )
Increase (decrease) in accrued interest payable	11,084	(4,780 )
Decrease in income taxes payable	(70 )	(1,215 )
(Decrease) increase in accrued expenses and other liabilities	(2,923 )	6,324
Net cash used in operating activities	\$(675,888)	\$(1,639,282)
The accompanying notes are an integral part of these condensed consolidated financial statements.		

Table of Contents

TWO HARBORS INVESTMENT CORP.  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued  
 (in thousands)

	Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
Cash Flows From Investing Activities:		
Purchases of available-for-sale securities	\$(13,734,884)	\$(1,732,979)
Proceeds from sales of available-for-sale securities	6,567,992	3,666,974
Principal payments on available-for-sale securities	910,386	918,798
(Purchases) short sales of derivative instruments, net	(13,953	) 3,592
Proceeds from sales (payments for termination) of derivative instruments, net	3,209	(93,352
Proceeds from sales of trading securities	—	2,004,375
Proceeds from repayment of residential mortgage loans held-for-investment in securitization trusts	649,134	435,967
Originations and purchases of commercial real estate assets, net of deferred fees	(463,680	) (290,683
Proceeds from repayment of commercial real estate assets	15,296	—
Purchases of mortgage servicing rights, net of purchase price adjustments	(208,474	) (75,011
Proceeds from sales of mortgage servicing rights	41,844	—
Purchases of Federal Home Loan Bank stock	(11,206	) (53,640
Increase (decrease) in due to counterparties, net	4,996	(57,265
Increase in restricted cash	(2,310	) (47,258
Net cash (used in) provided by investing activities	(6,241,650	) 4,679,518
Cash Flows From Financing Activities:		
Proceeds from repurchase agreements	70,805,165	37,275,034
Principal payments on repurchase agreements	(65,176,066	) (42,224,569)
Proceeds from issuance of collateralized borrowings in securitization trusts	1,875,371	1,104,093
Principal payments on collateralized borrowings in securitization trusts	(568,485	) (309,341
Proceeds from Federal Home Loan Bank advances	215,000	1,415,000
Principal payments on Federal Home Loan Bank advances	—	(205,000
Proceeds from revolving credit facilities	30,000	—
Proceeds from issuance of common stock, net of offering costs	356	404
Repurchase of common stock	(61,307	) (3,683
Dividends paid on common stock	(251,909	) (286,127
Net cash provided by (used in) financing activities	6,868,125	(3,234,189)
Net decrease in cash and cash equivalents	(49,413	) (193,953
Cash and cash equivalents at beginning of period	737,831	1,005,792
Cash and cash equivalents at end of period	\$688,418	\$811,839
The accompanying notes are an integral part of these condensed consolidated financial statements.		

Table of Contents

TWO HARBORS INVESTMENT CORP.  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued  
 (in thousands)

	Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
Supplemental Disclosure of Cash Flow Information:		
Cash paid for interest	\$77,142	\$73,187
Cash (received) paid for taxes	\$(5,154 )	\$2,389
Noncash Activities:		
Transfers of residential mortgage loans held-for-sale to residential mortgage loans held-for-investment in securitization trusts	\$1,031,707	\$1,705,885
Transfers of residential mortgage loans held-for-sale to other receivables for foreclosed government-guaranteed loans	\$14,200	\$12,764
Transfer of fair value of mortgage servicing rights to fair value of Ginnie Mae residential mortgage loans held-for-sale upon buyout	\$5,973	\$15,077
Additions to mortgage servicing rights due to sale of residential mortgage loans held-for-sale	\$764	\$1,568
Cumulative-effect adjustment to equity for adoption of new accounting principle	\$—	\$(2,991 )
Shares repurchase payable at end of period	\$—	\$8,793
Dividends declared but not paid at end of period	\$79,956	\$95,459
Reconciliation of residential mortgage loans held-for-sale:		
Residential mortgage loans held-for-sale at beginning of period	\$811,431	\$535,712
Purchases of residential mortgage loans held-for-sale	1,159,782	2,166,494
Transfers to residential mortgage loans held-for-investment in securitization trusts	(1,031,707 )	(1,705,885 )
Transfers to other receivables for foreclosed government-guaranteed loans	(14,200 )	(12,764 )
Transfer of fair value of mortgage servicing rights to fair value of Ginnie Mae residential mortgage loans held-for-sale upon buyout	(5,973 )	(15,077 )
Proceeds from sales of residential mortgage loans held-for-sale	(95,331 )	(137,612 )
Proceeds from repayment of residential mortgage loans held-for-sale	(117,092 )	(80,152 )
Realized and unrealized gains on residential mortgage loans held-for-sale	16,264	17,292
Residential mortgage loans held-for-sale at end of period	\$723,174	\$768,008
The accompanying notes are an integral part of these condensed consolidated financial statements.		

Table of Contents

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

Note 1. Organization and Operations

Two Harbors Investment Corp., or the Company, is a Maryland corporation focused on investing in, financing and managing residential mortgage-backed securities, or RMBS, residential mortgage loans, mortgage servicing rights, or MSR, commercial real estate and other financial assets. The Company is externally managed and advised by PRCM Advisers LLC, or PRCM Advisers, which is a subsidiary of Pine River Capital Management L.P., or Pine River, a global multi-strategy asset management firm. The Company's common stock is listed on the NYSE under the symbol "TWO".

The Company was incorporated on May 21, 2009, and commenced operations as a publicly traded company on October 28, 2009, upon completion of a merger with Capitol Acquisition Corp., or Capitol, which became a wholly owned indirect subsidiary of the Company as a result of the merger.

The Company has elected to be treated as a real estate investment trust, or REIT, as defined under the Internal Revenue Code of 1986, as amended, or the Code, for U.S. federal income tax purposes. As long as the Company continues to comply with a number of requirements under federal tax law and maintains its qualification as a REIT, the Company generally will not be subject to U.S. federal income taxes to the extent that the Company distributes its taxable income to its stockholders on an annual basis and does not engage in prohibited transactions. However, certain activities that the Company may perform may cause it to earn income which will not be qualifying income for REIT purposes. The Company has designated certain of its subsidiaries as taxable REIT subsidiaries, or TRSs, as defined in the Code, to engage in such activities, and the Company may in the future form additional TRSs.

Note 2. Basis of Presentation and Significant Accounting Policies

Consolidation and Basis of Presentation

The interim unaudited condensed consolidated financial statements of the Company have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission, or SEC. Certain information and note disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP, have been condensed or omitted according to such SEC rules and regulations. However, management believes that the disclosures included in these interim condensed consolidated financial statements are adequate to make the information presented not misleading. The accompanying condensed consolidated financial statements should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015. In the opinion of management, all normal and recurring adjustments necessary to present fairly the financial condition of the Company at September 30, 2016 and results of operations for all periods presented have been made. The results of operations for the three and nine months ended September 30, 2016 should not be construed as indicative of the results to be expected for future periods or the full year.

The condensed consolidated financial statements of the Company have been prepared on the accrual basis of accounting in accordance with U.S. GAAP. The preparation of financial statements in conformity with U.S. GAAP requires us to make a number of significant estimates and assumptions. These estimates include estimates of fair value of certain assets and liabilities, amount and timing of credit losses, prepayment rates, the period of time during which the Company anticipates an increase in the fair values of real estate securities sufficient to recover unrealized losses in those securities, and other estimates that affect the reported amounts of certain assets and liabilities and disclosure of contingent assets and liabilities as of the date of the condensed consolidated financial statements and the reported amounts of certain revenues and expenses during the reported period. It is likely that changes in these estimates (e.g., valuation changes due to supply and demand, credit performance, prepayments, interest rates, or other reasons) will occur in the near term. The Company's estimates are inherently subjective in nature and actual results could differ from its estimates and the differences may be material.

The condensed consolidated financial statements of the Company include the accounts of all subsidiaries; inter-company accounts and transactions have been eliminated. Certain prior period amounts have been reclassified to conform to the current period presentation. The Company's Chief Investment Officer manages the investment portfolio as a whole and resources are allocated and financial performance is assessed on a consolidated basis.

All trust entities in which the Company holds investments that are considered VIEs for financial reporting purposes were reviewed for consolidation under the applicable consolidation guidance. Whenever the Company has both the power to direct the activities of a trust that most significantly impact the entity's performance, and the obligation to absorb losses or the right to receive benefits of the entity that could be significant, the Company consolidates the trust.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

## Significant Accounting Policies

Included in Note 2 to the Consolidated Financial Statements of the Company's 2015 Annual Report on Form 10-K is a summary of the Company's significant accounting policies. Provided below is a summary of additional accounting policies that are significant to the Company's consolidated financial condition and results of operations for the nine months ended September 30, 2016.

## Revolving Credit Facilities

To finance MSR, the Company enters into revolving credit facilities collateralized by pledged MSR. Borrowings under these revolving credit facilities are generally short-term debt, which expire within one year. The Company's revolving credit facilities generally bear interest rates of a specified margin over one-month LIBOR and are uncommitted. Borrowings under revolving credit facilities are treated as collateralized financing transactions and are carried at contractual amounts, as specified in the respective agreements.

## Offsetting Assets and Liabilities

Certain of the Company's repurchase agreements are governed by underlying agreements that provide for a right of setoff in the event of default of either party to the agreement. The Company also has netting arrangements in place with all derivative counterparties pursuant to standard documentation developed by the International Swap and Derivatives Association, or ISDA, or central clearing exchange agreements, in the case of centrally cleared interest rate swaps. Additionally, the Company and the counterparty or clearing agency are required to post cash collateral based upon the net underlying market value of the Company's open positions with the counterparty.

Under U.S. GAAP, if the Company has a valid right of setoff, it may offset the related asset and liability and report the net amount. The Company presents repurchase agreements subject to master netting arrangements or similar agreements on a gross basis, and derivative assets and liabilities subject to such arrangements on a net basis, based on derivative type and counterparty, in its condensed consolidated balance sheets. Separately, the Company presents cash collateral subject to such arrangements on a net basis, based on counterparty, in its condensed consolidated balance sheets. However, the Company does not offset financial assets and liabilities with the associated cash collateral on its condensed consolidated balance sheets.

The following tables present information about the Company's assets and liabilities that are subject to master netting arrangements or similar agreements and can potentially be offset on the Company's condensed consolidated balance sheets as of September 30, 2016 and December 31, 2015:

September 30, 2016

(in thousands)	Gross Amounts of Recognized Assets (Liabilities)	Gross Amounts Offset in the Condensed Consolidated Balance Sheets	Net Amounts of Assets (Liabilities) Presented in the Condensed Consolidated Balance Sheets	Gross Amounts Not Offset with Financial Assets (Liabilities) in the Condensed Consolidated Balance Sheets <sup>(1)</sup>		
				Financial Instruments	Cash Collateral (Received) Pledged	Net Amount
Assets						
Derivative assets	\$298,389	\$ (99,376 )	\$199,013	\$(39,918 )	\$	—\$159,095
Total Assets	\$298,389	\$ (99,376 )	\$199,013	\$(39,918 )	\$	—\$159,095
Liabilities						

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Repurchase agreements	\$(10,637,373)	\$ —	\$(10,637,373)	\$10,637,373	\$	—\$—
Derivative liabilities	(139,294	) 99,376	(39,918	) 39,918	—	—
Total Liabilities	\$(10,776,667)	\$ 99,376	\$(10,677,291)	\$10,677,291	\$	—\$—

9

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

December 31, 2015

(in thousands)	Gross Amounts of Recognized Assets (Liabilities)	Gross Amounts Offset in the Condensed Consolidated Sheets	Net Amounts of Assets (Liabilities) Presented in the Condensed Consolidated Balance Sheets	Gross Amounts Not Offset with Financial Assets (Liabilities) in the Condensed Consolidated Balance Sheets <sup>(1)</sup>		
				Financial Instruments	Cash Collateral (Received) Pledged	Net Amount
<b>Assets</b>						
Derivative assets	\$325,755	\$ (54,246 )	\$271,509	\$ (7,285 )	\$	—\$264,224
Total Assets	\$325,755	\$ (54,246 )	\$271,509	\$ (7,285 )	\$	—\$264,224
<b>Liabilities</b>						
Repurchase agreements	\$ (5,008,274)	\$ —	\$ (5,008,274 )	\$5,008,274	\$	—\$—
Derivative liabilities	(61,531 )	54,246	(7,285 )	7,285	—	—
Total Liabilities	\$ (5,069,805)	\$ 54,246	\$ (5,015,559 )	\$5,015,559	\$	—\$—

(1) Amounts presented are limited in total to the net amount of assets or liabilities presented in the condensed consolidated balance sheets by instrument. Excess cash collateral or financial assets that are pledged to counterparties may exceed the financial liabilities subject to a master netting arrangement or similar agreement, or counterparties may have pledged excess cash collateral to the Company that exceed the corresponding financial assets. These excess amounts are excluded from the table above, although separately reported within restricted cash, due from counterparties, or due to counterparties in the Company's condensed consolidated balance sheets.

**Recently Issued and/or Adopted Accounting Standards****Revenue from Contracts with Customers**

In May 2014, the Financial Accounting Standards Board, or FASB, issued ASU No. 2014-09, which is a comprehensive revenue recognition standard that supersedes virtually all existing revenue guidance under U.S. GAAP. The standard's core principle is that an entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods and services. As a result of the issuance of ASU No. 2015-14 in August 2015 deferring the effective date of ASU No. 2014-09 by one year, the ASU is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2017, with early adoption prohibited. The Company has determined this ASU will not have a material impact on the Company's financial condition or results of operations.

**Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern**

In August 2014, the FASB issued ASU No. 2014-15, which requires management to evaluate whether there are conditions and events that raise substantial doubt about the entity's ability to continue as a going concern for both annual and interim reporting periods. The update requires certain disclosures if management concludes that substantial doubt exists and plans to alleviate that doubt. The ASU is effective for annual periods ending after December 15, 2016, and for both annual and interim periods thereafter, with early adoption permitted.

Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued ASU No. 2016-01, which changes how entities measure certain equity investments and present changes in the fair value of financial liabilities measured under the fair value option that are attributable to their own credit. The ASU requires certain recurring disclosures and is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2017, with early adoption permitted. The Company has determined this ASU will not have a material impact on the Company's financial condition or results of operations.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Lease Classification and Accounting

In February 2016, the FASB issued ASU No. 2016-02, which requires lessees to recognize on their balance sheets both a lease liability for the obligation to make lease payments and a right-of-use asset for the right to use the underlying asset for the lease term. The ASU is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2018, with early adoption permitted. The Company has determined this ASU will not have a material impact on the Company's financial condition or results of operations.

## Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU No. 2016-13, which changes the impairment model for most financial assets and certain other instruments. Allowances for credit losses on AFS debt securities will be recognized, rather than direct reductions in the amortized cost of the investments. The new model also requires the estimation of lifetime expected credit losses and corresponding recognition of allowance for losses on trade and other receivables, held-to-maturity debt securities, loans, and other instruments held at amortized cost. The ASU requires certain recurring disclosures and is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2019, with early adoption permitted for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2018. The Company is evaluating the adoption of this ASU.

## Classification of Certain Cash Receipts and Cash Payments

In August 2016, the FASB issued ASU No. 2016-15, which clarifies how entities should classify certain cash receipts and cash payments and how the predominance principle should be applied on the statement of cash flows. The ASU is effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2017, with early adoption permitted. The Company has determined this ASU will not have an impact on the Company's financial condition or results of operations but may impact the presentation of the condensed consolidated statements of cash flows.

## Note 3. Variable Interest Entities

The Company purchases subordinated debt and excess servicing rights from securitization trusts sponsored by either third parties or the Company's subsidiaries. Additionally, the Company is the sole certificate holder of a trust entity that holds a commercial real estate loan. All of these trusts are considered VIEs for financial reporting purposes and, thus, were reviewed for consolidation under the applicable consolidation guidance. Because the Company has both the power to direct the activities of the trusts that most significantly impact the entities' performance, and the obligation to absorb losses or the right to receive benefits of the entities that could be significant, the Company consolidates the trusts. As the Company is required to reassess VIE consolidation guidance each quarter, new facts and circumstances may change the Company's determination. A change in the Company's determination could result in a material impact to the Company's condensed consolidated financial statements during subsequent reporting periods.

The following table presents a summary of the assets and liabilities of all consolidated trusts as reported on the condensed consolidated balance sheets as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Residential mortgage loans held-for-investment in securitization trusts	\$ 3,620,037	\$ 3,173,727
Commercial real estate assets	45,837	45,698
Accrued interest receivable	20,466	18,493
Total Assets	\$ 3,686,340	\$ 3,237,918
Collateralized borrowings in securitization trusts	\$ 3,375,906	\$ 2,000,110
Accrued interest payable	9,457	5,943
Other liabilities	12,852	11,624
Total Liabilities	\$ 3,398,215	\$ 2,017,677



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The Company is not required to consolidate VIEs for which it has concluded it does not have both the power to direct the activities of the VIEs that most significantly impact the entities' performance, and the obligation to absorb losses or the right to receive benefits of the entities that could be significant. The Company's investments in these unconsolidated VIEs include non-Agency RMBS, which are classified within available-for-sale securities, at fair value on the condensed consolidated balance sheets. As of September 30, 2016 and December 31, 2015, the carrying value, which also represents the maximum exposure to loss, of all non-Agency RMBS in unconsolidated VIEs was \$1.8 billion and \$1.9 billion, respectively.

## Note 4. Available-for-Sale Securities, at Fair Value

The Company holds AFS investment securities which are carried at fair value on the condensed consolidated balance sheets. AFS securities exclude the retained interests from the Company's on-balance sheet securitizations, as they are eliminated in consolidation in accordance with U.S. GAAP. The following table presents the Company's AFS investment securities by collateral type as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Agency		
Federal Home Loan Mortgage Corporation	\$ 1,808,122	\$ 1,678,814
Federal National Mortgage Association	10,393,094	3,602,348
Government National Mortgage Association	235,600	691,728
Non-Agency	1,847,809	1,852,430
Total available-for-sale securities	\$ 14,284,625	\$ 7,825,320

At September 30, 2016 and December 31, 2015, the Company pledged AFS securities with a carrying value of \$14.3 billion and \$7.8 billion, respectively, as collateral for repurchase agreements and advances from the Federal Home Loan Bank of Des Moines, or the FHLB. See Note 15 - Repurchase Agreements and Note 17 - Federal Home Loan Bank of Des Moines Advances.

At September 30, 2016 and December 31, 2015, the Company did not have any securities purchased from and financed with the same counterparty that did not meet the conditions of ASC 860, Transfers and Servicing, or ASC 860, to be considered linked transactions and, therefore, classified as derivatives.

The following tables present the amortized cost and carrying value (which approximates fair value) of AFS securities by collateral type as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016		
	Agency	Non-Agency	Total
Face Value	\$ 14,254,562	\$ 2,634,994	\$ 16,889,556
Unamortized premium	625,519	—	625,519
Unamortized discount			
Designated credit reserve	—	(352,489)	(352,489)
Net, unamortized	(2,620,684)	(789,425)	(3,410,109)
Amortized Cost	12,259,397	1,493,080	13,752,477
Gross unrealized gains	208,319	359,748	568,067
Gross unrealized losses	(30,900)	(5,019)	(35,919)
Carrying Value	\$ 12,436,816	\$ 1,847,809	\$ 14,284,625

Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

	December 31, 2015		
(in thousands)	Agency	Non-Agency	Total
Face Value	\$8,257,030	\$2,655,381	\$10,912,411
Unamortized premium	394,787	—	394,787
Unamortized discount			
Designated credit reserve	—	(409,077 )	(409,077 )
Net, unamortized	(2,721,979 )	(707,021 )	(3,429,000 )
Amortized Cost	5,929,838	1,539,283	7,469,121
Gross unrealized gains	98,389	329,206	427,595
Gross unrealized losses	(55,337 )	(16,059 )	(71,396 )
Carrying Value	\$5,972,890	\$1,852,430	\$7,825,320

The following tables present the carrying value of the Company's AFS securities by rate type as of September 30, 2016 and December 31, 2015:

	September 30, 2016		
(in thousands)	Agency	Non-Agency	Total
Adjustable Rate	\$32,588	\$1,545,843	\$1,578,431
Fixed Rate	12,404,228	301,966	12,706,194
Total	\$12,436,816	\$1,847,809	\$14,284,625

	December 31, 2015		
(in thousands)	Agency	Non-Agency	Total
Adjustable Rate	\$108,596	\$1,673,038	\$1,781,634
Fixed Rate	5,864,294	179,392	6,043,686
Total	\$5,972,890	\$1,852,430	\$7,825,320

The following table presents the Company's AFS securities according to their estimated weighted average life classifications as of September 30, 2016:

	September 30, 2016		
(in thousands)	Agency	Non-Agency	Total
≤ 1 year	\$2,186	\$67,171	\$69,357
> 1 and ≤ 3 years	102,324	241,346	343,670
> 3 and ≤ 5 years	5,407,166	214,452	5,621,618
> 5 and ≤ 10 years	6,923,818	957,723	7,881,541
> 10 years	1,322	367,117	368,439
Total	\$12,436,816	\$1,847,809	\$14,284,625

When the Company purchases a credit-sensitive AFS security at a significant discount to its face value, the Company often does not amortize into income a significant portion of this discount that the Company is entitled to earn because the Company does not expect to collect the entire discount due to the inherent credit risk of the security. The Company may also record an other-than-temporary impairment, or OTTI, for a portion of its investment in the security to the extent the Company believes that the amortized cost will exceed the present value of expected future cash flows. The amount of principal that the Company does not amortize into income is designated as a credit reserve on the security, with unamortized net discounts or premiums amortized into income over time to the extent realizable.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table presents the changes for the nine months ended September 30, 2016 and 2015, of the unamortized net discount and designated credit reserves on non-Agency AFS securities.

(in thousands)	Nine Months Ended September 30, 2016			2015		
	Designated Credit Reserve	Unamortized Net Discount	Total	Designated Credit Reserve	Unamortized Net Discount	Total
Beginning balance at January 1	\$(409,077)	\$(707,021 )	\$(1,116,098)	\$(927,605)	\$(967,368 )	\$(1,894,973)
Acquisitions	(45,398 )	(140,318 )	(185,716 )	(274 )	(4,293 )	(4,567 )
Accretion of net discount	—	50,596	50,596	—	76,861	76,861
Realized credit losses	279	—	279	13,376	—	13,376
Reclassification adjustment for other-than-temporary impairments	(1,226 )	—	(1,226 )	1,742	—	1,742
Transfers from (to)	70,371	(70,371 )	—	85,767	(85,767 )	—
Sales, calls, other	32,562	77,689	110,251	282,821	227,078	509,899
Ending balance at September 30	\$(352,489)	\$(789,425 )	\$(1,141,914)	\$(544,173)	\$(753,489 )	\$(1,297,662)

The following table presents the components comprising the carrying value of AFS securities not deemed to be other than temporarily impaired by length of time that the securities had an unrealized loss position as of September 30, 2016 and December 31, 2015. At September 30, 2016, the Company held 1,220 AFS securities, of which 80 were in an unrealized loss position for less than twelve consecutive months and 124 were in an unrealized loss position for more than twelve consecutive months. At December 31, 2015, the Company held 1,181 AFS securities, of which 121 were in an unrealized loss position for less than twelve consecutive months and 182 were in an unrealized loss position for more than twelve consecutive months.

(in thousands)	Unrealized Loss Position for					
	Less than 12 Months		12 Months or More		Total	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
September 30, 2016	\$2,122,527	\$(12,318 )	\$551,086	\$(23,601 )	\$2,673,613	\$(35,919 )
December 31, 2015	\$1,503,939	\$(26,984 )	\$1,141,839	\$(44,412 )	\$2,645,778	\$(71,396 )

## Evaluating AFS Securities for Other-Than-Temporary Impairments

In evaluating AFS securities for OTTI, the Company determines whether there has been a significant adverse quarterly change in the cash flow expectations for a security. The Company compares the amortized cost of each security in an unrealized loss position against the present value of expected future cash flows of the security. The Company also considers whether there has been a significant adverse change in the regulatory and/or economic environment as part of this analysis. If the amortized cost of the security is greater than the present value of expected future cash flows using the original yield as the discount rate, an other-than-temporary credit impairment has occurred. If the Company does not intend to sell and will not be more likely than not required to sell the security, the credit loss is recognized in earnings and the balance of the unrealized loss is recognized in either other comprehensive income (loss), net of tax, or gain on investment securities, depending on the accounting treatment. If the Company intends to sell the security or will be more likely than not required to sell the security, the full unrealized loss is recognized in earnings.





Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The Company recorded \$1.0 million and \$1.8 million in other-than-temporary credit impairments during the three and nine months ended September 30, 2016 on one and four non-Agency RMBS, respectively, where the future expected cash flows for each security were less than its amortized cost. As of September 30, 2016, impaired securities with a carrying value of \$124.0 million had actual weighted average cumulative losses of 12.0%, weighted average three-month prepayment speed of 6.8%, weighted average 60+ day delinquency of 22.9% of the pool balance, and weighted average FICO score of 666. At September 30, 2016, the Company did not intend to sell the securities and determined that it was not more likely than not that the Company will be required to sell the securities; therefore, only the projected credit loss was recognized in earnings. During the three and nine months ended September 30, 2015, the Company recorded \$0.2 million and \$0.5 million in other-than-temporary credit impairments on two non-Agency RMBS where the future expected cash flows for the security were less than its amortized cost.

The following table presents the changes in OTTI included in earnings for the three and nine months ended September 30, 2016 and 2015:

(in thousands)	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2015	
	2016	2015	2016	2015
Cumulative credit loss at beginning of period	\$(6,710)	\$(6,622)	\$(6,499)	\$(8,241)
Additions:				
Other-than-temporary impairments not previously recognized	(1,015)	(238)	(1,307)	(238)
Increases related to other-than-temporary impairments on securities with previously recognized other-than-temporary impairments	—	—	(515)	(297)
Reductions:				
Decreases related to other-than-temporary impairments on securities paid down	—	—	—	—
Decreases related to other-than-temporary impairments on securities sold	—	361	596	2,277
Cumulative credit loss at end of period	\$(7,725)	\$(6,499)	\$(7,725)	\$(6,499)

Cumulative credit losses related to OTTI may be reduced for securities sold as well as for securities that mature, are paid down, or are prepaid such that the outstanding principal balance is reduced to zero. Additionally, increases in cash flows expected to be collected over the remaining life of the security cause a reduction in the cumulative credit loss.

## Gross Realized Gains and Losses

Gains and losses from the sale of AFS securities are recorded as realized gains (losses) within gain on investment securities in the Company's condensed consolidated statements of comprehensive income (loss). For the three and nine months ended September 30, 2016, the Company sold AFS securities for \$2.8 billion and \$6.6 billion with an amortized cost of \$2.8 billion and \$6.5 billion for net realized gains of \$31.8 million and \$63.3 million, respectively. For the three and nine months ended September 30, 2015, the Company sold AFS securities for \$1.1 billion and \$3.7 billion with an amortized cost of \$1.0 billion and \$3.4 billion for net realized gains of \$66.5 million and \$259.8 million, respectively.

The following table presents the gross realized gains and losses on sales of AFS securities for the three and nine months ended September 30, 2016 and 2015:

(in thousands)	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2015	
	2016	2015	2016	2015
Gross realized gains	\$31,942	\$75,427	\$77,836	\$269,314

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Gross realized losses	(164 )	(8,955 )	(14,487 )	(9,511 )
Total realized gains on sales, net	\$31,778	\$66,472	\$63,349	\$259,803

15

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 5. Residential Mortgage Loans Held-for-Sale, at Fair Value

Residential mortgage loans held-for-sale consists of residential mortgage loans carried at fair value as a result of a fair value option election. The following table presents the carrying value of the Company's residential mortgage loans held-for-sale as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Unpaid principal balance	\$ 720,609	\$ 812,661
Fair value adjustment	2,565	(1,230 )
Carrying value	\$ 723,174	\$ 811,431

At September 30, 2016 and December 31, 2015, the Company pledged residential mortgage loans with a carrying value of \$632.7 million and \$745.5 million, respectively, as collateral for repurchase agreements and FHLB advances. See Note 15 - Repurchase Agreements and Note 17 - Federal Home Loan Bank of Des Moines Advances.

## Note 6. Residential Mortgage Loans Held-for-Investment in Securitization Trusts, at Fair Value

The Company purchases subordinated debt and excess servicing rights from securitization trusts sponsored by either third parties or the Company's subsidiaries. The underlying residential mortgage loans held by the trusts, which are consolidated on the Company's condensed consolidated balance sheets, are classified as residential mortgage loans held-for-investment in securitization trusts and carried at fair value as a result of a fair value option election. See Note 3 - Variable Interest Entities for additional information regarding consolidation of the securitization trusts. The following table presents the carrying value of the Company's residential mortgage loans held-for-investment in securitization trusts as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Unpaid principal balance	\$ 3,499,285	\$ 3,143,515
Fair value adjustment	120,752	30,212
Carrying value	\$ 3,620,037	\$ 3,173,727

## Note 7. Commercial Real Estate Assets

The Company originates and purchases commercial real estate debt and related instruments generally to be held as long-term investments. These assets are classified as commercial real estate assets on the condensed consolidated balance sheets. Additionally, the Company is the sole certificate holder of a trust entity that holds a commercial real estate loan. The underlying loan held by the trust is consolidated on the Company's condensed consolidated balance sheet and classified as commercial real estate assets. See Note 3 - Variable Interest Entities for additional information regarding consolidation of the trust. Commercial real estate assets are reported at cost, net of any unamortized acquisition premiums or discounts, loan fees and origination costs as applicable, unless the assets are deemed impaired.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The following tables summarize the Company's commercial real estate assets by asset type, property type and geographic location as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016			December 31, 2015		
	Mezzanine Loans	First Mortgages	Total	Mezzanine Loans	First Mortgages	Total
Unpaid principal balance	\$ 139,334	\$ 983,463	\$ 1,122,797	\$ 153,913	\$ 513,433	\$ 667,346
Unamortized (discount) premium	(42 )	(190 )	(232 )	(237 )	—	(237 )
Unamortized net deferred origination fees	(380 )	(7,637 )	(8,017 )	(830 )	(5,326 )	(6,156 )
Carrying value	\$ 138,912	\$ 975,636	\$ 1,114,548	\$ 152,846	\$ 508,107	\$ 660,953
Unfunded commitments	\$ 1,580	\$ 93,761	\$ 95,341	\$ 1,900	\$ 50,334	\$ 52,234
Number of loans	6	22	28	6	12	18
Weighted average coupon	8.4	% 4.9	% 5.3	% 8.1	% 4.5	% 5.4
Weighted average years to maturity <sup>(1)</sup>	1.8	3.1	2.9	2.6	3.3	3.1

Based on contractual maturity date. Certain loans are subject to contractual extension options which may be subject to conditions as stipulated in the loan agreement. Actual maturities may differ from contractual maturities stated herein as certain borrowers may have the right to prepay with or without paying a prepayment penalty. The Company may also extend contractual maturities in connection with loan modifications.

(in thousands)	September 30, 2016			December 31, 2015		
	Carrying Value	% of Commercial Portfolio		Carrying Value	% of Commercial Portfolio	
Retail	\$ 237,007	21.3 %		\$ 185,883	28.1 %	
Hotel	85,520	7.7 %		80,843	12.2 %	
Industrial	104,929	9.4 %		—	— %	
Multifamily	208,265	18.7 %		139,011	21.1 %	
Office	478,827	42.9 %		255,216	38.6 %	
Total	\$ 1,114,548	100.0 %		\$ 660,953	100.0 %	

(in thousands)	September 30, 2016			December 31, 2015		
	Carrying Value	% of Commercial Portfolio		Carrying Value	% of Commercial Portfolio	
West	\$ 180,943	16.2 %		\$ 131,488	19.9 %	
Southeast	104,688	9.4 %		79,118	12.0 %	
Southwest	266,238	23.9 %		161,721	24.4 %	
Northeast	491,503	44.1 %		238,913	36.2 %	
Midwest	71,176	6.4 %		49,713	7.5 %	
Total	\$ 1,114,548	100.0 %		\$ 660,953	100.0 %	



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

At September 30, 2016 and December 31, 2015, the Company pledged commercial real estate assets with a carrying value of \$997.2 million and \$361.1 million, respectively, as collateral for repurchase agreements and FHLB advances. See Note 15 - Repurchase Agreements and Note 17 - Federal Home Loan Bank of Des Moines Advances.

The following table summarizes activity related to commercial real estate assets for the three and nine months ended September 30, 2016 and 2015.

(in thousands)	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Balance at beginning of period	\$926,377	\$45,605	\$660,953	\$—
Originations and purchases	190,100	246,644	470,547	292,200
Repayments	(908)	) —	(15,295)	) —
Net discount accretion (premium amortization)	64	49	204	98
(Increase) decrease in net deferred origination fees	(2,858)	) (1,517)	(6,867)	) (1,517)
Amortization of net deferred origination fees	1,773	129	5,006	129
Allowance for loan losses	—	—	—	—
Balance at end of period	\$1,114,548	\$290,910	\$1,114,548	\$290,910

The Company evaluates each loan for impairment at least quarterly by assessing the risk factors of each loan and assigning a risk rating based on a variety of factors. Risk factors include property type, geographic and local market dynamics, physical condition, leasing and tenant profile, projected cash flow, loan structure and exit plan, loan-to-value ratio, project sponsorship, and other factors deemed necessary. Risk ratings are defined as follows:

1 - Lower Risk

2 - Average Risk

3 - Acceptable Risk

4 - Higher Risk: A loan that has exhibited material deterioration in cash flows and/or other credit factors, which, if negative trends continue, could be indicative of future loss.

5 - Impaired/Loss Likely: A loan that has a significantly increased probability of default or principal loss.

The following table presents the number of loans, unpaid principal balance and carrying value (amortized cost) by risk rating for commercial real estate assets as of September 30, 2016 and December 31, 2015:

Risk Rating	September 30,		December 31,	
	2016		2015	
	Number of Loans	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance
1 – 3	28	\$1,122,797	18	\$667,346
4 – 5	—	—	—	—
Total	28	\$1,122,797	18	\$667,346

The Company has not recorded any allowances for losses as no loans are past-due and it is not deemed probable that the Company will not be able to collect all amounts due pursuant to the contractual terms of the loans.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 8. Servicing Activities

## Mortgage Servicing Rights, at Fair Value

One of the Company's wholly owned subsidiaries has approvals from Fannie Mae, Freddie Mac, and Ginnie Mae to own and manage MSR, which represent the right to control the servicing of mortgage loans. The Company and its subsidiaries do not originate or directly service mortgage loans, and instead contract with fully licensed subservicers to handle substantially all servicing functions for the loans underlying the Company's MSR. The following table summarizes activity related to MSR for the three and nine months ended September 30, 2016 and 2015.

(in thousands)	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 30, 2015	September 30, 2016	September 30, 2015
Balance at beginning of period	\$427,813	\$437,576	\$493,688	\$452,006
Additions from purchases of servicing rights	98,224	67,175	204,435	75,709
Additions from sales of residential mortgage loans	242	752	764	1,568
Subtractions from sales of servicing rights	(60,910 )	—	(60,910 )	—
Changes in fair value due to:				
Changes in valuation inputs or assumptions used in the valuation model	3,846	(49,449 )	(139,587 )	(63,573 )
Other changes in fair value <sup>(1)</sup>	(18,231 )	(12,100 )	(52,773 )	(32,744 )
Other changes <sup>(2)</sup>	4,645	3,391	10,012	14,379
Balance at end of period	\$455,629	\$447,345	\$455,629	\$447,345

(1) Other changes in fair value primarily represents changes due to the realization of expected cash flows.

(2) Other changes includes purchase price adjustments, contractual prepayment protection, and changes due to the Company's purchase of the underlying collateral.

At September 30, 2016, the Company pledged MSR with a carrying value of \$73.5 million as collateral for revolving credit facilities. See Note 18 - Revolving Credit Facilities. The Company did not have any revolving credit facilities in place, and, thus, had not pledged any MSR as collateral, at December 31, 2015.

As of September 30, 2016 and December 31, 2015, the key economic assumptions and sensitivity of the fair value of MSR to immediate 10% and 20% adverse changes in these assumptions were as follows:

(in thousands)	September 30, December 31,			
	2016		2015	
Weighted average prepayment speed:	15.8	%	11.8	%
Impact on fair value of 10% adverse change	\$ (25,310 )		\$ (20,093 )	
Impact on fair value of 20% adverse change	\$ (48,388 )		\$ (38,656 )	
Weighted average delinquency:	2.1	%	4.0	%
Impact on fair value of 10% adverse change	\$ (1,549 )		\$ (3,826 )	
Impact on fair value of 20% adverse change	\$ (4,237 )		\$ (6,640 )	
Weighted average discount rate:	9.0	%	10.1	%
Impact on fair value of 10% adverse change	\$ (11,937 )		\$ (16,316 )	
Impact on fair value of 20% adverse change	\$ (23,100 )		\$ (31,522 )	

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

These assumptions and sensitivities are hypothetical and should be considered with caution. Changes in fair value based on 10% and 20% variations in assumptions generally cannot be extrapolated because the relationship of the change in assumptions to the change in fair value may not be linear. Also, the effect of a variation in a particular assumption on the fair value of MSR is calculated without changing any other assumptions. In reality, changes in one factor may result in changes in another (e.g., increased market interest rates may result in lower prepayments and increased credit losses) that could magnify or counteract the sensitivities. Further, these sensitivities show only the change in the asset balances and do not show any expected change in the fair value of the instruments used to manage the interest rates and prepayment risks associated with these assets.

## Risk Mitigation Activities

The primary risk associated with the Company's MSR is interest rate risk and the resulting impact on prepayments. A significant decline in interest rates could lead to higher-than-expected prepayments that could reduce the value of the MSR. The Company economically hedges the impact of these risks with AFS securities and derivative financial instruments. Refer to Note 11 - Derivative Instruments and Hedging Activities for additional information regarding the derivative financial instruments used to economically hedge MSR.

## Mortgage Servicing Income

The following table presents the components of servicing income recorded on the Company's condensed consolidated statements of comprehensive income (loss) for the three and nine months ended September 30, 2016 and 2015:

	Three Months		Nine Months	
	Ended		Ended	
	September 30,		September 30,	
(in thousands)	2016	2015	2016	2015
Servicing fee income	\$37,226	\$31,073	\$104,765	\$91,896
Ancillary fee income	449	535	1,423	1,650
Float income	1,033	402	2,469	1,067
Total	\$38,708	\$32,010	\$108,657	\$94,613

## Mortgage Servicing Advances

In connection with the servicing of loans, the Company's subservicers make certain payments for property taxes and insurance premiums, default and property maintenance payments, as well as advances of principal and interest payments before collecting them from individual borrowers. Servicing advances, including contractual interest, are priority cash flows in the event of a loan principal reduction or foreclosure and ultimate liquidation of the real estate-owned property, thus making their collection reasonably assured. These servicing advances, which are funded by the Company, totaled \$46.5 million and \$37.5 million and were included in other assets on the condensed consolidated balance sheets as of September 30, 2016 and December 31, 2015, respectively.

## Serviced Mortgage Assets

The Company's total serviced mortgage assets consist of loans owned and classified as residential mortgage loans held-for-sale, loans held in consolidated VIEs classified as residential mortgage loans held-for-investment in securitization trusts, and loans underlying MSR. The following table presents the number of loans and unpaid principal balance of the mortgage assets for which the Company manages the servicing as of September 30, 2016 and December 31, 2015:

	September 30, 2016		December 31, 2015	
	Number	Unpaid	Number	Unpaid
	of	Principal	of	Principal
(dollars in thousands)	Loans	Balance	Loans	Balance
Residential mortgage loans held-for-sale	1,439	\$720,609	1,415	\$812,661
Residential mortgage loans held-for-investment in securitization trusts	4,938	3,499,285	4,329	3,117,219



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Mortgage servicing rights	249,032	55,080,859	241,228	48,566,301
Total serviced mortgage assets	255,409	\$59,300,753	246,972	\$52,496,181

20

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 9. Restricted Cash

The Company is required to maintain certain cash balances with counterparties for securities and derivatives trading activity and collateral for the Company's repurchase agreements and FHLB advances in restricted accounts. The Company has also placed cash in a restricted account pursuant to a letter of credit on an office space lease. The following table presents the Company's restricted cash balances as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Restricted cash balances held by trading counterparties:		
For securities and loan trading activity	\$ 20,810	\$ 12,550
For derivatives trading activity	148,492	130,355
As restricted collateral for repurchase agreements and Federal Home Loan Bank advances	95,223	119,310
Total restricted cash balances held by trading counterparties	264,525	262,215
Restricted cash balance pursuant to letter of credit on office lease	347	347
Total	\$ 264,872	\$ 262,562

## Note 10. Accrued Interest Receivable

The following table presents the Company's accrued interest receivable by collateral type as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Available-for-sale securities:		
Agency		
Federal Home Loan Mortgage Corporation	\$ 6,421	\$ 6,235
Federal National Mortgage Association	28,727	12,407
Government National Mortgage Association	3,007	4,910
Non-Agency	2,481	2,339
Total available-for-sale securities	40,636	25,891
Residential mortgage loans held-for-sale	3,377	4,173
Residential mortgage loans held-for-investment in securitization trusts	20,318	18,339
Commercial real estate assets	2,758	1,567
Total	\$ 67,089	\$ 49,970

## Note 11. Derivative Instruments and Hedging Activities

The Company enters into a variety of derivative and non-derivative instruments in connection with its risk management activities. The Company's primary objective for executing these derivative and non-derivative instruments is to mitigate the Company's economic exposure to future events that are outside its control. The Company's derivative financial instruments are utilized principally to manage market risk and cash flow volatility associated with interest rate risk (including associated prepayment risk) related to certain assets and liabilities. As part of its risk management activities, the Company may, at times, enter into various forward contracts, including short securities, Agency to-be-announced securities, or TBAs, options, futures, swaps, caps, credit default swaps and total return swaps. In executing on the Company's current risk management strategy, the Company has entered into interest rate swap and swaption agreements, TBAs, short U.S. Treasuries, put and call options for TBAs and U.S. Treasuries, constant maturity swaps, credit default swaps and total return swaps (based on the Markit IOS Index). The Company has also entered into a number of non-derivative instruments to manage interest rate risk, principally Agency

interest-only securities.

21

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following summarizes the Company's significant asset and liability classes, the risk exposure for these classes, and the Company's risk management activities used to mitigate certain of these risks. The discussion includes both derivative and non-derivative instruments used as part of these risk management activities. Any of the Company's derivative and non-derivative instruments may be entered into in conjunction with one another in order to mitigate risks associated with the Company's investment portfolio. As a result, the following discussions of each type of instrument should be read as a collective representation of the Company's risk mitigation efforts and should not be considered independent of one another. While the Company uses derivative and non-derivative instruments to achieve the Company's risk management activities, it is possible that these instruments will not effectively mitigate all or a substantial portion of the Company's market rate risk. In addition, the Company might elect, at times, not to enter into certain hedging arrangements in order to maintain compliance with REIT requirements.

## Balance Sheet Presentation

In accordance with ASC 815, Derivatives and Hedging, or ASC 815, the Company records derivative financial instruments on its condensed consolidated balance sheets as assets or liabilities at fair value. Changes in fair value are accounted for depending on the use of the derivative instruments and whether they qualify for hedge accounting treatment. Due to the volatility of the credit markets and difficulty in effectively matching pricing or cash flows, the Company has elected to treat all current derivative contracts as trading instruments.

The following tables present the gross fair value and notional amounts of the Company's derivative financial instruments treated as trading instruments as of September 30, 2016 and December 31, 2015.

(in thousands)	September 30, 2016			
	Derivative Assets		Derivative Liabilities	
	Fair Value	Notional	Fair Value	Notional
Trading instruments				
Inverse interest-only securities	\$142,597	\$784,823	\$—	\$—
Interest rate swap agreements	36,306	10,338,367	(27,048)	6,607,063
Credit default swaps	—	—	(52)	25,000
Swaptions, net	95	600,000	(3,001)	330,000
TBAs	17,527	1,040,000	(4,340)	1,629,000
Put and call options for TBAs, net	2,178	3,950,000	(4,685)	519,000
Markit IOS total return swaps	—	—	(752)	96,248
Forward purchase commitments	310	46,134	(40)	15,269
Total	\$199,013	\$16,759,324	\$(39,918)	\$9,221,580

(in thousands)	December 31, 2015			
	Derivative Assets		Derivative Liabilities	
	Fair Value	Notional	Fair Value	Notional
Trading instruments				
Inverse interest-only securities	\$159,582	\$932,037	\$—	\$—
Interest rate swap agreements	91,757	14,268,806	—	—
Credit default swaps	—	—	(703)	125,000
Swaptions, net	17,374	4,700,000	(4,831)	500,000
TBAs	1,074	847,000	(1,324)	550,000
Markit IOS total return swaps	1,645	889,418	—	—
Forward purchase commitments	77	98,736	(427)	187,384
Total	\$271,509	\$21,735,997	\$(7,285)	\$1,362,384

## Comprehensive Income (Loss) Statement Presentation

The Company has not applied hedge accounting to its current derivative portfolio held to mitigate the interest rate risk and credit risk associated with its portfolio. As a result, the Company is subject to volatility in its earnings due to movement in the unrealized gains and losses associated with its interest rate swaps and its other derivative instruments.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table summarizes the location and amount of gains and losses on derivative instruments reported in the condensed consolidated statements of comprehensive income (loss):

Trading Instruments (in thousands)	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives			
		Three Months Ended September 30, 2016		Nine Months Ended September 30, 2016	
Interest rate risk management					
TBAs <sup>(1)</sup>	Loss on other derivative instruments	\$(522 )	\$(2,982 )	\$26,369	\$(25,677 )
Short U.S. Treasuries <sup>(1)</sup>	Loss on other derivative instruments	—	—	—	125
Put and call options for TBAs <sup>(1)</sup>	Loss on other derivative instruments	(6,226 )	(1,358 )	(51,259 )	6,848
Put and call options for U.S. Treasuries <sup>(1)</sup>	Loss on other derivative instruments	—	—	—	(837 )
Constant maturity swaps <sup>(1)</sup>	Loss on other derivative instruments	—	—	—	6,164
Interest rate swap agreements - Receivers <sup>(1)</sup>	Gain (loss) on interest rate swap and swaption agreements	(18,381 )	86,672	131,465	86,528
Interest rate swap agreements - Payers <sup>(1)</sup>	Gain (loss) on interest rate swap and swaption agreements	22,973	(70,546 )	(89,043 )	(102,392 )
Swaptions <sup>(1)</sup>	Gain (loss) on interest rate swap and swaption agreements	(24,394 )	(66,809 )	(18,397 )	(65,563 )
Markit IOS total return swaps <sup>(1)</sup>	Loss on other derivative instruments	(6,550 )	(5,966 )	(41,541 )	(23,492 )
Interest rate swap agreements - Payers <sup>(2)</sup>	Gain (loss) on interest rate swap and swaption agreements	25,386	(120,973 )	(156,633 )	(171,720 )
Credit risk management					
Credit default swaps - Receive protection <sup>(3)</sup>	Loss on other derivative instruments	(18 )	(75 )	364	(199 )
Non-risk management					
Inverse interest-only securities	Loss on other derivative instruments	1,288	9,926	22,003	34,096
Forward purchase commitments	(Loss) gain on residential mortgage loans held-for-sale	107	2,834	2,455	(1,327 )
Total		\$(6,337)	\$(169,277)	\$(174,217)	\$(257,446)

(1) Includes derivative instruments held to mitigate interest rate risk associated with the Company's investment portfolio.

(2) Includes derivative instruments held to mitigate interest rate risk associated with the Company's repurchase agreements and FHLB advances.

(3) Includes derivative instruments held to mitigate credit risk associated with the Company's non-Agency RMBS and residential mortgage loans held-for-sale.

For the three and nine months ended September 30, 2016, the Company recognized \$4.3 million and \$18.1 million, respectively, of expenses for the accrual and/or settlement of the net interest expense associated with its interest rate swaps. The expenses result from paying either a fixed interest rate or LIBOR interest on an average \$14.5 billion and \$14.8 billion notional, respectively, and receiving either LIBOR interest or a fixed interest rate. For the three and nine

months ended September 30, 2015, the Company recognized \$19.4 million and \$73.1 million, respectively, of expenses for the accrual and/or settlement of the net interest expense associated with its interest rate swaps. The expenses result from paying either a fixed interest rate or LIBOR interest on an average \$15.4 billion and \$16.8 billion notional, respectively, and receiving either LIBOR interest or a fixed interest rate.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following tables present information with respect to the volume of activity in the Company's derivative instruments during the three and nine months ended September 30, 2016 and 2015:

(in thousands)	Three Months Ended September 30, 2016					
	Beginning of Period Notional Amount	Additions	Settlement, Termination, Expiration or Exercise	End of Period Notional Amount	Average Notional Amount	Realized Gain (Loss), net <sup>(1)</sup>
Inverse interest-only securities	\$834,866	\$—	\$(50,043 )	\$784,823	\$813,045	\$—
Interest rate swap agreements	13,697,000	4,451,430	(1,203,000 )	16,945,430	14,497,913	(39,369 )
Credit default swaps	25,000	—	—	25,000	25,000	—
Swaptions, net	1,800,000	(1,537,000 )	7,000	270,000	219,315	(55,692 )
TBAs, net	(337,000 )	(5,622,000 )	5,370,000	(589,000 )	(1,051,989 )	(18,819 )
Put and call options for TBAs, net	8,897,000	2,269,000	(6,697,000 )	4,469,000	5,607,728	(26,955 )
Markit IOS total return swaps	588,037	99,911	(591,700 )	96,248	113,334	(13,897 )
Forward purchase commitments	636,467	315,787	(890,851 )	61,403	418,333	577
Total	\$26,141,370	\$(22,872 )	\$(4,055,594 )	\$22,062,904	\$20,642,679	\$(154,155)
(in thousands)	Three Months Ended September 30, 2015					
	Beginning of Period Notional Amount	Additions	Settlement, Termination, Expiration or Exercise	End of Period Notional Amount	Average Notional Amount	Realized Gain (Loss), net <sup>(1)</sup>
Inverse interest-only securities	\$1,049,743	\$—	\$(63,842 )	\$985,901	\$1,020,199	\$—
Interest rate swap agreements	16,225,523	5,280,000	(7,480,000 )	14,025,523	15,371,175	(24,948 )
Credit default swaps	125,000	—	—	125,000	125,000	—
Swaptions, net	9,410,000	—	600,000	10,010,000	9,481,739	(36,960 )
TBAs, net	(1,024,000 )	(468,000 )	2,274,000	782,000	(343,272 )	(13,615 )
Short U.S. Treasuries	—	—	—	—	—	—
Put and call options for TBAs, net	—	1,000,000	—	1,000,000	163,043	—
Put and call options for U.S. Treasuries, net	—	—	—	—	—	—
Constant maturity swaps	—	—	—	—	—	—
Markit IOS total return swaps	988,409	176,807	(277,252 )	887,964	828,323	(2,368 )
Forward purchase commitments	626,660	941,480	(1,066,948 )	501,192	576,251	(392 )
Total	\$27,401,335	\$6,930,287	\$(6,014,042 )	\$28,317,580	\$27,222,458	\$(78,283)



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

(in thousands)	Nine Months Ended September 30, 2016					
	Beginning of Period Notional Amount	Additions	Settlement, Termination, Expiration or Exercise	End of Period Notional Amount	Average Notional Amount	Realized Gain (Loss), net (1)
Inverse interest-only securities	\$932,037	\$—	\$(147,214 )	\$784,823	\$860,920	\$—
Interest rate swap agreements	14,268,806	16,553,456	(13,876,832 )	16,945,430	14,751,923	(33,067 )
Credit default swaps	125,000	10,000	(110,000 )	25,000	87,883	412
Swaptions, net	5,200,000	1,063,000	(5,993,000 )	270,000	3,192,617	(86,481 )
TBAs, net	297,000	(1,186,000 )	300,000	(589,000 )	(239,493 )	12,932
Put and call options for TBAs, net	—	13,166,000	(8,697,000 )	4,469,000	3,091,679	(28,303 )
Markit IOS total return swaps	889,418	99,911	(893,081 )	96,248	598,163	(13,374 )
Forward purchase commitments	286,120	1,548,027	(1,772,744 )	61,403	357,448	1,835
Total	\$21,998,381	\$31,254,394	\$(31,189,871 )	\$22,062,904	\$22,701,140	\$(146,046)
(in thousands)	Nine Months Ended September 30, 2015					
	Beginning of Period Notional Amount	Additions	Settlement, Termination, Expiration or Exercise	End of Period Notional Amount	Average Notional Amount	Realized Gain (Loss), net (1)
Inverse interest-only securities	\$1,168,226	\$12,563	\$(194,888 )	\$985,901	\$1,081,376	\$64
Interest rate swap agreements	18,584,000	22,393,227	(26,951,704 )	14,025,523	16,753,347	(92,816 )
Credit default swaps	125,000	—	—	125,000	125,000	—
Swaptions, net	12,410,000	7,050,000	(9,450,000 )	10,010,000	10,862,930	(32,168 )
TBAs, net	(1,325,000 )	(11,330,000 )	13,437,000	782,000	(729,916 )	(38,461 )
Short U.S. Treasuries	—	(50,000 )	50,000	—	—	125
Put and call options for TBAs, net	2,000,000	1,250,000	(2,250,000 )	1,000,000	(183,150 )	7,796
Put and call options for U.S. Treasuries, net	—	500,000	(500,000 )	—	916	(837 )
Constant maturity swaps	14,000,000	6,000,000	(20,000,000 )	—	3,018,315	7,694
Markit IOS total return swaps	598,459	1,601,350	(1,311,845 )	887,964	968,223	(11,296 )
Forward purchase commitments	554,838	3,048,411	(3,102,057 )	501,192	634,356	(766 )
Total	\$48,115,523	\$30,475,551	\$(50,273,494 )	\$28,317,580	\$32,531,397	\$(160,665)

(1) Excludes net interest paid or received in full settlement of the net interest spread liability.

Cash flow activity related to derivative instruments is reflected within the operating activities and investing activities sections of the condensed consolidated statements of cash flows. Derivative fair value adjustments are reflected within the unrealized (gain) loss on interest rate swaps and swaptions, unrealized loss (gain) on other derivative instruments, and gain on residential mortgage loans held-for-sale line items within the operating activities section of the condensed consolidated statements of cash flows. Realized gains and losses on interest rate swap and swaption agreements are reflected within the loss on termination and option expiration of interest rate swaps and swaptions line item within the operating activities section of the condensed consolidated statements of cash flows. The remaining cash flow activity related to derivative instruments is reflected within the (purchases) short sales of other derivative instruments, proceeds from sales (payments for termination) of other derivative instruments, net and increase (decrease) in due to

counterparties, net line items within the investing activities section of the condensed consolidated statements of cash flows.

25

---

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Interest Rate Sensitive Assets/Liabilities

The Company's RMBS investment securities and MSR are generally subject to change in value when mortgage rates decline or increase, depending on the type of investment. Rising mortgage rates generally result in a slowing of refinancing activity, which slows prepayments and results in a decline in the value of the Company's fixed-rate Agency pools and an increase in the value of the Company's MSR. To mitigate the impact of this risk, the Company maintains a portfolio of fixed-rate interest-only securities, which increase in value when interest rates increase, as well as TBA positions, short U.S. Treasuries, put and call options for TBAs and U.S. Treasuries, constant maturity swaps, interest rate swap and swaption agreements and Markit IOS total return swaps to further mitigate its exposure to higher interest rates, decreased prepayment speeds and widening mortgage spreads.

As of September 30, 2016 and December 31, 2015, the Company had outstanding fair value of \$50.1 million and \$42.9 million, respectively, of interest-only securities in place to economically hedge its investment securities. These interest-only securities are included in AFS securities, at fair value, in the condensed consolidated balance sheets.

The Company is exposed to interest rate risk on residential mortgage loans from the time it commits to purchase a mortgage loan until it acquires the loan from the originator and subsequently sells the loan to a third party. Changes in interest rates impact the market price for the mortgage loans. For example, as market interest rates decline, the value of residential mortgage loans held-for-sale increases, and vice versa. To mitigate the impact of this risk, the Company may enter into derivative contracts to hedge the interest rate risk related to its commitments to purchase residential mortgage loans and residential mortgage loans held-for-sale, such as interest rate swaps, swaptions, TBA positions, short U.S. Treasuries, put and call options for TBAs and U.S. Treasuries and constant maturity swaps.

TBAs. At times, the Company may use TBAs for risk management purposes or as a means of deploying capital until targeted investments are available and to take advantage of temporary displacements in the marketplace. Additionally, the Company may use TBAs independently, or in conjunction with other derivative and non-derivative instruments, in order to mitigate risks associated with the Company's investment portfolio. TBAs are forward contracts for the purchase (long notional positions) or sale (short notional positions) of Agency RMBS. The issuer, coupon and stated maturity of the Agency RMBS are predetermined as well as the trade price, face amount and future settle date (published each month by the Securities Industry and Financial Markets Association). However, the specific Agency RMBS to be delivered upon settlement is not known at the time of the TBA transaction. As a result, and because physical delivery of the Agency RMBS upon settlement cannot be assured, the Company accounts for TBAs as derivative instruments.

As of September 30, 2016, \$1.0 billion of the Company's long notional TBA positions and \$1.6 billion of the Company's short notional TBA positions were held in order to economically hedge portfolio risk. As of December 31, 2015, \$847.0 million of the Company's long notional TBA positions and \$550.0 million of the Company's short notional TBA positions were held in order to economically hedge portfolio risk. The Company discloses these positions on a gross basis according to the unrealized gain or loss position of each TBA contract regardless of long or short notional position. The following tables present the notional amount, cost basis, market value and carrying value (which approximates fair value) of the Company's TBA positions as of September 30, 2016 and December 31, 2015:

As of September 30, 2016

(in thousands)	Notional Amount <sup>(1)</sup>	Cost Basis (2)	Market Value <sup>(3)</sup>	Net Carrying Value <sup>(4)</sup>	
				Derivative Assets	Derivative Liabilities
Purchase contracts	\$1,040,000	\$1,060,175	\$1,077,702	\$17,527	\$—
Sale contracts	(1,629,000 )	(1,693,953 )	(1,698,293 )	—	(4,340 )
TBAs, net	\$(589,000 )	\$(633,778 )	\$(620,591 )	\$17,527	\$(4,340 )



Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

As of December 31, 2015

(in thousands)	Notional Amount (1)	Cost Basis (2)	Market Value (3)	Net Carrying Value (4)	
				Derivative Assets	Derivative Liabilities
Purchase contracts	\$847,000	\$858,572	\$859,646	\$1,074	\$—
Sale contracts	(550,000 )	(568,813 )	(570,137 )	—	(1,324 )
TBAs, net	\$297,000	\$289,759	\$289,509	\$1,074	\$(1,324 )

(1) Notional amount represents the face amount of the underlying Agency RMBS.

(2) Cost basis represents the forward price to be paid (received) for the underlying Agency RMBS.

(3) Market value represents the current market value of the TBA (or of the underlying Agency RMBS) as of period-end.

(4) Net carrying value represents the difference between the market value of the TBA as of period-end and its cost basis, and is reported in derivative assets / (liabilities), at fair value, in the condensed consolidated balance sheets.

Put and Call Options for TBAs. The Company may use put and call options for TBAs independently, or in conjunction with other derivative and non-derivative instruments, in order to mitigate risks associated with the Company's investment portfolio. As of September 30, 2016, the Company had purchased put options for TBAs with a notional amount of \$6.9 billion, short sold call options for TBAs with a notional amount of \$2.4 billion and paid upfront premiums of approximately \$20.5 million. The last of the options expires in December 2016. The put and call options had a net fair market value of \$2.2 million included in derivative assets, at fair value, and \$4.7 million included in derivative liabilities, at fair value, on the condensed consolidated balance sheet as of September 30, 2016. The Company did not hold any put and call options for TBAs as of December 31, 2015.

Interest Rate Swap Agreements. The Company may use interest rate swaps independently, or in conjunction with other derivative and non-derivative instruments, in order to mitigate risks associated with the Company's investment portfolio. As of September 30, 2016 and December 31, 2015, the Company held the following interest rate swaps in order to mitigate mortgage interest rate exposure (or duration) risk associated with the Company's investment portfolio whereby the Company receives interest at a three-month LIBOR rate:

(notional in thousands)

September 30, 2016

Swaps Maturities	Notional Amounts	Weighted Average		
		Fixed Pay Rate	Receive Rate	Weighted Maturity (Years)
2018	\$4,669,049	1.273 %	0.853 %	1.85
2020 and Thereafter	1,341,512	2.094 %	0.812 %	4.88
Total	\$6,010,561	1.456 %	0.843 %	2.53

(notional in thousands)

December 31, 2015

Swaps Maturities	Notional Amounts	Weighted Average		
		Fixed Pay Rate	Receive Rate	Weighted Maturity (Years)

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2018	\$2,040,000	1.563	%	0.487	%	2.94
2020 and Thereafter	1,210,000	2.164	%	0.531	%	5.08
Total	\$3,250,000	1.787	%	0.503	%	3.74

27

---

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

Additionally, as of September 30, 2016 and December 31, 2015, the Company held the following interest rate swaps in order to mitigate mortgage interest rate exposure (or duration) risk associated with the Company's investment portfolio whereby the Company pays interest at a three-month LIBOR rate:

(notional in thousands)

September 30, 2016

Swaps Maturities	Notional Amounts	Weighted Average Pay Rate	Weighted Average Fixed Receive Rate	Weighted Average Maturity (Years)
2018	\$1,207,294	0.729 %	1.214 %	2.07
2019	500,000	0.702 %	1.042 %	2.31
2020 and Thereafter	2,120,512	0.783 %	2.037 %	6.07
Total	\$3,827,806	0.755 %	1.647 %	4.32

(notional in thousands)

December 31, 2015

Swaps Maturities	Notional Amounts	Weighted Average Pay Rate	Weighted Average Fixed Receive Rate	Weighted Average Maturity (Years)
2018	\$575,000	0.329 %	1.440 %	2.89
2020 and Thereafter	2,589,000	0.453 %	2.301 %	7.00
Total	\$3,164,000	0.431 %	2.145 %	6.26

The Company monitors its borrowings under repurchase agreements and FHLB advances, which are generally floating rate debt, in relation to the rate profile of its investment securities. When it is cost effective to do so, the Company may enter into interest rate swap arrangements to align the interest rate composition of its borrowings under repurchase agreements and FHLB advances with that of its investment securities and debt portfolios. This particularly applies to borrowing agreements with maturities or interest rate resets of less than six months. Typically, the interest receivable terms (i.e., LIBOR) of the interest rate swaps match the terms of the underlying debt, resulting in an effective conversion of the rate of the related repurchase agreement or FHLB advance from floating to fixed.

As of September 30, 2016 and December 31, 2015, the Company had the following outstanding interest rate swaps that were utilized as economic hedges of interest rate exposure (or duration) associated with the Company's short-term repurchase agreements and FHLB advances:

(notional in thousands)

September 30, 2016

Swaps Maturities	Notional Amount <sup>(1)</sup>	Weighted Average Fixed Pay Rate <sup>(2)</sup>	Weighted Average Fixed Receive Rate <sup>(2)</sup>	Weighted Average Maturity (Years) <sup>(2)</sup>
2016	\$1,000,000	0.435 %	0.857 %	0.23
2017	2,375,000	0.765 %	0.787 %	0.84
2018	1,300,000	1.002 %	0.674 %	1.85
2019	350,000	1.283 %	0.731 %	2.69

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2020 and Thereafter	2,082,063	1.733	%	0.731	%	6.74
Total	\$7,107,063	0.858	%	0.765	%	1.48

28

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

(notional in thousands)

December 31, 2015

Swaps Maturities	Notional Amount <sup>(1)</sup>	Weighted Average Fixed Pay Rate <sup>(2)</sup>	Weighted Average Receive Rate <sup>(2)</sup>	Weighted Average Maturity (Years) <sup>(2)</sup>
2016	\$1,700,000	0.462 %	0.481 %	0.73
2017	2,375,000	0.765 %	0.510 %	1.59
2018	800,000	0.944 %	0.384 %	2.14
2019	350,000	1.283 %	0.340 %	3.44
2020 and Thereafter	2,629,806	1.821 %	0.371 %	8.04
Total	\$7,854,806	1.094 %	0.437 %	3.71

(1) Notional amount includes \$577.1 million in forward starting interest rate swaps as of September 30, 2016. The Company did not have any forward starting interest rate swaps as of December 31, 2015.

Weighted averages exclude forward starting interest rate swaps. As of September 30, 2016, the weighted average (2) fixed pay rate on interest rate swaps starting in March 2017 was 1.8%. The Company did not have any forward starting interest rate swaps as of December 31, 2015.

Interest Rate Swaptions. The Company may use interest rate swaptions (agreements to enter into interest rate swaps in the future for which the Company would either pay or receive a fixed rate) independently, or in conjunction with other derivative and non-derivative instruments, in order to mitigate risks associated with the Company's investment portfolio. As of September 30, 2016 and December 31, 2015, the Company had the following outstanding interest rate swaptions that were utilized as macro-economic hedges:

September 30, 2016

Swaption	Option		Underlying Swap					
	Expiration	Cost	Fair Value	Average Months to Expiration	Notional Amount	Average Pay Rate	Average Receive Rate	Average Term (Years)
Purchase contracts:								
Payer	≥ 6 Months	\$43,015	\$145	8.84	\$1,800,000	3.27 %	3M Libor	5.6
Total Payer		\$43,015	\$145	8.84	\$1,800,000	3.27 %	3M Libor	5.6
Receiver	< 6 Months	\$—	\$3,061	4.93	\$1,500,000	3M Libor	1.34 %	3.0
Total Receiver		\$—	\$3,061	4.93	\$1,500,000	3M Libor	1.34 %	3.0
Sale contracts:								
Payer	< 6 Months	\$—	\$(5,882)	4.45	\$(2,230,000)	1.14 %	3M Libor	4.6
Payer	≥ 6 Months	(81,248)	(230)	8.99	(800,000)	3.44 %		10.0

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Total Payer	\$ (81,248)	\$ (6,112)	4.49	\$ (3,030,000)	1.74 %	3M Libor	3M Libor	6.0
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29

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Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

(notional and dollars in thousands)	December 31, 2015				Underlying Swap				
	Option								
Swaption	Expiration	Cost	Fair Value	Average Months to Expiration	Notional Amount	Average Fixed Pay Rate	Average Receive Rate	Average Term (Years)	
Purchase contracts:									
Payer	< 6 Months	\$375	\$174	0.75	\$2,000,000	2.23 %	3M Libor	6.3	
Payer	≥ 6 Months	126,273	19,150	39.17	4,500,000	3.69 %	3M Libor	5.8	
Total Payer		\$126,648	\$19,324	38.51	\$6,500,000	3.24 %	3M Libor	5.9	
Sale contracts:									
Payer	≥ 6 Months	\$(81,248)	\$(6,738)	18.01	\$(800,000)	3.44 %	3M Libor	10.0	
Total Payer		\$(81,248)	\$(6,738)	18.01	\$(800,000)	3.44 %	3M Libor	10.0	
Receiver	< 6 Months	\$(100)	\$(43)	0.73	\$(500,000)	3M Libor	1.75 %	10.0	
Total Receiver		\$(100)	\$(43)	0.73	\$(500,000)	3M Libor	1.75 %	10.0	

Markit IOS Total Return Swaps. The Company may use total return swaps (agreements whereby the Company receives or makes payments based on the total return of an underlying instrument or index, such as the Markit IOS Index, in exchange for fixed or floating rate interest payments) independently, or in conjunction with other derivative and non-derivative instruments, in order to mitigate risks associated with the Company's investment portfolio. The Company enters into total return swaps to help mitigate the potential impact of larger increases or decreases in interest rates on the performance of our investment portfolio (referred to as "convexity risk"). Total return swaps based on the Markit IOS Index are intended to synthetically replicate the performance of interest-only securities. The Company had the following total return swap agreements in place at September 30, 2016 and December 31, 2015:

(notional and dollars in thousands)

September 30, 2016

Maturity Date	Current Notional Amount	Fair Value	Upfront Payable	Unrealized Gain (Loss)
January 12, 2043	\$(47,910)	\$(363)	\$(320)	\$(683)
January 12, 2044	(48,338)	(389)	(366)	(755)
Total	\$(96,248)	\$(752)	\$(686)	\$(1,438)

(notional and dollars in thousands)

December 31, 2015

Maturity Date	Current Notional Amount	Fair Value	Upfront Payable	Unrealized Gain (Loss)
January 12, 2043	\$(369,639)	\$456	\$(866 )	\$ (410 )
January 12, 2044	(325,003 )	350	(1,679 )	(1,329 )
January 12, 2045	(194,776 )	839	1,162	2,001
Total	\$(889,418)	\$1,645	\$(1,383)	\$ 262

#### Credit Risk

The Company's exposure to credit losses on its Agency RMBS portfolio is limited due to implicit or explicit backing from the GSEs. The payment of principal and interest on the Freddie Mac and Fannie Mae mortgage-backed securities are guaranteed by those respective agencies, and the payment of principal and interest on the Ginnie Mae mortgage-backed securities are backed by the full faith and credit of the U.S. Government.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

Credit Default Swaps. For non-Agency investment securities, residential mortgage loans and commercial real estate assets, the Company may enter into credit default swaps to hedge credit risk. In future periods, the Company could enhance its credit risk protection, enter into further paired derivative positions, including both long and short credit default swaps, and/or seek opportunistic trades in the event of a market disruption (see discussion under “Non-Risk Management Activities” below). The Company also has processes and controls in place to monitor, analyze, manage and mitigate its credit risk with respect to non-Agency RMBS, residential mortgage loans and commercial real estate assets.

As of September 30, 2016 and December 31, 2015, the Company held credit default swaps through which the Company received credit protection for a fixed premium. The maximum payouts for these credit default swaps are limited to the current notional amounts of each swap contract. Maximum payouts for credit default swaps do not represent the expected future cash requirements, as the Company’s credit default swaps are typically liquidated or expire and are not exercised by the holder of the credit default swaps.

The following tables present credit default swaps through which the Company is receiving protection held as of September 30, 2016 and December 31, 2015:

(notional and dollars in thousands)

September 30, 2016

Protection	Maturity Date	Average Implied Credit Spread	Current Notional Amount	Fair Value	Upfront (Payable) Receivable	Unrealized Gain (Loss)
Receive	December 20, 2016	496.00	\$(25,000)	\$(52)	\$ (4,062 )	\$ (4,114 )
	Total	496.00	\$(25,000)	\$(52)	\$ (4,062 )	\$ (4,114 )

(notional and dollars in thousands)

December 31, 2015

Protection	Maturity Date	Average Implied Credit Spread	Current Notional Amount	Fair Value	Upfront (Payable) Receivable	Unrealized Gain (Loss)
Receive	June 20, 2016	105.50	\$(100,000)	\$(502)	\$ (260 )	\$ (762 )
	December 20, 2016	496.00	(25,000 )	(201 )	(4,062 )	(4,263 )
	Total	183.60	\$(125,000)	\$(703)	\$ (4,322 )	\$ (5,025 )

Derivative financial instruments contain an element of credit risk if counterparties are unable to meet the terms of the agreements. Credit risk associated with derivative financial instruments is measured as the net replacement cost should the counterparties that owe the Company under such contracts completely fail to perform under the terms of these contracts, assuming there are no recoveries of underlying collateral, as measured by the market value of the derivative financial instruments. As of September 30, 2016, the fair value of derivative financial instruments as an asset and liability position was \$199.0 million and \$39.9 million, respectively.

The Company attempts to mitigate its credit risk exposure on derivative financial instruments by limiting its counterparties to banks and financial institutions that meet established credit guidelines. The Company also seeks to spread its credit risk exposure across multiple counterparties in order to reduce its exposure to any single counterparty. Additionally, the Company reduces credit risk on the majority of its derivative instruments by entering into agreements that permit the closeout and netting of transactions with the same counterparty or clearing agency, in the case of centrally cleared interest rate swaps, upon the occurrence of certain events. To further mitigate the risk of counterparty default, the Company maintains collateral agreements with certain of its counterparties and clearing agencies, which require both parties to maintain cash deposits in the event the fair values of the derivative financial

instruments exceed established thresholds. As of September 30, 2016, the Company had received cash deposits from counterparties of \$12.1 million and placed cash deposits of \$161.8 million in accounts maintained by counterparties, of which the amounts are netted on a counterparty basis and classified within restricted cash, due from counterparties, or due to counterparties on the Company's condensed consolidated balance sheets.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Non-Risk Management Activities

The Company has entered into certain financial instruments that are considered derivative contracts under ASC 815 that are not for purposes of hedging. These contracts are currently limited to forward purchase commitments and inverse interest-only RMBS.

**Commitments to Purchase Residential Mortgage Loans Held-for-Sale.** Prior to a mortgage loan purchase, the Company may enter into forward purchase commitments with counterparties whereby the Company commits to purchasing the loans at a particular interest rate, provided the borrower elects to close the loan. These commitments to purchase mortgage loans have been defined as derivatives and are, therefore, recorded on the Company's condensed consolidated balance sheets as assets or liabilities and measured at fair value. Subsequent changes in fair value are recorded on the Company's condensed consolidated balance sheets as adjustments to the carrying value of these assets or liabilities with a corresponding adjustment recognized in current period earnings. As of September 30, 2016 and December 31, 2015, the Company had outstanding commitments to purchase \$61.4 million and \$286.1 million of mortgage loans, subject to fallout if the loans do not close, with a fair value asset of \$310,294 and a fair value liability of \$40,111 at September 30, 2016, and a fair value asset of \$77,227 and a fair value liability of \$427,468 at December 31, 2015, respectively.

**Inverse Interest-Only Securities.** As of September 30, 2016 and December 31, 2015, inverse interest-only securities with a carrying value of \$142.6 million and \$159.6 million, including accrued interest receivable of \$1.4 million and \$1.7 million, respectively, are accounted for as derivative financial instruments in the condensed consolidated financial statements. The following table presents the amortized cost and carrying value (which approximates fair value) of inverse interest-only securities as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, December 31,	
	2016	2015
Face Value	\$ 784,823	\$ 932,037
Unamortized premium	—	—
Unamortized discount		
Designated credit reserve	—	—
Net, unamortized	(668,282 )	(792,178 )
Amortized Cost	116,541	139,859
Gross unrealized gains	25,420	19,655
Gross unrealized losses	(729 )	(1,608 )
Carrying Value	\$ 141,232	\$ 157,906

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 12. Other Assets

Other assets as of September 30, 2016 and December 31, 2015 are summarized in the following table:

(in thousands)	September 30, 2016	December 31, 2015
Property and equipment at cost	\$ 6,469	\$ 5,997
Accumulated depreciation <sup>(1)</sup>	(4,264	) (3,303
Net property and equipment	2,205	2,694
Prepaid expenses	1,142	1,572
Income taxes receivable	1,619	5,286
Deferred tax assets, net	75,075	44,318
Servicing advances	46,464	37,499
Federal Home Loan Bank stock	167,856	156,650
Equity investments	3,000	3,000
Other receivables	29,035	20,556
Total other assets	\$ 326,396	\$ 271,575

(1) Depreciation expense for the three and nine months ended September 30, 2016 was \$0.3 million and \$1.0 million, respectively.

## Note 13. Other Liabilities

Other liabilities as of September 30, 2016 and December 31, 2015 are summarized in the following table:

(in thousands)	September 30, 2016	December 31, 2015
Accrued expenses	\$ 27,063	\$ 37,052
Accrued interest payable	29,807	18,723
Income taxes payable	—	70
Other	23,453	16,387
Total other liabilities	\$ 80,323	\$ 72,232

## Note 14. Fair Value

## Fair Value Measurements

ASC 820, Fair Value Measurements and Disclosures, or ASC 820, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 clarifies that fair value should be based on the assumptions market participants would use when pricing an asset or liability and establishes a fair value hierarchy that prioritizes the information used to develop those assumptions. The fair value hierarchy gives the highest priority to quoted prices available in active markets (i.e., observable inputs) and the lowest priority to data lacking transparency (i.e., unobservable inputs). Additionally, ASC 820 requires an entity to consider all aspects of nonperformance risk, including the entity's own credit standing, when measuring fair value of a liability.

ASC 820 establishes a three-level hierarchy to be used when measuring and disclosing fair value. An instrument's categorization within the fair value hierarchy is based on the lowest level of significant input to its valuation.

Following is a description of the three levels:

Level 1 Inputs are quoted prices in active markets for identical assets or liabilities as of the measurement date under current market conditions. Additionally, the entity must have the ability to access the active market and the quoted prices cannot be adjusted by the entity.





Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

Level 2	Inputs include quoted prices in active markets for similar assets or liabilities; quoted prices in inactive markets for identical or similar assets or liabilities; or inputs that are observable or can be corroborated by observable market data by correlation or other means for substantially the full-term of the assets or liabilities.
Level 3	Unobservable inputs are supported by little or no market activity. The unobservable inputs represent the assumptions that market participants would use to price the assets and liabilities, including risk. Generally, Level 3 assets and liabilities are valued using pricing models, discounted cash flow methodologies, or similar techniques that require significant judgment or estimation.

Following are descriptions of the valuation methodologies used to measure material assets and liabilities at fair value and details of the valuation models, key inputs to those models and significant assumptions utilized.

**Available-for-sale securities.** The Company holds a portfolio of AFS securities that are carried at fair value in the condensed consolidated balance sheets and primarily comprised of Agency and non-Agency RMBS. The Company determines the fair value of its Agency RMBS based upon prices obtained from third-party pricing providers or broker quotes received using bid price, which are deemed indicative of market activity. The third-party pricing providers and brokers use pricing models that generally incorporate such factors as coupons, primary and secondary mortgage rates, rate reset period, issuer, prepayment speeds, credit enhancements and expected life of the security. In determining the fair value of its non-Agency RMBS, management judgment may be used to arrive at fair value that considers prices obtained from third-party pricing providers, broker quotes received and other applicable market data. If observable market prices are not available or insufficient to determine fair value due principally to illiquidity in the marketplace, then fair value is based upon internally developed models that are primarily based on observable market-based inputs but also include unobservable market data inputs (including prepayment speeds, delinquency levels, and credit losses). The Company classified 100% of its RMBS AFS securities reported at fair value as Level 2 at September 30, 2016. AFS securities account for 74.1% of all assets reported at fair value at September 30, 2016.

**Residential mortgage loans held-for-sale.** The Company holds residential mortgage loans held-for-sale that are carried at fair value in the condensed consolidated balance sheets as a result of a fair value option election. The Company determines fair value of its residential mortgage loans based on prices obtained from third-party pricing providers and other applicable market data. If observable market prices are not available or insufficient to determine fair value due principally to illiquidity in the marketplace, then fair value is based upon cash flow models that are primarily based on observable market-based inputs but also include unobservable market data inputs (including prepayment speeds, delinquency levels and credit losses). The Company classified 90.7% and 9.3% of its residential mortgage loans held-for-sale as Level 2 and Level 3 fair value assets, respectively, at September 30, 2016.

**Residential mortgage loans held-for-investment in securitization trusts.** The Company recognizes on its condensed consolidated balance sheets residential mortgage loans held-for-investment in securitization trusts that are carried at fair value as a result of a fair value option election. An entity is allowed to measure both the financial assets and financial liabilities of a qualifying CFE it consolidates using the fair value of either the CFE's financial assets or financial liabilities, whichever is more observable. As the Company's securitization trusts are considered qualifying CFEs, the Company determines the fair value of these residential mortgage loans based on the fair value of its collateralized borrowings in securitization trusts and its retained interests from the Company's on-balance sheet securitizations (eliminated in consolidation in accordance with U.S. GAAP), as the fair value of these instruments is more observable. The Company classified 100% of its residential mortgage loans held-for-investment in securitization trusts as Level 2 fair value assets at September 30, 2016.

**Mortgage servicing rights.** The Company holds a portfolio of MSR that are carried at fair value on the condensed consolidated balance sheets. The Company determines fair value of its MSR based on prices obtained from third-party pricing providers. Although MSR transactions are observable in the marketplace, the valuation is based upon cash flow models that include unobservable market data inputs (including prepayment speeds, delinquency levels and discount rates). As a result, the Company classified 100% of its MSR as Level 3 fair value assets at September 30,

2016.

Derivative instruments. The Company may enter into a variety of derivative financial instruments as part of its hedging strategies. The Company principally executes over-the-counter, or OTC, derivative contracts, such as interest rate swaps, swaptions, put and call options for TBAs and U.S. Treasuries, credit default swaps, constant maturity swaps and Markit IOS total return swaps. The Company utilizes third-party pricing providers to value its financial derivative instruments. The Company classified 100% of the interest rate swaps, swaptions, put and call options for TBAs and U.S. Treasuries, credit default swaps, constant maturity swaps and total returns swaps reported at fair value as Level 2 at September 30, 2016.

34

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Table of Contents

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The Company may also enter into certain other derivative financial instruments, such as TBAs, short U.S. Treasuries and inverse interest-only securities. These instruments are similar in form to the Company's AFS securities and the Company utilizes a pricing service to value TBAs and broker quotes to value short U.S. Treasuries and inverse interest-only securities. The Company classified 100% of its inverse interest-only securities at fair value as Level 2 at September 30, 2016. The Company reported 100% of its TBAs as Level 1 as of September 30, 2016. The Company did not hold any short U.S. Treasuries at September 30, 2016.

The Company may also enter into forward purchase commitments on residential mortgage loans whereby the Company commits to purchasing the loans at a particular interest rate. The fair value of these derivatives is determined based on prices currently offered in the marketplace for new commitments. Fallout assumptions if the borrower elects not to close the loan are applied to the pricing. As of September 30, 2016, the Company had outstanding commitments to purchase \$61.4 million of mortgage loans, subject to fallout if the loans do not close, with a fair value asset of \$310,294 and a fair value liability of \$40,111. The Company classified 100% of the forward purchase commitments reported at fair value as Level 2 at September 30, 2016.

The Company's risk management committee governs trading activity relating to derivative instruments. The Company's policy is to minimize credit exposure related to financial derivatives used for hedging by limiting the hedge counterparties to major banks, financial institutions, exchanges, and private investors who meet established capital and credit guidelines as well as by limiting the amount of exposure to any individual counterparty.

The Company has netting arrangements in place with all derivative counterparties pursuant to standard documentation developed by ISDA, or central clearing exchange agreements, in the case of centrally cleared interest rate swaps. Additionally, both the Company and the counterparty or clearing agency are required to post cash collateral based upon the net underlying market value of the Company's open positions with the counterparty. Posting of cash collateral typically occurs daily, subject to certain dollar thresholds. Due to the existence of netting arrangements, as well as frequent cash collateral posting at low posting thresholds, credit exposure to the Company and/or to the counterparty or clearing agency is considered materially mitigated. Based on the Company's assessment, there is no requirement for any additional adjustment to derivative valuations specifically for credit.

Collateralized borrowings in securitization trusts. The Company recognizes on its condensed consolidated balance sheets collateralized borrowings that are carried at fair value as a result of a fair value option election. In determining the fair value of its collateralized borrowings, management judgment may be used to arrive at fair value that considers prices obtained from third-party pricing providers, broker quotes received and other applicable market data. If observable market prices are not available or insufficient to determine fair value due principally to illiquidity in the marketplace, then fair value is based upon internally developed models that are primarily based on observable market-based inputs but also include unobservable market data inputs (including prepayment speeds, delinquency levels, and credit losses). The Company classified 100% of its collateralized borrowings in securitization trusts as Level 2 fair value liabilities at September 30, 2016.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following tables display the Company's assets and liabilities measured at fair value on a recurring basis. The Company often economically hedges the fair value change of its assets or liabilities with derivatives and other financial instruments. The tables below display the hedges separately from the hedged items, and therefore do not directly display the impact of the Company's risk management activities.

(in thousands)	Recurring Fair Value Measurements At September 30, 2016			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Available-for-sale securities	\$—	\$14,284,625	\$—	\$14,284,625
Residential mortgage loans held-for-sale	—	655,751	67,423	723,174
Residential mortgage loans held-for-investment in securitization trusts	—	3,620,037	—	3,620,037
Mortgage servicing rights	—	—	455,629	455,629
Derivative assets	17,527	181,486	—	199,013
<b>Total assets</b>	<b>\$17,527</b>	<b>\$18,741,899</b>	<b>\$523,052</b>	<b>\$19,282,478</b>
<b>Liabilities</b>				
Collateralized borrowings in securitization trusts	\$—	\$3,375,906	\$—	\$3,375,906
Derivative liabilities	4,340	35,578	—	39,918
<b>Total liabilities</b>	<b>\$4,340</b>	<b>\$3,411,484</b>	<b>\$—</b>	<b>\$3,415,824</b>
(in thousands)	Recurring Fair Value Measurements At December 31, 2015			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Available-for-sale securities	\$—	\$7,825,320	\$—	\$7,825,320
Residential mortgage loans held-for-sale	—	764,319	47,112	811,431
Residential mortgage loans held-for-investment in securitization trusts	—	3,173,727	—	3,173,727
Mortgage servicing rights	—	—	493,688	493,688
Derivative assets	1,074	270,435	—	271,509
<b>Total assets</b>	<b>\$1,074</b>	<b>\$12,033,801</b>	<b>\$540,800</b>	<b>\$12,575,675</b>
<b>Liabilities</b>				
Collateralized borrowings in securitization trusts	\$—	\$2,000,110	\$—	\$2,000,110
Derivative liabilities	1,324	5,961	—	7,285
<b>Total liabilities</b>	<b>\$1,324</b>	<b>\$2,006,071</b>	<b>\$—</b>	<b>\$2,007,395</b>

The Company may be required to measure certain assets or liabilities at fair value from time to time. These periodic fair value measures typically result from application of certain impairment measures under U.S. GAAP. These items would constitute nonrecurring fair value measures under ASC 820. As of September 30, 2016, the Company did not have any assets or liabilities measured at fair value on a nonrecurring basis in the periods presented.

Table of Contents

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The valuation of Level 3 instruments requires significant judgment by the third-party pricing providers and/or management. The third-party pricing providers and/or management rely on inputs such as market price quotations from market makers (either market or indicative levels), original transaction price, recent transactions in the same or similar instruments, and changes in financial ratios or cash flows to determine fair value. Level 3 instruments may also be discounted to reflect illiquidity and/or non-transferability, with the amount of such discount estimated by the third-party pricing provider in the absence of market information. Assumptions used by the third-party pricing provider due to lack of observable inputs may significantly impact the resulting fair value and therefore the Company's condensed consolidated financial statements. The Company's valuation committee reviews all valuations that are based on pricing information received from a third-party pricing provider. As part of this review, prices are compared against other pricing or input data points in the marketplace, along with internal valuation expertise, to ensure the pricing is reasonable. In addition, the Company performs back-testing of pricing information to validate price information and identify any pricing trends of a third-party price provider.

In determining fair value, third-party pricing providers use various valuation approaches, including market and income approaches. Inputs that are used in determining fair value of an instrument may include pricing information, credit data, volatility statistics, and other factors. In addition, inputs can be either observable or unobservable. The availability of observable inputs can vary by instrument and is affected by a wide variety of factors, including the type of instrument, whether the instrument is new and not yet established in the marketplace and other characteristics particular to the instrument. The third-party pricing provider uses prices and inputs that are current as of the measurement date, including during periods of market dislocations. In periods of market dislocation, the availability of prices and inputs may be reduced for many instruments. This condition could cause an instrument to be reclassified to or from various levels within the fair value hierarchy.

Securities for which market quotations are readily available are valued at the bid price (in the case of long positions) or the ask price (in the case of short positions) at the close of trading on the date as of which value is determined. Exchange-traded securities for which no bid or ask price is available are valued at the last traded price. OTC derivative contracts, including interest rate swaps and swaption agreements, put and call options for TBAs and U.S. Treasuries, constant maturity swaps, credit default swaps and Markit IOS total return swaps, are valued by the Company using observable inputs, specifically quotations received from third-party pricing providers, and are therefore classified within Level 2.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table presents the reconciliation for all of the Company's Level 3 assets measured at fair value on a recurring basis:

	Level 3 Recurring Fair Value Measurements			
	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2016	
(in thousands)	Residential Mortgage Loans Held-For-Sale	Mortgage Servicing Rights	Residential Mortgage Loans Held-For-Sale	Mortgage Servicing Rights
Beginning of period level 3 fair value	\$66,369	\$427,813	\$47,112	\$493,688
Gains (losses) included in net income (loss):				
Realized gains (losses)	(725 )	(37,297 )	3,615	(71,839 )
Unrealized gains (losses)	(309 ) <sup>(1)</sup>	3,846 <sup>(3)</sup>	(313 ) <sup>(1)</sup>	(139,587 ) <sup>(3)</sup>
Total gains (losses) included in net income (loss)	(1,034 )	(33,451 )	3,302	(211,426 )
Other comprehensive income (loss)	—	—	—	—
Purchases	56,121	98,466	181,679	205,199
Sales	(26,954 )	(41,844 )	(82,204 )	(41,844 )
Settlements	(27,079 )	4,645	(82,466 )	10,012
Gross transfers into level 3	—	—	—	—
Gross transfers out of level 3	—	—	—	—
End of period level 3 fair value	\$67,423	\$455,629	\$67,423	\$455,629
Change in unrealized gains or losses for the period included in earnings for assets held at the end of the reporting period	\$68 <sup>(2)</sup>	\$(7,254 ) <sup>(4)</sup>	\$180 <sup>(2)</sup>	\$(150,687 ) <sup>(4)</sup>

(1) The change in unrealized gains or losses on residential mortgage loans held-for-sale was recorded in (loss) gain on residential mortgage loans held-for-sale on the condensed consolidated statements of comprehensive income (loss).

(2) The change in unrealized gains or losses on residential mortgage loans held-for-sale that were held at the end of the reporting period was recorded in (loss) gain on residential mortgage loans held-for-sale on the condensed consolidated statements of comprehensive income (loss).

(3) The change in unrealized gains or losses on MSR was recorded in loss on servicing asset on the condensed consolidated statements of comprehensive income (loss).

(4) The change in unrealized gains or losses on MSR that were held at the end of the reporting period was recorded in loss on servicing asset on the condensed consolidated statements of comprehensive income (loss).

The Company did not incur transfers between Level 1, Level 2 or Level 3 during the nine months ended September 30, 2016. Transfers between Levels are deemed to take place on the first day of the reporting period in which the transfer has taken place.

The Company used a third-party pricing provider in the fair value measurement of its Level 3 residential mortgage loans held-for-sale. The significant unobservable inputs used by the third-party pricing provider included expected default, severity and discount rate. Significant increases (decreases) in any of the inputs in isolation may result in significantly lower (higher) fair value measurement.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The Company also used a third-party pricing provider in the fair value measurement of its Level 3 MSR. The table below presents information about the significant unobservable inputs used by the third-party pricing provider in the fair value measurement of the Company's MSR classified as Level 3 fair value assets at September 30, 2016:

As of September 30, 2016

Valuation Technique	Unobservable Input <sup>(1)</sup>	Range	Weighted Average
Discounted cash flow	Constant prepayment speed	13.6-18.5 %	15.8%
	Delinquency	2.0 -2.2 %	2.1%
	Discount rate	8.2 -9.8 %	9.0%

(1) Significant increases (decreases) in any of the inputs in isolation may result in significantly lower (higher) fair value measurement. A change in the assumption used for discount rates may be accompanied by a directionally similar change in the assumption used for the probability of delinquency and a directionally opposite change in the assumption used for prepayment rates.

## Fair Value Option for Financial Assets and Financial Liabilities

On July 1, 2015, the Company elected the fair value option for Agency interest-only securities and GSE credit risk transfer securities acquired on or after such date. The fair value option was elected to simplify the reporting of changes in fair value. Agency interest-only securities and GSE credit risk transfer securities are carried within AFS securities on the condensed consolidated balance sheets. The Company's policy is to separately record interest income, net of premium amortization or including discount accretion, on these fair value elected securities. Fair value adjustments are reported in gain on investment securities on the condensed consolidated statements of comprehensive income (loss).

The Company elected the fair value option for the residential mortgage loans it has acquired. The fair value option was elected to mitigate earnings volatility by better matching the accounting for the assets with the related hedges. The mortgage loans are carried within residential mortgage loans held-for-sale on the condensed consolidated balance sheets. The Company's policy is to separately record interest income on these fair value elected loans. Upfront fees and costs related to the fair value elected loans are not deferred or capitalized. Fair value adjustments are reported in (loss) gain on residential mortgage loans held-for-sale on the condensed consolidated statements of comprehensive income (loss). The fair value option is irrevocable once the loan is acquired.

The Company also elected the fair value option for both the residential mortgage loans held-for-investment in securitization trusts and the collateralized borrowings in securitization trusts carried on the condensed consolidated balance sheets. The fair value option was elected to better reflect the economics of the Company's retained interests. The Company's policy is to separately record interest income on the fair value elected loans and interest expense on the fair value elected borrowings. Upfront fees and costs are not deferred or capitalized. Fair value adjustments are reported in other income (loss) on the condensed consolidated statements of comprehensive income (loss).



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following tables summarize the fair value option elections and information regarding the line items and amounts recognized in the condensed consolidated statements of comprehensive income (loss) for each fair value option-elected item.

(in thousands)	Three Months Ended September 30, 2016					Total included in net income (loss)	Change in fair value due to credit risk
	Interest income (expense)	Gain on investment securities	(Loss) gain on residential mortgage loans held-for-sale	Other income (loss)			
<b>Assets</b>							
Available-for-sale securities	\$ (249 )	\$ 12	\$ —	\$ —	\$ (237 )	N/A	
Residential mortgage loans held-for-sale	7,627 <sup>(1)</sup>	—	(419 )	—	7,208	\$ 145 <sup>(2)</sup>	
Residential mortgage loans held-for-investment in securitization trusts	33,495 <sup>(1)</sup>	—	—	24,628	58,123	— <sup>(3)</sup>	
<b>Liabilities</b>							
Collateralized borrowings in securitization trusts	(26,422 )	—	—	(20,360)	(46,782 )	— <sup>(3)</sup>	
<b>Total</b>	<b>\$ 14,451</b>	<b>\$ 12</b>	<b>\$ (419 )</b>	<b>\$ 4,268</b>	<b>\$ 18,312</b>	<b>\$ 145</b>	

(in thousands)	Three Months Ended September 30, 2015					Total included in net income (loss)	Change in fair value due to credit risk
	Interest income (expense)	Gain on investment securities	(Loss) gain on residential mortgage loans held-for-sale	Other income (loss)			
<b>Assets</b>							
Available-for-sale securities	\$ 89	\$ (47 )	\$ —	\$ —	\$ 42	N/A	
Residential mortgage loans held-for-sale	9,479 <sup>(1)</sup>	—	12,814	—	22,293	\$ 721 <sup>(2)</sup>	
Residential mortgage loans held-for-investment in securitization trusts	24,841 <sup>(1)</sup>	—	—	16,006	40,847	— <sup>(3)</sup>	
<b>Liabilities</b>							
Collateralized borrowings in securitization trusts	(15,562 )	—	—	(14,922)	(30,484 )	— <sup>(3)</sup>	
<b>Total</b>	<b>\$ 18,847</b>	<b>\$ (47 )</b>	<b>\$ 12,814</b>	<b>\$ 1,084</b>	<b>\$ 32,698</b>	<b>\$ 721</b>	

Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

(in thousands)	Nine Months Ended September 30, 2016					Total included in net income (loss)	Change in fair value due to credit risk
	Interest income (expense)	Gain on investment securities	(Loss) gain on residential mortgage loans held-for-sale	Other income (loss)			
<b>Assets</b>							
Available-for-sale securities	\$(132 )	\$ (1,262 )	\$ —	\$—	\$(1,394 )	N/A	
Residential mortgage loans held-for-sale	19,789 <sup>(1)</sup>	—	17,028	—	36,817	\$209 <sup>(2)</sup>	
Residential mortgage loans held-for-investment in securitization trusts	100,765 <sup>(1)</sup>	—	—	63,737	164,502	— <sup>(3)</sup>	
<b>Liabilities</b>							
Collateralized borrowings in securitization trusts	(70,965 )	—	—	(68,910 )	(139,875)	— <sup>(3)</sup>	
<b>Total</b>	<b>\$49,457</b>	<b>\$ (1,262 )</b>	<b>\$ 17,028</b>	<b>\$(5,173)</b>	<b>\$60,050</b>	<b>\$209</b>	
(in thousands)	Nine Months Ended September 30, 2015					Total included in net income (loss)	Change in fair value due to credit risk
	Interest income (expense)	Gain on investment securities	(Loss) gain on residential mortgage loans held-for-sale	Other income (loss)			
<b>Assets</b>							
Available-for-sale securities	\$89	\$ (47 )	\$ —	\$—	\$42	N/A	
Residential mortgage loans held-for-sale	21,268 <sup>(1)</sup>	—	18,861	—	40,129	\$751 <sup>(2)</sup>	
Residential mortgage loans held-for-investment in securitization trusts	64,908 <sup>(1)</sup>	—	—	(33,088 )	31,820	— <sup>(3)</sup>	
<b>Liabilities</b>							
Collateralized borrowings in securitization trusts	(39,401 )	—	—	13,647	(25,754 )	— <sup>(3)</sup>	
<b>Total</b>	<b>\$46,864</b>	<b>\$ (47 )</b>	<b>\$ 18,861</b>	<b>\$(19,441)</b>	<b>\$46,237</b>	<b>\$751</b>	

Interest income on residential mortgage loans held-for-sale and residential mortgage loans held-for-investment in (1) securitization trusts is measured by multiplying the unpaid principal balance on the loans by the coupon rate and the number of days of interest due.

(2) The change in fair value due to credit risk on residential mortgage loans held-for-sale was quantified by holding yield constant in the cash flow model in order to isolate credit risk component.

(3) The change in fair value on residential mortgage loans held-for-investment in securitization trusts and collateralized borrowings in securitization trusts was due entirely to changes in market interest rates.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The table below provides the fair value and the unpaid principal balance for the Company's fair value option-elected loans and collateralized borrowings.

(in thousands)	September 30, 2016		December 31, 2015	
	Unpaid Principal Balance	Fair Value <sup>(1)</sup>	Unpaid Principal Balance	Fair Value <sup>(1)</sup>
Residential mortgage loans held-for-sale				
Total loans	\$720,609	\$723,174	\$812,661	\$811,431
Nonaccrual loans	\$51,156	\$45,843	\$30,438	\$25,771
Loans 90+ days past due	\$45,759	\$40,936	\$26,702	\$22,470
Residential mortgage loans held-for-investment in securitization trusts				
Total loans	\$3,499,285	\$3,620,037	\$3,143,515	\$3,173,727
Nonaccrual loans	\$860	\$887	\$860	\$868
Loans 90+ days past due	\$860	\$887	\$860	\$868
Collateralized borrowings in securitization trusts				
Total borrowings	\$3,277,103	\$3,375,906	\$1,987,628	\$2,000,110

(1) Excludes accrued interest receivable.

## Fair Value of Financial Instruments

In accordance with ASC 820, the Company is required to disclose the fair value of financial instruments, both assets and liabilities recognized and not recognized in the condensed consolidated balance sheets, for which fair value can be estimated.

The following describes the Company's methods for estimating the fair value for financial instruments. Descriptions are not provided for those items that have zero balances as of the current balance sheet date.

AFS securities, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment in securitization trusts, MSR, derivative assets and liabilities, and collateralized borrowings in securitization trusts are recurring fair value measurements; carrying value equals fair value. See discussion of valuation methods and assumptions within the Fair Value Measurements section of this Note 14.

Commercial real estate assets are carried at cost, net of any unamortized acquisition premiums or discounts, loan fees and origination costs as applicable, unless deemed impaired. The Company estimates the fair value of its commercial real estate assets by assessing any changes in market interest rates, shifts in credit profiles and actual operating results for mezzanine commercial real estate loans and commercial real estate first mortgages, taking into consideration such factors as underlying property type, property competitive position within its market, market and submarket fundamentals, tenant mix, nature of business plan, sponsorship, extent of leverage and other loan terms. The Company categorizes the fair value measurement of these assets as Level 3.

Cash and cash equivalents and restricted cash have a carrying value which approximates fair value because of the short maturities of these instruments. The Company categorizes the fair value measurement of these assets as Level 1. As a condition to membership in the FHLB, the Company is required to purchase and hold a certain amount of FHLB stock, which is considered a non-marketable, long-term investment, and is carried at cost. Because this stock can only be redeemed or sold at its par value, and only to the FHLB, carrying value, or cost, approximates fair value. The Company categorizes the fair value measurement of these assets as Level 3.

Equity investments include cost method investments for which fair value is not estimated. Carrying value, or cost, approximates fair value. The Company categorizes the fair value measurement of these assets as Level 3.



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The carrying value of repurchase agreements, FHLB advances and revolving credit facilities that mature in less than one year generally approximates fair value due to the short maturities. As of September 30, 2016, the Company held \$222.6 million of repurchase agreements and \$3.3 billion of FHLB advances that are considered long-term. The Company's long-term repurchase agreements and FHLB advances have floating rates based on an index plus a spread and, for members of the FHLB, the credit spread is typically consistent with those demanded in the market.

Accordingly, the interest rates on these borrowings are at market and thus carrying value approximates fair value. The Company categorizes the fair value measurement of these liabilities as Level 2.

The following table presents the carrying values and estimated fair values of assets and liabilities that are required to be recorded or disclosed at fair value at September 30, 2016 and December 31, 2015.

(in thousands)	September 30, 2016		December 31, 2015	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<b>Assets</b>				
Available-for-sale securities	\$ 14,284,625	\$ 14,284,625	\$ 7,825,320	\$ 7,825,320
Residential mortgage loans held-for-sale	\$ 723,174	\$ 723,174	\$ 811,431	\$ 811,431
Residential mortgage loans held-for-investment in securitization trusts	\$ 3,620,037	\$ 3,620,037	\$ 3,173,727	\$ 3,173,727
Commercial real estate assets	\$ 1,114,548	\$ 1,113,756	\$ 660,953	\$ 660,953
Mortgage servicing rights	\$ 455,629	\$ 455,629	\$ 493,688	\$ 493,688
Cash and cash equivalents	\$ 688,418	\$ 688,418	\$ 737,831	\$ 737,831
Restricted cash	\$ 264,872	\$ 264,872	\$ 262,562	\$ 262,562
Derivative assets	\$ 199,013	\$ 199,013	\$ 271,509	\$ 271,509
Federal Home Loan Bank stock	\$ 167,856	\$ 167,856	\$ 156,650	\$ 156,650
Equity investments	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
<b>Liabilities</b>				
Repurchase agreements	\$ 10,637,373	\$ 10,637,373	\$ 5,008,274	\$ 5,008,274
Collateralized borrowings in securitization trusts	\$ 3,375,906	\$ 3,375,906	\$ 2,000,110	\$ 2,000,110
Federal Home Loan Bank advances	\$ 4,000,000	\$ 4,000,000	\$ 3,785,000	\$ 3,785,000
Revolving credit facilities	\$ 30,000	\$ 30,000	\$ —	\$ —
Derivative liabilities	\$ 39,918	\$ 39,918	\$ 7,285	\$ 7,285

## Note 15. Repurchase Agreements

As of September 30, 2016 and December 31, 2015, the Company had outstanding \$10.6 billion and \$5.0 billion, respectively, of repurchase agreements. Excluding the effect of the Company's interest rate swaps, the repurchase agreements had a weighted average borrowing rate of 1.06% and 1.10% and weighted average remaining maturities of 69 and 35 days as of September 30, 2016 and December 31, 2015, respectively.

At September 30, 2016 and December 31, 2015, the repurchase agreement balances were as follows:

(in thousands)	September 30, 2016	December 31, 2015
Short-term	\$ 10,414,745	\$ 5,008,274
Long-term	222,628	—
Total	\$ 10,637,373	\$ 5,008,274

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

At September 30, 2016 and December 31, 2015, the repurchase agreements had the following characteristics and remaining maturities:

(in thousands)	September 30, 2016						Total Amount Outstanding
	Collateral Type						
	Agency RMBS	Non-Agency RMBS <sup>(1)</sup>	Agency Derivatives	Residential Mortgage Loans Held-for-Sale	Commercial Real Estate Assets		
Within 30 days	\$3,341,276	\$588,934	\$15,385	\$ —	\$21,933		\$3,967,528
30 to 59 days	2,595,970	207,856	65,018	—	27,820		2,896,664
60 to 89 days	1,185,026	—	—	—	—		1,185,026
90 to 119 days	622,725	373,474	16,373	—	—		1,012,572
120 to 364 days	1,116,541	218,431	17,983	—	—		1,352,955
One year and over	—	—	—	—	222,628		222,628
Total	\$8,861,538	\$1,388,695	\$114,759	\$ —	\$272,381		\$10,637,373
Weighted average borrowing rate	0.79	% 2.41	% 1.60	% —	% 2.93	% 1.06	%
(in thousands)	December 31, 2015						Total Amount Outstanding
	Collateral Type						
	Agency RMBS	Non-Agency RMBS <sup>(1)</sup>	Agency Derivatives	Residential Mortgage Loans Held-for-Sale	Commercial Real Estate Assets		
Within 30 days	\$1,719,292	\$852,436	\$58,286	\$ —	\$59,349		\$2,689,363
30 to 59 days	1,407,353	271,819	60,065	—	—		1,739,237
60 to 89 days	143,051	15,691	2,707	—	—		161,449
90 to 119 days	68,014	106,007	1,465	—	—		175,486
120 to 364 days	—	234,229	—	8,510	—		242,739
Total	\$3,337,710	\$1,480,182	\$122,523	\$ 8,510	\$59,349		\$5,008,274
Weighted average borrowing rate	0.65	% 2.03	% 1.18	% 2.87	% 2.62	% 1.10	%

(1) Includes repurchase agreements collateralized by retained interests from the Company's on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table summarizes assets at carrying values that are pledged or restricted as collateral for the future payment obligations of repurchase agreements:

(in thousands)	September 30, 2016	December 31, 2015
Available-for-sale securities, at fair value	\$ 11,115,563	\$ 5,354,104
Residential mortgage loans held-for-sale, at fair value	—	9,543
Commercial real estate assets	399,594	108,958
Net economic interests in consolidated securitization trusts <sup>(1)</sup>	218,971	274,949
Cash and cash equivalents	12,094	15,000
Restricted cash	95,223	119,310
Due from counterparties	29,477	10,211
Derivative assets, at fair value	140,868	157,879
Total	\$ 12,011,790	\$ 6,049,954

- (1) Includes the retained interests from the Company's on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.

Although the transactions under repurchase agreements represent committed borrowings until maturity, the respective lender retains the right to mark the underlying collateral to fair value. A reduction in the value of pledged assets would require the Company to provide additional collateral or fund margin calls.

The following table summarizes certain characteristics of the Company's repurchase agreements and counterparty concentration at September 30, 2016 and December 31, 2015:

(dollars in thousands)	September 30, 2016				December 31, 2015			
	Amount Outstanding	Net Counterparty Exposure <sup>(1)</sup>	Percent of Equity	Weighted Average Days to Maturity	Amount Outstanding	Net Counterparty Exposure <sup>(1)</sup>	Percent of Equity	Weighted Average Days to Maturity
Royal Bank of Canada	\$ 1,202,327	\$ 260,862	7 %	76.4	\$ 799,527	\$ 217,677	6 %	31.5
All other counterparties <sup>(2)</sup>	9,435,046	1,115,813	32 %	68.1	4,208,747	818,108	23 %	36.2
Total	\$ 10,637,373	\$ 1,376,675			\$ 5,008,274	\$ 1,035,785		

- (1) Represents the net carrying value of the securities, residential mortgage loans held-for-sale and commercial real estate assets sold under agreements to repurchase, including accrued interest plus any cash or assets on deposit to secure the repurchase obligation, less the amount of the repurchase liability, including accrued interest. However, at both September 30, 2016 and December 31, 2015, the Company did not have any such payables.

- (2) Represents amounts outstanding with 21 and 20 counterparties at September 30, 2016 and December 31, 2015, respectively.

The Company does not anticipate any defaults by its repurchase agreement counterparties. There can be no assurance, however, that any such default or defaults will not occur.

## Note 16. Collateralized Borrowings in Securitization Trusts, at Fair Value

The Company purchases subordinated debt and excess servicing rights from securitization trusts sponsored by either third parties or the Company's subsidiaries. The debt associated with the underlying residential mortgage loans held by the trusts, which are consolidated on the Company's condensed consolidated balance sheets, is classified as collateralized borrowings in securitization trusts and carried at fair value as a result of a fair value option election. See

Note 3 - Variable Interest Entities for additional information regarding consolidation of the securitization trusts. As of September 30, 2016 and December 31, 2015, collateralized borrowings in securitization trusts had a carrying value of \$3.4 billion and \$2.0 billion with a weighted average interest rate of 3.4% and 3.6%, respectively. The stated maturity dates for all collateralized borrowings were more than five years from both September 30, 2016 and December 31, 2015.



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 17. Federal Home Loan Bank of Des Moines Advances

The Company's wholly owned subsidiary, TH Insurance Holdings Company LLC, or TH Insurance, is a member of the FHLB. As a member of the FHLB, TH Insurance has access to a variety of products and services offered by the FHLB, including secured advances. As of September 30, 2016 and December 31, 2015, TH Insurance had \$4.0 billion and \$3.8 billion in outstanding secured advances with a weighted average borrowing rate of 0.67% and 0.58%, respectively, and had no additional uncommitted capacity to borrow as of September 30, 2016. As of December 31, 2015, TH Insurance had an additional \$215.0 million of available uncommitted capacity for borrowings. To the extent TH Insurance has uncommitted capacity, it may be adjusted at the sole discretion of the FHLB.

The ability to borrow from the FHLB is subject to the Company's continued creditworthiness, pledging of sufficient eligible collateral to secure advances, and compliance with certain agreements with the FHLB. Each advance requires approval by the FHLB and is secured by collateral in accordance with the FHLB's credit and collateral guidelines, as may be revised from time to time by the FHLB. Eligible collateral may include conventional 1-4 family residential mortgage loans, commercial real estate loans, Agency RMBS and certain non-Agency RMBS with a rating of A and above.

On January 11, 2016, the Federal Housing Finance Agency, or FHFA, released a final rule regarding membership in the Federal Home Loan Bank system. Among other effects, the final rule excludes captive insurers from membership eligibility, including the Company's subsidiary member, TH Insurance. Since TH Insurance was admitted as a member in 2013, it is eligible for a five-year membership grace period, during which new advances or renewals that mature beyond the grace period will be prohibited; however, any existing advances that mature beyond this grace period will be permitted to remain in place subject to their terms insofar as the Company maintains good standing with the FHLB. If any new advances or renewals occur, TH Insurance's outstanding advances will be limited to 40% of its total assets. At September 30, 2016 and December 31, 2015, FHLB advances had the following remaining maturities:

(in thousands)	September 30, December 31,	
	2016	2015
≤ 1 year	\$ 651,238	\$ —
> 1 and ≤ 3 years	815,024	651,238
> 3 and ≤ 5 years	—	815,024
> 5 and ≤ 10 years	—	—
> 10 years	2,533,738	2,318,738
Total	\$ 4,000,000	\$ 3,785,000

The following table summarizes assets at carrying values that are pledged or restricted as collateral for the future payment obligations of FHLB advances:

(in thousands)	September 30, December 31,	
	2016	2015
Available-for-sale securities, at fair value	\$ 3,156,325	\$ 2,412,970
Residential mortgage loans held-for-sale, at fair value	632,698	735,911
Commercial real estate assets	597,603	252,172
Net economic interests in consolidated securitization trusts <sup>(1)</sup>	4,124	863,363
Total	\$ 4,390,750	\$ 4,264,416

(1) Includes the retained interests from the Company's on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.



Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

The FHLB retains the right to mark the underlying collateral for FHLB advances to fair value. A reduction in the value of pledged assets would require the Company to provide additional collateral. In addition, as a condition to membership in the FHLB, the Company is required to purchase and hold a certain amount of FHLB stock, which is based, in part, upon the outstanding principal balance of advances from the FHLB. At September 30, 2016 and December 31, 2015, the Company had stock in the FHLB totaling \$167.9 million and \$156.7 million, respectively, which is included in other assets on the condensed consolidated balance sheets. FHLB stock is considered a non-marketable, long-term investment, is carried at cost and is subject to recoverability testing under applicable accounting standards. This stock can only be redeemed or sold at its par value, and only to the FHLB. Accordingly, when evaluating FHLB stock for impairment, the Company considers the ultimate recoverability of the par value rather than recognizing temporary declines in value. As of September 30, 2016 and December 31, 2015, the Company had not recognized an impairment charge related to its FHLB stock.

## Note 18. Revolving Credit Facilities

To finance MSR, the Company enters into revolving credit facilities collateralized by the value of the MSR pledged. As of September 30, 2016, the Company had outstanding short-term borrowings under revolving credit facilities of \$30.0 million with a weighted average borrowing rate of 4.27% and remaining maturities of 336 days. The Company did not have any revolving credit facilities in place at December 31, 2015.

Although the transactions under revolving credit facilities represent committed borrowings until maturity, the respective lender retains the right to mark the underlying collateral to fair value. A reduction in the value of pledged assets below a designated threshold would require the Company to provide additional collateral or fund margin calls. As of September 30, 2016, MSR with a carrying value of \$73.5 million was pledged as collateral for the Company's future payment obligations under its revolving credit facilities. The Company does not anticipate any defaults by its revolving credit facility counterparties. There can be no assurance, however, that any such default or defaults will not occur.

## Note 19. Stockholders' Equity

## Distributions to Stockholders

The following table presents cash dividends declared by the Company on its common stock during the three months ended September 30, 2016, and the four immediately preceding quarters:

Declaration Date	Record Date	Payment Date	Cash Dividend Per Share
September 15, 2016	September 30, 2016	October 20, 2016	\$ 0.23
June 16, 2016	June 30, 2016	July 20, 2016	\$ 0.23
March 15, 2016	March 31, 2016	April 21, 2016	\$ 0.23
December 16, 2015	December 30, 2015	January 20, 2016	\$ 0.26
September 16, 2015	September 30, 2015	October 22, 2015	\$ 0.26

## Accumulated Other Comprehensive Income

Accumulated other comprehensive income at September 30, 2016 and December 31, 2015 was as follows:

(in thousands)	September 30, 2016	December 31, 2015
Available-for-sale securities		
Unrealized gains	\$ 551,343	\$ 405,177
Unrealized losses	(12,900 )	(46,116 )
Accumulated other comprehensive income	\$ 538,443	\$ 359,061



Table of Contents

## TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

## Reclassifications out of Accumulated Other Comprehensive Income

The following table summarizes reclassifications out of accumulated other comprehensive income for the three and nine months ended September 30, 2016 and 2015:

(in thousands)	Affected Line Item in the Condensed Consolidated Statements of Comprehensive Income (Loss)	Amount Reclassified out of Accumulated Other Comprehensive Income			
		Three Months Ended		Nine Months Ended	
		September 30, 2016	2015	September 30, 2016	2015
Other-than-temporary impairments on AFS securities	Total other-than-temporary impairment losses	\$1,015	\$238	\$1,822	\$535
Realized gains on sales of certain AFS securities, net of tax	Gain on investment securities	(30,396 )	(53,447 )	(54,652 )	(228,518 )
Total		\$(29,381)	\$(53,209)	\$(52,830)	\$(227,983)

## Dividend Reinvestment and Direct Stock Purchase Plan

The Company sponsors a dividend reinvestment and direct stock purchase plan through which stockholders may purchase additional shares of the Company's common stock by reinvesting some or all of the cash dividends received on shares of the Company's common stock. Stockholders may also make optional cash purchases of shares of the Company's common stock subject to certain limitations detailed in the plan prospectus. An aggregate of 7.5 million shares of the Company's common stock were originally reserved for issuance under the plan. As of September 30, 2016, 327,056 shares have been issued under the plan for total proceeds of approximately \$3.3 million, of which 14,621 and 43,764 shares were issued for total proceeds of \$0.1 million and \$0.4 million during the three and nine months ended September 30, 2016, respectively. During the three and nine months ended September 30, 2015, 17,904 and 54,088 shares were issued for total proceeds of \$0.2 million and \$0.6 million, respectively.

## Share Repurchase Program

As of December 31, 2015, the Company's share repurchase program allowed the Company to repurchase up to 25,000,000 shares of its common stock. During the nine months ended September 30, 2016, the Company's board of directors authorized an increase of 50,000,000 shares, for up to a total of 75,000,000 shares authorized under the program. Shares may be repurchased from time to time through privately negotiated transactions or open market transactions, pursuant to a trading plan in accordance with Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, or by any combination of such methods. The manner, price, number and timing of share repurchases are subject to a variety of factors, including market conditions and applicable SEC rules. The share repurchase program does not require the purchase of any minimum number of shares, and, subject to SEC rules, purchases may be commenced or suspended at any time without prior notice. The share repurchase program does not have an expiration date. As of September 30, 2016, a total of 24,135,000 shares had been repurchased by the Company under the program for an aggregate cost of \$200.4 million; of these, 8,020,000 shares were repurchased for a total cost of \$61.3 million during the nine months ended September 30, 2016. No shares were repurchased during the three months ended September 30, 2016. During the three and nine months ended September 30, 2015, 1,391,887 shares were repurchased for a total cost of \$12.5 million.

## At-the-Market Offering

On May 25, 2012, the Company entered into an equity distribution agreement under which the Company may sell up to an aggregate of 20,000,000 shares of its common stock from time to time in any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 under the Securities Act of 1933, as amended, or the Securities

Act. On May 22, 2015, the Company entered into an amendment to the equity distribution agreement providing that any subsequent offers or sales of the Company's common stock under the equity distribution agreement shall be made pursuant to a new prospectus supplement, which was filed on the same date. As of September 30, 2016, 7,585,869 shares of common stock have been sold under the equity distribution agreement for total accumulated net proceeds of approximately \$77.6 million; however, no shares were sold during the three and nine months ended September 30, 2016 and 2015.

Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

## Note 20. Equity Incentive Plan

On May 14, 2015, the Company's stockholders approved the Company's Second Restated 2009 Equity Incentive Plan, which replaced the previous Restated 2009 Equity Incentive Plan, both of which are referred to collectively as the Plan. This stockholder approval effectuated, among other changes, an increase in the number of shares of common stock available for issuance under the Plan by 10,000,000 shares, to a total of 13,000,000 shares.

During the nine months ended September 30, 2016 and 2015, the Company granted 81,739 and 55,229 shares of common stock, respectively, to its independent directors pursuant to the Plan. The estimated fair value of these awards was \$8.43 and \$10.41 per share on grant date, based on the closing price of the Company's common stock on the NYSE on such date. The grants vested immediately.

Additionally, during the nine months ended September 30, 2016 and 2015, the Company granted 1,937,522 and 1,115,574 shares of restricted common stock, respectively, to key employees of PRCM Advisers pursuant to the terms of the Plan and the associated award agreements. The estimated fair value of these awards was \$7.52 and \$10.49 per share on grant date, based on the closing market price of the Company's common stock on the NYSE on such date.

However, as the cost of these awards is measured at fair value at each reporting date based on the price of the Company's stock as of period end in accordance with ASC 505, Equity, or ASC 505, the fair value of these awards as of September 30, 2016 was \$8.53 per share based on the closing market price of the Company's common stock on the NYSE on such date. The shares underlying the grants vest in three equal annual installments commencing on the first anniversary of the grant date, as long as such grantee complies with the terms and conditions of his or her applicable restricted stock award agreement. During the nine months ended September 30, 2016, in connection with the restructuring described in Note 21 - Restructuring Charges, certain agreements were forfeited and re-granted with accelerated vesting terms, in accordance with ASC 718, Compensation - Stock Compensation.

The following table summarizes the activity related to restricted common stock for the nine months ended September 30, 2016 and 2015:

(in thousands)	Nine Months Ended September 30,			
	2016	Weighted Average Grant Date Fair Market Value	2015	Weighted Average Grant Date Fair Market Value
Outstanding at Beginning of Period	2,290,609	\$ 10.36	2,002,406	\$ 10.32
Granted	2,019,261	7.56	1,170,803	10.48
Vested	(1,209,116)	(10.10 )	(730,832 )	(10.45 )
Forfeited	(301,217 )	(8.50 )	(61,159 )	(10.17 )
Outstanding at End of Period	2,799,537	\$ 8.65	2,381,218	\$ 10.36

For the three and nine months ended September 30, 2016, the Company recognized compensation costs and restructuring charges related to restricted common stock of \$3.5 million and \$11.2 million, respectively. For the three and nine months ended September 30, 2015, the Company recognized compensation costs related to restricted common stock of \$1.7 million and \$7.4 million, respectively.

## Note 21. Restructuring Charges

On July 28, 2016, the Company announced that its board of directors had approved a plan to discontinue the Company's mortgage loan conduit and securitization business. The wind down process is expected to be substantially completed by the end of 2016.





Table of Contents

## TWO HARBORS INVESTMENT CORP.

## Notes to the Condensed Consolidated Financial Statements (unaudited)

In connection with the closure, the Company incurred the following charges, included within restructuring charges on the Company's condensed consolidated statements of comprehensive income (loss), for the three and nine months ended September 30, 2016:

(in thousands)	Three Months	Nine Months
	Ended September 30, 2016	Ended September 30, 2016
Termination benefits	\$ 652	\$ 652
Contract terminations	519	519
Other associated costs	18	18
Total	\$ 1,189	\$ 1,189

The Company expects to incur an estimated \$1.6 million in additional restructuring costs, which will be expensed in the period in which they occur. The additional expenses, which are expected to be substantially incurred by the end of 2016, relate to termination benefits and contract terminations.

## Note 22. Income Taxes

For the three and nine months ended September 30, 2016 and 2015, the Company qualified to be taxed as a REIT under the Code for U.S. federal income tax purposes. As long as the Company qualifies as a REIT, the Company generally will not be subject to U.S. federal income taxes on its taxable income to the extent it annually distributes its net taxable income to stockholders, and does not engage in prohibited transactions. The Company intends to distribute 100% of its REIT taxable income and comply with all requirements to continue to qualify as a REIT. The majority of states also recognize the Company's REIT status. The Company's TRSs file separate tax returns and are fully taxed as standalone U.S. C-corporations. It is assumed that the Company will retain its REIT status and will incur no REIT level taxation as it intends to comply with the REIT regulations and annual distribution requirements.

During the three and nine months ended September 30, 2016, the Company's TRSs recognized a benefit from income taxes of \$16.8 million and \$26.1 million, respectively, which was primarily due to losses incurred on MSR and derivative instruments held in the Company's TRSs. During the three and nine months ended September 30, 2015, the Company's TRSs recognized a benefit from income taxes of \$7.7 million and \$25.3 million, respectively, which was primarily due to losses incurred on MSR and derivative instruments held in the Company's TRSs.

Based on the Company's evaluation, it has been concluded that there are no significant uncertain tax positions requiring recognition in the Company's condensed consolidated financial statements of a contingent tax liability for uncertain tax positions.

## Note 23. Earnings Per Share

The following table presents a reconciliation of the earnings (loss) and shares used in calculating basic and diluted earnings (loss) per share for the three and nine months ended September 30, 2016 and 2015:

(in thousands, except share data)	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 30, 2015	September 30, 2016	September 30, 2015
Numerator:				
Net income (loss)	\$ 117,786	\$ (34,790 )	\$ 11,875	\$ 281,504
Denominator:				
Weighted average common shares outstanding	344,744,913	364,979,716	345,091,765	364,844,032
Weighted average restricted stock shares	2,882,309	2,386,257	3,126,462	2,141,699
Basic and diluted weighted average shares outstanding	347,627,222	367,365,973	348,218,227	366,985,731

Basic and Diluted Earnings (Loss) Per Share            \$0.34    \$ (0.09    ) \$0.03    \$ 0.77

50

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Table of Contents

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

Note 24. Related Party Transactions

The following summary provides disclosure of the material transactions with affiliates of the Company. In accordance with its Management Agreement with PRCM Advisers, the Company incurred \$11.4 million and \$35.3 million as a management fee to PRCM Advisers for the three and nine months ended September 30, 2016, respectively, and \$12.6 million and \$38.0 million as a management fee to PRCM Advisers for the three and nine months ended September 30, 2015, respectively, which represents approximately 1.5% of stockholders' equity on an annualized basis as defined by the Management Agreement. For purposes of calculating the management fee, stockholders' equity is adjusted to exclude any common stock repurchases as well as any unrealized gains, losses or other items that do not affect realized net income (loss), among other adjustments, in accordance with the Management Agreement. In addition, the Company reimbursed PRCM Advisers for direct and allocated costs incurred by PRCM Advisers on behalf of the Company. These direct and allocated costs totaled approximately \$6.3 million and \$19.1 million for the three and nine months ended September 30, 2016, respectively, and \$5.9 million and \$16.0 million for the three and nine months ended September 30, 2015, respectively.

The Company has direct relationships with the majority of its third-party vendors. The Company will continue to have certain costs allocated to it by PRCM Advisers for compensation, data services, proprietary technology and certain office lease payments, but most direct expenses with third-party vendors are paid directly by the Company.

The Company recognized \$3.5 million and \$11.2 million of compensation expense and restructuring charges during the three and nine months ended September 30, 2016, respectively, and \$1.7 million and \$7.4 million of compensation expense during the three and nine months ended September 30, 2015, respectively, related to restricted common stock issued to employees of PRCM Advisers and the Company's independent directors pursuant to the Plan. See Note 20 - Equity Incentive Plan for additional information.

Note 25. Subsequent Events

Events subsequent to September 30, 2016, were evaluated through the date these financial statements were issued and no additional events were identified requiring further disclosure in these condensed consolidated financial statements.

Table of Contents

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

The following discussion and analysis should be read in conjunction with our unaudited condensed consolidated financial statements and accompanying notes included elsewhere in this Quarterly Report on Form 10-Q as well as our Annual Report on Form 10-K for the year ended December 31, 2015.

General

We are a Maryland corporation focused on investing in, financing and managing residential mortgage-backed securities, or RMBS, residential mortgage loans, mortgage servicing rights, or MSR, commercial real estate and other financial assets, which we collectively refer to as our target assets. We operate as a real estate investment trust, or REIT, as defined under the Internal Revenue Code of 1986, as amended, or the Code.

We are externally managed by PRCM Advisers LLC, or PRCM Advisers, which is a wholly owned subsidiary of Pine River Capital Management L.P., or Pine River, a global multi-strategy asset management firm providing comprehensive portfolio management, transparency and liquidity to institutional and high net worth investors.

Our objective is to provide attractive risk-adjusted total return to our stockholders over the long term, primarily through dividends and secondarily through capital appreciation. We selectively acquire and manage an investment portfolio of our target assets, which is constructed to generate attractive returns through market cycles. We focus on asset selection and implement a relative value investment approach across various sectors within the mortgage market. Our target assets include the following:

Agency RMBS (which includes inverse interest-only Agency securities classified as "Agency Derivatives" for purposes of U.S. generally accepted accounting principles, or U.S. GAAP), meaning RMBS whose principal and interest payments are guaranteed by the Government National Mortgage Association (or Ginnie Mae), the Federal National Mortgage Association (or Fannie Mae), or the Federal Home Loan Mortgage Corporation (or Freddie Mac), or collectively, the government sponsored entities, or GSEs;

• Non-Agency RMBS, meaning RMBS that are not issued or guaranteed by Ginnie Mae, Fannie Mae or Freddie Mac;

• Residential mortgage loans;

• MSR;

• Commercial real estate assets; and

• Other financial assets comprising approximately 5% to 10% of the portfolio.

We generally view our target assets in three strategies that are based on our core competencies of understanding and managing prepayment and credit risk. Our rates strategy includes assets that are sensitive to changes in interest rates and prepayment speeds, specifically Agency RMBS and MSR. Our credit strategy includes assets with inherent credit risk including non-Agency RMBS, prime nonconforming residential mortgage loans and net economic interests in consolidated securitization trusts. Our commercial strategy includes as target assets first mortgage loans, mezzanine loans, b-notes and preferred equity.

As opportunities in the residential and commercial mortgage marketplace change, we continue to evolve our business model. From a capital allocation perspective, we expect to continue to increase our allocation towards MSR and commercial real estate assets, and decrease our exposure to RMBS and residential mortgage loans over time. During the nine months ended September 30, 2016, however, we increased our allocation towards Agency RMBS due to attractive market prices. Within our non-Agency RMBS portfolio, we have historically had a substantial emphasis on "legacy" securities, which include securities issued prior to 2009. Over the course of the past two years, however, we have sold a number of these securities that we believe had reached maximum value, some of which were replaced with "new issue" non-Agency RMBS. We believe these "new issue" securities, which include some GSE credit risk transfer securities, have enabled us to find attractive returns and further diversify our non-Agency RMBS portfolio.

In July 2016, we announced a plan to discontinue our mortgage loan conduit and securitization business, whereby we acquire prime nonconforming residential mortgage loans from select mortgage loan originators and secondary market institutions with the intent to securitize the loans through the issuance of non-Agency mortgage-backed securities and/or exit through a whole loan sale. We expect the wind down process to be substantially completed by the end of

2016, though we currently intend to retain certain subordinated securities from our prior securitization transactions. In addition, we hold a small legacy portfolio of credit sensitive residential mortgage loans, or CSL, which are loans where the borrower has previously experienced payment delinquencies and is more likely to be underwater (i.e., the amount owed on a mortgage loan exceeds the current market value of the home). As a result, there is a higher probability of default on CSL than on newly originated residential mortgage loans. We do not originate residential mortgage loans or provide direct financing to lenders.

Table of Contents

Within our MSR business, we purchase the right to control the servicing of mortgage loans from high-quality originators. Additionally, as an owner of MSR on loans from securitizations guaranteed by Ginnie Mae, we are obligated to purchase these loans from time to time in order to complete modifications on the mortgage loans or to convey foreclosed properties to the U.S. Department of Housing and Urban Development, or HUD. We also have the option to buy out delinquent mortgages in order to better control loss mitigation activities. We held a small portfolio of these Ginnie Mae buyout residential mortgage loans as of September 30, 2016. We do not directly service the mortgage loans we acquire, nor the mortgage loans underlying the MSR we acquire; rather, we contract with fully licensed third-party subservicers to handle substantially all servicing functions.

We believe our investment model allows management to allocate capital across various sectors within the mortgage market, with a focus on asset selection and the implementation of a relative value investment approach. Our capital allocation decisions factor in the opportunities in the marketplace, the cost of financing and the cost of hedging interest rate, prepayment, credit and other portfolio risks. As a result, capital allocation reflects management's opportunistic approach to investing in the marketplace. The following table provides our capital allocation among the target assets in each of our investment strategies as of September 30, 2016 and the four immediately preceding period ends:

	As of				
	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
Rates strategy	54%	56%	56%	49%	53%
Credit strategy	31%	31%	33%	43%	43%
Commercial strategy	15%	13%	11%	8%	4%

As our capital allocation shifts, our annualized yields and cost of financing shift. As previously discussed, our investment decisions are not driven solely by annualized yields, but rather a multitude of macroeconomic drivers, including market environments and their respective impacts (e.g., uncertainty of prepayment speeds, extension risk and credit events).

For the three months ended September 30, 2016, our net yield realized on the portfolio was lower than previous periods. Yields and net interest spreads on RMBS and MSR are generally lower than recent quarters, while net yields on net economic interests in consolidated securitization trusts have increased due to sales of higher-rated retained interests from on-balance sheet securitizations. Net yields on residential mortgage loans held-for-sale and commercial real estate assets have been relatively consistent. Our cost of financing has decreased slightly as a result of lower swap spread. The following table provides the average annualized yield on our target assets, including Agency and non-Agency RMBS, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment, net of collateralized borrowings, in securitization trusts, commercial real estate assets and MSR for the three months ended September 30, 2016, and the four immediately preceding quarters:

	Three Months Ended				
	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
Average annualized portfolio yield <sup>(1)</sup>	3.50%	3.77%	4.58%	4.56%	4.14%
Cost of financing <sup>(2)</sup>	1.08%	1.18%	1.21%	1.30%	1.31%
Net portfolio yield	2.42%	2.59%	3.37%	3.26%	2.83%

<sup>(1)</sup> Average annualized yield incorporates future prepayment, credit loss and other assumptions, all of which are estimates and subject to change.

<sup>(2)</sup> Cost of financing includes swap interest rate spread.



## Table of Contents

We seek to deploy moderate leverage as part of our investment strategy. We generally finance our RMBS, residential mortgage loans held-for-sale and commercial real estate assets through short- and long-term borrowings structured as repurchase agreements and through short- and long-term advances from the Federal Home Loan Bank of Des Moines, or the FHLB. We also finance our MSR through revolving credit facilities. Our Agency RMBS, given their liquidity and high credit quality, are eligible for higher levels of leverage, while non-Agency RMBS, residential mortgage loans held-for-sale, commercial real estate assets and MSR, with less liquidity and more exposure to credit risk, utilize lower levels of leverage. We believe the debt-to-equity ratio funding our Agency RMBS, non-Agency RMBS, residential mortgage loans held-for-sale, commercial real estate assets and MSR is the most meaningful leverage measure as collateralized borrowings on residential mortgage loans held-for-investment in securitization trusts represents term financing with no stated maturity. As a result, our debt-to-equity ratio is determined by our portfolio mix as well as many additional factors, including the liquidity of our portfolio, the sustainability and price of our financing, diversification of our counterparties and their available capacity to finance our assets, and anticipated regulatory developments. Over the past several quarters, we have generally maintained a debt-to-equity ratio range of 3.0 to 5.0 times to finance our RMBS portfolio, residential mortgage loans held-for-sale, commercial real estate assets and MSR, on a fully deployed capital basis. Our debt-to-equity ratio is directly correlated to the make-up of our portfolio; specifically, the higher percentage of Agency RMBS we hold, the higher our debt-to-equity ratio is, while the higher percentage of non-Agency RMBS, mortgage loans, commercial real estate assets and MSR we hold, the lower our debt-to-equity ratio is. We may alter the percentage allocation of our portfolio among our target assets depending on the relative value of the assets that are available to purchase from time to time, including at times when we are deploying proceeds from common stock offerings we conduct. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Financial Condition - Repurchase Agreements” for further discussion.

We recognize that investing in our target assets is competitive and we compete with other entities for attractive investment opportunities. We rely on our management team and our dedicated team of investment professionals provided by our external manager to identify investment opportunities. In addition, we have benefited and expect to continue to benefit from our external manager’s analytical and portfolio management expertise and infrastructure. We believe that our significant focus in the mortgage market, the extensive mortgage market expertise of our investment team, our strong analytics and our disciplined relative value investment approach give us a competitive advantage versus our peers.

We have elected to be treated as a REIT for U.S. federal income tax purposes. To qualify as a REIT we are required to meet certain investment and operating tests and annual distribution requirements. We generally will not be subject to U.S. federal income taxes on our taxable income to the extent that we annually distribute all of our net taxable income to stockholders, do not participate in prohibited transactions and maintain our intended qualification as a REIT. However, certain activities that we may perform may cause us to earn income which will not be qualifying income for REIT purposes. We have designated certain of our subsidiaries as taxable REIT subsidiaries, or TRSs, as defined in the Code, to engage in such activities, and we may form additional TRSs in the future. We also operate our business in a manner that will permit us to maintain our exemption from registration under the Investment Company Act of 1940, as amended, or the 1940 Act. While we do not currently originate or service residential mortgage loans, certain of our subsidiaries have obtained the requisite licenses and approvals to purchase and sell residential mortgage loans in the secondary market and to own and manage MSR. Additionally, certain of our subsidiaries are licensed to originate commercial real estate loans.

## Forward-Looking Statements

This Quarterly Report on Form 10-Q contains, or incorporates by reference, not only historical information, but also forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act, and that are subject to the safe harbors created by such sections. Forward-looking statements involve numerous risks and uncertainties. Our



actual results may differ from our beliefs, expectations, estimates, and projections and, consequently, you should not rely on these forward-looking statements as predictions of future events. Forward-looking statements are not historical in nature and can be identified by words such as “anticipate,” “estimate,” “will,” “should,” “expect,” “target,” “believe,” “intend,” “plan,” “goals,” “future,” “likely,” “may” and similar expressions or their negative forms, or by references to strategy, plans, or intentions. These forward-looking statements are subject to risks and uncertainties, including, among other things, those described in our Annual Report on Form 10-K for the year ended December 31, 2015, under the caption “Risk Factors.” Other risks, uncertainties and factors that could cause actual results to differ materially from those projected are described below and may be described from time to time in reports we file with the Securities and Exchange Commission, or SEC, including our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update or revise any such forward-looking statements, whether as a result of new information, future events, or otherwise.

Table of Contents

Important factors, among others, that may affect our actual results include:

- changes in interest rates and the market value of our target assets;
- changes in prepayment rates of mortgages underlying our target assets;
- the occurrence, extent and timing of credit losses within our portfolio;
  - our exposure to adjustable-rate and negative amortization mortgage loans underlying our target assets;
- the state of the credit markets and other general economic conditions, particularly as they affect the price of earning assets and the credit status of borrowers;
- the concentration of the credit risks to which we are exposed;
- legislative and regulatory actions affecting our business;
- the availability and cost of our target assets;
- the availability and cost of financing for our target assets, including repurchase agreement financing, lines of credit, revolving credit facilities and financing through the FHLB;
- declines in home prices;
  - increases in payment delinquencies and defaults on the mortgages comprising and underlying our target assets;
- changes in liquidity in the market for real estate securities, the re-pricing of credit risk in the capital markets,
- inaccurate ratings of securities by rating agencies, rating agency downgrades of securities, and increases in the supply of real estate securities available-for-sale;
- changes in the values of securities we own and the impact of adjustments reflecting those changes on our condensed consolidated statements of comprehensive income (loss) and balance sheets, including our stockholders' equity;
- our ability to generate cash flow from our target assets;
- changes in our investment, financing and hedging strategies and the new risks to which those changes may expose us;
- changes in the competitive landscape within our industry, including changes that may affect our ability to attract and retain personnel;
- our decision to discontinue our mortgage loan conduit and securitization business, and our ability to sell our remaining mortgage loans;
- our exposure to legal and regulatory claims, penalties or enforcement activities, including those arising from our involvement in securitization transactions and ownership and management of MSR;
- our exposure to counterparties involved in our mortgage loan conduit and MSR businesses and our ability to enforce representations and warranties made by them;
- our ability to acquire MSR and successfully operate our seller-servicer subsidiary and oversee the activities of our subservicers;
- the state of commercial real estate markets, including the demand for commercial loans;
- our ability to acquire commercial real estate assets, and to originate commercial loans;
- our ability to successfully diversify our business into new asset classes, and manage the new risks to which they may expose us;
- our ability to manage various operational and regulatory risks associated with our business;
- interruptions in or impairments to our communications and information technology systems;
- our ability to maintain appropriate internal controls over financial reporting;
- our ability to establish, adjust and maintain appropriate hedges for the risks in our portfolio;
- our ability to maintain our REIT qualification for U.S. federal income tax purposes; and
- limitations imposed on our business due to our REIT status and our status as exempt from registration under the 1940 Act.

This Quarterly Report on Form 10-Q may contain statistics and other data that, in some cases, have been obtained or compiled from information made available by mortgage loan servicers and other third-party service providers.



Table of Contents

Factors Affecting our Operating Results

Our net interest income includes income from our RMBS portfolio, including the amortization of purchase premiums and accretion of purchase discounts, and income from our residential mortgage loans and commercial real estate assets. Net interest income, as well as our servicing income, net of subservicing expenses, will fluctuate primarily as a result of changes in market interest rates, our financing costs, and prepayment speeds on our assets. Interest rates, financing costs and prepayment rates vary according to the type of investment, conditions in the financial markets, competition and other factors, none of which can be predicted with any certainty. Our operating results will also be affected by default rates and credit losses with respect to the mortgage loans underlying our non-Agency RMBS and in our residential mortgage loan and commercial real estate portfolios.

Fair Value Measurement

A significant portion of our assets and liabilities are reported at fair value and, therefore, our condensed consolidated balance sheets and statements of comprehensive income (loss) are significantly affected by fluctuations in market prices. At September 30, 2016, approximately 88.5% of total assets, or \$19.3 billion, and approximately 18.6% of total liabilities, or \$3.4 billion, consisted of financial instruments recorded at fair value. See Note 14 - Fair Value to the condensed consolidated financial statements, included in this Quarterly Report on Form 10-Q, for descriptions of valuation methodologies used to measure material assets and liabilities at fair value and details of the valuation models, key inputs to those models and significant assumptions utilized. Although we execute various hedging strategies to mitigate our exposure to changes in fair value, we cannot fully eliminate our exposure to volatility caused by fluctuations in market prices. Although markets for asset-backed securities, including RMBS, have modestly stabilized since the severe dislocations experienced as a result of the financial crisis, these markets continue to experience volatility and, as a result, our assets and liabilities will be subject to valuation adjustment as well as changes in the inputs we use to measure fair value.

Any temporary change in the fair value of our available-for-sale, or AFS, securities, excluding Agency interest-only mortgage-backed securities and GSE credit risk transfer securities, is recorded as a component of accumulated other comprehensive income and does not impact our earnings. Our reported earnings (loss) for U.S. GAAP purposes, or GAAP net income (loss), is affected, however, by fluctuations in market prices on the remainder of our financial assets and liabilities recorded at fair value. For the three and nine months ended September 30, 2016, our unrealized fair value gains on interest rate swap and swaption agreements, which are accounted for as derivative trading instruments under U.S. GAAP, positively affected our financial results. The change in fair value of interest rate swaps was a result of changes to LIBOR, the swap curve and corresponding counterparty borrowing rates during the three and nine months ended September 30, 2016. Our financial results for the three months ended September 30, 2016 were negatively affected by unrealized fair value losses on Agency interest-only mortgage-backed securities and GSE credit risk transfer securities and residential mortgage loans held-for-sale, and positively affected by unrealized fair value gains on net economic interests in consolidated securitization trusts and MSR. Our financial results for the nine months ended September 30, 2016 were positively affected by unrealized fair value gains on Agency interest-only mortgage-backed securities and GSE credit risk transfer securities and residential mortgage loans held-for-sale, and negatively affected by unrealized fair value losses on net economic interests in consolidated securitization trusts and MSR.

For the three and nine months ended September 30, 2015, our unrealized fair value losses on interest rate swap and swaption agreements negatively affected our financial results. The change in fair value of the interest rate swaps was a result of changes to LIBOR, the swap curve and corresponding counterparty borrowing rates during the three and nine months ended September 30, 2015. Our financial results for the three and nine months ended September 30, 2015 were negatively affected by unrealized fair value losses on Agency interest-only mortgage-backed securities and GSE credit risk transfer securities and MSR. For the three months ended September 30, 2015, our financial results were positively affected by unrealized fair value gains on residential mortgage loans held-for-sale and net economic interests in consolidated securitization trusts. Our financial results for the nine months ended September 30, 2015

were negatively affected by unrealized fair value losses on residential mortgage loans held-for-sale and net economic interests in consolidated securitization trusts.

In addition, our financial results for the three and nine months ended September 30, 2016 and 2015 were affected by the unrealized gains and losses of certain other derivative instruments that were accounted for as trading derivative instruments (i.e., credit default swaps, TBAs, short U.S. Treasuries, put and call options for TBAs and U.S.

Treasuries, constant maturity swaps, Markit IOS total return swaps, inverse interest-only securities and forward residential mortgage loan purchase commitments).

## Table of Contents

We have numerous internal controls in place to help ensure the appropriateness of fair value measurements. Significant fair value measures are subject to detailed analytics and management review and approval. Our entire investment portfolio reported at fair value is priced by third-party brokers and/or by independent pricing providers. We generally receive three or more broker and vendor quotes on pass-through Agency RMBS, and generally receive multiple broker or vendor quotes on all other RMBS instruments, including interest-only Agency RMBS, inverse interest-only Agency RMBS, and non-Agency RMBS. We also typically receive two vendor quotes for the residential mortgage loans and MSR in our investment portfolio. For Agency RMBS, the third-party pricing providers and brokers use pricing models that commonly incorporate such factors as coupons, primary and secondary mortgage rates, rate reset period, issuer, prepayment speeds, credit enhancements and expected life of the security. For non-Agency RMBS, the third-party pricing providers and brokers utilize both observable and unobservable inputs such as pool specific characteristics (i.e., loan age, loan size, credit quality of borrowers, vintage, servicer quality), floating rate indices, prepayment and default assumptions, and recent trading of the same or similar securities. For residential mortgage loans and MSR, vendors use pricing models that generally incorporate observable inputs such as principal balance, note rate, geographical location, loan-to-value (LTV) ratios, FICO, appraised value and other loan characteristics, along with observed market yields, securitization economics and trading levels. Additionally for MSR, pricing providers will customarily incorporate loan servicing cost, servicing fee, ancillary income, and earnings rate on escrow as observable inputs. Unobservable or model-driven inputs include forecast cumulative defaults, default curve, forecast loss severity and forecast voluntary prepayment.

We evaluate the prices we receive from both brokers and independent pricing providers by comparing those prices to actual purchase and sale transactions, our internally modeled prices calculated based on market observable rates and credit spreads, and to each other both in current and prior periods. We review and may challenge broker quotes and valuations from third-party pricing providers to ensure that such quotes and valuations are indicative of fair value as a result of this analysis. We then estimate the fair value of each security based upon the median of the final broker quotes received, and we estimate the fair value of residential mortgage loans and MSR based upon the average of prices received from independent providers, subject to internally-established hierarchy and override procedures. We utilize “bid side” pricing for our RMBS assets and, as a result, certain assets, especially the most recent purchases, may realize a markdown due to the “bid-offer” spread. To the extent that this occurs, any economic effect of this would be reflected in accumulated other comprehensive income.

Considerable judgment is used in forming conclusions and estimating inputs to our Level 3 fair value measurements. Level 3 inputs such as interest rate movements, prepayments speeds, credit losses and discount rates are inherently difficult to estimate. Changes to these inputs can have a significant effect on fair value measurements. Accordingly, there is no assurance that our estimates of fair value are indicative of the amounts that would be realized on the ultimate sale or exchange of these assets.

### Market Conditions and Outlook

The key macroeconomic factors that impact our business are U.S. residential and commercial property prices, national employment rates and the interest rate environment. Home prices increased modestly through the third quarter of 2016 and are expected to gradually appreciate over the next several years. Credit standards remain tight, despite a modest easing in recent months, and have limited borrowers’ ability to refinance their mortgages notwithstanding low interest rates and government programs that promote refinancing. Employment market conditions remain relatively solid as jobless claims, unemployment and payroll data are showing stability, although underemployment levels remain stubbornly high and new job creation has been disappointing. Other than LTV ratios and cash reserves, we believe employment is the most powerful determinant of homeowners’ ongoing likelihood to pay their mortgages. Home price performance and employment are particularly important to our non-Agency portfolio.

The interest rate environment remained volatile in the third quarter of 2016 as a result of domestic economic data and international events. Interest rates decreased at the beginning of the third quarter following Britain’s vote to exit the European Union, and did not experience much improvement throughout the remainder of the quarter. This had the

effect of driving down inflation expectations and dimming the outlook for global growth. The low interest rate environment is expected to persist in the near term, as the Federal Reserve has suggested it will take a measured and conservative approach to future interest rate decisions. Additionally, it appears the Federal Reserve will continue to reinvest its mortgage-backed security principal repayments for the foreseeable future.

The U.S. economy continues to navigate headwinds that include: global economic lethargy, specifically in China; geopolitical unrest across various regions worldwide; the ongoing European debt crisis; quantitative easing by the European Central Bank; and persistently high underemployment.

Table of Contents

Regulatory and legislative actions taken in response to the financial and foreclosure crises continue to impact the market. Regulatory actions that could affect the value and availability of our target assets, either positively or negatively, include: attempts by the U.S. government or the GSEs to establish long-term simplifying changes to the refinancing process to allow more borrowers to refinance into lower interest rate mortgage loans; any new programs or standards established after the expiration of both the Home Affordable Modification Program, or HAMP, and the Home Affordable Refinance Program 2.0, or HARP 2.0, at the end of 2016; the strict “ability-to-repay” and “qualified mortgage” regulations promulgated by the Consumer Financial Protection Bureau, or the CFPB; the compliance with, enforcement of and potential liability associated with the new TILA-RESPA Integrated Disclosure, or TRID, rules recently implemented by the CFPB; and the application of the risk retention requirements of Section 15G of the Exchange Act. Additionally, the implementation of bank capital and liquidity rules could affect both the financing and liquidity of our target assets.

There have also been a number of legislative proposals aimed at eventually winding down or phasing out the GSEs. It remains uncertain as to whether any such proposal will ultimately become legislation, as recent efforts appear to have little momentum in Congress. We will continue to monitor these and other regulatory and policy activities closely.

In January 2016, the FHFA released a final rule regarding membership in the Federal Home Loan Bank system. Among other effects, the final rule excludes captive insurers from membership eligibility, including our subsidiary member, TH Insurance Holdings Company LLC, or TH Insurance. Since TH Insurance was admitted as a member in 2013, it is eligible for a five-year membership grace period, during which new advances or renewals that mature beyond the grace period will be prohibited; however, any existing advances that mature beyond this grace period will be permitted to remain in place subject to their terms insofar as we maintain good standing with the FHLB. If any new advances or renewals occur, TH Insurance’s outstanding advances will be limited to 40% of its total assets.

Notwithstanding the FHFA’s ruling, we continue to believe our mission aligns well with that of the Federal Home Loan Bank system.

We believe our blended Agency and non-Agency RMBS portfolio and our investing expertise, as well as our operational capabilities to invest in net economic interests in consolidated securitization trusts, MSR and commercial real estate assets, will allow us to better navigate the dynamic mortgage market while future regulatory and policy activities take shape. Having a diversified portfolio allows us to mitigate a variety of risks, including interest rate and RMBS spread volatility. As such, we have diversified into several target assets that capitalize on our prepayment and credit expertise.

We expect that the majority of our assets will remain in whole-pool Agency RMBS in light of the long-term attractiveness of the asset class and in order to continue to satisfy the requirements of our exemption from registration under the 1940 Act. Interest-only Agency securities and MSR also provide a complementary investment and risk-management strategy to our principal and interest Agency RMBS investments. Risk-adjusted returns in our Agency RMBS portfolio may decline if we are required to pay higher purchase premiums due to lower interest rates or additional liquidity in the market. Additionally, the Federal Reserve’s prior quantitative easing programs and continued reinvestment of its mortgage-backed security principal repayments and other policy changes may impact the returns of our Agency RMBS portfolio.

The following table provides the carrying value of our RMBS portfolio by product type:

(dollars in thousands)	September 30, 2016	December 31, 2015
Agency		
Fixed Rate	\$12,404,228 86.0%	\$5,864,294 73.4%
Hybrid ARM	32,588 0.2 %	108,596 1.4 %
Total Agency	12,436,816 86.2%	5,972,890 74.8%
Agency Derivatives	141,232 1.0 %	157,906 2.0 %
Non-Agency		
Senior	1,192,975 8.3 %	1,313,695 16.4%



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Mezzanine	649,993	4.5 %	532,572	6.7 %
Interest-only securities	4,841	— %	6,163	0.1 %
Total Non-Agency	1,847,809	12.8%	1,852,430	23.2%
Total	\$14,425,857		\$7,983,226	

58

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Table of Contents

## Prepayment speeds and volatility due to interest rates

Our Agency RMBS and MSR portfolios are subject to inherent prepayment risk. Generally, a decline in interest rates that leads to rising prepayment speeds will cause the market value of our interest-only securities and MSR to deteriorate, and our fixed coupon Agency pools to increase. The inverse relationship occurs when interest rates increase and prepayments slow. As previously discussed, despite the Federal Reserve raising rates in December 2015, the low interest rate environment is expected to persist in the near term. However, changes in home price performance, key employment metrics and government programs, among other macroeconomic factors, could cause prepayment speeds to increase on many RMBS, which could lead to less attractive reinvestment opportunities. Nonetheless, we believe our portfolio management approach, including our security selection process, positions us to respond to a variety of market scenarios, including an overall faster prepayment environment.

Although we are unable to predict the movement in interest rates in 2016 and beyond, our diversified portfolio management strategy is intended to generate attractive yields with a low level of sensitivity to changes in the yield curve, prepayments and interest rate cycles.

Our Agency RMBS are collateralized by pools of fixed-rate mortgage loans and hybrid adjustable-rate mortgage loans, or hybrid ARMs, which are mortgage loans that have interest rates that are fixed for an initial period and adjustable thereafter. Our Agency portfolio also includes securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans of less than \$175,000 in initial principal balance), higher LTVs (securities collateralized by loans with LTVs greater than or equal to 80%), certain geographic concentrations and lower FICO scores. Our overall allocation of Agency RMBS and holdings of pools with specific characteristics are viewed in the context of our aggregate rates strategy, including MSR and related derivative hedging instruments. Additionally, the selection of securities with certain attributes is driven by the perceived relative value of the securities, which factors in the opportunities in the marketplace, the cost of financing and the cost of hedging interest rate, prepayment, credit and other portfolio risks. As a result, Agency RMBS capital allocation reflects management's opportunistic approach to investing in the marketplace.

The following tables provide the carrying value of our Agency RMBS portfolio by underlying mortgage loan rate type:

As of September 30, 2016

(dollars in thousands)	Principal/ Current Face	Carrying Value	% of Agency Portfolio	% Prepayment Protected	Weighted Average Coupon Rate	Amortized Cost	Weighted Average Loan Age (months)
Agency RMBS AFS:							
30-Year Fixed							
3.0-3.5%	\$7,250,700	\$7,596,808	60.4	% 49.9	% 3.1	% \$7,562,628	5
4.0-4.5%	3,381,240	3,731,418	29.7	% 100.0	% 4.2	% 3,635,972	39
≥ 5%	484,224	554,758	4.4	% 100.0	% 5.5	% 522,454	92
	11,116,164	11,882,984	94.5	% 68.0	% 3.6	% 11,721,054	20
15-Year & Other Fixed	294,100	303,965	2.4	% 0.6	% 4.2	% 278,300	119
Hybrid ARM	30,405	32,588	0.3	% —	% 5.0	% 32,100	151
Interest-only	2,813,893	217,279	1.7	% —	% 0.2	% 227,943	32
Agency Derivatives	784,823	141,232	1.1	% —	% 5.9	% 116,541	149
Total Agency RMBS	\$15,039,385	\$12,578,048	100.0	% 64.2	%	% \$12,375,938	

Table of Contents

As of December 31, 2015										
(dollars in thousands)	Principal/ Current Face	Carrying Value	% of Agency Portfolio	% Prepayment Protected	Weighted Average Coupon Rate	Amortized Cost	Weighted Average Loan Age (months)			
Agency RMBS AFS:										
30-Year Fixed										
4.0-4.5%	\$3,979,110	\$4,290,199	70.0	% 100.0	% 4.2	% \$4,284,600	30			
≥ 5%	561,874	632,954	10.3	% 100.0	% 5.5	% 607,318	84			
	4,540,984	4,923,153	80.3	% 100.0	% 4.4	% 4,891,918	37			
15-Year & Other Fixed										
Home equity conversion mortgages	330,142	326,745	5.3	% 0.7	% 4.6	% 315,557	116			
Hybrid ARM	365,986	386,489	6.3	% —	% 4.5	% 383,771	43			
Interest-only	101,836	108,596	1.8	% —	% 3.6	% 106,293	142			
Agency Derivatives	2,918,082	227,907	3.7	% —	% 2.1	% 232,299	29			
Total Agency RMBS	932,037	157,906	2.6	% —	% 6.1	% 139,859	140			
	\$9,189,067	\$6,130,796	100.0	% 80.3	%	\$6,069,697				

We offset a portion of the Agency exposure to prepayment speeds through our non-Agency portfolio. Our non-Agency RMBS yields are expected to increase if prepayment rates on such assets exceed our prepayment assumptions. To the extent that prepayment speeds increase due to macroeconomic factors, we expect to benefit from the ability to recognize the income from the heavily discounted RMBS prices that principally arose from credit or payment default expectations.

The following tables provide discount information on our non-Agency RMBS portfolio:

As of September 30, 2016					
(in thousands)	Principal and Interest Securities		Interest-Only Securities	Total	
	Senior	Mezzanine			
Face Value	\$1,593,596	\$844,522	\$196,876	\$2,634,994	
Unamortized discount					
Designated credit reserve	(302,728 )	(49,761 )	—	(352,489 )	
Unamortized net discount	(382,360 )	(214,801 )	(192,264 )	(789,425 )	
Amortized Cost	\$908,508	\$579,960	\$4,612	\$1,493,080	
As of December 31, 2015					
(in thousands)	Principal and Interest Securities		Interest-Only Securities	Total	
	Senior	Mezzanine			
Face Value	\$1,801,283	\$624,253	\$229,845	\$2,655,381	
Unamortized discount					
Designated credit reserve	(373,729 )	(35,348 )	—	(409,077 )	
Unamortized net discount	(383,816 )	(98,729 )	(224,476 )	(707,021 )	
Amortized Cost	\$1,043,738	\$490,176	\$5,369	\$1,539,283	

**Credit losses**

Although our Agency portfolio is supported by U.S. government agency and federally chartered corporation guarantees of payment of principal and interest, we are exposed to credit risk in our non-Agency RMBS, residential mortgage loans and commercial real estate assets.



Table of Contents

The credit support built into non-Agency RMBS deal structures is designed to provide a level of protection from potential credit losses for more senior tranches. We evaluate credit risk on our non-Agency investments through a comprehensive asset selection process, which is predominantly focused on quantifying and pricing credit risk, including extensive initial modeling and scenario analysis. In addition, the discounted purchase prices paid for our non-Agency RMBS provide additional insulation from credit losses in the event we receive less than 100% of par on such assets. At purchase, we estimate the portion of the discount we do not expect to recover and factor that into our expected yield and accretion methodology. We may also record an other-than-temporary impairment, or OTTI, for a portion of our investment in a security to the extent we believe that the amortized cost exceeds the present value of expected future cash flows. We review our non-Agency RMBS on an ongoing basis using quantitative and qualitative analysis of the risk-adjusted returns on such investments and through on-going asset surveillance. Nevertheless, unanticipated credit losses could occur, adversely impacting our operating results.

We evaluate credit risk on our residential mortgage loans through a comprehensive asset selection process, which includes pre-acquisition due diligence and underwriting. We review our residential mortgage loans on an ongoing basis using quantitative and qualitative analysis and through on-going asset surveillance.

We also evaluate credit risk on our commercial real estate assets through a comprehensive asset selection process, which includes valuing the underlying collateral property as well as the financial and operating capability of the borrower, borrowing entity or loan sponsor. We also assess the financial wherewithal of any loan guarantors, the borrower's competency in managing and operating the properties, and the overall economic environment, real estate sector, and geographic sub-market in which the borrower operates. We evaluate each commercial real estate asset for impairment at least quarterly and may record an allowance to reduce the carrying value of the asset to the present value of expected future cash flows, if deemed impaired.

#### Counterparty exposure and leverage ratio

We monitor counterparty exposure in our broker, banking and lending counterparties on a daily basis. We believe our broker and banking counterparties are well-capitalized organizations and we attempt to manage our cash balances across these organizations to reduce our exposure to a single counterparty.

As of September 30, 2016, we had entered into repurchase agreements with 31 counterparties, 22 of which had outstanding balances at September 30, 2016, including two facilities that provide short-term financing for our commercial real estate collateral with outstanding balances at September 30, 2016. In addition, we held both short- and long-term secured advances from the FHLB as well as short-term borrowings under revolving credit facilities. As of September 30, 2016, we had a total consolidated debt-to-equity ratio of 5.2:1.0. The debt-to-equity ratio funding our RMBS AFS, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives only was 4.2:1.0. We believe the debt-to-equity ratio funding our RMBS AFS, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives is the most meaningful debt-to-equity measure as collateralized borrowings on residential mortgage loans held-for-investment in securitization trusts represents term financing with no stated maturity.

As of September 30, 2016, we had \$688.4 million in cash and cash equivalents, approximately \$3.1 million of unpledged Agency securities and derivatives and \$26.8 million of unpledged non-Agency securities and retained interests from our on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP. As a result, we had an overall estimated unused borrowing capacity on our unpledged RMBS and retained interests of approximately \$20.7 million. We also had approximately \$23.1 million of unpledged prime nonconforming residential mortgage loans, \$10.5 million of unpledged CSL, and \$56.9 million of unpledged Ginnie Mae buyout residential mortgage loans, and an overall estimated unused borrowing capacity on unpledged residential mortgage loans held-for-sale of approximately \$72.0 million. As of September 30, 2016, we had approximately \$44.0 million of unpledged mezzanine commercial real estate loans and \$73.4 million of unpledged commercial real estate first mortgages, and an overall estimated unused borrowing capacity on unpledged commercial real estate assets of approximately \$78.3 million. We also had approximately \$382.1 million of unpledged MSR with no unused borrowing capacity on unpledged MSR. If borrowing rates and collateral requirements change in the near term, we

believe we are subject to less earnings volatility than if we carried higher leverage.

We also monitor exposure to counterparties involved in our mortgage loan conduit and MSR businesses. In connection with securitization transactions and MSR assets, we are required to make certain representations and warranties to the investors in the RMBS we issue or the loans underlying the MSR we own. If the representations and warranties that we are required to make prove to be inaccurate, we may be obligated to repurchase certain mortgage loans, which may impact the profitability of these businesses. Although we obtain similar representations and warranties from the counterparty from which we acquired the relevant asset, if those representations and warranties do not directly mirror those we make to the investor, or if we are unable to enforce the representations and warranties against the counterparty for a variety of reasons, including the financial condition or insolvency of the counterparty, we may not be able to seek indemnification from our counterparties for any losses attributable to the breach.

Table of Contents

Summary of Results of Operations and Financial Condition

Our GAAP net income was \$117.8 million and \$11.9 million (\$0.34 and \$0.03 per weighted share) for the three and nine months ended September 30, 2016, as compared to GAAP net loss of \$34.8 million and income of \$281.5 million (\$0.09) and \$0.77 per weighted share) for the three and nine months ended September 30, 2015.

With our accounting treatment for AFS securities, unrealized fluctuations in the market values of AFS securities, excluding Agency interest-only securities and GSE credit risk transfer securities, do not impact our GAAP net income (loss) or taxable income but are recognized on our condensed consolidated balance sheets as a change in stockholders' equity under "accumulated other comprehensive income." As a result of this fair value accounting through stockholders' equity, we expect our net income (loss) to have less significant fluctuations and result in less U.S. GAAP to taxable income timing differences, than if the portfolio were accounted for as trading instruments. For the three and nine months ended September 30, 2016, net unrealized gains on AFS securities recognized as other comprehensive income, net of tax, were \$18.7 million and \$179.4 million, respectively. This, combined with GAAP net income of \$117.8 million and \$11.9 million, resulted in comprehensive income of \$136.5 million and \$191.3 million for the three and nine months ended September 30, 2016, respectively. For the three and nine months ended September 30, 2015, net unrealized losses on AFS securities recognized as other comprehensive loss, net of tax, were \$58.0 million and \$282.8 million, respectively. This, combined with GAAP net loss of \$34.8 million and income of \$281.5 million, resulted in comprehensive loss of \$92.8 million and \$1.3 million for the three and nine months ended September 30, 2015, respectively.

On September 15, 2016, we declared a cash dividend of \$0.23 per share. Our book value per common share for U.S. GAAP purposes was \$10.01 at September 30, 2016, a decrease from \$10.11 book value per common share at December 31, 2015. During this nine month period, we recognized comprehensive income of \$191.3 million, but declared cash dividends of \$239.8 million, which drove the overall decrease in book value.

Table of Contents

The following tables present the components of our comprehensive income (loss) for the three and nine months ended September 30, 2016 and 2015:

(in thousands, except share data)

Income Statement Data:	Three Months Ended		Nine Months Ended	
	September 30, 2016	2015	September 30, 2016	2015
	(unaudited)		(unaudited)	
Interest income:	\$ 111,393	\$ 116,318	\$ 292,333	\$ 369,972
Available-for-sale securities	—	—	—	8,676
Trading securities	7,627	9,479	19,789	21,268
Residential mortgage loans held-for-sale	33,495	24,841	100,765	64,908
Residential mortgage loans held-for-investment in securitization trusts	15,907	1,947	40,279	2,841
Commercial real estate assets	440	249	1,235	667
Cash and cash equivalents	168,862	152,834	454,401	468,332
Total interest income				
Interest expense:				
Repurchase agreements	27,056	18,235	65,782	58,198
Collateralized borrowings in securitization trusts	26,422	15,562	70,965	39,401
Federal Home Loan Bank advances	6,744	3,282	18,804	8,012
Revolving credit facilities	128	—	128	—
Total interest expense	60,350	37,079	155,679	105,611
Net interest income	108,512	115,755	298,722	362,721
Other-than-temporary impairment losses	(1,015 )	(238 )	(1,822 )	(535 )
Other income (loss):				
Gain on investment securities	28,290	64,123	66,095	263,512
Gain (loss) on interest rate swap and swaption agreements	5,584	(171,656 )	(132,608 )	(253,147 )
Loss on other derivative instruments	(12,028 )	(455 )	(44,064 )	(2,972 )
(Loss) gain on residential mortgage loans held-for-sale	(889 )	16,040	17,648	18,300
Servicing income	38,708	32,010	108,657	94,613
Loss on servicing asset	(33,451 )	(61,549 )	(211,426 )	(96,317 )
Other income (loss)	5,757	2,201	(977 )	(16,265 )
Total other income (loss)	31,971	(119,286 )	(196,675 )	7,724
Expenses:				
Management fees	11,387	12,617	35,268	38,024
Securitization deal costs	2,080	2,676	6,241	7,771
Servicing expenses	9,073	7,234	24,510	19,849
Other operating expenses	14,780	16,150	47,280	48,032
Restructuring charges	1,189	—	1,189	—
Total expenses	38,509	38,677	114,488	113,676
Income (loss) before income taxes	100,959	(42,446 )	(14,263 )	256,234
Benefit from income taxes	(16,827 )	(7,656 )	(26,138 )	(25,270 )
Net income (loss)	\$ 117,786	\$ (34,790 )	\$ 11,875	\$ 281,504
Basic and diluted earnings (loss) per weighted average common share	\$ 0.34	\$ (0.09 )	\$ 0.03	\$ 0.77
Dividends declared per common share	\$ 0.23	\$ 0.26	\$ 0.69	\$ 0.78
Basic and diluted weighted average number of shares of common stock outstanding	347,627,226	367,365,973	348,218,234	366,985,731





Table of Contents

(in thousands)	Three Months Ended		Nine Months Ended	
Income Statement Data:	September 30,		September 30,	
	2016	2015	2016	2015
	(unaudited)		(unaudited)	
Comprehensive income (loss):				
Net income (loss)	\$117,786	\$(34,790)	\$11,875	\$281,504
Other comprehensive income (loss), net of tax:				
Unrealized gain (loss) on available-for-sale securities	18,746	(58,031 )	179,382	(282,788 )
Other comprehensive income (loss)	18,746	(58,031 )	179,382	(282,788 )
Comprehensive income (loss)	\$136,532	\$(92,821)	\$191,257	\$(1,284 )
(in thousands)	September 30, December 31,			
Balance Sheet Data:	2016	2015		
	(unaudited)			
Available-for-sale securities	\$14,284,625	\$7,825,320		
Total assets	\$21,799,896	\$14,575,772		
Repurchase agreements	\$10,637,373	\$5,008,274		
Federal Home Loan Bank advances	\$4,000,000	\$3,785,000		
Total stockholders' equity	\$3,478,241	\$3,576,561		

## Results of Operations

The following analysis focuses on the results generated during the three and nine months ended September 30, 2016 and 2015.

## Interest Income and Average Portfolio Yield

The following tables present the components of interest income and average annualized net asset yield earned by investment type on our AFS securities, trading securities, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment in securitization trusts, commercial real estate assets and Agency Derivatives for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended			Nine Months Ended		
	September 30, 2016			September 30, 2016		
(dollars in thousands)	Average	Interest	Net	Average	Interest	Net
	Balance <sup>(1)</sup>	Income	Asset	Balance <sup>(1)</sup>	Income	Asset
			Yield			Yield
Available-for-sale securities	\$13,359,415	\$111,393	3.3 %	\$11,025,017	\$292,333	3.5 %
Trading securities	—	—	— %	—	—	— %
Residential mortgage loans held-for-sale	741,589	7,627	4.1 %	645,189	19,789	4.1 %
Residential mortgage loans held-for-investment in securitization trusts	3,472,738	33,495	3.9 %	3,475,782	100,765	3.9 %
Commercial real estate assets	1,033,049	15,907	6.2 %	861,090	40,279	6.2 %
	18,606,791	168,422	3.6 %	16,007,078	453,166	3.8 %
Agency derivatives <sup>(2)</sup>	119,014	3,966	13.3 %	123,062	15,358	16.6 %
Total	\$18,725,805	\$172,388	3.7 %	\$16,130,140	\$468,524	3.9 %

Table of Contents

(dollars in thousands)	Three Months Ended September 30, 2015			Nine Months Ended September 30, 2015		
	Average Balance <sup>(1)</sup>	Interest Income	Net Asset Yield	Average Balance <sup>(1)</sup>	Interest Income	Net Asset Yield
Available-for-sale securities	\$11,805,618	\$116,318	3.9 %	\$12,544,436	\$369,972	3.9 %
Trading securities	—	—	— %	1,214,062	8,676	1.0 %
Residential mortgage loans held-for-sale	946,908	9,479	4.0 %	742,831	21,268	3.8 %
Residential mortgage loans held-for-investment in securitization trusts	2,550,245	24,841	3.9 %	2,228,615	64,908	3.9 %
Commercial real estate assets	99,122	1,947	7.9 %	49,599	2,841	7.6 %
	15,401,893	152,585	4.0 %	16,779,543	467,665	3.7 %
Agency derivatives <sup>(2)</sup>	151,012	6,186	16.4 %	155,939	21,274	18.2 %
Total	\$15,552,905	\$158,771	4.1 %	\$16,935,482	\$488,939	3.8 %

Average balance represents average amortized cost on AFS securities, trading securities, commercial real estate (1) assets and Agency Derivatives and average unpaid principal balance, adjusted for purchase price changes, on residential mortgage loans held-for-sale and residential mortgage loans held-for-investment in securitization trusts.

(2) Interest income on Agency Derivatives is included in loss on other derivative instruments on the condensed consolidated statements of comprehensive income (loss).

Total interest income, including interest income on Agency Derivatives, increased from \$158.8 million for the three months ended September 30, 2015 to \$172.4 million for the same period in 2016, while interest income decreased from \$488.9 million for the nine months ended September 30, 2015 to \$468.5 million for the same period in 2016. The increase in interest income for the three months ended September 30, 2016, as compared to the same period in 2015, was primarily due to the completion of multiple securitization transactions in 2015 and 2016 and the growth of the commercial real estate portfolio. The decrease in interest income for the nine months ended September 30, 2016, as compared to the same period in 2015, was due primarily to sales of AFS and trading securities, offset by the completion of multiple securitization transactions in 2015 and 2016 and the growth of the commercial real estate portfolio.

The decrease in net yields on AFS securities for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was predominantly driven by purchases of Agency RMBS AFS, specifically generic and specified pools, with lower yields during the three and nine months ended September 30, 2016. We did not recognize any interest income on trading securities during the three and nine months ended September 30, 2016 as we sold our trading security position during 2015. The increase in net yields on residential mortgage loans held-for-sale for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was due in part to the Ginnie Mae buyout residential mortgage loans held throughout the period that underwent successful modifications, returned to performing loans, and were redelivered to future Ginnie Mae pools. Yields on residential mortgage loans held-for-investment in securitization trusts for the three and nine months ended September 30, 2016 were consistent with those for the same periods in 2015. The yield on commercial real estate assets for the three and nine months ended September 30, 2015 represents interest income on one asset settled during the first quarter of 2015 and eight assets settled during the third quarter of 2015, which, as a result, is not comparable to the yield for the three and nine months ended September 30, 2016. The decrease in net yields on Agency Derivatives for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was driven by overall faster prepayments throughout the period.

The following tables present the components of the net yield earned by investment type on our RMBS AFS portfolio as a percentage of our average amortized cost of securities for the three and nine months ended September 30, 2016

and 2015:

	Three Months Ended September 30, 2016			Nine Months Ended September 30, 2016		
	Agency (1)	Non-Agency	Total	Agency (1)	Non-Agency	Total
Gross yield/stated coupon	3.8 %	3.6 %	3.8 %	4.0 %	3.5 %	4.0 %
Net (premium amortization) discount accretion	(1.1)%	5.1 %	(0.5)%	(1.2)%	4.8 %	(0.4)%
Net yield <sup>(2)</sup>	2.7 %	8.7 %	3.3 %	2.8 %	8.3 %	3.5 %

65

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Table of Contents

	Three Months Ended September 30, 2015			Nine Months Ended September 30, 2015		
	Agency (1)	Non-Agency	Total	Agency (1)	Non-Agency	Total
Gross yield/stated coupon	4.5 %	3.4 %	4.3 %	4.5 %	3.2 %	4.3 %
Net (premium amortization) discount accretion	(1.4)%	4.4 %	(0.4)%	(1.4)%	4.6 %	(0.4)%
Net yield (2)	3.1 %	7.8 %	3.9 %	3.1 %	7.8 %	3.9 %

Excludes Agency Derivatives. For the three and nine months ended September 30, 2016, the average annualized (1) net yield on total Agency RMBS, including Agency Derivatives, was 2.8% and 3.0%, respectively, compared to 3.3% and 3.3% for the same periods in 2015.

(2) These yields have not been adjusted for cost of delay and cost to carry purchase premiums.

The following tables provide the components of interest income and net asset yield by investment type on our RMBS AFS portfolio:

(dollars in thousands)	Three Months Ended September 30, 2016			Nine Months Ended September 30, 2016		
	Agency (1)	Non-Agency	Total	Agency (1)	Non-Agency	Total
Average amortized cost	\$11,934,779	\$1,424,635	\$13,359,414	\$9,624,519	\$1,400,498	\$11,025,017
Coupon interest	113,226	12,810	126,036	290,141	36,870	327,011
Net (premium amortization) discount accretion	(32,959 )	18,316	(14,643 )	(85,281 )	50,603	(34,678 )
Interest income	\$80,267	\$31,126	\$111,393	\$204,860	\$87,473	\$292,333
Net asset yield	2.7 %	8.7 %	3.3 %	2.8 %	8.3 %	3.5 %

  

(dollars in thousands)	Three Months Ended September 30, 2015			Nine Months Ended September 30, 2015		
	Agency (1)	Non-Agency	Total	Agency (1)	Non-Agency	Total
Average amortized cost	\$9,648,839	\$2,156,779	\$11,805,618	\$10,323,249	\$2,221,187	\$12,544,436
Coupon interest	108,766	18,129	126,895	349,748	53,671	403,419
Net (premium amortization) discount accretion	(34,680 )	24,103	(10,577 )	(110,308 )	76,861	(33,447 )
Interest income	\$74,086	\$42,232	\$116,318	\$239,440	\$130,532	\$369,972
Net asset yield	3.1 %	7.8 %	3.9 %	3.1 %	7.8 %	3.9 %

Excludes Agency Derivatives. For the three and nine months ended September 30, 2016, the average annualized (1) net yield on total Agency RMBS, including Agency Derivatives, was 2.8% and 3.0%, respectively, compared to 3.3% and 3.3% for the same periods in 2015.

The decrease in net yields on Agency RMBS AFS for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was predominantly driven by purchases of Agency RMBS AFS, specifically generic and specified pools, with lower yields during the three and nine months ended September 30, 2016. The increase in net yields on non-Agency RMBS for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was due to continued improvement in legacy non-Agency fundamentals, credit performance and prepayments.

Table of Contents

## Interest Expense and the Cost of Funds

The following tables present the components of interest expense and average annualized cost of funds on borrowings incurred by investment type on our AFS securities, Agency Derivatives, trading securities, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment in securitization trusts and commercial real estate assets for the three and nine months ended September 30, 2016 and 2015:

(dollars in thousands)	Three Months Ended September 30, 2016			Nine Months Ended September 30, 2016		
	Average Balance <sup>(1)</sup>	Interest Expense	Cost of Funds (2)	Average Balance <sup>(1)</sup>	Interest Expense	Cost of Funds (2)
Available-for-sale securities						
Agency <sup>(3)</sup>	\$11,431,995	\$21,277	0.7 %	\$9,156,113	\$49,101	0.7 %
Non-Agency	1,172,717	7,207	2.5 %	1,139,236	20,482	2.4 %
Agency derivatives	12,604,712	28,484	0.9 %	10,295,349	69,583	0.9 %
Trading securities	112,283	441	1.6 %	113,216	1,269	1.5 %
Residential mortgage loans held-for-sale	—	—	— %	—	—	— %
Residential mortgage loans held-for-investment in securitization trusts <sup>(4)</sup>	503,204	950	0.8 %	438,516	2,402	0.7 %
Commercial real estate assets	3,389,061	27,379	3.2 %	3,372,159	75,413	3.0 %
Total	647,967	2,968	1.8 %	507,613	6,884	1.8 %
	\$17,257,227	\$60,222	1.4 %	\$14,726,853	\$155,551	1.4 %
(dollars in thousands)	Three Months Ended September 30, 2015			Nine Months Ended September 30, 2015		
	Average Balance <sup>(1)</sup>	Interest Expense	Cost of Funds (2)	Average Balance <sup>(1)</sup>	Interest Expense	Cost of Funds (2)
Available-for-sale securities						
Agency <sup>(3)</sup>	\$9,261,967	\$10,578	0.5 %	\$9,905,663	\$31,923	0.4 %
Non-Agency	1,826,721	8,825	1.9 %	1,871,622	26,505	1.9 %
Agency derivatives	11,088,688	19,403	0.7 %	11,777,285	58,428	0.7 %
Trading securities	127,172	353	1.1 %	132,099	1,036	1.0 %
Residential mortgage loans held-for-sale	—	—	— %	1,223,576	1,727	0.2 %
Residential mortgage loans held-for-investment in securitization trusts <sup>(4)</sup>	650,445	622	0.4 %	499,877	1,523	0.4 %
Commercial real estate assets	2,384,347	16,587	2.8 %	2,053,050	42,725	2.8 %
Total	22,911	114	2.0 %	11,840	172	1.9 %
	\$14,273,563	\$37,079	1.0 %	\$15,697,727	\$105,611	0.9 %

Average balance represents average total repurchase agreements and FHLB advances on AFS securities, Agency (1) Derivatives, trading securities, residential mortgage loans held-for-sale and commercial real estate assets, and average collateralized borrowings for residential mortgage loans held-for-investment in securitization trusts.

(2) Cost of funds by investment type is based on the underlying investment type of the asset assigned as collateral.

Cost of funds does not include the accrual and settlement of interest associated with interest rate swaps. In accordance with U.S. GAAP, those costs are included in gain (loss) on interest rate swap and swaption agreements in the condensed consolidated statements of comprehensive income (loss). For the three and nine months ended

September 30, 2016, our total average cost of funds on the assets assigned as collateral for repurchase agreements, FHLB advances and collateralized borrowings shown in the table above, including interest spread expense associated with interest rate swaps, was 1.5% and 1.6%, respectively, compared to 1.6% and 1.6% for the same periods in 2015.

Excludes Agency Derivatives. For the three and nine months ended September 30, 2016, our average cost of funds (3) on total Agency RMBS, including Agency Derivatives, was 0.8% and 0.7%, respectively, compared to 0.5% and 0.4% for the same periods in 2015.

(4) Includes repurchase agreements and FHLB advances collateralized by retained interests from our on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.

Table of Contents

Total interest expense increased from \$37.1 million and \$105.6 million for the three and nine months ended September 30, 2015 to \$60.2 million and \$155.6 million for the same periods in 2016, due primarily to increased interest expense on collateralized borrowings due to the completion of multiple securitization transactions in 2015 and 2016, commercial real estate assets and Agency RMBS AFS due to purchases.

The increase in cost of funds associated with the financing of Agency RMBS AFS, non-Agency RMBS and Agency Derivatives for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was the result of increases in the repurchase agreement borrowing rates offered by counterparties. We did not recognize any interest expense on the financing of trading securities during the three and nine months ended September 30, 2016 as we sold our trading securities position during 2015. The increase in cost of funds associated with the financing of residential mortgage loans held-for-sale for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was the result of an increase in the borrowing rate offered by the FHLB. The increase in cost of funds associated with the financing of residential mortgage loans held-for-investment in securitization trusts for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was primarily the result of the sale of and corresponding removal of FHLB financing on higher-rated retained interests from our on-balance sheet securitizations. The cost of funds on commercial real estate assets for the three and nine months ended September 30, 2015 represents repurchase agreement financing interest expense on one asset started in May 2015 which, as a result, is not comparable to the cost of funds for the three and nine months ended September 30, 2016.

**Net Interest Income**

The following tables present the components of net interest income and average annualized net interest rate spread earned by investment type on our AFS securities, trading securities, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment in securitization trusts, commercial real estate assets and Agency Derivatives for the three and nine months ended September 30, 2016 and 2015:

	Three Months		Nine Months	
	Ended September 30, 2016		Ended September 30, 2016	
	Net Interest Income	Net Interest Rate Spread (1)	Net Interest Income	Net Interest Rate Spread (1)
(dollars in thousands)				
Available-for-sale securities				
Agency (2)	\$58,990	2.0 %	\$155,759	2.1 %
Non-Agency	23,919	6.2 %	66,991	5.9 %
	82,909	2.4 %	222,750	2.6 %
Agency derivatives (3)	3,525	11.7 %	14,089	15.1 %
Trading securities	—	— %	—	— %
Residential mortgage loans held-for-sale	6,677	3.3 %	17,387	3.4 %
Residential mortgage loans held-for-investment in securitization trusts (4)	6,116	0.7 %	25,352	0.9 %
Commercial real estate assets	12,939	4.4 %	33,395	4.4 %
Total	\$112,166	2.3 %	\$312,973	2.5 %



Table of Contents

	Three Months Ended September 30, 2015		Nine Months Ended September 30, 2015	
	Net Interest Income	Net Interest Rate Spread (1)	Net Interest Income	Net Interest Rate Spread (1)
(dollars in thousands)				
Available-for-sale securities				
Agency <sup>(2)</sup>	\$63,508	2.6 %	\$207,517	2.7 %
Non-Agency	33,407	5.9 %	104,027	5.9 %
	96,915	3.2 %	311,544	3.2 %
Agency derivatives <sup>(3)</sup>	5,833	15.3 %	20,238	17.2 %
Trading securities	—	— %	6,949	0.8 %
Residential mortgage loans held-for-sale	8,857	3.6 %	19,745	3.4 %
Residential mortgage loans held-for-investment in securitization trusts <sup>(4)</sup>	8,254	1.1 %	22,183	1.1 %
Commercial real estate assets	1,833	5.9 %	2,669	5.7 %
Total	\$121,692	3.1 %	\$383,328	2.9 %

Net interest rate spread does not include the accrual and settlement of interest associated with interest rate swaps.

In accordance with U.S. GAAP, those costs are included in gain (loss) on interest rate swap and swaption agreements in the condensed consolidated statements of comprehensive income (loss). For the three and nine months ended September 30, 2016, our total average net interest rate spread on the assets shown in the table above, including interest spread expense associated with interest rate swaps, was 2.2% and 2.3%, respectively, compared to 2.5% and 2.2% for the same periods in 2015.

Excludes Agency Derivatives. For the three and nine months ended September 30, 2016, our average annualized net interest rate spread on total Agency RMBS, including Agency Derivatives, was 2.0% and 2.3%, respectively, compared to 2.8% and 2.9% for the same periods in 2015.

Interest income on Agency Derivatives is included in loss on other derivative instruments on the condensed consolidated statements of comprehensive income (loss), while interest expense on Agency Derivatives is included in interest expense on repurchase agreements on the condensed consolidated statements of comprehensive income (loss).

Net of interest expense on repurchase agreements and FHLB advances collateralized by retained interests from our on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.

The decrease in net interest rate spread on Agency RMBS AFS, Agency Derivatives and residential mortgage loans held-for-sale for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was predominantly driven by higher financing rates, as discussed above. The increase in net interest rate spread on non-Agency RMBS for the three months ended September 30, 2016, as compared to the same period in 2015, was due to continued improvement in legacy non-Agency fundamentals, credit performance and prepayments. The net interest rate spread on non-Agency RMBS for the nine months ended September 30, 2016 was consistent with that for the same period in 2015. We did not recognize any interest income or expense on trading securities during the three and nine months ended September 30, 2016 as we sold our trading security position during 2015. The decrease in net interest spread on our residential mortgage loans held-for-investment in securitization trusts for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was the result of sales of higher-rated retained interests from our on-balance sheet securitizations. The net interest rate spread on commercial real estate assets for the three and nine months ended September 30, 2015 represents interest income on one asset settled during

the first quarter of 2015 and eight assets settled during the third quarter of 2015, net of interest expense on one repurchase agreement started in May 2015, which, as a result, is not comparable to the spreads for the three and nine months ended September 30, 2016.

#### Other-Than-Temporary Impairments

We review each of our securities on a quarterly basis to determine if an OTTI charge is necessary. For the three and nine months ended September 30, 2016 and 2015, we recognized \$1.0 million and \$1.8 million in OTTI losses, respectively. For the three and nine months ended September 30, 2015, we recognized \$0.2 million and \$0.5 million in OTTI losses, respectively. For further information about evaluating AFS securities for OTTI, refer to Note 4 - Available-for-Sale Securities, at Fair Value of the notes to the condensed consolidated financial statements.

Table of Contents

## Gain on Investment Securities

During the three and nine months ended September 30, 2016, we sold AFS securities for \$2.8 billion and \$6.6 billion with an amortized cost of \$2.8 billion and \$6.5 billion, for net realized gains of \$31.8 million and \$63.3 million, respectively. During the three and nine months ended September 30, 2015, we sold AFS securities for \$1.1 billion and \$3.7 billion with an amortized cost of \$1.0 billion and \$3.4 billion, for net realized gains of \$66.5 million and \$259.8 million, respectively. We also sold trading securities for \$2.0 billion with an amortized cost of \$2.0 billion, resulting in realized gains of \$7.4 million for the nine months ended September 30, 2015. We did not sell any trading securities during the three and nine months ended September 30, 2016 or the three months ended September 30, 2015. We do not expect to sell assets on a frequent basis, but may sell assets to reallocate capital into new assets that we believe have higher risk-adjusted returns.

For the three and nine months ended September 30, 2016, Agency interest-only mortgage-backed securities and GSE credit risk transfer securities experienced a change in unrealized losses of \$3.5 million and a change in unrealized gains of \$2.7 million, respectively. For both the three and nine months ended September 30, 2015, Agency interest-only mortgage-backed securities and GSE credit risk transfer securities experienced a change in unrealized losses of \$2.3 million. The changes in unrealized gains and losses for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, were impacted by increased prepayment expectations on Agency interest-only mortgage-backed securities, offset by continued improvement in fundamentals, credit performance and prepayments on GSE credit risk transfer securities.

For the nine months ended September 30, 2015, trading securities experienced a change in unrealized losses \$1.4 million. We did not hold any trading securities during the three and nine months ended September 30, 2016 or the three months ended September 30, 2015. The decrease in change in unrealized losses on trading securities for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was driven by the sale of our trading security position during 2015.

## Gain (Loss) on Interest Rate Swap and Swaption Agreements

For the three and nine months ended September 30, 2016, we recognized \$4.3 million and \$18.1 million, respectively, of expenses for the accrual and/or settlement of the net interest expense associated with our interest rate swaps. The expenses result from paying either a fixed interest rate or LIBOR interest on an average \$14.5 billion and \$14.8 billion notional, respectively, to economically hedge/mitigate interest rate exposure (or duration) risk associated with our investment portfolio and our short-term repurchase agreements and FHLB advances, and receiving either LIBOR interest or a fixed interest rate. For the three and nine months ended September 30, 2015, we recognized \$19.4 million and \$73.1 million, respectively, of expenses for the accrual and/or settlement of the net interest expense associated with our interest rate swaps. The expenses result from paying either a fixed interest rate or LIBOR interest on an average \$15.4 billion and \$16.8 billion notional, respectively, to economically hedge/mitigate interest rate exposure (or duration) risk associated with our investment portfolio and our short-term repurchase agreements and FHLB advances, and receiving either LIBOR interest or a fixed interest rate.

During the three and nine months ended September 30, 2016, we terminated, had agreements mature or had options expire on 26 and 81 interest rate swap and swaption positions of \$1.2 billion and \$20.9 billion notional, respectively. Upon settlement of the early terminations and option expirations, we paid \$0.7 million and \$2.7 million in full settlement of our net interest spread liability and recognized \$95.1 million and \$119.5 million in realized losses on the swaps and swaptions for the three and nine months ended September 30, 2016, respectively, including early termination penalties. During the three and nine months ended September 30, 2015, we terminated, had agreements mature or had options expire on 25 and 69 interest rate swap and swaption positions of \$17.9 billion and \$47.4 billion notional, respectively. Upon settlement of the early terminations and option expirations, we paid \$4.7 million and \$32.3 million in full settlement of our net interest spread liability and recognized \$61.9 million and \$125.0 million in realized losses on the swaps and swaptions for the three and nine months ended September 30, 2015, respectively, including early termination penalties. We elected to terminate certain swaps and swaptions during these periods to align with our investment portfolio.

Also included in our financial results for the three and nine months ended September 30, 2016, was the recognition of a change in unrealized valuation gains of \$104.9 million and \$5.1 million, respectively, on our interest rate swap and swaption agreements that were accounted for as trading instruments, compared to a change in unrealized valuation losses of \$90.3 million and \$55.1 million for the same periods in 2015. The change in fair value of interest rate swaps was a result of changes to LIBOR, the swap curve and corresponding counterparty borrowing rates during the three and nine months ended September 30, 2016 and 2015. Since these swaps and swaptions are used for purposes of hedging our interest rate exposure, their unrealized valuation gains and losses are generally offset by unrealized losses and gains in our Agency RMBS AFS portfolio, which are recorded either directly to stockholders' equity through other comprehensive income (loss), net of tax, or to gain on investment securities, in the case of Agency interest-only securities.

Table of Contents

The following table provides the net interest spread and gains and losses associated with our interest rate swap and swaption positions:

(in thousands)	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Net interest spread	\$(4,294)	\$(19,411 )	\$(18,140 )	\$(73,084 )
Early termination, agreement maturation and option expiration losses	(95,061 )	(61,908 )	(119,548 )	(124,984 )
Change in unrealized gain (loss) on interest rate swap and swaption agreements, at fair value	104,939	(90,337 )	5,080	(55,079 )
Gain (loss) on interest rate swap and swaption agreements	\$5,584	\$(171,656)	\$(132,608)	\$(253,147)

#### Loss on Other Derivative Instruments

Included in our financial results for the three and nine months ended September 30, 2016, was the recognition of \$12.0 million and \$44.1 million of losses, respectively, on other derivative instruments we hold for purposes of both hedging and non-hedging activities, principally credit default swaps, TBAs, put and call options for TBAs, Markit IOS total return swaps and inverse interest-only securities. Included within these results for the three and nine months ended September 30, 2016, was the recognition of \$4.0 million and \$15.4 million of interest income, net of accretion on inverse interest-only securities on an average amortized cost basis of \$119.0 million and \$123.1 million, respectively. The remainder represented realized and unrealized net gains (losses) on other derivative instruments. As these derivative instruments are considered trading instruments, our financial results include both realized and unrealized gains (losses) associated with these instruments.

Included in our financial results for the three and nine months ended September 30, 2015, was the recognition of \$0.5 million and \$3.0 million of losses, respectively, on other derivative instruments we hold for purposes of both hedging and non-hedging activities, principally credit default swaps, TBAs, short U.S. Treasuries, put and call options for TBAs and U.S. Treasuries, constant maturity swaps, Markit IOS total return swaps and inverse interest-only securities. Included within these results for the three and nine months ended September 30, 2015, was the recognition of \$6.2 million and \$21.3 million of interest income, net of accretion on inverse interest-only securities on an average amortized cost basis of \$151.0 million and \$155.9 million, respectively. The remainder represented realized and unrealized net gains (losses) on other derivative instruments. Since our derivative instruments are generally used for purposes of hedging our interest rate and credit risk exposure, their unrealized valuation gains and losses are generally offset by unrealized losses and gains in our RMBS AFS and residential mortgage loan portfolios.

#### (Loss) Gain on Residential Mortgage Loans Held-for-Sale

For the three and nine months ended September 30, 2016, we recorded losses of \$0.9 million and gains of \$17.6 million, respectively, on residential mortgage loans held-for-sale. Included within these results was the recognition of losses of \$1.0 million and gains of \$15.2 million, respectively, on residential mortgage loans held-for-sale and gains of \$0.1 million and \$2.5 million on commitments to purchase residential mortgage loans held-for-sale for the three and nine months ended September 30, 2016, respectively. For the three and nine months ended September 30, 2015, we recorded gains of \$16.0 million and \$18.3 million, respectively, on residential mortgage loans held-for-sale. Included within these results was the recognition of gains of \$13.2 million and \$19.6 million, respectively, on residential mortgage loans held-for-sale and gains of \$2.8 million and losses of \$1.3 million on commitments to purchase residential mortgage loans held-for-sale for the three and nine months ended September 30, 2015, respectively. The decrease in gains on residential mortgage loans held-for-sale during the three months ended September 30, 2016, as compared to the same period in 2015, was generally due to lower realized gains on the redelivery of Ginnie Mae buyout residential mortgage loans to future Ginnie Mae pools. The decrease in gain on residential mortgage loans held-for-sale during the nine months ended September 30, 2016, as compared to the same period in 2015, was due to lower realized gains on the redelivery of Ginnie Mae buyout residential mortgage loans to future Ginnie Mae pools, offset by higher unrealized gains on prime nonconforming residential mortgage loans driven by interest rates generally

falling during the nine months ended September 30, 2016, as compared to interest rates generally rising during the nine months ended September 30, 2015.

71

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Table of Contents

## Servicing Income

For the three and nine months ended September 30, 2016, we recognized total servicing income of \$38.7 million and \$108.7 million, respectively. These amounts include servicing fee income of \$37.2 million and \$104.8 million, ancillary fee income of \$0.4 million and \$1.4 million, and float income of \$1.0 million and \$2.5 million, respectively. For the three and nine months ended September 30, 2015, we recognized total servicing income of \$32.0 million and \$94.6 million, respectively. These amounts include servicing fee income of \$31.1 million and \$91.9 million, ancillary fee income of \$0.5 million and \$1.6 million, and float income of \$0.4 million and \$1.1 million, respectively. The increase in servicing income for the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was the result of an increase in the size of our MSR portfolio.

## Loss on Servicing Asset

For the three and nine months ended September 30, 2016, loss on servicing asset of \$33.5 million and \$211.4 million, respectively, includes a decrease in fair value of MSR due to realization of cash flows (runoff) of \$18.2 million and \$52.8 million, respectively, and an increase in fair value of MSR due to changes in valuation inputs or assumptions of \$3.8 million and a decrease in fair value of MSR due to changes in valuation inputs or assumptions of \$139.6 million, respectively. Additionally, we recognized losses on sales of MSR of \$19.1 million for both the three and nine months ended September 30, 2016. For the three and nine months ended September 30, 2015, loss on servicing asset of \$61.5 million and \$96.3 million, respectively, includes a decrease in fair value of MSR due to realization of cash flows (runoff) of \$12.1 million and \$32.7 million, respectively, and a decrease in fair value of MSR due to changes in valuation inputs or assumptions of \$49.4 million and \$63.6 million, respectively. The decrease in loss on servicing asset for the three months ended September 30, 2016, as compared to the same period in 2015, was the result of prepayment speed assumptions decreasing throughout the three months ended September 30, 2016, as opposed to prepayment speed assumptions increasing throughout the three months ended September 30, 2015, which was partially offset by higher actual prepayment speeds and losses on sales of MSR during the three months ended September 30, 2016. The increase in loss on servicing asset for the nine months ended September 30, 2016, as compared to the same period in 2015, was generally driven by an increase in prepayment speed assumptions as well as losses on sales of MSR during the three months ended September 30, 2016.

## Other Income (Loss)

For the three and nine months ended September 30, 2016, we recorded other income of \$5.8 million and other loss of \$1.0 million, which includes \$24.6 million and \$63.7 million in gains on residential mortgage loans held-for-investment in securitization trusts and \$20.4 million and \$68.9 million in losses, respectively, on collateralized borrowings in securitization trusts. Also included in other income (loss) for the three and nine months ended September 30, 2016 was other mortgage loan revenue of \$0.1 million and \$0.2 million and dividend income on our FHLB stock of \$1.4 million and \$4.1 million, respectively. For the three and nine months ended September 30, 2015, we recorded other income of \$2.2 million and other loss of \$16.3 million, which includes \$16.0 million in gains and \$33.1 million in losses, respectively, on residential mortgage loans held-for-investment in securitization trusts and \$14.9 million in losses and \$13.6 million in gains, respectively, on collateralized borrowings in securitization trusts. Also included in other income (loss) for the three and nine months ended September 30, 2015 was other mortgage loan revenue of \$0.1 million and \$0.4 million and dividend income on our FHLB stock of \$1.0 million and \$2.7 million, respectively. The decrease in other loss for the three months ended September 30, 2016, as compared to the same period in 2015, was due in part to the sale of retained interests from our on-balance sheet securitizations during the three months ended September 30, 2016. The increase in other income for the nine months ended September 30, 2016, as compared to the same period in 2015, was driven by interest rates generally falling during the nine months ended September 30, 2016, as compared to interest rates generally rising during the nine months ended September 30, 2015.

## Management Fees

We incurred management fees of \$11.4 million and \$35.3 million for the three and nine months ended September 30, 2016 and \$12.6 million and \$38.0 million for the three and nine months ended September 30, 2015, respectively,

which are payable to PRCM Advisers, our external manager, under our management agreement. The management fee is calculated based on our stockholders' equity with certain adjustments outlined in the management agreement. See further discussion of the management fee calculation in Note 24 - Related Party Transactions of the notes to the condensed consolidated financial statements.

#### Securitization Deal Costs

For the three and nine months ended September 30, 2016, we recognized \$2.1 million and \$6.2 million, respectively, in upfront costs related to the sponsoring of securitization trusts, compared to \$2.7 million and \$7.8 million for the same periods in 2015. These costs are included when evaluating the economics of a securitization; however, the election of the fair value option for the assets and liabilities held in the securitization trusts requires the expense to be recognized upfront on the condensed consolidated statements of comprehensive income (loss). Changes in securitization deal costs are directly related to the number and size of securitization trusts sponsored by either third parties or our subsidiaries during the respective periods.



## Table of Contents

### Servicing Expenses

For the three and nine months ended September 30, 2016, we recognized \$9.1 million and \$24.5 million, respectively, in servicing expenses generally related to the subservicing of residential mortgage loans, commercial real estate assets and MSR, compared to \$7.2 million and \$19.8 million for the same periods in 2015. Included in servicing expenses for the three and nine months ended September 30, 2016 was MSR representation and warranty reserve expense of \$1.1 million and \$1.9 million, respectively, compared to MSR representation and warranty reserve expense of \$0.4 million and a decrease in the MSR representation and warranty reserve of \$0.5 million for the same respective periods in 2015. The increase in servicing expenses during the three and nine months ended September 30, 2016, as compared to the same periods in 2015, was the result of an increase in the size of our MSR portfolio and an increase in the MSR representation and warranty reserve.

### Other Operating Expenses

For the three and nine months ended September 30, 2016, we recognized \$14.8 million and \$47.3 million of other operating expenses, which represents an annualized expense ratio of 1.7% and 1.8% of average equity, respectively. For the three and nine months ended September 30, 2015, we recognized \$16.1 million and \$48.0 million of other operating expenses, which represents an annualized expense ratio of 1.6% of average equity for both respective periods. The increase of our operating expense ratio resulted primarily from a decrease in our average equity balance due to share repurchases in 2015 and 2016.

Included in other operating expenses are direct and allocated costs incurred by PRCM Advisers on our behalf and reimbursed by us. For the three and nine months ended September 30, 2016, these direct and allocated costs totaled approximately \$6.3 million and \$19.1 million, respectively, compared to \$5.9 million and \$16.0 million for the same periods in 2015. Included in these reimbursed costs was compensation paid to employees of Pine River serving as our principal financial officer and general counsel of \$0.2 million and \$1.6 million for the three and nine months ended September 30, 2016 and \$0.2 million and \$1.5 million for the three and nine months ended September 30, 2015, respectively. The allocation of compensation paid to employees of Pine River serving as our principal financial officer and general counsel is based on time spent overseeing our company's activities in accordance with the management agreement; we do not reimburse PRCM Advisers for any expenses related to the compensation of our chief executive officer or chief investment officer. Equity based compensation expense for the three and nine months ended September 30, 2016 also includes the amortization of the restricted stock awarded to our executive officers in conjunction with the Company's Second Restated 2009 Equity Incentive Plan, or the Plan (see discussion in Note 20 - Equity Incentive Plan), including our chief executive officer, chief investment officer, principal financial officer and general counsel of \$1.7 million and \$5.6 million, compared to \$1.0 million and \$3.5 million for the three and nine months ended September 30, 2015, respectively.

We have direct relationships with the majority of our third-party vendors. We will continue to have certain costs allocated to us by PRCM Advisers for compensation, data services, proprietary technology and certain office lease payments, but most of our expenses with third-party vendors are paid directly by us.

### Restructuring Charges

On July 28, 2016, we announced that our board of directors had approved a plan to discontinue our mortgage loan conduit and securitization business. This decision was made due to the challenging market environment facing the business, combined with the intent to reduce operating complexity and costs, and will allow for the reallocation of capital to more attractive and efficient target assets. The wind down process is expected to be substantially completed by the end of 2016.

In connection with the closure, we incurred restructuring charges, including termination benefits, contract terminations and other associated costs, of \$1.2 million for both the three and nine months ended September 30, 2016.

### Income Taxes

During the three and nine months ended September 30, 2016, our TRSs recognized a benefit from income taxes of \$16.8 million and \$26.1 million, respectively, which was primarily due to losses incurred on MSR and derivative instruments held in the Company's TRSs. During the three and nine months ended September 30, 2015, our TRSs

recognized a benefit from income taxes of \$7.7 million and \$25.3 million, respectively, which was primarily due to losses incurred on MSR and derivative instruments held in the Company's TRSs. We currently intend to distribute 100% of our REIT taxable income and comply with all requirements to continue to qualify as a REIT.

#### Financial Condition

##### Available-for-Sale Securities, at Fair Value

##### Agency RMBS

Our Agency RMBS AFS portfolio is comprised of adjustable rate and fixed rate mortgage-backed securities backed by single-family and multi-family mortgage loans. All of our principal and interest Agency RMBS AFS were Fannie Mae or Freddie Mac mortgage pass-through certificates or collateralized mortgage obligations that carry an implied rating of "AAA," or Ginnie Mae mortgage pass-through certificates, which are backed by the guarantee of the U.S. Government. The majority of these securities consist of whole pools in which we own all of the investment interests in the securities.

Table of Contents

The table below summarizes certain characteristics of our Agency RMBS AFS securities at September 30, 2016:

September 30, 2016								
(dollars in thousands, except purchase price)	Principal/ Current Face	Net (Discount) Premium	Amortized Cost	Unrealized Gain	Unrealized Loss	Carrying Value	Weighted Average Coupon Rate	Weighted Average Purchase Price
Principal and interest securities:								
Fixed	\$11,410,264	\$589,090	\$11,999,354	\$195,181	\$(7,586)	\$12,186,949	3.59 %	\$105.64
Hybrid ARM	30,405	1,695	32,100	783	(295)	32,588	5.03 %	\$108.35
Total P&I Securities	11,440,669	590,785	12,031,454	195,964	(7,881)	12,219,537	3.59 %	\$105.64
Interest-only securities								
Fixed	363,824	(315,530)	48,294	913	(3,915)	45,292	3.97 %	\$16.04
Fixed Other <sup>(1)</sup>	2,450,069	(2,270,420)	179,649	11,442	(19,104)	171,987	1.63 %	\$9.21
Total	\$14,254,562	\$(1,995,165)	\$12,259,397	\$208,319	\$(30,900)	\$12,436,816		

Fixed Other represents weighted-average coupon interest-only securities that are not generally used for our interest-rate risk management purposes. These securities pay variable coupon interest based on the weighted average of the fixed rates of the underlying loans of the security, less the weighted average rates of the applicable issued principal and interest securities.

Our three-month average constant prepayment rate, or CPR, experienced by Agency RMBS AFS owned by us as of September 30, 2016, on an annualized basis, was 9.6%.

The following table summarizes the number of months until the next reset for our floating or adjustable rate Agency RMBS AFS mortgage portfolio at September 30, 2016:

(in thousands)	September 30, 2016
0-12 months	\$ 32,248
13-36 months	340
Total	\$ 32,588

## Non-Agency RMBS

Our non-Agency RMBS portfolio is comprised of senior and mezzanine tranches of mortgage-backed securities, and excludes the retained interests from our on-balance sheet securitizations, as they are eliminated in consolidation in accordance with U.S. GAAP. The following table provides investment information on our non-Agency RMBS as of September 30, 2016:

As of September 30, 2016							
(in thousands)	Principal/ current face	Accretable purchase discount	Credit reserve purchase discount	Amortized cost	Unrealized gain	Unrealized loss	Carrying value
Principal and interest securities:							
Senior	\$1,593,596	\$(382,360)	\$(302,728)	\$908,508	\$288,015	\$(3,548)	\$1,192,975
Mezzanine	844,522	(214,801)	(49,761)	579,960	71,404	(1,371)	649,993
Total P&I Securities	2,438,118	(597,161)	(352,489)	1,488,468	359,419	(4,919)	1,842,968
Interest-only securities	196,876	(192,264)	—	4,612	329	(100)	4,841

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Total \$2,634,994 \$(789,425) \$(352,489) \$1,493,080 \$359,748 \$(5,019 ) \$1,847,809

74

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Table of Contents

The majority of our non-Agency RMBS were rated at September 30, 2016. Note that credit ratings are based on the par value of the non-Agency RMBS, whereas the distressed non-Agency RMBS assets in our portfolio were acquired at heavily discounted prices. The following table summarizes the credit ratings of our non-Agency RMBS portfolio, based on the Bloomberg Index Rating, a composite of each of the four major credit rating agencies (i.e., DBRS Ltd., Moody's Investors Services, Inc., Standard & Poor's Corporation and Fitch, Inc.), as of September 30, 2016:

	September 30, 2016	
AAA	—	%
AA	—	%
A	0.1	%
BBB	4.0	%
BB	1.4	%
B	4.0	%
Below B	75.3	%
Not rated	15.2	%
Total	100.0	%

Within our non-Agency RMBS portfolio, we have historically had a substantial emphasis on “legacy” securities, which include securities issued prior to 2009, many of which were subprime. We believe these deeply discounted securities can add relative value as the economy and housing markets continue to improve. There remains upside optionality to lower delinquencies, higher recoveries and faster prepaes. Throughout the past year, however, we have sold a number of these securities that we believe had reached maximum value, many of which were replaced with “new issue” non-Agency RMBS. We believe these “new issue” securities, which include some GSE credit risk transfer securities, have enabled us to find attractive returns and further diversify our non-Agency RMBS portfolio.

As a result of these portfolio changes, our designated credit reserve as a percentage of total discount and total face value has decreased (as disclosed in Note 4 - Available-for-Sale Securities, at Fair Value of the notes to the condensed consolidated financial statements). When focused on principal and interest securities, from September 30, 2015 to September 30, 2016, our designated credit reserve as a percentage of total discount decreased from 51.3% to 37.1% and our designated credit reserve as a percentage of total face value decreased from 17.9% to 14.5%.

A subprime bond may generally be considered higher risk; however, if purchased at a discount that reflects a high expectation of credit losses, it could be viewed as less risky than a prime bond, which is subject to unanticipated credit loss performance. Accordingly, we believe our risk profile in owning a heavily discounted subprime bond with known delinquencies affords us the ability to assume a higher percentage of expected credit loss with comparable risk-adjusted returns to a less discounted prime bond with a lower percentage of expected credit loss.

Table of Contents

The following tables present certain information by investment type and, if applicable, their respective underlying loan characteristics for our senior and mezzanine non-Agency RMBS, excluding our non-Agency interest-only portfolio, at September 30, 2016:

Non-Agency Principal and Interest (P&I) RMBS	At September 30, 2016			
	Senior	Mezzanine	Total P&I RMBS	
Carrying Value (in thousands)	\$1,192,975	\$649,993	\$1,842,968	
% of Non-Agency Portfolio	64.7	% 35.3	% 100.0	%
Average Purchase Price <sup>(1)</sup>	\$53.96	\$68.40	\$59.05	
Average Coupon	2.9	% 2.3	% 2.7	%
Average Fixed Coupon	5.6	% 3.5	% 4.4	%
Average Floating Coupon	2.5	% 1.9	% 2.3	%
Average Hybrid Coupon	5.1	% 2.9	% 4.6	%
Collateral Attributes				
Average Loan Age (months)	120	124	121	
Average Loan Size (in thousands)	\$361	\$303	\$345	
Average Original Loan-to-Value	70.9	% 69.4	% 70.5	%
Average Original FICO <sup>(2)</sup>	635	656	641	
Current Performance				
60+ day delinquencies	25.3	% 19.1	% 23.6	%
Average Credit Enhancement <sup>(3)</sup>	10.1	% 19.1	% 12.5	%
3-Month CPR <sup>(4)</sup>	5.7	% 11.5	% 7.3	%

(1) Average purchase price utilized carrying value for weighting purposes. If current face were utilized for weighting purposes, the average purchase price for senior, mezzanine, and total non-Agency RMBS, excluding our non-Agency interest-only portfolio, would be \$50.16, \$65.98, and \$55.64, respectively, at September 30, 2016.

(2) FICO represents a mortgage industry accepted credit score of a borrower, which was developed by Fair Isaac Corporation.

(3) Average credit enhancement remaining on our non-Agency RMBS portfolio, which is the average amount of protection available to absorb future credit losses due to defaults on the underlying collateral.

Three-month CPR is reflective of the prepayment speed on the underlying securitization; however, it does not

(4) necessarily indicate the proceeds received on our investment tranche. Proceeds received for each security are dependent on the position of the individual security within the structure of each deal.

Collateral Type	September 30, 2016						
	Senior		Mezzanine		Total P&I RMBS		
(dollars in thousands)	Carrying Value	% of Senior Portfolio	Carrying Value	% of Mezzanine Portfolio	Carrying Value	% of Non-Agency Portfolio	
Prime	\$73,007	6.1 %	\$17,734	2.7 %	\$90,741	5.0 %	%
Alt-A	58,251	4.9 %	56,899	8.8 %	115,150	6.2 %	%
POA	116,142	9.7 %	38,142	5.9 %	154,284	8.4 %	%
Subprime	932,905	78.2 %	298,992	46.0 %	1,231,897	66.8 %	%
Other	12,670	1.1 %	238,226	36.6 %	250,896	13.6 %	%
Total	\$1,192,975	100.0 %	\$649,993	100.0 %	\$1,842,968	100.0 %	%

September 30, 2016

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Coupon Type	Senior			Mezzanine			Total P&I RMBS		
	Carrying Value	% of Senior Portfolio		Carrying Value	% of Mezzanine Portfolio		Carrying Value	% of Non-Agency Portfolio	
Fixed Rate	\$138,017	11.6 %		\$163,949	25.2 %		\$301,966	16.4 %	
Hybrid or Floating	1,054,958	88.4 %		486,044	74.8 %		1,541,002	83.6 %	
Total	\$1,192,975	100.0 %		\$649,993	100.0 %		\$1,842,968	100.0 %	

76

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Table of Contents

(dollars in thousands)	September 30, 2016								
	Senior			Mezzanine			Total P&I RMBS		
Origination Year	Carrying Value	% of Senior Portfolio	Carrying Value	% of Mezzanine Portfolio	Carrying Value	% of Non-Agency Portfolio			
2006 and Thereafter	\$ 1,020,992	85.6 %	\$ 382,489	58.9 %	\$ 1,403,481	76.2 %			
2002-2005	167,774	14.1 %	267,348	41.1 %	435,122	23.6 %			
Pre-2002	4,209	0.3 %	156	— %	4,365	0.2 %			
Total	\$ 1,192,975	100.0 %	\$ 649,993	100.0 %	\$ 1,842,968	100.0 %			

## Trading Securities, at Fair Value

From time to time, we hold U.S. Treasuries in a TRS and classify these securities as trading instruments due to short-term investment objectives. We did not have any trading securities on our condensed consolidated balance sheet as of September 30, 2016.

## Residential Mortgage Loans Held-for-Sale, at Fair Value

As of September 30, 2016, we held prime nonconforming residential mortgage loans with a carrying value of \$655.8 million and had outstanding commitments to purchase \$61.4 million of residential mortgage loans, subject to fallout if the loans do not close. In July 2016, we announced a plan to discontinue our mortgage loan conduit and securitization business. The wind down process is scheduled to be substantially completed by the end of 2016, during which time we expect to sell our remaining loans through one or more whole loan sales.

In 2013, we acquired a portfolio of CSL, which are loans where the borrower has previously experienced payment delinquencies and is more likely to be underwater (i.e., the amount owed on a mortgage loan exceeds the current market value of the home). As a result, there is a higher probability of default than on newly originated residential mortgage loans. We subsequently sold substantially all of our CSL portfolio during the first quarter of 2014. As of September 30, 2016, we had CSL with a carrying value of \$10.5 million remaining.

Additionally, as the owner of MSR on loans from securitizations guaranteed by Ginnie Mae, we are obligated to purchase these loans from time to time in order to complete modifications on the mortgage loans or to convey foreclosed properties to HUD. We also have the option to buy out delinquent mortgages in order to better control loss mitigation activities. As of September 30, 2016, we held Ginnie Mae buyout residential mortgage loans with a carrying value of \$56.9 million.

The following table presents our residential mortgage loans held-for-sale portfolio by loan type as of September 30, 2016:

(in thousands)	September 30, 2016			
	Unpaid Principal Balance	Fair Value - Purchase Price	Fair Value - Unrealized	Carrying Value
Prime nonconforming residential mortgage loans	\$641,517	\$12,372	\$ 1,862	\$655,751
Credit sensitive residential mortgage loans	18,125	(5,436 )	(2,174 )	10,515
Ginnie Mae buyout residential mortgage loans	60,967	(3,182 )	(877 )	56,908
Residential mortgage loans held-for-sale	\$720,609	\$3,754	\$ (1,189 )	\$723,174

## Residential Mortgage Loans Held-for-Investment in Securitization Trusts, at Fair Value

We purchase subordinated debt and excess servicing rights from securitization trusts sponsored by either third parties or our subsidiaries. The underlying residential mortgage loans held by the trusts, which are consolidated on our condensed consolidated balance sheets, are classified as residential mortgage loans held-for-investment in securitization trusts and carried at fair value as a result of a fair value option election. See Note 3 - Variable Interest



Entities to the condensed consolidated financial statements for additional information regarding consolidation of the securitization trusts. As of September 30, 2016, residential mortgage loans held-for-investment in securitization trusts had a carrying value of \$3.6 billion.

Table of Contents

## Commercial Real Estate Assets

We originate and purchase commercial real estate debt and related instruments generally to be held as long-term investments. These assets are classified as commercial real estate assets on the condensed consolidated balance sheets. Additionally, we are the sole certificate holder of a trust entity that holds a commercial real estate loan. The underlying loan held by the trust is consolidated on our condensed consolidated balance sheets and classified as commercial real estate assets. See Note 3 - Variable Interest Entities to the condensed consolidated financial statements for additional information regarding consolidation of the trust. Commercial real estate assets are reported at cost, net of any unamortized acquisition premiums or discounts, loan fees and origination costs as applicable, unless the loans are deemed impaired. As of September 30, 2016, our commercial real estate assets were comprised of 28 first mortgage and mezzanine commercial real estate loans with a carrying value of \$1.1 billion.

## Mortgage Servicing Rights, at Fair Value

One of our wholly owned subsidiaries has approvals from Fannie Mae, Freddie Mac and Ginnie Mae to own and manage MSR, which represent the right to control the servicing of mortgage loans. We do not directly service mortgage loans, and instead contract with fully licensed subservicers to handle substantially all servicing functions for the loans underlying our MSR. As of September 30, 2016, our MSR had a fair market value of \$455.6 million. As of September 30, 2016, our MSR portfolio included MSR on 249,032 loans with an unpaid principal balance of approximately \$55.1 billion. The following table summarizes certain characteristics of the loans underlying our MSR at September 30, 2016:

	At September 30, 2016				
	Government FHA (1)	Government VA/USDA (1)	Conventional (2)	Total	
Unpaid principal balance (in thousands)	\$ 156,490	\$ 17,227	\$ 54,907,142	\$ 55,080,859	
Number of loans	1,544	223	247,265	249,032	
Average Coupon	4.7	% 5.1	% 3.8	% 3.9	%
Average Loan Age (months)	100	109	26	27	
Average Loan Size (in thousands)	\$ 101	\$ 77	\$ 222	\$ 221	
Average Original Loan-to-Value	93.6	% 99.2	% 72.3	% 72.4	%
Average Original FICO	667	685	758	757	
60+ day delinquencies	12.2	% 14.4	% 0.2	% 0.3	%
3-Month CPR	20.3	% 22.3	% 17.2	% 17.7	%

(1) Includes loans issued by Ginnie Mae.

(2) Includes loans issued by Fannie Mae, Freddie Mac or private investors.

## Repurchase Agreements, Federal Home Loan Bank of Des Moines Advances and Revolving Credit Facilities

Our borrowings consist primarily of repurchase agreements, FHLB advances and revolving credit facilities collateralized by our pledge of AFS securities, derivative instruments, residential mortgage loans, commercial real estate assets, MSR and certain cash balances. Substantially all of our Agency RMBS AFS are currently pledged as collateral, and the majority of our non-Agency RMBS and residential mortgage loans have been pledged, either through repurchase agreements or FHLB advances. As of September 30, 2016, the debt-to-equity ratio funding our RMBS AFS, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives only was 4.2:1.0. We believe our debt-to-equity ratio provides unused borrowing capacity and, thus, improves our liquidity and the strength of our balance sheet.

Table of Contents

At September 30, 2016, borrowings under repurchase agreements, FHLB advances and revolving credit facilities had the following characteristics:

Collateral Type	September 30, 2016				
	Amount Outstanding	Weighted Average Borrowing Rate		Weighted Average Haircut on Collateral Value	
Agency RMBS	\$11,879,743	0.76	%	4.9	%
Non-Agency RMBS <sup>(1)</sup>	1,392,209	2.41	%	30.2	%
Agency Derivatives	114,759	1.60	%	26.6	%
Residential mortgage loans held-for-sale	485,411	0.67	%	22.2	%
Commercial real estate assets	765,251	1.48	%	21.0	%
Mortgage servicing rights	30,000	4.27	%	40.0	%
Total	\$14,667,373	0.96	%	9.0	%

<sup>(1)</sup> Includes repurchase agreements and FHLB advances collateralized by retained interests from our on-balance sheet securitizations which are eliminated in consolidation in accordance with U.S. GAAP.

As of September 30, 2016, we had outstanding \$10.6 billion of repurchase agreements, and the term to maturity ranged from two days to over 29 months. Repurchase agreements had a weighted average borrowing rate of 1.1% and weighted average remaining maturities of 69 days as of September 30, 2016.

As of September 30, 2016, we had outstanding \$4.0 billion of FHLB advances. As of September 30, 2016, the weighted average term to maturity of our FHLB advances was 149 months, ranging from approximately four months to over 19 years. The weighted average cost of funds for our advances was 0.67% at September 30, 2016.

As of September 30, 2016, we had outstanding \$30.0 million of short-term borrowings under revolving credit facilities with a weighted average borrowing rate of 4.27% and remaining maturities of 336 days.

The following table provides the quarterly average balances, the quarter-end balances, and the maximum balances at any month-end within that quarterly period, of borrowings under repurchase agreements, FHLB advances and revolving credit facilities for the three months ended September 30, 2016, and the four immediately preceding quarters:

(dollars in thousands)	Quarterly Average <sup>(1)</sup>	End of Period Balance <sup>(1)</sup>	Maximum Balance of Any Month-End <sup>(1)</sup>	End of Period Total Borrowings to Equity Ratio
For the Three Months Ended September 30, 2016	\$14,098,192	\$14,667,373	\$14,667,373	4.2 :1.0
For the Three Months Ended June 30, 2016	\$12,303,996	\$13,669,848	\$13,669,848	4.0 :1.0
For the Three Months Ended March 31, 2016	\$9,292,057	\$10,189,852	\$10,189,852	3.0 :1.0
For the Three Months Ended December 31, 2015	\$9,601,484	\$8,793,274	\$10,091,255	2.5 :1.0
For the Three Months Ended September 30, 2015	\$12,480,799	\$11,692,928	\$12,701,289	3.1 :1.0

<sup>(1)</sup> Includes borrowings under repurchase agreements, FHLB advances and revolving credit facilities collateralized by (1)RMBS AFS, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives and excludes repurchase agreements collateralized by collateralized borrowings in securitization trusts.

Collateralized Borrowings in Securitization Trusts, at Fair Value

We purchase subordinated debt and excess servicing rights from securitization trusts sponsored by either third parties or our subsidiaries. The underlying debt held by the trusts, which are consolidated on our condensed consolidated balance sheets, is classified as collateralized borrowings in securitization trusts and carried at fair value as a result of a fair value option election. See Note 3 - Variable Interest Entities to the condensed consolidated financial statements for additional information regarding consolidation of the securitization trusts. As of September 30, 2016, collateralized borrowings in securitization trusts had a carrying value of \$3.4 billion with a weighted average interest rate of 3.4%. The stated maturity dates for all collateralized borrowings were greater than five years from September 30, 2016.

Table of Contents

## Net Economic Interests in Consolidated Securitization Trusts

The net of the underlying residential mortgage loans and the debt held by the securitization trusts discussed above represents the carrying value of the securities that we retained from these securitizations. Because we consolidate these securitization trusts on our condensed consolidated balance sheets, our retained interests are eliminated in consolidation in accordance with U.S. GAAP. However, the carrying value, characteristics and performance of these securities and those of the underlying collateral are relevant to our portfolio as a whole.

The following table presents the carrying value and coupon of our net economic interests in consolidated securitization trusts and certain attributes of the underlying collateral as of September 30, 2016:

	September 30, 2016	
Carrying Value (in thousands)	\$ 239,956	
Average Coupon	3.0	%
Collateral Attributes		
Average Loan Age (months)	20	
Average Loan Size (in thousands)	\$ 811	
Average Original Loan-to-Value	65.6	%
Average Original FICO	772	
Current Performance		
60+ day delinquencies	0.04	%

The following table summarizes the carrying values and credit ratings of our net economic interests in consolidated securitization trusts, based on a composite of credit ratings received from DBRS Ltd., Standard & Poor's Corporation and/or Fitch, Inc. upon issuance of the securities, as of September 30, 2016:

	September 30, 2016	
(dollars in thousands)	Carrying Value	% of Retained Portfolio
AAA	\$34,354	14.3 %
AA	37,296	15.6 %
A	28,142	11.7 %
BBB	45,991	19.2 %
BB	33,870	14.1 %
B	—	— %
Below B	—	— %
Not rated	60,303	25.1 %
Total	\$239,956	100.0 %

Table of Contents

## Equity

As of September 30, 2016, our stockholders' equity was \$3.5 billion and our book value per share was \$10.01. As of June 30, 2016, our stockholders' equity was \$3.4 billion and our book value per share was \$9.83.

The following table provides details of our changes in stockholders' equity from June 30, 2016 to September 30, 2016:

(dollars in millions, except per share amounts)	Book Value	Common Shares Outstanding	Book Value Per Share
Stockholders' equity at June 30, 2016	\$3,418.1	347.6	\$9.83
Reconciliation of non-GAAP measures to GAAP net income and Comprehensive income:			
Core Earnings, net of tax benefit of \$1.9 million <sup>1</sup>	82.5		
Realized gains and losses, net of tax expense of \$62.4 million	(125.9 )		
Unrealized mark-to-market gains and losses, net of tax benefit of \$47.5 million	161.2		
GAAP net income	117.8		
Other comprehensive income, net of tax	18.7		
Comprehensive income	136.5		
Dividend declaration	(80.0 )		
Other	3.5	—	
Balance before capital transactions	3,478.1	347.6	
Repurchase of common stock	—	—	
Issuance of common stock, net of offering costs	0.1	—	
Stockholders' equity at September 30, 2016	\$3,478.2	347.6	\$10.01

Core Earnings is a non-U.S. GAAP measure that we define as Comprehensive Income (Loss), excluding “realized gains and losses” (impairment losses, realized gains or losses on the aggregate portfolio, amortization of business combination intangible assets, reserve expense for representation and warranty obligations on MSR, certain upfront (1) costs related to securitization transactions and restructuring charges) and “unrealized mark-to-market gains and losses” (unrealized gains and losses on the aggregate portfolio). As defined, Core Earnings includes interest income or expense and premium income or loss on derivative instruments and servicing income, net of estimated amortization on MSR. Core Earnings is provided for purposes of comparability to other peer issuers.

## Share Repurchase Program

As of December 31, 2015, our share repurchase program allowed for the repurchase of up to 25,000,000 shares of our common stock. During the nine months ended September 30, 2016, our board of directors authorized an increase of 50,000,000 shares, for up to a total of 75,000,000 shares authorized under the program. Shares may be repurchased from time to time through privately negotiated transactions or open market transactions, pursuant to a trading plan in accordance with Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, or by any combination of such methods. The manner, price, number and timing of share repurchases are subject to a variety of factors, including market conditions and applicable SEC rules. The share repurchase program does not require the purchase of any minimum number of shares, and, subject to SEC rules, purchases may be commenced or suspended at any time without prior notice. The share repurchase program does not have an expiration date. As of September 30, 2016, a total of 24,135,000 shares had been repurchased under the program for an aggregate cost of \$200.4 million; of these, 8,020,000 shares were repurchased for a total cost of \$61.3 million during the nine months ended September 30, 2016. We did not repurchase shares during the three months ended September 30, 2016.

## Liquidity and Capital Resources

Our liquidity and capital resources are managed and forecast on a daily basis. We believe this ensures that we have sufficient liquidity to absorb market events that could negatively impact collateral valuations and result in margin calls, and that we have the flexibility to manage our portfolio to take advantage of market opportunities.

Our principal sources of cash consist of borrowings under repurchase agreements, FHLB advances and revolving credit facilities, payments of principal and interest we receive on our target assets, cash generated from our operating results, and proceeds from capital market transactions. We typically use cash to repay principal and interest on our repurchase agreements and FHLB advances, to purchase our target assets, to make dividend payments on our capital stock, and to fund our operations.

Table of Contents

To the extent that we raise additional equity capital through capital market transactions, we anticipate using cash proceeds from such transactions to purchase additional RMBS, MSR, commercial real estate assets and other target assets and for other general corporate purposes.

As of September 30, 2016, we held \$688.4 million in cash and cash equivalents available to support our operations; \$20.4 billion of AFS securities, residential mortgage loans held-for-sale, residential mortgage loans held-for-investment in securitization trusts, commercial real estate assets, MSR and derivative assets held at fair value; and \$18.0 billion of outstanding debt in the form of repurchase agreements, FHLB advances, borrowings under revolving credit facilities and collateralized borrowings in securitization trusts. During the three months ended September 30, 2016, our total consolidated debt-to-equity ratio increased from 4.9:1.0 to 5.2:1.0. The debt-to-equity ratio funding our AFS securities, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives only also increased from 4.0:1.0 to 4.2:1.0 predominantly driven by the purchase of and increased financing on Agency RMBS, commercial real estate assets and MSR. We believe the debt-to-equity ratio funding our AFS securities, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives is the most meaningful debt-to-equity measure as collateralized borrowings on residential mortgage loans held-for-investment in securitization trusts represents term financing with no stated maturity.

As of September 30, 2016, we had approximately \$3.1 million of unpledged Agency RMBS AFS and Agency Derivatives and \$26.8 million of unpledged non-Agency securities and retained interests from our on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP. As a result, we had an overall estimated unused borrowing capacity on unpledged RMBS and retained interests of approximately \$20.7 million. We also had approximately \$23.1 million of unpledged prime nonconforming residential mortgage loans, \$10.5 million of unpledged CSL and \$56.9 million of unpledged Ginnie Mae buyout residential mortgage loans, and an overall estimated unused borrowing capacity on unpledged residential mortgage loans held-for-sale of approximately \$72.0 million. As of September 30, 2016, we had approximately \$44.0 million of unpledged mezzanine commercial real estate loans and \$73.4 million of unpledged commercial real estate first mortgages, and an overall estimated unused borrowing capacity on unpledged commercial real estate assets of approximately \$78.3 million. We also had approximately \$382.1 million of unpledged MSR with no unused borrowing capacity on unpledged MSR. On a daily basis, we monitor and forecast our available, or excess, liquidity. Additionally, we frequently perform shock analyses against various market events to monitor the adequacy of our excess liquidity. If borrowing rates and/or collateral requirements change in the near term, we believe we are subject to less earnings volatility than a more leveraged organization.

During the nine months ended September 30, 2016, we did not experience any restrictions to our funding sources, although balance sheet capacity of counterparties tightened due to compliance with the Basel III regulatory capital reform rules as well as management of perceived risk in the volatile interest rate environment. We expect ongoing sources of financing to be primarily repurchase agreements, FHLB advances, revolving credit facilities and similar financing arrangements. We plan to finance our assets with a moderate amount of leverage, the level of which may vary based upon the particular characteristics of our portfolio and market conditions.

As of September 30, 2016, we had master repurchase agreements in place with 31 counterparties (lenders), the majority of which are U.S. domiciled financial institutions, and we continue to evaluate further counterparties to manage and reduce counterparty risk. Under our repurchase agreements, we are required to pledge additional assets as collateral to our lenders when the estimated fair value of the existing pledged collateral under such agreements declines and such lenders, through a margin call, demand additional collateral. Lenders generally make margin calls because of a perceived decline in the value of our assets collateralizing the repurchase agreements. This may occur following the monthly principal reduction of assets due to scheduled amortization and prepayments on the underlying mortgages, or may be caused by changes in market interest rates, a perceived decline in the market value of the investments and other market factors. To cover a margin call, we may pledge additional securities or cash. At maturity, any cash on deposit as collateral is generally applied against the repurchase agreement balance, thereby reducing the amount borrowed. Should the value of our assets suddenly decrease, significant margin calls on our



repurchase agreements could result, causing an adverse change in our liquidity position.

82

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Table of Contents

The following table summarizes our repurchase agreements and counterparty geographical concentration at September 30, 2016 and December 31, 2015:

(dollars in thousands)	September 30, 2016			December 31, 2015		
	Amount Outstanding	Net Counterparty Exposure <sup>(1)</sup>	Percent of Funding	Amount Outstanding	Net Counterparty Exposure <sup>(1)</sup>	Percent of Funding
North America	\$5,391,852	\$ 910,586	66.1 %	\$ 3,381,616	\$ 693,667	67.0 %
Europe <sup>(2)</sup>	3,580,627	362,856	26.4 %	1,125,944	303,206	29.3 %
Asia <sup>(2)</sup>	1,664,894	103,233	7.5 %	500,714	38,912	3.7 %
Total	\$10,637,373	\$ 1,376,675	100.0 %	\$5,008,274	\$ 1,035,785	100.0 %

Represents the net carrying value of the securities, residential mortgage loans held-for-sale and commercial real estate assets sold under agreements to repurchase, including accrued interest plus any cash or assets on deposit to (1) secure the repurchase obligation, less the amount of the repurchase liability, including accrued interest. Payables due to broker counterparties for unsettled securities purchases are not included in the amounts presented above.

However, at both September 30, 2016 and December 31, 2015, the Company did not have any such payables.

(2) Exposure to European and Asian domiciled banks and their U.S. subsidiaries.

In addition to our master repurchase agreements to fund our RMBS and commercial real estate assets, we have two facilities that provide short- and long-term financing for our commercial real estate assets and one revolving credit facility that provides short-term financing for our MSR portfolio. An overview of the facilities is presented in the table below:

(dollars in thousands)

As of September 30, 2016

Expiration Date <sup>(1)</sup>	Committed	Amount Outstanding	Unused Capacity	Total Capacity	Eligible Collateral
December 3, 2017	No	\$ 102,435	\$ 147,565	\$250,000	Commercial real estate assets
February 18, 2019	No	\$ 120,193	\$ 129,807	\$250,000	Commercial real estate assets
September 1, 2017	No	\$ 30,000	\$—	\$30,000	Mortgage servicing rights

(1) The facilities are set to mature on the stated expiration date, unless extended pursuant to their terms.

Our wholly owned subsidiary, TH Insurance, is a member of the FHLB. As a member of the FHLB, TH Insurance has access to a variety of products and services offered by the FHLB, including secured advances. As of September 30, 2016, TH Insurance had \$4.0 billion in outstanding secured advances with a weighted average borrowing rate of 0.67%, and had no additional uncommitted capacity to borrow. To the extent TH Insurance has uncommitted capacity, it may be adjusted at the sole discretion of the FHLB.

The ability to borrow from the FHLB is subject to our continued creditworthiness, pledging of sufficient eligible collateral to secure advances, and compliance with certain agreements with the FHLB. Each advance requires approval by the FHLB and is secured by collateral in accordance with the FHLB's credit and collateral guidelines, as may be revised from time to time by the FHLB. Eligible collateral may include conventional 1-4 family residential mortgage loans, commercial real estate loans, Agency RMBS and certain non-Agency RMBS with a rating of A and above.

In January 2016, the FHFA released a final rule regarding membership in the Federal Home Loan Bank system. Among other effects, the final rule excludes captive insurers from membership eligibility, including our subsidiary member, TH Insurance Holdings Company LLC, or TH Insurance. Since TH Insurance was admitted as a member in 2013, it is eligible for a five-year membership grace period, during which new advances or renewals that mature

beyond the grace period will be prohibited; however, any existing advances that mature beyond this grace period will be permitted to remain in place subject to their terms insofar as we maintain good standing with the FHLB. If any new advances or renewals occur, TH Insurance's outstanding advances will be limited to 40% of its total assets. Notwithstanding the FHFA's ruling, we continue to believe our mission aligns well with that of the Federal Home Loan Bank system.

Table of Contents

We are subject to a variety of financial covenants under our lending agreements. The following represent the most restrictive financial covenants across the agreements as of September 30, 2016:

Total indebtedness to net worth must be less than the specified threshold ratio in the repurchase agreement. As of September 30, 2016, our debt to net worth, as defined, was 5.2:1.0 while our threshold ratio, as defined, was 5.6:1.0.

Liquidity must be greater than the sum of 1.5% of indebtedness related to Agency securities and 5.0% of total indebtedness, excluding indebtedness related to Agency securities. As of September 30, 2016, this sum was \$313.6 million while our liquidity, as defined, was \$1.0 billion.

Net worth must be greater than the sum of \$1.75 billion plus 40% of the aggregate net cash proceeds of any additional equity issuances made and capital contributions received. As of September 30, 2016, our net worth, as defined, was \$3.5 billion.

We are also subject to additional financial covenants in connection with various other agreements we enter into in the normal course of our business. We intend to continue to operate in a manner which complies with all of our financial covenants.

The following table summarizes assets at carrying values that are pledged or restricted as collateral for the future payment obligations of repurchase agreements, FHLB advances and revolving credit facilities.

(in thousands)	September 30, 2016	December 31, 2015
Available-for-sale securities, at fair value	\$ 14,271,888	\$ 7,767,074
Residential mortgage loans held-for-sale, at fair value	632,698	745,454
Commercial real estate assets	997,197	361,130
Mortgage servicing rights, at fair value	73,526	—
Net economic interests in consolidated securitization trusts <sup>(1)</sup>	223,095	1,138,312
Cash and cash equivalents	12,094	15,000
Restricted cash	95,223	119,310
Due from counterparties	29,477	10,211
Derivative assets, at fair value	140,868	157,879
Total	\$ 16,476,066	\$ 10,314,370

(1) Includes the retained interests from our on-balance sheet securitizations, which are eliminated in consolidation in accordance with U.S. GAAP.

Although we generally intend to hold our target assets as long-term investments, we may sell certain of our assets in order to manage our interest rate risk and liquidity needs, to meet other operating objectives and to adapt to market conditions. Our RMBS are generally actively traded and thus, in most circumstances, readily liquid. However, certain of our assets, including residential mortgage loans, commercial real estate assets and MSR, are subject to longer trade timelines, and, as a result, market conditions could significantly and adversely affect the liquidity of our assets. Any illiquidity of our assets may make it difficult for us to sell such assets if the need or desire arises. Our ability to quickly sell certain assets, such as residential mortgage loans, commercial real estate assets and MSR, may be limited by delays encountered while obtaining certain regulatory approvals required for such dispositions and may be further limited by delays due to the time period needed for negotiating transaction documents, conducting diligence, and complying with regulatory requirements regarding the transfer of such assets before settlement may occur.

Consequently, even if we identify a buyer for our residential mortgage loans, commercial real estate assets and MSR, there is no assurance that we would be able to quickly sell such assets if the need or desire arises.

In addition, if we are required to liquidate all or a portion of our portfolio quickly, we may realize significantly less than the value at which we previously recorded our assets. Assets that are illiquid are more difficult to finance, and to the extent that we use leverage to finance assets that become illiquid, we may lose that leverage or have it reduced.

Assets tend to become less liquid during times of financial stress, which is often the time that liquidity is most needed.

As a result, our ability to sell assets or vary our portfolio in response to changes in economic and other conditions may be limited by liquidity constraints, which could adversely affect our results of operations and financial condition.

We cannot predict the timing and impact of future sales of our assets, if any. Because many of our assets are financed with repurchase agreements and FHLB advances, and may be financed with credit facilities (including term loans and revolving facilities), a significant portion of the proceeds from sales of our assets (if any), prepayments and scheduled amortization are used to repay balances under these financing sources.

Table of Contents

The following table provides the maturities of our repurchase agreements, FHLB advances and revolving credit facilities as of September 30, 2016 and December 31, 2015:

(in thousands)	September 30, 2016	December 31, 2015
Within 30 days	\$ 3,967,528	\$ 2,689,363
30 to 59 days	2,896,664	1,739,237
60 to 89 days	1,185,026	161,449
90 to 119 days	1,046,310	175,486
120 to 364 days	2,000,455	242,739
One to three years	1,037,652	651,238
Three to five years	—	815,024
Five to ten years	—	—
Ten years and over	2,533,738	2,318,738
Total	\$ 14,667,373	\$ 8,793,274

For the three months ended September 30, 2016, our unrestricted cash balance decreased approximately \$3.8 million to \$688.4 million at September 30, 2016. The cash movements can be summarized by the following:

Cash flows from operating activities. For the three months ended September 30, 2016, operating activities decreased our cash balances by approximately \$431.5 million, primarily driven by purchases of residential mortgage loans held-for-sale.

Cash flows from investing activities. For the three months ended September 30, 2016, investing activities decreased our cash balances by approximately \$733.7 million, primarily driven by purchases, net of sales, of AFS securities.

Cash flows from financing activities. For the three months ended September 30, 2016, financing activities increased our cash balance by approximately \$1.2 billion, primarily driven by proceeds from repurchase agreements due to purchases of AFS securities and net proceeds from sales of retained interests from our on-balance sheet securitizations.

#### Inflation

Substantially all of our assets and liabilities are financial in nature. As a result, changes in interest rates and other factors impact our performance far more than does inflation. Our financial statements are prepared in accordance with U.S. GAAP and dividends are based upon net ordinary income and capital gains as calculated for tax purposes; in each case, our results of operations and reported assets, liabilities and equity are measured with reference to historical cost or fair value without considering inflation.

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

We seek to manage our risks related to the credit quality of our assets, interest rates, liquidity, prepayment speeds and market value while providing an opportunity to stockholders to realize attractive risk-adjusted total return through ownership of our capital stock. Although we do not seek to avoid risk completely, we believe that risk can be quantified from historical experience and we seek to manage our risk levels in order to earn sufficient compensation to justify the risks we undertake and to maintain capital levels consistent with taking such risks.

To reduce the risks to our portfolio, we employ portfolio-wide and asset-specific risk measurement and management processes in our daily operations. PRCM Advisers and its affiliates' risk management tools include software and services licensed or purchased from third parties and proprietary software and analytical methods developed by Pine River. There can be no guarantee that these tools and methods will protect us from market risks.

#### Interest Rate Risk

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. We are subject to

interest rate risk in connection with our assets and related financing obligations. Subject to maintaining our qualification as a REIT, we engage in a variety of interest rate management techniques that seek to mitigate the influence of interest rate changes on the values of our assets.

85

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## Table of Contents

We may utilize U.S. Treasuries as well as derivative financial instruments, which during the nine months ended September 30, 2016 were limited to interest rate swaps, swaptions, TBAs, put and call options for TBAs, Markit IOS total return swaps and, to a certain extent, inverse interest-only securities, to hedge the interest rate risk associated with our portfolio. In addition, because MSR are negative duration assets, they provide a natural hedge to interest rate exposure on our RMBS portfolio. We seek to hedge interest rate risk with respect to both the fixed income nature of our assets and the financing of our portfolio. In hedging interest rates with respect to our fixed income assets, we seek to reduce the risk of losses on the value of our investments that may result from changes in interest rates in the broader markets. In utilizing interest rate hedges with respect to our financing, we seek to improve risk-adjusted returns and, where possible, to obtain a favorable spread between the yield on our assets and the cost of our financing. We implement part of our hedging strategy through our TRSs, which are subject to U.S. federal, state and, if applicable, local income tax.

### Interest Rate Effect on Net Interest Income

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 RMBS and residential mortgage loans held-for-sale will remain static. Moreover, interest rates may rise at a faster pace than the yields earned on our leveraged adjustable-rate and hybrid RMBS and adjustable-rate residential mortgage loans held-for-sale. Both of these factors could result in a decline in our net interest spread and net interest margin. The severity of any such decline would depend on our asset/liability composition at the time, as well as the magnitude and duration of the interest rate increase. Further, an increase in short-term interest rates could also have a negative impact on the market value of our target assets. If any of these events happen, we could experience a decrease in net income or incur a net loss during these periods, which could adversely affect our liquidity and results of operations.

Our hedging techniques are partly based on assumed levels of prepayments of our target assets. If prepayments are slower or faster than assumed, the life of the investment will be longer or shorter, which could reduce the effectiveness of any hedging strategies we may use and may cause losses on such transactions. Hedging strategies involving the use of derivative securities are highly complex and may produce volatile returns.

We acquire adjustable-rate and hybrid RMBS. These are assets in which some of the underlying mortgages are typically subject to periodic and lifetime interest rate caps and floors, which may limit the amount by which the security's interest yield may change during any given period. However, our borrowing costs pursuant to our financing agreements are not subject to similar restrictions. Therefore, in a period of increasing interest rates, interest rate costs on our borrowings could increase without limitation, while the interest-rate yields on our adjustable-rate and hybrid RMBS could effectively be limited by caps. This issue will be magnified to the extent we acquire adjustable-rate and hybrid RMBS that are not based on mortgages that are fully indexed. In addition, adjustable-rate and hybrid RMBS may be subject to periodic payment caps that result in some portion of the interest being deferred and added to the principal outstanding. If this happens, we could receive less cash income on such assets than we would need to pay for interest costs on our related borrowings. These factors could lower our net interest income or cause a net loss during periods of rising interest rates, which would harm our financial condition, cash flows and results of operations.

Our adjustable-rate residential mortgage loans held-for-sale are typically subject to periodic and lifetime interest rate caps and floors, which may limit the amount by which the loan's interest yield may change during any given period. However, our borrowing costs pursuant to our financing agreements are not subject to similar restrictions. Therefore, in a period of increasing interest rates, interest rate costs on our borrowings could increase without limitation, while the interest-rate yields on our adjustable-rate residential mortgage loans held-for-sale could effectively be limited by caps.

### Interest Rate Mismatch Risk

We fund the majority of our adjustable-rate and hybrid Agency RMBS, adjustable-rate residential mortgage loans held-for-sale and commercial real estate assets with borrowings that are based on LIBOR, while the interest rates on



these assets may be indexed to other index rates, such as the one-year Constant Maturity Treasury index, or CMT, the Monthly Treasury Average index, or MTA, or the 11<sup>th</sup> District Cost of Funds Index, or COFI. Accordingly, any increase in LIBOR relative to these indices may result in an increase in our borrowing costs that is not matched by a corresponding increase in the interest earnings on these assets. Any such interest rate index mismatch could adversely affect our profitability, which may negatively impact distributions to our stockholders. To mitigate interest rate mismatches, we utilize the hedging strategies discussed above.

Table of Contents

The following table provides the indices of our variable rate RMBS AFS, residential mortgage loans held-for-sale and commercial real estate assets of September 30, 2016 and December 31, 2015, respectively, based on carrying value (dollars in thousands).

Index Type	As of September 30, 2016			Index %	As of December 31, 2015			Index %
	Floating	Hybrid (1)	Total		Floating	Hybrid (1)	Total	
CMT	\$14,000	\$25,775	\$39,775	1 %	\$1,625	\$98,645	\$100,270	4 %
LIBOR	2,821,134	23,353	2,844,487	97 %	2,488,117	38,698	2,526,815	93 %
Other (2)	39,916	19,334	59,250	2 %	68,138	17,031	85,169	3 %
Total	\$2,875,050	\$68,462	\$2,943,512	100%	\$2,557,880	\$154,374	\$2,712,254	100%

(1) "Hybrid" amounts reflect those assets with greater than twelve months to reset.

(2) "Other" includes COFI, MTA and other indices.

Our analysis of risks is based on PRCM Advisers' and its affiliates' experience, estimates, models and assumptions. These analyses rely on models which utilize estimates of fair value and interest rate sensitivity. Actual economic conditions or implementation of decisions by PRCM Advisers may produce results that differ significantly from the estimates and assumptions used in our models.

Table of Contents

We use a variety of recognized industry models, as well as proprietary models, to perform sensitivity analyses which are derived from primary assumptions for prepayment rates, discount rates and credit losses. The primary assumption used in this model is implied market volatility of interest rates. The information presented in the following interest rate sensitivity table projects the potential impact of sudden parallel changes in interest rates on our financial results and financial condition over the next 12 months, based on our interest sensitive financial instruments at September 30, 2016.

All changes in value are measured as the change from the September 30, 2016 financial position. All projected changes in annualized net interest income are measured as the change from the projected annualized net interest income based off current performance returns.

(dollars in thousands)	Changes in Interest Rates			
	-100 bps	-50 bps	+50 bps	+100 bps
Change in value of financial position:				
Available-for-sale securities	\$428,193	\$242,967	\$(328,764)	\$(700,912)
As a % of June 30, 2016 equity	12.3	% 7.0	% (9.4	)% (20.1
Residential mortgage loans held-for-sale	\$505	\$133	\$(279 )	\$(929 )
As a % of June 30, 2016 equity	—	% —	% —	% —
Residential mortgage loans held-for-investment in securitization trusts	\$75,649	\$69,057	\$(98,439 )	\$(205,543)
As a % of June 30, 2016 equity	2.2	% 2.0	% (2.8	)% (5.9
Commercial real estate assets	\$93	\$46	\$(202 )	\$(404 )
As a % of June 30, 2016 equity	—	% —	% —	% —
Mortgage servicing rights	\$(161,526)	\$(85,003 )	\$53,690	\$91,515
As a % of June 30, 2016 equity	(4.6	)% (2.4	)% 1.5	% 2.6
Derivatives, net	\$(266,754)	\$(144,964)	\$177,870	\$459,616
As a % of June 30, 2016 equity	(7.7	)% (4.2	)% 5.1	% 13.2
Repurchase Agreements	\$(14,034 )	\$(8,593 )	\$8,593	\$17,186
As a % of June 30, 2016 equity	(0.4	)% (0.3	)% 0.2	% 0.5
Collateralized borrowings in securitization trusts	\$(95,220 )	\$(77,639 )	\$101,898	\$210,119
As a % of June 30, 2016 equity	(2.7	)% (2.2	)% 2.9	% 6.0
Federal Home Loan Bank advances	\$(2,984 )	\$(1,925 )	\$1,925	\$3,850
As a % of June 30, 2016 equity	(0.1	)% (0.1	)% 0.1	% 0.1
Revolving credit facilities	\$(7 )	\$(6 )	\$6	\$12
As a % of June 30, 2016 equity	—	% —	% —	% —
Total Net Assets	\$(36,085 )	\$(5,927 )	\$(83,702 )	\$(125,490)
As a % of June 30, 2016 total assets	(0.2	)% —	% (0.4	)% (0.6
As a % of June 30, 2016 equity	(1.0	)% (0.2	)% (2.4	)% (3.6
	-100 bps	-50 bps	+50 bps	+100 bps
Change in annualized net interest income:	\$(2,270 )	\$13,035	\$(10,887 )	\$(21,775 )
% change in net interest income	(0.7	)% 3.7	% (3.1	)% (6.3

The interest rate sensitivity table quantifies the potential changes in net interest income and portfolio value, which includes the value of swaps and our other derivatives, should interest rates immediately change. The interest rate sensitivity table presents the estimated impact of interest rates instantaneously rising 50 and 100 basis points, and falling 50 and 100 basis points. The cash flows associated with the portfolio for each rate change are calculated based on assumptions, including prepayment speeds, yield on future acquisitions, slope of the yield curve, and size of the portfolio. Assumptions made on the interest rate sensitive liabilities include anticipated interest rates, collateral requirements as a percentage of borrowings and amount and term of borrowing.

Certain assumptions have been made in connection with the calculation of the information set forth in the foregoing interest rate sensitivity table and, as such, there can be no assurance that assumed events will occur or that other events will not occur that would affect the outcomes. The base interest rate scenario assumes interest rates at September 30, 2016. The analysis utilizes assumptions and estimates based on management's judgment and experience. Furthermore, while we generally expect to retain such assets and the associated interest rate risk to maturity, future purchases and sales of assets could materially change our interest rate risk profile.

Table of Contents

The change in annualized net interest income does not include any benefit or detriment from faster or slower prepayment rates on our Agency premium RMBS, non-Agency discount RMBS, and instruments that represent the interest payments (but not the principal) on a pool of mortgages, or interest-only securities. We anticipate that faster prepayment speeds in lower interest rate scenarios will generate lower realized yields on Agency and non-Agency premium and interest-only securities and higher realized yields on Agency and non-Agency discount RMBS. Similarly, we anticipate that slower prepayment speeds in higher interest rate scenarios will generate higher realized yields on Agency premium and interest-only securities and lower realized yields on non-Agency discount RMBS. Although we have sought to construct the portfolio to limit the effect of changes in prepayment speeds, there can be no assurance this will actually occur, and the realized yield of the portfolio may be significantly different than we anticipate in changing interest rate scenarios.

Given the low interest rate environment at September 30, 2016, we applied a floor of 0% for all anticipated interest rates included in our assumptions. Because of this floor, we anticipate that any hypothetical interest rate shock decrease would have a limited positive impact on our funding costs; however, because prepayment speeds are unaffected by this floor, we expect that any increase in our prepayment speeds (occurring as a result of any interest rate decrease or otherwise) could result in an acceleration of our premium amortization on Agency and interest-only securities purchased at a premium, and accretion of discount on our non-Agency RMBS purchased at a discount. As a result, because this floor limits the positive impact of any interest rate decrease on our funding costs, hypothetical interest rate decreases could cause the fair value of our financial instruments and our net interest income to decline. The information set forth in the interest rate sensitivity table above and all related disclosures constitutes forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Actual results could differ significantly from those estimated in the foregoing interest rate sensitivity table.

**Prepayment Risk**

Prepayment risk is the risk that principal will be repaid at a different rate than anticipated. As we receive prepayments of principal on our RMBS assets, premiums paid on such assets will be amortized against interest income. In general, an increase in prepayment rates will accelerate the amortization of purchase premiums, thereby reducing the interest income earned on the assets. Conversely, discounts on such assets are accreted into interest income. In general, an increase in prepayment rates will accelerate the accretion of purchase discounts, thereby increasing the interest income earned on the assets.

We believe that we will be able to reinvest proceeds from scheduled principal payments and prepayments at acceptable yields; however, no assurances can be given that, should significant prepayments occur, market conditions would be such that acceptable investments could be identified and the proceeds timely reinvested.

MSR are also subject to prepayment risk in that, generally, an increase in prepayment rates would result in a decline in value of the MSR.

**Market Risk**

**Market Value Risk.** Our AFS securities are reflected at their estimated fair value, with the difference between amortized cost and estimated fair value for all AFS securities except Agency interest-only securities and GSE credit risk transfer securities reflected in accumulated other comprehensive income. The estimated fair value of these securities fluctuates primarily due to changes in interest rates, market valuation of credit risks, and other factors. Generally, in a rising interest rate environment, we would expect the fair value of these securities to decrease; conversely, in a decreasing interest rate environment, we would expect the fair value of these securities to increase. As market volatility increases or liquidity decreases, the fair value of our assets may be adversely impacted.

Our residential mortgage loans held-for-sale and held-for-investment are reflected at their estimated fair value. The estimated fair value fluctuates primarily due to changes in interest rates, market valuation of credit risks and other factors. Generally in a rising rate environment, we would expect the fair value of these loans to decrease; conversely, in a decreasing rate environment, we would expect the fair value of these loans to increase. However, the fair value of the CSL and Ginnie Mae buyout residential mortgage loans included in residential mortgage loans held-for-sale is generally less sensitive to interest rate changes.

Our MSR are reflected at their estimated fair value. The estimated fair value fluctuates primarily due to changes in interest rates and other factors. Generally, in a rising interest rate environment, we would expect prepayments to decrease, resulting in an increase in the fair value of our MSR. Conversely, in a decreasing interest rate environment, we would expect prepayments to increase, resulting in a decline in fair value.

Real estate risk. Both residential and commercial property values are subject to volatility and may be affected adversely by a number of factors, including national, regional and local economic conditions; local real estate conditions (such as an oversupply of housing); changes or continued weakness in specific industry segments; construction quality, age and design; demographic factors; retroactive changes to building or similar codes; and natural disasters and other catastrophes. Decreases in property values reduce the value of the collateral for residential mortgage and commercial real estate loans and the potential proceeds available to borrowers to repay the loans, which could cause us to suffer losses on our non-Agency RMBS investments and residential mortgage and commercial real estate loans.

Table of Contents

Liquidity Risk

Our liquidity risk is principally associated with our financing of long-maturity assets with shorter-term borrowings in the form of repurchase agreements and FHLB advances. Although the interest rate adjustments of these assets and liabilities fall within the guidelines established by our operating policies, maturities are not required to be, nor are they, matched.

Should the value of our assets pledged as collateral suddenly decrease, margin calls relating to our repurchase agreements could increase, causing an adverse change in our liquidity position. Additionally, if the FHLB or one or more of our repurchase agreement counterparties chose not to provide ongoing funding, our ability to finance would decline or exist at possibly less advantageous terms. As such, we cannot assure that we will always be able to roll over our repurchase agreements and FHLB advances. See Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" in this Quarterly Report on Form 10-Q for further information about our liquidity and capital resource management.

Credit Risk

We believe that our investment strategy will generally keep our risk of credit losses low to moderate. However, we retain the risk of potential credit losses on all of the loans underlying our non-Agency RMBS and on our residential mortgage and commercial real estate loans. With respect to our non-Agency RMBS that are senior in the credit structure, credit support contained in RMBS deal structures provide a level of protection from losses. We seek to manage the remaining credit risk through our pre-acquisition due diligence process, which includes comprehensive underwriting, and by factoring assumed credit losses into the purchase prices we pay for non-Agency RMBS and residential mortgage and commercial real estate assets. In addition, with respect to any particular target asset, we evaluate relative valuation, supply and demand trends, shape of yield curves, prepayment rates, delinquency and default rates, recovery of various sectors and vintage of collateral. We further mitigate credit risk in our residential mortgage and commercial real estate loan portfolios through (i) selecting servicers whose specialties are well matched against the underlying attributes of the borrowers contained in the loan pools, and (ii) an actively managed internal servicer oversight and surveillance program. At times, we enter into credit default swaps or other derivative instruments in an attempt to manage our credit risk. Nevertheless, unanticipated credit losses could adversely affect our operating results.

Item 4. Controls and Procedures

A review and evaluation was performed by our management, including our Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO, of the effectiveness of our disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that review and evaluation, the CEO and CFO have concluded that our current disclosure controls and procedures, as designed and implemented, were effective. Although our CEO and CFO have determined our disclosure controls and procedures were effective at the end of the period covered by this Quarterly Report on Form 10-Q, a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that it will detect or uncover failures within the Company to disclose material information otherwise required to be set forth in the reports we submit under the Exchange Act.

There was no change in our internal control over financial reporting that occurred during the quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time we may be involved in various legal claims and/or administrative proceedings that arise in the ordinary course of our business. As of the date of this filing, we are not party to any litigation or legal proceedings or, to the best of our knowledge, any threatened litigation or legal proceedings, which, in our opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial condition.

Item 1A. Risk Factors

There have been no material changes to the risk factors set forth under the heading “Item 1A. Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2015, or the Form 10-K. The materialization of any risks and uncertainties identified in our Forward-Looking Statements contained in this Quarterly Report on Form 10-Q, together with those previously disclosed in the Form 10-K, or those that are presently unforeseen could result in significant adverse effects on our financial condition, results of operations, and cash flows. See Item 2, “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Forward-Looking Statements” in this Quarterly Report on Form 10-Q.

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

(a)None.

(b)None.

(c)As of December 31, 2015, our share repurchase program allowed for the repurchase of up to 25,000,000 shares of our common stock. During the nine months ended September 30, 2016, our board of directors authorized an increase of 50,000,000 shares, for up to a total of 75,000,000 shares authorized under the program. Shares may be repurchased from time to time through privately negotiated transactions or open market transactions, pursuant to a trading plan in accordance with Rules 10b5-1 and 10b-18 under the Exchange Act or by any combination of such methods. The manner, price, number and timing of share repurchases are subject to a variety of factors, including market conditions and applicable SEC rules. The share repurchase program does not require the purchase of any minimum number of shares, and, subject to SEC rules, purchases may be commenced or suspended at any time without prior notice. The share repurchase program does not have an expiration date. As of September 30, 2016, we had repurchased 24,135,000 shares under the program for a total cost of \$200.4 million. We did not repurchase shares during the three months ended September 30, 2016.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

(a) Exhibits

Exhibits - The exhibits listed on the accompanying Index of Exhibits are filed or incorporated by reference as a part of this report. Such Index is incorporated herein by reference.





Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TWO HARBORS INVESTMENT CORP.

Dated: November 3, 2016 By: /s/ Thomas E. Siering

Thomas E. Siering

Chief Executive Officer, President and Director

(Principal Executive Officer)

Dated: November 3, 2016 By: /s/ Brad Farrell

Brad Farrell

Chief Financial Officer and Treasurer

(Principal Financial Officer)

Dated: November 3, 2016 By: /s/ Mary Risky

Mary Risky

Chief Accounting Officer

(Principal Accounting Officer)

Table of Contents

Exhibit Number	Exhibit Index
3.1	Articles of Amendment and Restatement of Two Harbors Investment Corp. (incorporated by reference to Exhibit 99.1 to Annex B filed with Pre-effective Amendment No. 4 to the Company’s Registration Statement on Form S-4 (File No. 333-160199), filed with the SEC on October 8, 2009).
3.2	Articles of Amendment to the Articles of Amendment and Restatement of Two Harbors Investment Corp. (incorporated by reference to Exhibit 99.1 to the Company’s Current Report on Form 8-K, filed with the SEC on December 19, 2012).
3.3	Amended and Restated Bylaws of Two Harbors Investment Corp. (incorporated by reference to Exhibit 3.3 to the Company’s Current Report on Form 8-K, filed with the SEC on November 13, 2015).
31.1	Certification of the Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
31.2	Certification of the Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
32.1	Certification of the Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (filed herewith)
32.2	Certification of the Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (filed herewith)
101	Financial statements from the Quarterly Report on Form 10-Q of Two Harbors Investment Corp. for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016, formatted in XBRL: (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Comprehensive Income (Loss), (iii) the Condensed Consolidated Statements of Stockholders’ Equity, (iv) the Condensed Consolidated Statements of Cash Flows, and (v) the Notes to the Condensed Consolidated Financial Statements. (filed herewith)
93	