TWO HARBORS INVESTMENT CORP. Form 10-Q August 08, 2017

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-Q

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

For the Quarterly Period Ended: June 30, 2017

Commission File Number 001-34506

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 10022 (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 x No o 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 x No o

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

Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company o

Emerging growth company o

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

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

As of August 7, 2017 there were 348,972,325 shares of outstanding common stock, par value \$.01 per share, issued and outstanding.

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PART I. FINANCIAL INFORMATION Item 1. Financial Statements TWO HARBORS INVESTMENT CORP. CONDENSED CONSOLIDATED BALANCE SHEETS (in thousands, except share data)

(in thousands, except share data)	June 30,	December 31,
	2017	2016
ASSETS	(unaudited)	
Available-for-sale securities, at fair value	\$16,427,710	\$13,128,857
Commercial real estate assets	1,782,749	1,412,543
Mortgage servicing rights, at fair value	898,025	693,815
Residential mortgage loans held-for-investment in securitization trusts, at fair value	3,120,410	3,271,317
Residential mortgage loans held-for-sale, at fair value	31,946	40,146
Cash and cash equivalents	651,707	406,883
Restricted cash	249,728	408,312
Accrued interest receivable	74,156	62,751
Due from counterparties	39,618	60,380
Derivative assets, at fair value	240,502	324,182
Other assets	264,482	302,870
Total Assets ⁽¹⁾	\$23,781,033	\$20,112,056
LIABILITIES AND EQUITY		
Liabilities		
Repurchase agreements	\$13,316,881	\$9,316,351
Collateralized borrowings in securitization trusts, at fair value	2,880,301	3,037,196
Federal Home Loan Bank advances	3,238,762	4,000,000
Revolving credit facilities	40,000	70,000
Convertible senior notes	282,290	
Derivative liabilities, at fair value	2,580	12,501
Due to counterparties	36,858	111,884
Dividends payable	95,049	83,437
Other liabilities	104,203	79,576
Total Liabilities ⁽¹⁾	19,996,924	16,710,945
Stockholders' Equity		
Preferred stock, par value \$0.01 per share; 50,000,000 shares authorized and 5,750,000	138,872	
and 0 shares issued and outstanding, respectively (liquidation preference of \$143,750)	100,072	
Common stock, par value \$0.01 per share; 900,000,000 shares authorized and	3,490	3,477
348,977,215 and 347,652,326 shares issued and outstanding, respectively	·	
Additional paid-in capital	3,654,653	3,659,973
Accumulated other comprehensive income	354,617	199,227
Cumulative earnings	2,118,636	2,038,033
Cumulative distributions to stockholders		(2,499,599)
Total Stockholders' Equity	3,588,421	3,401,111
Noncontrolling interest	195,688	—
Total Equity	3,784,109	3,401,111
Total Liabilities and Equity	\$23,781,033	\$20,112,056

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 June 30, 2017 and December 31, 2016, assets of the VIEs totaled \$3,184,374 and \$3,336,292, and liabilities of the VIEs totaled \$2,900,344 and \$3,058,278, respectively. See Note 3 - Variable Interest Entities for additional information.

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

TWO HARBORS INVESTMENT CORP.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands, except share data)

(in thousands, except share data)					
	Three Months Ended				
	June 30,		June 30,		
	2017	2016	2017	2016	
Interest income:	(unaudited		(unaudited	-	
Available-for-sale securities	\$150,166	\$101,512	\$285,739	\$180,940	
Commercial real estate assets	25,840	13,300	49,410	24,372	
Residential mortgage loans held-for-investment in securitization trusts		34,499	62,454	67,270	
Residential mortgage loans held-for-sale	503	4,960	901	12,162	
Cash and cash equivalents	1,226	505	1,679	795	
Total interest income	208,561	154,776	400,183	285,539	
Interest expense:					
Repurchase agreements	49,299	22,697	86,311	38,726	
Collateralized borrowings in securitization trusts	24,843	25,184	50,229	44,543	
Federal Home Loan Bank advances	11,444	6,088	20,237	12,060	
Revolving credit facilities	597	—	1,026		
Convertible senior notes	4,591	_	8,412		
Total interest expense	90,774	53,969	166,215	95,329	
Net interest income	117,787	100,807	233,968	190,210	
Other-than-temporary impairments:					
Total other-than-temporary impairment losses	(429)	(90)	(429)	(807)	
Other income (loss):					
Gain (loss) on investment securities	31,249	8,331	(21,103)	37,805	
Loss on interest rate swap and swaption agreements	(76,710)	(12,708)	(66,783)	(138,192)	
Loss on other derivative instruments	(19,540)	(48,051)	(47,404)	(32,036)	
Servicing income	51,308	35,816	91,081	69,949	
Loss on servicing asset	(46,630)	(76,535)	(61,195)	(177,975)	
Gain on residential mortgage loans held-for-sale	333	7,734	1,794	18,537	
Other income (loss)	2,793	(9,561)	10,828	(6,734)	
Total other loss	(57,197)	(94,974)	(92,782)	(228,646)	
Expenses:					
Management fees	11,772	11,837	23,242	23,881	
Servicing expenses	11,603	7,576	17,223	15,437	
Securitization deal costs		429		4,161	
Other operating expenses	19,371	17,644	35,408	32,500	
Total expenses	42,746	37,486	75,873	75,979	
Income (loss) before income taxes	17,415		64,884	(115,222)	
Provision for (benefit from) income taxes	8,757			(9,311)	
Net income (loss)	8,658		80,643	(105,911)	
Net income attributable to noncontrolling interest	40	(40	(
Net income (loss) attributable to Two Harbors Investment Corp.	8,618	(16,981)	80,603	(105,911)	
Dividends on preferred stock	4,285		4,285		
Net income (loss) attributable to common stockholders	\$4,333	\$(16,981)		\$(105,911)	
The accompanying notes are an integral part of these condensed consol				+(100,011)	

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

TWO HARBORS INVESTMENT CORP.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME, continued (in the user do, except share dot)

(in thousands, except share data)

	Three Months Ended		Six Mont	hs Ended		
	June 30,		June 30,			
	2017	2016	2017	2016		
	(unaudit	ed)	(unaudite	d)		
Basic and diluted earnings (loss) per weighted average common share	\$0.01	\$(0.05)	\$0.22	\$(0.30)		
Dividends declared per common share	\$0.26	\$0.23	\$0.51	\$0.46		
Basic and diluted weighted average number of shares of common stock outstanding	348,946	,333457,597,955	348,756,1	8948,516,985		
Comprehensive income:						
Net income (loss)	\$8,658	\$(16,981)	\$80,643	\$(105,911)		
Other comprehensive income, net of tax:						
Unrealized gain on available-for-sale securities	81,628	139,291	155,390	160,636		
Other comprehensive income	81,628	139,291	155,390	160,636		
Comprehensive income	90,286	122,310	236,033	54,725		
Comprehensive income attributable to noncontrolling interest	42		42			
Comprehensive income attributable to Two Harbors Investment Corp.	90,244	122,310	235,991	54,725		
Dividends on preferred stock	4,285		4,285			
Comprehensive income attributable to common stockholders	\$85,959	\$122,310	\$231,706	\$54,725		
The accompanying notes are an integral part of these condensed consolidated financial statements.						

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TWO HARBORS INVESTMENT CORP. CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in thousands, except share data)

Series A Preferred Stock

Common Stock

	Preferred	Stock							
	Shares	Par Value	Shares	Par Value	Additional Paid-in Capital (unaudited)	Accumulat Other Comprehe Income	Cumulative	Cumulative Distributions to Stockholders	Total Stockholde Equity
Balance,		.		* ~ ~ ~~		** **			
December 31,		\$—	353,906,807	\$3,539	\$3,705,519	\$359,061	\$1,684,755	\$(2,176,313)	\$3,576,56
2015 Net loss		_		_		_	(105,911)		(105,911
Other							(105,911)		(105,911
comprehensive									
income before	—	—		—	—	184,085	—		184,085
reclassifications,									
net of tax									
Amounts reclassified from									
accumulated	L								
other						(23,449)			(23,449
comprehensive									
income, net of									
tax									
Net other comprehensive									
income, net of						160,636	—		160,636
tax									
Issuance of									
common stock,			29,143	_	227		_		227
net of offering									
costs Repurchase of									
common stock			(8,020,000)	(80)	(61,227)		_		(61,307
Common									
dividends							_	(159,892)	(159,892
declared									
Non-cash equity			1 705 425	17	7 7 7 7				7 751
award compensation	_	_	1,705,435	17	7,737	_	_		7,754
Balance,		+		** • • •	** *** ***	* = + 0 - 60 =	* · *= ~ ~ · ·		** *** **
June 30, 2016		\$—	347,621,385	\$3,476	\$3,652,256	\$519,697	\$1,578,844	\$(2,336,205)	\$3,418,06
Balance,		\$—	347,652,326	\$3,477	\$3,659,973	\$199,227	\$2,038,033	\$(2,499,599)	\$3,401,11
December 31,									

2016 Net income Other	_	_	_	_	_	_	80,603	_	80,603
comprehensive income before reclassifications, net of tax	, <u> </u>	—	_		_	151,789	—	_	151,789
Amounts reclassified from accumulated other comprehensive income, net of	1 	_				3,595			3,595
tax Net other comprehensive income, net of tax	_	_				155,384	_	_	155,384
Issuance of Granite Point Mortgage Trust Inc. stock, net of offering costs		_	_	_	(13,777)	6	_	_	(13,771
Issuance of preferred stock, net of offering costs	5,750,000	138,872	_	_	_	_	_	_	138,872
Issuance of common stock, net of offering costs	_	_	26,438		256	_	_	_	256
Preferred dividends declared	_		_		_		_	(4,285)	(4,285
Common dividends declared	_	_	_	_	_	_	_	(177,963)	(177,963
Non-cash equity award compensation			1,298,451	13	8,201	_	_	_	8,214
Balance, June 30, 2017 The accompanyi								\$(2,681,847)	\$3,588,42

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

(in thousands)	Six Mont June 30,	hs Ended	
	2017	2016	
Cash Flows From Operating Activities:	(unaudite		
Net income (loss)	\$80,643	\$(105,911)	
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating	. ,		
activities:			
Amortization of premiums and discounts on investment securities and commercial real estate assets, net	19,179	16,663	
Amortization of deferred debt issuance costs on convertible senior notes	176		
Other-than-temporary impairment losses	429	807	
Realized and unrealized losses (gains) on investment securities, net	21,103	(37,805)	
Loss on servicing asset	61,195	177,975	
Gain on residential mortgage loans held-for-sale	(1,794) (18,537)	
(Gain) loss on residential mortgage loans held-for-investment and collateralized borrowings in securitization trusts	¹ (8,077) 9,441	
(Gain) loss on termination and option expiration of interest rate swaps and swaptions	(35,949) 24,487	
Unrealized loss on interest rate swaps and swaptions	92,254	99,859	
Unrealized loss on other derivative instruments	35,111	48,818	
Equity based compensation	8,214	7,754	
Depreciation of fixed assets	550	664	
Purchases of residential mortgage loans held-for-sale	(567) (580,932)	
Proceeds from sales of residential mortgage loans held-for-sale	3,988	68,813	
Proceeds from repayment of residential mortgage loans held-for-sale	4,252	74,025	
Net change in assets and liabilities:			
Increase in accrued interest receivable	(11,405) (13,945)	
Increase in deferred income taxes, net	(16,078) (7,716)	
Decrease in income taxes receivable	77	3,669	
(Increase) decrease in prepaid and fixed assets	(756) 102	
(Increase) decrease in other receivables	(4,516) 6,267	
Decrease (increase) in servicing advances	5,031	(19,328)	
Increase in accrued interest payable	26,173	6,544	
Increase (decrease) in income taxes payable	51	(70)	
Decrease in accrued expenses and other liabilities) (6,076)	
Net cash provided by (used in) operating activities	\$276,361	\$(244,432)	
The accompanying notes are an integral part of these condensed consolidated financial stateme	ents.		

TWO HARBORS INVESTMENT CORP. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued

(in thousands)

(in thousands)	Six Months l	Ended	
	June 30,	2016	
Cash Flows From Investing Activities	2017 (uppudited	2016	
Cash Flows From Investing Activities: Purchases of available-for-sale securities	(unaudited \$(8,883,595) \$ (0.064.37	77)
Proceeds from sales of available-for-sale securities	5,092,318	3,776,295	,,)
Principal payments on available-for-sale securities	627,277	527,958	
(Purchases) short sales of derivative instruments, net) (15,475)
Proceeds from sales (payments for termination) of derivative instruments, net	15,905	44,364)
Proceeds from repayment of residential mortgage loans held-for-investment in			
securitization trusts	181,806	407,861	
Originations, acquisitions and additional fundings of commercial real estate assets, net of			
deferred fees	(372,338) (276,438)
Proceeds from repayment of commercial real estate assets	6,246	14,387	
Purchases of mortgage servicing rights, net of purchase price adjustments) (108,006)
Proceeds from sales of mortgage servicing rights	627		<i>,</i>
Purchases of Federal Home Loan Bank stock		(11,206)
Redemptions of Federal Home Loan Bank stock	33,080		
(Decrease) increase in due to counterparties, net	(54,264) 197,289	
Net cash used in investing activities	(3,652,503) (5,407,348	3)
Cash Flows From Financing Activities:			
Proceeds from repurchase agreements	79,096,337	30,339,583	3
Principal payments on repurchase agreements	(75,095,807)) (25,678,00)9)
Proceeds from issuance of collateralized borrowings in securitization trusts		1,394,312	
Principal payments on collateralized borrowings in securitization trusts	(179,717) (331,110)
Proceeds from Federal Home Loan Bank advances		215,000	
Principal payments on Federal Home Loan Bank advances	(761,238) —	
Proceeds from revolving credit facilities	74,000		
Principal payments on revolving credit facilities) —	
Proceeds from convertible senior notes	282,469	—	
Proceeds from issuance of preferred stock, net of offering costs	138,872	—	
Proceeds from issuance of common stock, net of offering costs	256	227	
Proceeds from issuance of Granite Point Mortgage Trust Inc. stock, net of offering costs	181,875		
Repurchase of common stock		(61,307)
Dividends paid on common stock) (171,955)
Net cash provided by financing activities	3,462,382	5,706,741	
Net increase in cash, cash equivalents and restricted cash	86,240	54,961	
Cash, cash equivalents and restricted cash at beginning of period	815,195	1,000,393	
Cash, cash equivalents and restricted cash at end of period	\$901,435	\$1,055,354	4
The accompanying notes are an integral part of these condensed consolidated financial sta	atements.		

TWO HARBORS INVESTMENT CORP.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued (in thousands)

(in thousands)	Six Mont June 30, 2017	ths Ended 2016
Supplemental Disclosure of Cash Flow Information:	(unaudite	
Cash paid for interest	\$89,296	
Cash paid (received) for taxes	\$192	\$(5,194)
Noncash Activities:		
Transfers of residential mortgage loans held-for-sale to residential mortgage loans held-for-investment in securitization trusts	\$—	\$641,738
Transfers of residential mortgage loans held-for-sale to other receivables for foreclosed government-guaranteed loans	\$2,292	\$12,080
Transfer of fair value of mortgage servicing rights to fair value of Ginnie Mae residential mortgage loans held-for-sale upon buyout	\$9	\$3,572
Additions to mortgage servicing rights due to sale of residential mortgage loans held-for-sale	\$20	\$522
Dividends declared but not paid at end of period	\$95,049	\$79,953
Reconciliation of residential mortgage loans held-for-sale:		
Residential mortgage loans held-for-sale at beginning of period	\$40,146	\$811,431
Purchases of residential mortgage loans held-for-sale	567	580,932
Transfers to residential mortgage loans held-for-investment in securitization trusts		(641,738)
Transfers to other receivables for foreclosed government-guaranteed loans	(2,292)) (12,080)
Transfer of fair value of mortgage servicing rights to fair value of Ginnie Mae residential mortgage loans held-for-sale upon buyout	(9) (3,572)
Proceeds from sales of residential mortgage loans held-for-sale	(3,988)) (68,813)
Proceeds from repayment of residential mortgage loans held-for-sale	(4,252)) (74,025)
Realized and unrealized gains on residential mortgage loans held-for-sale	1,774	16,925
Residential mortgage loans held-for-sale at end of period	\$31,946	\$609,060
The accompanying notes are an integral part of these condensed consolidated financial statement	its.	

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 investing in, financing and managing residential mortgage-backed securities, or RMBS, 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.

On June 28, 2017, the Company completed the contribution of its portfolio of commercial real estate assets to Granite Point Mortgage Trust Inc., or Granite Point, a newly organized Maryland corporation intended to qualify as a REIT, externally managed and advised by Pine River, and focused on directly originating, investing in and managing senior commercial mortgage loans and other debt and debt-like commercial real estate investments. The Company contributed its equity interests in its wholly owned subsidiary, TH Commercial Holdings LLC, to Granite Point and, in exchange for its contribution, received approximately 33.1 million shares of common stock of Granite Point, which represents approximately 76.5% of the outstanding stock of Granite Point upon completion of the initial public offering, or IPO, of its common stock on June 28, 2017. The Company's shares in Granite Point are subject to a 120 day lock-up period, after which the Company anticipates that it will distribute the shares to its stockholders by means of a special pro rata dividend, subject to the discretion and approval of its Board of Directors and in compliance with applicable securities laws.

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 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, 2016. In the opinion of management, all normal and recurring adjustments necessary to present fairly the financial condition of the Company at June 30, 2017 and results of operations for all periods presented have been made. The results of operations for the three and six months ended June 30, 2017 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 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.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

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 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

trust.

Due to its controlling ownership interest in Granite Point, the Company consolidates Granite Point on its financial statements and reflects noncontrolling interest for the portion of equity and comprehensive income not attributable to the Company. During the consolidation period (until the Granite Point shares are distributed to the Company's stockholders), the Company's financial condition and results of operations will reflect all of Granite Point's commercial real estate investments and financing. No other subsidiary of the Company invests in, finances or manages commercial real estate debt and related instruments.

Significant Accounting Policies

Included in Note 2 to the Consolidated Financial Statements of the Company's 2016 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 six months ended June 30, 2017.

Convertible Senior Notes

Convertible senior notes include unsecured convertible debt that are carried at their unpaid principal balance, net of any unamortized deferred issuance costs, on the Company's condensed consolidated balance sheet. Interest on the notes is payable semiannually until such time the notes mature or are converted into shares of the Company's common stock.

Noncontrolling Interest

Due to its controlling ownership interest in Granite Point, the Company consolidates Granite Point on its financial statements and reflects noncontrolling interest for the portion of Granite Point equity and comprehensive income not attributable to the Company. Noncontrolling interest is presented as a separate component of equity on the condensed consolidated balance sheets. In addition, the presentation of both net income and comprehensive income on the condensed consolidated statements of comprehensive income attributes earnings (losses) to the Company's stockholders (controlling interest) and noncontrolling interests.

Pursuant to Accounting Standards Codification (ASC) 810, Consolidation, changes in a parent's ownership interest (and transactions with noncontrolling interest stockholders in the subsidiary) while the parent retains its controlling interest in its subsidiary should be accounted for as equity transactions. The carrying amount of the noncontrolling interest shall be adjusted to reflect the change in its ownership interest in the subsidiary, with the offset to equity attributable to the parent. The Company's ownership interest percentage in Granite Point did not change during the period from the completion of Granite Point's IPO on June 28, 2017 to June 30, 2017. However, noncontrolling interest on the Company's condensed consolidated balance sheet was impacted by the portion of comprehensive income not attributable to the Company for the period from the completion of Granite Point's IPO on June 28, 2017 through June 30, 2017.

Earnings Per Share

Basic and diluted earnings (loss) per share are computed by dividing net income (loss) attributable to common stockholders by the weighted average number of common shares and potential common shares outstanding during the period. For both basic and diluted per share calculations, potential common shares represents issued and unvested shares of restricted stock, which have full rights to the common stock dividend declarations of the Company. If the

assumed conversion of convertible notes into common shares is dilutive, diluted earnings (loss) per share is adjusted by adding back the periodic interest expense (net of any tax effects) associated with dilutive convertible notes to net income (loss) attributable to common stockholders and adding the shares issued in an assumed conversion to the diluted weighted average share count.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

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 by 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 June 30, 2017 and December 31, 2016:

June 30, 2017

Gross Amounts Not Offset with Financial Assets (Liabilities) in the Condensed Consolidated Balance Sheets ⁽¹⁾

(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	Financial Instruments	Cash Collatera (Received Pledged	l Net d) Amount
Assets						
Derivative assets	\$275,943	\$ (35,441	\$240,502	\$(2,580)	\$	-\$237,922
Total Assets	\$275,943	\$ (35,441	\$240,502	\$(2,580)	\$	-\$237,922
Liabilities						
Repurchase agreements	\$\$(13,316,881)	\$ —	\$(13,316,881)	\$13,316,881	\$	_\$
Derivative liabilities	(38,021)	35,441	(2,580)	2,580		
Total Liabilities	\$(13,354,902)	\$ 35,441	\$(13,319,461)	\$13,319,461	\$	_\$
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Notes to the Condensed Consolidated Financial Statements (unaudited)

December 31, 2016

	December 51,	2010		Gross Amou Offset with I Assets (Liab Condensed C Balance She		
(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	Financial Instruments	Cash Collateral (Received) Pledged	Net) Amount
Assets						
Derivative assets	\$388,522	\$ (64,340	\$324,182	\$(12,501)	\$	—\$311,681
Total Assets	\$388,522	\$ (64,340	\$324,182	\$(12,501)	\$	—\$311,681
Liabilities						
Repurchase agreements	\$\$(9,316,351)	\$ —	\$(9,316,351)	\$9,316,351	\$	_\$
Derivative liabilities	(76,841)	64,340	(12,501)	12,501	_	
Total Liabilities	(9,463,192)	\$ 64,340	\$(9,398,852)	\$9,398,852	\$	_\$

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 evaluated the new guidance and determined that interest income, gains and losses on financial instruments and income from servicing residential mortgage loans are outside the scope of ASC 606, Revenues from Contracts with Customers. For income from servicing residential mortgage loans, the Company considered that the FASB Transition Resource Group members generally agreed that an entity should look to ASC 860, Transfers and Servicing, to determine the appropriate accounting for these fees and ASC 606 contains a scope exception for contracts that fall under ASC 860. As a result, the Company has determined that the adoption of this ASU will not have a material impact on the Company's financial condition, results of operations or financial statement disclosures.

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. Early adoption of this ASU did not have an impact on the Company's financial condition, results of operations or financial statement disclosures.

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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, results of operations or financial statement disclosures.

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 to determine the impact it may have on its condensed consolidated financial statements, which at the date of adoption, is expected to increase the allowance for credit losses with a resulting negative adjustment to retained earnings, with offsetting impacts to accumulated other comprehensive income.

Classification of Certain Cash Receipts and Cash Payments and Restricted Cash

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. Additionally, in November 2016, the FASB issued ASU No. 2016-18, which requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents, but no longer present transfers between cash and cash equivalents and restricted cash and cash equivalents in the statement of cash flows. Both ASUs are effective for annual periods, and interim periods within those annual periods, beginning on or after December 15, 2017, with early adoption permitted. Early adoption of these ASUs did not impact the Company's financial condition or results of operations but impacted the presentation of the statements of cash flows and related footnote disclosures. The Company included restricted cash of \$249.7 million, \$408.3 million, \$363.2 million and \$262.6 million as of June 30, 2017, December 31, 2016, June 30, 2016 and December 31, 2015, respectively, with cash and cash equivalents, as shown on the condensed consolidated statements of cash flows.

Note 3. Variable Interest Entities

The Company retains subordinated debt and excess servicing rights purchased 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.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

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 June 30, 2017 and December 31, 2016:

(in thousands)	June 30,	December 31,
(III tilousailus)	2017	2016
Residential mortgage loans held-for-investment in securitization trusts	\$3,120,410	\$ 3,271,317
Commercial real estate assets	45,888	45,885
Accrued interest receivable	18,076	19,090
Total Assets	\$3,184,374	\$ 3,336,292
Collateralized borrowings in securitization trusts	\$2,880,301	\$ 3,037,196
Accrued interest payable	8,190	8,708
Other liabilities	11,853	12,374
Total Liabilities	\$2,900,344	\$ 3,058,278

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 June 30, 2017 and December 31, 2016, the carrying value, which also represents the maximum exposure to loss, of all non-Agency RMBS in unconsolidated VIEs was \$2.3 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 June 30, 2017 and December 31, 2016:

(in thousands)	June 30, 2017	December 31, 2016
Agency		
Federal National Mortgage Association	\$10,177,588	\$8,274,507
Federal Home Loan Mortgage Corporation	3,508,298	2,742,630
Government National Mortgage Association	485,382	209,337
Non-Agency	2,256,442	1,902,383
Total available-for-sale securities	\$16,427,710	\$13,128,857

At June 30, 2017 and December 31, 2016, the Company pledged AFS securities with a carrying value of \$16.4 billion and \$13.1 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 June 30, 2017 and December 31, 2016, the Company did not have any securities purchased from and financed with the same counterparty that did not meet the conditions of ASC 860, to be considered linked transactions and, therefore, classified as derivatives.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The following tables present the amortized cost and carrying value (which approximates fair value) of AFS securities by collateral type as of June 30, 2017 and December 31, 2016:

	June 30, 2017		
(in thousands)	Agency	Non-Agency	Total
Face Value	\$16,212,860	\$3,077,412	\$19,290,272
Unamortized premium	827,000		827,000
Unamortized discount			
Designated credit reserve	:	(433,736)	(433,736)
Net, unamortized	(2,813,604)	(806,264)	(3,619,868)
Amortized Cost	14,226,256	1,837,412	16,063,668
Gross unrealized gains	84,781	422,884	507,665
Gross unrealized losses	(139,769)	(3,854)	(143,623)
Carrying Value	\$14,171,268	\$2,256,442	\$16,427,710
	December 31,	2016	
	Determoti 51,	2010	
(in thousands)	Agency		Total
(in thousands) Face Value			Total \$16,303,556
· /	Agency	Non-Agency	
Face Value	Agency \$13,571,417	Non-Agency	\$16,303,556
Face Value Unamortized premium	Agency \$13,571,417 571,749	Non-Agency	\$16,303,556 571,749
Face Value Unamortized premium Unamortized discount	Agency \$13,571,417 571,749	Non-Agency \$2,732,139 	\$16,303,556 571,749
Face Value Unamortized premium Unamortized discount Designated credit reserve	Agency \$13,571,417 571,749	Non-Agency \$2,732,139 	\$16,303,556 571,749 (367,437)
Face Value Unamortized premium Unamortized discount Designated credit reserve Net, unamortized	Agency \$13,571,417 571,749 	Non-Agency \$2,732,139 (367,437) (808,975)	\$16,303,556 571,749 (367,437) (3,567,420)
Face Value Unamortized premium Unamortized discount Designated credit reserve Net, unamortized Amortized Cost	Agency \$13,571,417 571,749 	Non-Agency \$2,732,139 (367,437) (808,975) 1,555,727 353,358	\$16,303,556 571,749 (367,437) (3,567,420) 12,940,448

The following tables present the carrying value of the Company's AFS securities by rate type as of June 30, 2017 and December 31, 2016:

June 30, 2017					
(in thousands)	Agency	Non-Agency	Total		
Adjustable Rate	\$26,735	\$ 1,949,041	\$1,975,776		
Fixed Rate	14,144,533	307,401	14,451,934		
Total	\$14,171,268	\$ 2,256,442	\$16,427,710		
	December 31	, 2016			
(in thousands)	Agency	Non-Agency	Total		
Adjustable Rate	\$30,463	\$1,574,850	\$1,605,313		
Fixed Rate	11,196,011	327,533	11,523,544		
Total	\$11,226,474	\$1,902,383	\$13,128,857		

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table presents the Company's AFS securities according to their estimated weighted average life classifications as of June 30, 2017:

	June 30, 2017	7	
(in thousands)	Agency	Non-Agency	Total
≤ 1 year	\$557	\$ 40,890	\$41,447
> 1 and \leq 3 years	48,271	194,999	243,270
$>$ 3 and \leq 5 years	2,127,292	312,203	2,439,495
> 5 and ≤ 10 years	s11,973,466	889,262	12,862,728
> 10 years	21,682	819,088	840,770
Total	\$14,171,268	\$ 2,256,442	\$16,427,710

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. The following table presents the changes for the three and six months ended June 30, 2017 and 2016 of the unamortized net discount and designated credit reserves on non-Agency AFS securities.

Six Months Ended June 30,

	2017			2016		
	Designated	Unamortized	1	Designated	Unamortized	ł
(in thousands)	Credit	Net	Total	Credit	Net	Total
	Reserve	Discount		Reserve	Discount	
Beginning balance at January 1	\$(367,437)	\$(808,975)	\$(1,176,412)	\$(409,077)	\$(707,021)	\$(1,116,098)
Acquisitions	(100,558)	(88,807)	(189,365)	(16,217)	(74,039)	(90,256)
Accretion of net discount		44,301	44,301		32,287	32,287
Realized credit losses	8,424		8,424	(2,371)		(2,371)
Reclassification adjustment for other-than-temporary impairments	(429)		(429)	(211)		(211)
Transfers from (to)	22,676	(22,676)		59,453	(59,453)	_
Sales, calls, other	3,588	69,893	73,481	32,562	67,121	99,683
Ending balance at June 30	\$(433,736)	\$(806,264)	\$(1,240,000)	\$(335,861)	\$(741,105)	\$(1,076,966)

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Notes to the Condensed Consolidated Financial Statements (unaudited)

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 June 30, 2017 and December 31, 2016. At June 30, 2017, the Company held 1,306 AFS securities, of which 233 were in an unrealized loss position for less than twelve consecutive months and 131 were in an unrealized loss position for more than twelve consecutive months. At December 31, 2016, the Company held 1,239 AFS securities, of which 252 were in an unrealized loss position for less than twelve consecutive months and 125 were in an unrealized loss position for more than twelve consecutive months. Of the \$5.9 billion and \$6.4 billion of AFS securities in an unrealized loss position for less than twelve consecutive months as of June 30, 2017 and December 31, 2016, \$5.7 billion, or 97.2%, and \$6.1 billion, or 95.8%, respectively, were Agency AFS securities, whose principal and interest are guaranteed by the GSEs.

	Unrealized	Loss Position	n for			
	Less than 12	2 Months	12 Months of	or More	Total	
	Estimated	Gross	Estimated	Gross	Estimated	Gross
(in thousands)	Estimated Fair Value	Unrealized	Estimated	Unrealized	Estimated Fair Value	Unrealized
	rair value	Losses	rair value	Losses	Fall value	Losses
June 30, 2017	\$5,911,117	\$(80,353)	\$1,046,174	(63,270)	\$6,957,291	\$(143,623)
December 31, 2016	\$6,416,820	(204,034)	\$504,978	\$(39,955)	\$6,921,798	\$(243,989)

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, net of tax, or gain (loss) 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 or will be more likely than not required to sell the security is recognized loss is recognited loss is recognized loss is recognized loss is r

During both the three and six months ended June 30, 2017, the Company recorded \$0.4 million in other-than-temporary credit impairments on one non-Agency RMBS where the future expected cash flows for the security were less than its amortized cost. During the three and six months ended June 30, 2016, the Company recorded \$0.1 million and \$0.8 million, respectively, in other-than-temporary credit impairments on three non-Agency RMBS where the future expected cash flows for each security were less than its amortized cost. As of June 30, 2017, impaired securities with a carrying value of \$117.6 million had actual weighted average cumulative losses of 5.2%, weighted average three-month prepayment speed of 5.2%, weighted average 60+ day delinquency of 21.4% of the pool balance, and weighted average FICO score of 659. At June 30, 2017, 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.

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Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table presents the changes in OTTI included in earnings for the three and six months ended June 30, 2017 and 2016:

	Three M Ended June 30,	onths	Six Mont June 30,	hs Ended
(in thousands)	2017	2016	2017	2016
Cumulative credit loss at beginning of period	\$(5,606)	\$(6,620)	\$(5,606)	\$(6,499)
Additions:				
Other-than-temporary impairments not previously recognized	(429)		(429)	(292)
Increases related to other-than-temporary impairments on securities with previously recognized other-than-temporary impairments	—	(90)	_	(515)
Reductions:				
Decreases related to other-than-temporary impairments on securities paid down			_	_
Decreases related to other-than-temporary impairments on securities sold				596
Cumulative credit loss at end of period	\$(6,035)	\$(6,710)	\$(6,035)	\$(6,710)

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 (loss) on investment securities in the Company's condensed consolidated statements of comprehensive income. For the three and six months ended June 30, 2017, the Company sold AFS securities for \$2.7 billion and \$5.1 billion with an amortized cost of \$2.6 billion and \$5.1 billion for net realized gains of \$33.3 million and losses of \$17.1 million, respectively. For the three and six months ended June 30, 2016, the Company sold AFS securities for \$1.5 billion and \$3.8 billion with an amortized cost of \$1.5 billion and \$3.7 billion for net realized gains of \$9.9 million and \$31.6 million, respectively.

The following table presents the gross realized gains and losses on sales of AFS securities for the three and six months ended June 30, 2017 and 2016:

	Three Months Ended		Six Month	Ended	
			SIX Monuis Linded		
	June 30,	June 30,			
(in thousands)	2017	2016	2017	2016	
Gross realized gains	\$47,994	\$10,700	\$56,725	\$45,894	
Gross realized losses	(14,649)	(830)	(73,783)	(14,323)	
Total realized gains (losses) on sales, net	\$33,345	\$9,870	\$(17,058)	\$31,571	

Note 5. 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.

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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 June 30, 2017 and December 31, 2016:

	June 30,			
	2017			
(dollars in thousands)	First	Mezzanine	B-Notes	Total
(dollars in thousands)	Mortgages	Loans	D-INOICS	Total
Unpaid principal balance	\$1,648,342	\$132,969	\$14,936	\$1,796,247
Unamortized (discount) premium	(178)	(12)		(190)
Unamortized net deferred origination fees	(13,179)	(129)		(13,308)
Carrying value	\$1,634,985	\$132,828	\$14,936	\$1,782,749
Unfunded commitments	\$213,703	\$1,580	\$—	\$215,283
Number of loans	39	6	1	46
Weighted average coupon	5.6 %	9.0 %	8.0 %	5.8 %
Weighted average years to maturity ⁽¹⁾	2.6	2.0	9.6	2.6

	December 31, 2016			
(dollars in thousands)	First Mortgages	Mezzanine Loans	B-Notes	Total
Unpaid principal balance	\$1,286,200		\$ —	\$1,424,445
Unamortized (discount) premium	(185)	(15)		(200)
Unamortized net deferred origination fees	(11,481)	(221)		(11,702)
Carrying value	\$1,274,534	\$138,009	\$ —	\$1,412,543
Unfunded commitments	\$170,890	1,580	\$ —	\$172,470
Number of loans	30	6		36
Weighted average coupon	5.1 %	8.6 %	— %	5.4 %
Weighted average years to maturity ⁽¹⁾	2.9	1.5	0.0	2.8

Based on contractual maturity date. Certain loans are subject to contractual extension options which may be subject

(1) 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)	June 30, 2017			December 3 2016	51,	
Property Type	Carrying Value	% of Commer Portfolic		Carrying Value	% of Commer Portfolio	
Office	\$939,961	52.7	%	\$718,780	50.9	%
Multifamily	264,920	14.9	%	260,683	18.5	%
Retail	246,710	13.8	%	237,414	16.8	%
Hotel	186,854	10.5	%	90,585	6.4	%
Industrial	144,304	8.1	%	105,081	7.4	%
Total	\$1,782,749	100.0	%	\$1,412,543	100.0	%

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

(in thousands)	June 30, 2017			December 3 2016	51,	
Geographic Location	Carrying Value	% of Commercial Portfolio		Carrying Value	% of Commer Portfolio	• • • • • •
Northeast	\$655,248	36.8	%	\$578,762	41.0	%
West	389,311	21.8	%	250,044	17.7	%
Southwest	340,094	19.1	%	267,944	19.0	%
Southeast	319,609	17.9	%	239,194	16.9	%
Midwest	78,487	4.4	%	76,599	5.4	%
Total	\$1,782,749	100.0	%	\$1,412,543	100.0	%

At June 30, 2017 and December 31, 2016, the Company pledged commercial real estate assets with a carrying value of \$1.6 billion and \$1.4 billion, 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 six months ended June 30, 2017 and 2016.

	Three Month June 30,	ns Ended	Six Months J June 30,	Ended
(in thousands)	2017	2016	2017	2016
Balance at beginning of period	\$1,548,603	\$744,259	\$1,412,543	\$660,953
Originations, acquisitions and additional fundings	238,664	193,181	378,048	280,447
Repayments	(2,437)	(9,856)	(6,246)	(14,387)
Net (premium amortization) discount accretion	(18)	67	(17)	140
Increase in net deferred origination fees	(3,771)	(2,899)	(5,710)	(4,009)
Amortization of net deferred origination fees	1,708	1,625	4,131	3,233
Allowance for loan losses		—		
Balance at end of period	\$1,782,749	\$926,377	\$1,782,749	\$926,377

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

⁴Higher 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 4mpaired/Loss Likely: A loan that has a significantly increased probability of default or principal loss.

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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 June 30, 2017 and December 31, 2016:

(dollars in thousands)	June 30,		December 31,	
(donais in mousands)	2017		2016	
Risk Rating	Nurb lorp aid of Principal Loa Ba lance	Carrying Value	Nurb be paid of Principal Loa Ba lance	Carrying Value
1 – 3	46 \$1,796,247	\$1,782,749	36 \$1,424,445	\$1,412,543
4 – 5				—
Total	46 \$1,796,247	\$1,782,749	36 \$1,424,445	\$1,412,543

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.

Note 6. 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 appropriately 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 six months ended June 30, 2017 and 2016.

	Three Mor	ths Ended	Six Month	s Ended
	June 30,		June 30,	
(in thousands)	2017	2016	2017	2016
Balance at beginning of period	\$747,580	\$446,170	\$693,815	\$493,688
Additions from purchases of mortgage servicing rights	196,920	55,938	273,876	106,211
Additions from sales of residential mortgage loans	—	318	20	522
Subtractions from sales of mortgage servicing rights	(946)		(946)	
Changes in fair value due to:				
Changes in valuation inputs or assumptions used in the valuation model	(26,111)	(59,074)	(22,929)	(143,433)
Other changes in fair value ⁽¹⁾	(19,951)	(17,461)	(37,948)	(34,542)
Other changes ⁽²⁾	533	1,922	(7,863)	5,367
Balance at end of period	\$898,025	\$427,813	\$898,025	\$427,813

(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 June 30, 2017 and December 31, 2016, the Company pledged MSR with a carrying value of \$166.0 million and \$180.9 million, respectively, as collateral for revolving credit facilities. See Note 18 - Revolving Credit Facilities.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

As of June 30, 2017 and December 31, 2016, 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:

(dollars in thousands)	June 30,	December 31,	
(donars in mousands)	2017	2016	
Weighted average prepayment speed:	10.0 %	9.2 %	
Impact on fair value of 10% adverse change	\$(33,975)	\$ (25,012)	
Impact on fair value of 20% adverse change	\$(65,496)	\$ (48,602)	
Weighted average delinquency:	1.5 %	1.9 %	
Impact on fair value of 10% adverse change	\$(3,891)	\$ (1,908)	
Impact on fair value of 20% adverse change	\$(7,723)	\$ (3,816)	
Weighted average discount rate:	10.0 %	9.4 %	
Impact on fair value of 10% adverse change	\$(29,276)	\$ (23,590)	
Impact on fair value of 20% adverse change	\$(56,695)	\$ (45,861)	

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 its Agency RMBS portfolio.

Mortgage Servicing Income

The following table presents the components of servicing income recorded on the Company's condensed consolidated statements of comprehensive income for the three and six months ended June 30, 2017 and 2016:

-	Three M	onths	Six Mon	ths
	Ended		Ended	
	June 30,		June 30,	
(in thousands)	2017	2016	2017	2016
Servicing fee income	\$49,434	\$34,431	\$87,934	\$67,540
Ancillary fee income	165	488	305	973
Float income	1,709	897	2,842	1,436
Total	\$51,308	\$35,816	\$91,081	\$69,949

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 \$21.1 million and \$26.1 million and were included in other assets on the condensed consolidated balance sheets as of June 30, 2017 and December 31, 2016, respectively.

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Notes to the Condensed Consolidated Financial Statements (unaudited)

Serviced Mortgage Assets

The Company's total serviced mortgage assets consist of loans underlying MSR, loans held in consolidated VIEs classified as residential mortgage loans held-for-investment in securitization trusts and loans owned and classified as residential mortgage loans held-for-sale. 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 June 30, 2017 and December 31, 2016:

	June 30,	2017	Decemb	er 31, 2016
	Number	Unpaid	Number	Unpaid
(dollars in thousands)	of	Principal	of	Principal
	Loans	Balance	Loans	Balance
Mortgage servicing rights	379,711	\$84,814,247	280,185	\$62,827,975
Residential mortgage loans held-for-investment in securitization trusts	4,404	3,052,238	4,604	3,234,044
Residential mortgage loans held-for-sale	259	39,941	333	49,986
Total serviced mortgage assets	384,374	\$87,906,426	285,122	\$66,112,005

Note 7. Residential Mortgage Loans Held-for-Investment in Securitization Trusts, at Fair Value The Company retains subordinated debt and excess servicing rights purchased 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 June 30, 2017 and December 31, 2016:

(in thousands)	June 30,	December 31,
(III tilousalius)	2017	2016
Unpaid principal balance	\$3,052,238	\$ 3,234,044
Fair value adjustment	68,172	37,273
Carrying value	\$3,120,410	\$ 3,271,317

Note 8. 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 June 30, 2017 and December 31, 2016:

(in thousands)	June 30,	December 31,		
(III tilousalius)	2017	2016		
Unpaid principal balance	\$39,941	\$ 49,986		
Fair value adjustment	(7,995)	(9,840)		
Carrying value	\$31,946	\$ 40,146		

Note 9. Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents include cash held in bank accounts and cash held in money market funds on an overnight basis.

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.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

The following table presents the Company's restricted cash balances as of June 30, 2017 an	d Decembe	er 31, 2016:
(in thousands)	June 30,	December 31,
(in thousands)	2017	2016
Restricted cash balances held by trading counterparties:		
For securities and loan trading activity	\$27,820	\$ 26,310
For derivatives trading activity	133,844	218,896
As restricted collateral for repurchase agreements and Federal Home Loan Bank advances	87,717	162,759
Total restricted cash balances held by trading counterparties	249,381	407,965
Restricted cash balance pursuant to letter of credit on office lease	347	347
Total	\$249,728	\$ 408,312

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported on the Company's condensed consolidated balance sheets as of June 30, 2017 and December 31, 2016 that sum to the total of the same such amounts shown in the statements of cash flows:

(in thousands)	June 30,	December 31,
(in mousands)	2017	2016
Cash and cash equivalents	\$651,707	\$ 406,883
Restricted cash	249,728	408,312
Total cash, cash equivalents and restricted cash	\$901,435	\$ 815,195

Note 10. Accrued Interest Receivable

The following table presents the Company's accrued interest receivable by collateral type as of June 30, 2017 and December 31, 2016:

(in thousands)	June 30, 2017	December 31, 2016
Available-for-sale securities:		
Agency		
Federal National Mortgage Association	\$32,905	\$ 25,273
Federal Home Loan Mortgage Corporation	11,614	8,914
Government National Mortgage Association	3,983	3,068
Non-Agency	2,700	2,705
Total available-for-sale securities	51,202	39,960
Commercial real estate assets	4,887	3,699
Residential mortgage loans held-for-investment in securitization trusts	17,915	18,928
Residential mortgage loans held-for-sale	152	164
Total	\$74,156	\$ 62,751

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

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 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, principally market risk and cash flow volatility associated with interest rate risk (including associated prepayment risk). Specifically, the Company enters into derivative and non-derivative instruments to economically hedge interest rate risk or "duration mismatch (or gap)" by adjusting the duration of its floating-rate borrowings into fixed-rate borrowings to more closely match the duration of its assets. This particularly applies to floating-rate borrowing agreements with maturities or interest rate resets of less than six months. Typically, the interest receivable terms (i.e., LIBOR) of certain derivatives 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. The objective is to manage the cash flows associated with current and anticipated interest payments on borrowings, as well as the ability to roll or refinance borrowings at the desired amount by adjusting the duration.

To help manage the adverse impact of interest rate changes on the value of the Company's portfolio as well as its cash flows, the Company may, at times, enter into various forward contracts, including short securities, Agency to-be-announced securities, or TBAs, options, futures, swaps, caps 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, put and call options for TBAs, 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 MSR and Agency interest-only securities (see discussion below).

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 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. 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 June 30, 2017 and December 31, 2016.

(in thousands)	June 30, 2	2017			
	Derivative	e Assets	Derivative Liabiliti		
Trading instruments	Fair Value	Notional	Fair Value	Notional	
Inverse interest-only securities	\$109,350	\$659,768	\$—	\$—	
Interest rate swap agreements	119,321	13,714,719	(410) 1,050,000	
Swaptions, net	2,949	1,850,000	(815) 500,000	
TBAs	8,060	1,340,000	(463) 200,000	

Put and call options for TBAs, net	522	1,390,000	(892)	105,000
Markit IOS total return swaps	300	68,629		
Total	\$240,502	\$19,023,116	\$(2,580)	\$1,855,000

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Notes to the Condensed Consolidated Financial Statements (unaudited)

(in thousands)	December 31, 2016				
	Derivative	e Assets	Derivative	e Liabilities	
Trading instruments	Fair	Notional	Fair	Notional	
Trading instruments	Value	Notional	Value	Notional	
Inverse interest-only securities	\$127,843	\$740,844	\$—	\$—	
Interest rate swap agreements	109,531	18,471,063	(495)	1,900,000	
Swaptions, net	39,881	825,000	(1,645)	600,000	
TBAs	4,294	536,000	(10,344)	953,000	
Put and call options for TBAs, net	42,633	1,136,000	_		
Markit IOS total return swaps			(17)	90,593	
Total	\$324,182	\$21,708,907	\$(12,501)	\$3,543,593	

Comprehensive Income Statement Presentation

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

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

condensed consonduted stat							
Trading Instruments	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives					
(in thousands)				Six Months June 30, 2017	Ended 2016		
Interest rate risk management							
TBAs	Loss on other derivative instruments	\$(15,321)	\$1,562	\$(28,780)	\$26,891		
Put and call options for TBAs	Loss on other derivative instruments	(7,822)	(44,052)	(19,062)	(45,033)		
Interest rate swap agreements - Payers	Loss on interest rate swap and swaption agreements	(72,873)	(72,132)	(45,145)	(294,035)		
Interest rate swap agreements - Receivers	Loss on interest rate swap and swaption agreements	25,527	37,172	28,093	149,846		
Swaptions	Loss on interest rate swap and swaption agreements	(29,364)	22,252	(49,731)	5,997		
Markit IOS total return swaps	Loss on other derivative instruments	(790)	(13,267)	(687)	(34,991)		
Credit risk management Credit default swaps - Receive protection Non-risk management	Loss on other derivative instruments	_	(27)	_	382		
Inverse interest-only securities	Loss on other derivative instruments	4,393	7,733	1,125	20,715		
Forward purchase commitments	Gain on residential mortgage loans held-for-sale	_	950	_	2,348		
Total		\$(96,250)	\$(59,809)	\$(114,187)	\$(167,880)		

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Notes to the Condensed Consolidated Financial Statements (unaudited)

For the three and six months ended June 30, 2017, the Company recognized \$2.6 million and \$10.5 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 and receiving either LIBOR interest or a fixed interest rate on an average \$17.5 billion and \$18.1 billion notional, respectively. For the three and six months ended June 30, 2016, the Company recognized \$7.7 million and \$13.8 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 and receiving either to a fixed interest rate or the net interest expense associated with its interest rate swaps. The expenses result from paying either a fixed interest rate or LIBOR interest and receiving either LIBOR interest or a fixed interest rate or LIBOR interest and receiving either LIBOR interest or a fixed interest rate or LIBOR interest and receiving either LIBOR interest or a fixed interest rate or LIBOR interest and receiving either LIBOR interest or a fixed interest rate on an average \$14.8 billion notional, respectively.

The following tables present information with respect to the volume of activity in the Company's derivative instruments during the three and six months ended June 30, 2017 and 2016:

Three Months Ended June 30, 2017

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Beginning of Period		Settlement, Termination,	End of Period	•	Realized Gain
AmountAmountAmountAmountnet (1)Inverse interest-only securities\$698,826\$\$(39,058)\$(559,768)\$681,216\$Interest rate swap agreements $18,252,440$ $4,476,986$ $(7,964,707)$ $14,764,719$ $17,470,672$ $(39,626)$ Swaptions, net $(3,880,000)$ $(375,000)$ $5,605,000$ $1,249,341$ $9,543$ TBAs, net $(993,000)$ $(1,039,400)$ $892,400$ $(1,140,000)$ $(24,728)$ $(31,021)$ Put and call options for TBAs, net $1,770,000$ $1,285,000$ $96,319$ $(14,623)$ Markit IOS total return swaps $87,269$ $(18,640)$ $68,629$ $75,282$ (181) Total $Beginning$ $(16,640)$ $68,629$ $75,282$ (181) $(16,623)$ Inverse interest-only securities $Reginning$ Termination, Notional $Redized$ $Redized$ Inverse interest-only securities $8882,726$ \$ $(10,000)$ $834,866$ \$860,864\$Interest rate swap agreements $15,425,513$ $5,264,513$ $(6,993,000)$ $1,800,000$ $4,174,725$ $(28,819)$ TBAs, net $1,637,000$ $121,000$ $(2,095,000)$ $18,80,004$ $4,174,725$ $(28,819)$ TBAs, net $1,637,000$ $121,000$ $(2,095,000)$ $18,907,000$ $38,27,0242$ $(1,348)$ Markit IOS total return swaps $868,145$ $(280,108)$ $588,037$ $811,749$ 523 Forward purchase commitments $52,212$ <td< td=""><td>(in thousands)</td><td></td><td>Additions</td><td>,</td><td></td><td></td><td></td></td<>	(in thousands)		Additions	,			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				•	Amount	Amount	
	Inverse interest-only securities		\$ —		\$659,768	\$681,216	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	•		4,476,986				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Swaptions, net	(3,880,000) (375,000)	5,605,000	1,350,000	1,249,341	9,543
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	TBAs, net	(993,000	(1,039,400)	892,400	(1,140,000)	(24,728)	(31,021)
Total\$15,935,535\$4,347,586\$(3,295,005)\$16,988,116\$19,548,102\$(75,908)TotalBeginning of Period Notional Motional MotionalAdditionsSettlement, Termination, Expiration or 	Put and call options for TBAs, net	1,770,000	1,285,000	(1,770,000)	1,285,000	96,319	(14,623)
	Markit IOS total return swaps	87,269		(18,640)	68,629	75,282	(181)
Beginning of Period Notional Additions Settlement, Termination, Exercise End of Period Notional Average Notional Realized Gain (Loss), net (1) Inverse interest-only securities \$882,726 \$— \$(47,860) \$834,866 \$860,864 \$— Inverse interest-only securities \$882,726 \$— \$(47,860) \$834,866 \$860,864 \$— Interest rate swap agreements 15,425,513 5,264,513 (6,993,026) \$13,697,000 14,806,049 (26,297) Swaptions, net 125,000 — (10000) \$25,000 112,912 — Put and call options for TBAs, net 1,637,000 121,000 (2,095,000) \$189,7000 3557,242 (1,348) Markit IOS total return swaps 868,145 — (280,108) \$88,037 811,749 523 Forward purchase commitments 252,212 848,791 (464,536) \$63,6467 395,617 692 Total \$26,390,596 \$15,731,304 \$(15,980,530) \$26,141,370 \$24,908,389 \$(42,348) (in thousands) \$740,844<	Total	\$15,935,535	\$4,347,586	\$(3,295,005)	\$16,988,116	\$19,548,102	\$(75,908)
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			s Ended June				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					End of Period	Average	
Notional AmountExpiration or ExerciseAmountAmount(Loss), net (1)Inverse interest-only securities $\$882,726$ $\$$ $\$(47,860)$ $\$834,866$ $\$80,864$ $\$$ Interest rate swap agreements $15,425,513$ $5,264,513$ $(6,993,026)$ $13,697,000$ $14,806,049$ $(26,297)$ Credit default swaps $125,000$ $ (100,000)$ $25,000$ $112,912$ $-$ Swaptions, net $5,200,000$ $600,000$ $(4,000,000)$ $1,800,000$ $4,174,725$ $(28,819)$ TBAs, net $1,637,000$ $121,000$ $(2,095,000)$ $(337,000)$ $189,231$ $12,901$ Put and call options for TBAs, net $2,000,000$ $\$8,897,000$ $(2,000,000)$ $\$8,897,000$ $3,557,242$ $(1,348)$ Markit IOS total return swaps $868,145$ $ (280,108)$ $588,037$ $\$11,749$ 523 Forward purchase commitments $252,212$ $848,791$ $(464,536)$ $636,467$ $395,617$ 692 Total $$26,390,596$ $\$15,731,304$ $$(15,980,530)$ $$26,141,370$ $$24,908,389$ $$(42,348)$ Interest rate swap agreements $$2,0371,063$ $13,529,809$ $$(9,176)$ $$659,768$ $$700,941$ $$-$ Interest rate swap agreements $$20,371,063$ $13,529,809$ $$(19,136,153)$ $$4,764,719$ $$8,085,752$ $$1,520$ Swaptions, net $$22,000$ $$4,255,000$ $$3,80,000$ $$3,50,000$ $$98,923$ $$24,428$ TBAs, net $$(1,489,000)$	(in thousands)		Additions			U	Gain
Amount Exercise net (1) Inverse interest-only securities \$882,726 \$— \$(47,860) \$834,866 \$860,864 \$— Interest rate swap agreements 15,425,513 5,264,513 (6,993,026) 13,697,000 14,806,049 (26,297) Credit default swaps 125,000 — (100,000) 25,000 112,912 — Swaptions, net 5,200,000 600,000 (4,000,000) 1,800,000 4,174,725 (28,819) TBAs, net 1,637,000 121,000 (2,095,000) (337,000) 189,231 12,901 Put and call options for TBAs, net 2,000,000 8,897,000 (2,000,000) 8,897,000 3,557,242 (1,348) Markit IOS total return swaps 868,145 — (280,108) 588,037 811,749 523 Forward purchase commitments 252,212 848,791 (464,536) 636,467 395,617 692 Total \$26,390,596 \$15,731,304 \$(15,980,530) \$26,141,370 \$24,908,389 (42,348) (in thousands) Meriod Additions Termination, Amount End of Period </td <td>(in thousands)</td> <td></td> <td>riduitions</td> <td>-</td> <td></td> <td></td> <td></td>	(in thousands)		riduitions	-			
$ \begin{array}{llllllllllllllllllllllllllllllllllll$							
$\begin{array}{cccc} \mbox{Credit default swaps} & 125,000 & & (100,000 &) 25,000 & 112,912 & \\ \mbox{Swaptions, net} & 5,200,000 & 600,000 & (4,000,000 &) 1,800,000 & 4,174,725 & (28,819 &) \\ \mbox{TBAs, net} & 1,637,000 & 121,000 & (2,095,000 &) (337,000 &) 189,231 & 12,901 \\ \mbox{Put and call options for TBAs, net} & 2,000,000 & 8,897,000 & (2,000,000 &) 8,897,000 & 3,557,242 & (1,348 &) \\ \mbox{Markit IOS total return swaps} & 868,145 & & (280,108 &) 588,037 & 811,749 & 523 \\ \mbox{Forward purchase commitments} & 252,212 & 848,791 & (464,536 &) 636,467 & 395,617 & 692 \\ \mbox{Total} & & $26,390,596 & $15,731,304 & $(15,980,530) & $26,141,370 & $24,908,389 & $(42,348) \\ \mbox{Six Months Ended June 30, 2017} \\ \mbox{Beginning of} & & & & \\ \mbox{Retional} & & & & \\ \mbox{Period} & & & & \\ \mbox{Notional} & & & & \\ \mbox{Amount} & & & & \\ \mbox{Matitions} & & & \\ \mbox{Retional} & & & & \\ \mbox{Mount} & & & & \\ \mbox{Mount} & & & & \\ \mbox{Mount} & & & & \\ \mbox{Retional} & & & \\ \mbox{Mount} & & & & \\ \mbox{Mount} & & & \\ \mbox{Retional} & & \\ \mbox{Retional} & $	2	. ,					
Swaptions, net5,200,000 $600,000$ $(4,000,000)$ $1,800,000$ $4,174,725$ $(28,819)$ TBAs, net $1,637,000$ $121,000$ $(2,095,000)$ $(337,000)$ $189,231$ $12,901$ Put and call options for TBAs, net $2,000,000$ $8,897,000$ $(2,000,000)$ $8,897,000$ $3,557,242$ $(1,348)$ Markit IOS total return swaps $868,145$ — $(280,108)$ $588,037$ $811,749$ 523 Forward purchase commitments $252,212$ $848,791$ $(464,536)$ $636,467$ $395,617$ 692 Total $$26,390,596$ $$15,731,304$ $$(15,980,530)$ $$26,141,370$ $$24,908,389$ $$(42,348)$ Six Months Ended June 30, 2017Beginning of AdditionsSettlement, ExerciseEnd of Period Notional AmountAverage AmountRealized Gain (Loss), net (1)Inverse interest-only securities $$740,844$ \$— $$(81,076)$ $$659,768$ $$700,941$ \$—Interest rate swap agreements $20,371,063$ $13,529,809$ $(19,136,153)$ $14,764,719$ $18,085,752$ $11,520$ Swaptions, net $225,000$ $(4,255,000)$ $5,380,000$ $1,350,000$ $(98,923)$ $24,428$ TBAs, net $(1,489,000)$ $(4,125,400)$ $4,474,400$ $(1,140,000)$ $(12,431)$ $(42,427)$	1 6		5,264,513	· · · · · · · · · · · · · · · · · · ·			(26,297)
TBAs, net1,637,000121,000(2,095,000) $(337,000$) $189,231$ 12,901Put and call options for TBAs, net2,000,000 $8,897,000$ $(2,000,000)$ $8,897,000$ $3,557,242$ $(1,348)$ Markit IOS total return swaps $868,145$ — $(280,108)$ $588,037$ $811,749$ 523 Forward purchase commitments $252,212$ $848,791$ $(464,536)$ $636,467$ $395,617$ 692 Total $$26,390,596$ $$15,731,304$ $$(15,980,530)$ $$26,141,370$ $$24,908,389$ $$(42,348)$ Six Months Ended June 30, 2017Beginning of Period AmountSettlement, Expiration or AmountTermination, ExerciseEnd of Period Average Motional AmountAdditionsInverse interest-only securities $$740,844$ \$— $$(81,076)$ $$659,768$ $$700,941$ \$—Interest rate swap agreements $20,371,063$ $13,529,809$ $(19,136,153)$ $14,764,719$ $18,085,752$ $11,520$ Swaptions, net $225,000$ $(4,255,000)$ $5,380,000$ $1,350,000$ $(98,923)$ $24,428$ TBAs, net $(1,489,000)$ $(4,125,400)$ $4,474,400$ $(1,140,000)$ $(12,431)$ $(42,427)$	*		_				_
Put and call options for TBAs, net $2,000,000$ $8,897,000$ $(2,000,000$ $8,897,000$ $3,557,242$ $(1,348)$ Markit IOS total return swaps $868,145$ — $(280,108)$ $588,037$ $811,749$ 523 Forward purchase commitments $252,212$ $848,791$ $(464,536)$ $636,467$ $395,617$ 692 Total $$26,390,596$ $$15,731,304$ $$(15,980,530)$ $$26,141,370$ $$24,908,389$ $$(42,348)$ Six Months Ended June 30, 2017Beginning of Notional AmountSettlement, Termination, Expiration or Motional AmountSettlement, Termination, ExerciseEnd of Period Average Motional AmountRealized Gain (Loss), net (1)Inverse interest-only securities $$740,844$ \$— $$(81,076)$ $$659,768$ $$700,941$ \$—Interest rate swap agreements $20,371,063$ $13,529,809$ $(19,136,153)$ $14,764,719$ $18,085,752$ $11,520$ Swaptions, net $225,000$ $(4,255,000)$ $5,380,000$ $1,350,000$ $(98,923)$ $24,428$ TBAs, net $(1,489,000)$ $(4,125,400)$ $4,474,400$ $(1,140,000)$ $(12,431)$ $(42,427)$	-		-	,			
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	-	, ,	,	,	,	-	
$ \begin{array}{c} \mbox{Forward purchase commitments} \\ \mbox{Total} \\ \mbox{Total} \\ \mbox{(in thousands)} \\ \mbox{(in thousands)} \\ \mbox{Inverse interest-only securities} \\ \mbox{Inverse interest-only securities} \\ \mbox{Interest rate swap agreements} \\ \mbox{Swaptions, net} \\ \mbox{TBAs, net} \\ \end{array} \\ \begin{array}{c} \mbox{252,212} & 848,791 & (464,536 &) & 636,467 & 395,617 & 692 \\ \mbox{$26,390,596 $15,731,304 $(15,980,530) $26,141,370 & $24,908,389 $(42,348) \\ \mbox{$xi Months Ended June 30, 2017 \\ \mbox{Beginning of } \\ \mbox{Period} \\ \mbox{Additions} \\ \mbox{Additions} \\ \mbox{Additions} \\ \mbox{Settlement,} \\ \mbox{Termination,} \\ \mbox{Exercise} \\ \mbox{Settlement,} \\ \mbox{Inverse interest-only securities} \\ \mbox{Inverse interest-only securities} \\ \mbox{Interest rate swap agreements} \\ \mbox{20,371,063 } 13,529,809 & (19,136,153 & 14,764,719 & 18,085,752 & 11,520 \\ \mbox{Swaptions, net} \\ \mbox{TBAs, net} \\ \mbox{(1,489,000) } (4,125,400 & 4,474,400 & (1,140,000 &) (12,431 &) (42,427) \\ \mbox{(42,427)} \\ \mb$			8,897,000			3,557,242	
$ \begin{array}{c} \mbox{Total} \\ \mbox{ for thousands} \\ \mbox{ (in thousands)} \\ \mbox{ Inverse interest-only securities} \\ \mbox{ Interest rate swap agreements} \\ \mbox{ Notional} \\ \mbox{ mount} \\ \mbox{ 2017} \\ \mbox{ Beginning of } \\ \mbox{ Additions} \\ \mbox{ Fermination, } \\ \mbox{ Exercise} \\ \mbox{ Notional } \\ \mbox{ Amount} \\ \m$	· · · · · · · · · · · · · · · · · · ·		_				
	Forward purchase commitments		-			395,617	692
$ \begin{array}{c} (\text{in thousands}) \\ (\text{in thousands}) \\ \text{Inverse interest-only securities} \\ \text{Interest rate swap agreements} \\ \text{Swaptions, net} \\ \text{TBAs, net} \end{array} \begin{array}{c} \begin{array}{c} \text{Beginning of} \\ \text{Period} \\ \text{Additions} \\ \text{Period} \\ \text{Additions} \\ \text{Additions} \\ \text{Additions} \\ \text{Additions} \\ \text{Additions} \\ \text{Fermination} \\ \text{Expiration or} \\ \text{Exercise} \\ \end{array} \begin{array}{c} \begin{array}{c} \text{End of Period} \\ \text{Average} \\ \text{Notional} \\ \text{Amount} \\ \text{Amount} \\ \text{Amount} \\ \end{array} \begin{array}{c} \begin{array}{c} \text{Realized} \\ \text{Gain} \\ (\text{Loss}), \\ \text{net} \end{array} \right) \\ \text{Amount} \\ \begin{array}{c} \begin{array}{c} \text{Settlement}, \\ \text{Amount} \\ \text{Exercise} \\ \end{array} \end{array} \right) \\ \begin{array}{c} \begin{array}{c} \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \begin{array}{c} \begin{array}{c} \text{Amount} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \end{array} \right) \\ \begin{array}{c} \begin{array}{c} \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \end{array} \right) \\ \begin{array}{c} \begin{array}{c} \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \end{array} \right) \\ \begin{array}{c} \begin{array}{c} \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \end{array} \right) \\ \begin{array}{c} \text{Solutional} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \text{Solutional} \\ \text{Solutional} \\ \text{Amount} \\ \end{array} \right) \\ \begin{array}{c} \text{Solutional} \\ Solu$	Total			,	\$26,141,370	\$24,908,389	\$(42,348)
$ \begin{array}{c} (\text{in thousands}) \\ (\text{in thousands}) \\ \text{Inverse interest-only securities} \\ \text{Inverse interest-only securities} \\ \text{Interest rate swap agreements} \\ \text{Swaptions, net} \\ \text{TBAs, net} \end{array} \begin{array}{c} \text{Period} \\ \text{Additions} \\ \text{Notional} \\ \text{Additions} \\ \text{Additions} \\ \text{Additions} \\ \text{Errmination,} \\ \text{Errmination,} \\ \text{Errmination,} \\ \text{Errmination,} \\ \text{Errmination,} \\ \text{Notional} \\ \text{Amount} \\ \text{Interest rate swap agreements} \\ 20,371,063 \\ 225,000 \\ (4,255,000) \\ (4,255,000) \\ 5,380,000 \\ 1,350,000 \\ (1,140,000) \\ (12,431) \\ (42,427) \end{array} \right) $		Six Months H	Ended June 30	, 2017			
(in thousands)Period Notional AmountAdditionsTermination, Expiration or ExerciseNotional AmountNotional (Loss), net (1) Inverse interest-only securities\$740,844\$—\$(81,076)\$659,768\$700,941\$—Interest rate swap agreements20,371,06313,529,809(19,136,153)14,764,71918,085,75211,520Swaptions, net225,000(4,255,000)5,380,0001,350,000(98,923)24,428TBAs, net(1,489,000)(4,125,400)4,474,400(1,140,000)(12,431)(42,427)				Settlement,	End of Period	Average	
Notional AmountExpiration or ExerciseAmount(Loss), net (1)Inverse interest-only securities $\$740,844$ $\$$ $\$(81,076)$ $\$659,768$ $\$700,941$ $\$$ Interest rate swap agreements $20,371,063$ $13,529,809$ $(19,136,153)$ $14,764,719$ $18,085,752$ $11,520$ Swaptions, net $225,000$ $(4,255,000)$ $5,380,000$ $1,350,000$ $(98,923)$ $24,428$ TBAs, net $(1,489,000)$ $(4,125,400)$ $4,474,400$ $(1,140,000)$ $(12,431)$ $(42,427)$	(in thousands)		Additions	Termination,		÷	Gain
AmountExercise $net (1)$ Inverse interest-only securities $\$740,844$ $\$ \$(81,076)$ $\$659,768$ $\$700,941$ $\$-$ Interest rate swap agreements $20,371,063$ $13,529,809$ $(19,136,153)$ $14,764,719$ $18,085,752$ $11,520$ Swaptions, net $225,000$ $(4,255,000)$ $5,380,000$ $1,350,000$ $(98,923)$ $24,428$ TBAs, net $(1,489,000)$ $(4,125,400)$ $4,474,400$ $(1,140,000)$ $(12,431)$ $(42,427)$	(in thousands)	Notional	7 Iduitions				
Interest rate swap agreements20,371,06313,529,809(19,136,153)14,764,71918,085,75211,520Swaptions, net225,000(4,255,000)5,380,0001,350,000(98,923)) 24,428TBAs, net(1,489,000)(4,125,400)4,474,400(1,140,000)(12,431)) (42,427)					mount		
Swaptions, net225,000(4,255,000)5,380,0001,350,000(98,923)) 24,428TBAs, net(1,489,000)(4,125,400)4,474,400(1,140,000)(12,431)) (42,427)	Inverse interest-only securities	\$740,844	1		-		
TBAs, net (1,489,000) (4,125,400) 4,474,400 (1,140,000) (12,431) (42,427)	Interest rate swap agreements			,			,
	A	· · ·	,			,	-
Put and call options for TBAs, net (1,136,000) 2,555,000 (134,000) 1,285,000 (63,387) 24,146	-		,		,	,	
	Put and call options for TBAs, net	(1,136,000) 2,555,000	(134,000)	1,285,000	(63,387)	24,146

Markit IOS total return swaps	90,593	_	(21,964) 68,629	81,686	(181)
Total	\$18,802,500	\$7,704,409	\$(9,518,793) \$16,988,116	\$18,693,638	\$17,486

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

	Six Months Ended June 30, 2016						
	0 0		Settlement,	End of Period	Realized		
(in the second a)	of Period	Additions	Termination,	Notional	Notional	Gain	
(in thousands)	Notional	Additions	Expiration or	Amount	Amount	(Loss),	
	Amount		Exercise	Alloulit	Amount	net ⁽¹⁾	
Inverse interest-only securities	\$932,037	\$—	\$(97,171)	\$834,866	\$885,121	\$—	
Interest rate swap agreements	14,268,806	12,102,026	(12,673,832)	13,697,000	14,880,324	6,302	
Credit default swaps	125,000	10,000	(110,000)	25,000	119,670	412	
Swaptions, net	5,200,000	2,600,000	(6,000,000)	1,800,000	4,695,604	(30,789)	
TBAs, net	297,000	4,436,000	(5,070,000)	(337,000)	171,220	31,751	
Put and call options for TBAs, net		10,897,000	(2,000,000)	8,897,000	1,819,830	(1,348)	
Markit IOS total return swaps	889,418		(301,381)	588,037	843,242	523	
Forward purchase commitments	286,120	1,232,240	(881,893)	636,467	326,671	1,258	
Total	\$21,998,381	\$31,277,266	\$(27,134,277)	\$26,141,370	\$23,741,682	\$8,109	

(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 loss on interest rate swaps and swaptions, unrealized loss 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 (gain) 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 (decrease) increase in due to counterparties, net line items within the investing activities section of the condensed consolidated statements of cash flows.

Interest Rate Sensitive Assets/Liabilities

The Company's Agency RMBS portfolio is 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. To mitigate the impact of this risk on the Company's fixed-rate Agency pool portfolio, the Company maintains a portfolio of fixed-rate interest-only securities and MSR, which increase in value when interest rates increase. As of June 30, 2017 and December 31, 2016, the Company had \$65.4 million and \$71.1 million, respectively, of interest-only securities, and \$898.0 million and \$693.8 million, respectively, of MSR in place to economically hedge its RMBS. Interest-only securities are included in AFS securities, at fair value, in the condensed consolidated balance sheets. 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 portfolio. In connection with its risk management activities, the Company enters into a variety of derivative and non-derivative instruments to economically hedge interest rate risk or "duration mismatch (or gap)" by adjusting the duration of its floating-rate borrowings into fixed-rate borrowings to more closely match the duration of its assets. 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 certain derivatives 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. The objective is to manage the cash flows associated with current and anticipated interest payments on borrowings, as well as the ability to roll or refinance borrowings at the desired

amount by adjusting the duration. To help manage the adverse impact of interest rate changes on the value of the Company's portfolio as well as its cash flows, 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 interest rate risk management strategy, the Company has entered into TBAs, put and call options for TBAs, interest rate swap and swaption agreements and Markit IOS total return swaps.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

TBAs. At times, the Company may use TBAs 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. 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 June 30, 2017, \$0.2 billion of the Company's long notional TBA positions and \$1.3 billion of the Company's short notional TBA positions were held in order to economically hedge portfolio risk. As of December 31, 2016, \$1.5 billion of the Company's long notional TBA positions and \$3.0 billion 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 June 30, 2017 and December 31, 2016:

N

As of June 30, 2017

				Net Car	rying	
				Value (4	4)	
(in thousands)	Notional	Cost Basis (2)	Market	Derivat	Derivative	
(in thousands)	Amount ⁽¹⁾	Cost Dasis (-)	Value ⁽³⁾	Assets	Liabilities	
Purchase contracts	\$200,000	\$205,502	\$205,039	\$—	\$ (463)	
Sale contracts	(1,340,000)	(1,384,492)	(1,376,432)	8,060	_	
TBAs, net	\$(1,140,000)	\$(1,178,990)	\$(1,171,393)	\$8,060	\$ (463)	
	As of Decemb	per 31, 2016				
		,		Net Car	rying	
		,		Net Car Value ⁽⁴		
(in thousands)	Notional		Market	Value (4		
(in thousands)		Cost Basis ⁽²⁾	Market Value ⁽³⁾	Value ⁽⁴ Derivat	4)	
(in thousands) Purchase contracts	Notional Amount ⁽¹⁾			Value ⁽⁴ Derivat	⁴⁾ i D erivative	
· · · · · ·	Notional Amount ⁽¹⁾	Cost Basis ⁽²⁾ \$1,576,270	Value ⁽³⁾ \$1,576,875	Value ⁽² Derivat Assets	⁴⁾ iDerivative Liabilities	
Purchase contracts	Notional Amount ⁽¹⁾ \$1,500,000 (2,989,000)	Cost Basis ⁽²⁾ \$1,576,270 (3,028,470)	Value ⁽³⁾ \$1,576,875	Value ⁽²⁾ Derivat Assets \$605 3,689	⁽¹⁾ iDerivative Liabilities \$ (10,344)	

(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. As of June 30, 2017 and December 31, 2016, the Company had purchased put and call options for TBAs with a notional amount of \$2.9 billion and \$2.5 billion, and short sold put and call options for TBAs with a notional amount of \$1.6 billion and \$3.6 billion, respectively. As of June 30, 2017, the last of the options expires in August 2017. The put and call options had a fair

market value of \$0.5 million included in derivative assets, at fair value, and \$0.9 million included in derivative liabilities, at fair value, on the condensed consolidated balance sheet as of June 30, 2017. As of December 31, 2016, put and call options for TBAs had a fair market value of \$42.6 million included in derivative assets, at fair value, on the condensed consolidated balance sheet.

TWO HARBORS INVESTMENT CORP.

Notes to the Condensed Consolidated Financial Statements (unaudited)

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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. As of June 30, 2017 and December 31, 2016, the Company held the following interest rate swaps that were utilized as economic hedges of interest rate exposure (or duration) whereby the Company receives interest at a three-month LIBOR rate: (notional in thousands) June 30, 2017

Swaps Maturities	Notional Amount ⁽¹⁾	Weighted Average Fixed Pay Rate (2)	Weighted Average Receive Rate ⁽²⁾	Weighted Average Maturity (Years) ⁽²⁾
2017	\$1,525,000	0.771 %	1.220 %	0.29
2018	4,320,000	1.155 %	1.223 %	1.00
2019	350,000	1.283 %	1.165 %	1.94
2020	1,150,000	1.463 %	1.209 %	3.27
2021 and Thereafter	4,508,000	1.699 %	1.235 %	5.59
Total	\$11,853,000	1.322 %	1.224 %	2.72
(notional in thousand	ls)			
December 31, 2016				
Swaps Maturities	Notional Amount ⁽¹⁾	Weighted Average Fixed Pay Rate (2)	Weighted Average Receive Rate ⁽²⁾	Weighted Average Maturity (Years) ⁽²⁾
2017	\$2,375,000	0.765 %	0.934 %	0.59
2018	5,340,000	1.232 %	0.945~%	1.59
2019	350,000	1.283 %	0.895~%	2.44
2020	1,460,000	1.481 %	0.920 %	3.74
2021 and Thereafter	5,782,063	1.984 %	0.955 %	6.17
Total	\$15,307,063	1.441 %	0.943 %	3.24

(1) Notional amount includes \$778.0 million and \$777.1 million in forward starting interest rate swaps as of June 30, 2017 and December 31, 2016, respectively.

(2) Weighted averages exclude forward starting interest rate swaps. As of June 30, 2017 and December 31, 2016, the weighted average fixed pay rate on forward starting interest rate swaps was 2.4% and 2.0%, respectively.

Additionally, as of June 30, 2017 and December 31, 2016, the Company held the following interest rate swaps in order to mitigate mortgage interest rate exposure (or duration) risk whereby the Company pays interest at a three-month LIBOR rate: (notional in thousands) June 30, 2017

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

2020	\$200,000	1.171	%	1.642	%	3.10
2021 and Thereafter	2,711,719	1.193	%	2.190	%	6.44
Total	\$2,911,719	1.192	%	2.152	%	6.21

TWO HARBORS INVESTMENT CORP. Notes to the Condensed Consolidated Financial Statements (unaudited)

(notional in thousands) December 31, 2016

			Weighted	l
	Notional	Weighted	Average	
Swaps Maturities	Amounts	Average	Fixed	Weighted Average Maturity (Years)
	7 mounts	Pay Rate	Receive	
			Rate	
2018	\$575,000	0.911 %	1.440 %	1.89
2019	500,000	0.882~%	1.042 %	2.06
2020	510,000	0.881~%	1.580 %	3.59
2021 and Thereafter	3,479,000	0.963~%	2.137 %	5.52
Total	\$5,064,000	0.941~%	1.894 %	4.57

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. As of June 30, 2017 and December 31, 2016, the Company had the following outstanding interest rate swaptions that were utilized as macro-economic hedges:

(notional and dollars in thousands)	Option				Underlying Swap			
Swaption	Expiration	Cost Basis	Fair Value	Average Months to Expiration	Notional Amount n	Average Pay Rate	e Averag Receiv Rate	e Average Term (Years)
Purchase contracts:				•				
Payer	< 6 Months	\$43,732	\$7,698	2.85	\$5,025,000	2.35 %	3M Libor	6.2
Total Payer		\$43,732	\$7,698		\$5,025,000		214	6.2
Receiver	< 6 Months	\$2,685	\$2,144	3.23	\$2,000,000	3M Libor	1	

June 30, 2017