



Fourth Quarter 2018 Earnings Call

FEBRUARY 7, 2019



TWO HARBORS
Investment Corp.

A Pine River Capital Managed Company

Safe Harbor Statement



FORWARD-LOOKING STATEMENTS

This presentation includes “forward-looking statements” within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Actual results may differ from expectations, estimates and projections and, consequently, readers should not rely on these forward-looking statements as predictions of future events. Words such as “expect,” “target,” “assume,” “estimate,” “project,” “budget,” “forecast,” “anticipate,” “intend,” “plan,” “may,” “will,” “could,” “should,” “believe,” “predicts,” “potential,” “continue,” and similar expressions are intended to identify such forward-looking statements. These forward-looking statements involve significant risks and uncertainties that could cause actual results to differ materially from expected results, including, among other things, those described in our Annual Report on Form 10-K for the year ended December 31, 2017, and any subsequent Quarterly Reports on Form 10-Q, under the caption “Risk Factors.” Factors that could cause actual results to differ include, but are not limited to: the state of credit markets and general economic conditions; changes in interest rates and the market value of our assets; changes in prepayment rates of mortgages underlying our target assets; the rates of default or decreased recovery on the mortgages underlying our target assets; the occurrence, extent and timing of credit losses within our portfolio; the concentration of credit risks we are exposed to; declines in home prices; our ability to establish, adjust and maintain appropriate hedges for the risks in our portfolio; the availability and cost of our target assets; the availability and cost of financing; changes in the competitive landscape within our industry; our ability to effectively execute and to realize the benefits of strategic transactions and initiatives we have pursued or may in the future pursue; our ability to manage various operational risks and costs associated with our business; interruptions in or impairments to our communications and information technology systems; our ability to acquire mortgage servicing rights (MSR) and successfully operate our seller-servicer subsidiary and oversee our subservicers; the impact of any deficiencies in the servicing or foreclosure practices of third parties and related delays in the foreclosure process; our exposure to legal and regulatory claims; legislative and regulatory actions affecting our business; the impact of new or modified government mortgage refinance or principal reduction programs; our ability to maintain our REIT qualification; and limitations imposed on our business due to our REIT status and our exempt status under the Investment Company Act of 1940.

Readers are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Two Harbors does not undertake or accept any obligation to release publicly any updates or revisions to any forward-looking statement to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based. Additional information concerning these and other risk factors is contained in Two Harbors’ most recent filings with the Securities and Exchange Commission (SEC). All subsequent written and oral forward-looking statements concerning Two Harbors or matters attributable to Two Harbors or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements above.

This presentation may include industry and market data obtained through research, surveys, and studies conducted by third parties and industry publications. We have not independently verified any such market and industry data from third-party sources. This presentation is provided for discussion purposes only and may not be relied upon as legal or investment advice, nor is it intended to be inclusive of all the risks and uncertainties that should be considered. This presentation does not constitute an offer to purchase or sell any securities, nor shall it be construed to be indicative of the terms of an offer that the parties or their respective affiliates would accept.

Readers are advised that the financial information in this presentation is based on company data available at the time of this presentation and, in certain circumstances, may not have been audited by the company’s independent auditors.

Quarterly and Annual Summary



2018 Transformative Year for the Company

Quarterly Summary

- Redeployed capital from CYS Investments, Inc. (CYS) acquisition in accordance with previously announced plan.
- Added \$36.1 billion unpaid principal balance (UPB) of MSR through bulk acquisitions and monthly flow-sale arrangements, bringing total holdings to \$163.1 billion UPB.
- Incurred a Comprehensive Loss of (\$307.9) million, or (\$1.24) per weighted average basic common share.
- Generated Core Earnings, including dollar roll income, of \$120.7 million, or \$0.49 per weighted average basic common share, representing a return on average common equity of 13.8%.⁽¹⁾
- Reported book value of \$13.11 per common share, representing a (8.3%) total quarterly return on book value.⁽²⁾

2018 Summary

- Completed the acquisition of CYS, growing the company's market capitalization and equity base, increasing the liquidity of the company's stock and driving expenses lower.
- Added \$75.9 billion UPB of MSR, growing portfolio by approximately 60% year-over-year.
- Generated strong Core Earnings and competitive average dividend yield of 12.8% in 2018.

(1) Core Earnings and Core Earnings, including dollar roll income, are non-GAAP measures. Please see Appendix slide 20 of this presentation for a definition of Core Earnings and Core Earnings including dollar roll income and a reconciliation of GAAP to non-GAAP financial information.

(2) Return on book value for the quarter ended December 31, 2018 is defined as the decrease in book value per common share from September 30, 2018 to December 31, 2018 of \$1.70, plus dividends declared amounting to \$0.47 per common share, divided by September 30, 2018 book value of \$14.81 per common share.



Driving Stockholder Value

Improved stockholder value over the past three years by growing our company and reducing operating complexity:

- 2016: Discontinued our mortgage loan conduit, reducing operating complexity and costs
- 2017: Formed and spun out Granite Point Mortgage Trust Inc. (NYSE: GPMT) to better reflect the embedded value of the commercial real estate lending business that we established in 2015
- 2018: Acquired CYS growing market capitalization and equity base, increasing liquidity of our stock and driving our expense ratio lower

✓ **Drove strong Core Earnings and generated a competitive average dividend yield of 12.8% in 2018**

Building momentum and driving returns going forward:

- Attractive investment opportunities in Rates⁽¹⁾ and Credit⁽²⁾ strategies
- Active risk management should dampen volatility through the utilization of a variety of hedging tools
- Enhance stockholder returns and optimize earnings through construction of balance sheet

✓ **Goal to deliver strong results and book value stability through a variety of interest rate and mortgage spread environments**

(1) Assets in “Rates” include Agency RMBS, MSR and other interest rate sensitive assets.

(2) Assets in “Credit” include non-Agency securities and other credit sensitive assets.

Book Value



(Dollars in millions, except per share data)	Q4-2018 Book Value	Q4-2018 Book Value per share	FY-2018 Book Value	FY-2018 Book Value per share
Beginning common stockholders' equity	\$3,674.7	\$14.81	\$2,845.2	\$16.31
GAAP Net Income:				
Core Earnings, net of tax ⁽¹⁾	105.7		384.0	
Dividend declaration - preferred	(19.0)		(65.4)	
Core Earnings attributable to common stockholders, net of tax ⁽¹⁾	86.7		318.6	
Dollar roll income	34.0		86.9	
Core Earnings attributable to common stockholders, including dollar roll income, net of tax ⁽¹⁾	120.7		405.5	
Realized and unrealized gains and losses, net of tax	(694.2)		(428.4)	
Transaction expenses and purchase premium associated with acquisition of CYS Investments, Inc.	—		(86.7)	
Other comprehensive loss, net of tax	265.5		(114.1)	
Dividend declaration - common	(116.6)		(386.6)	
Other	3.2		12.9	
Acquisition of CYS Investments, Inc.	(0.2)		1,124.9	
Issuance of common stock, net of offering costs	0.1		0.3	
Ending common stockholders' equity	\$3,253.2	\$13.11	\$3,253.2	\$13.11
Total preferred stock liquidation preference	1,001.3		1,001.3	
Ending total equity	\$4,254.5		\$4,254.5	

**Comprehensive
(Loss) Income
(GAAP)**

Incurred Q4-2018
Comprehensive
Loss of \$307.9
million.

(1) Please see Appendix slide 20 for a definition of Core Earnings and Core Earnings, including dollar roll income, and a reconciliation of GAAP to non-GAAP financial information.



Core Earnings Summary⁽¹⁾

(Dollars in millions, except per share data)	Q3-2018	Q4-2018	Variance (\$)
Interest income	\$236.7	\$252.0	\$15.3
Interest expense	152.4	162.3	(9.9)
Net interest income	84.3	89.7	5.4
Gain on investment securities	—	—	—
Servicing income, net of amortization on MSR	37.1	46.9	9.8
Gain on swaps, caps and swaptions	16.2	15.3	(0.9)
Gain (loss) on other derivatives	(2.7)	(4.2)	(1.5)
Other	0.6	0.6	—
Total other income	51.2	58.6	7.4
Expenses	42.5	42.3	0.2
Provision for (benefit from) income taxes	(0.1)	0.3	(0.4)
Core Earnings⁽⁴⁾	93.1	105.7	12.6
Dividends on preferred stock	19.0	19.0	—
Core Earnings attributable to common stockholders⁽⁴⁾	74.1	86.7	12.6
Dollar roll income	32.9	34.0	1.1
Core Earnings, including dollar roll income, attributable to common stockholders⁽⁴⁾	\$107.0	\$120.7	\$13.7
Basic weighted average Core EPS	\$0.33	\$0.35	
Basic weighted average Core EPS, including dollar roll income	\$0.48	\$0.49	
Core Earnings as a % of average common equity	8.6%	10.1%	
Core Earnings as a % of average common equity, including dollar roll income	12.4%	13.8%	

- Core Earnings, including dollar roll income, was \$0.49 per weighted average basic common share, representing a return on average common equity of 14.0%
- Core Earnings benefitted from the payoff of a legacy non-Agency bond, which contributed approximately 2 cents to Core Earnings
- Other operating expense ratio, excluding non-cash LTIP amortization, of 1.1%; anticipate expenses should be stable in the low 1's in 2019

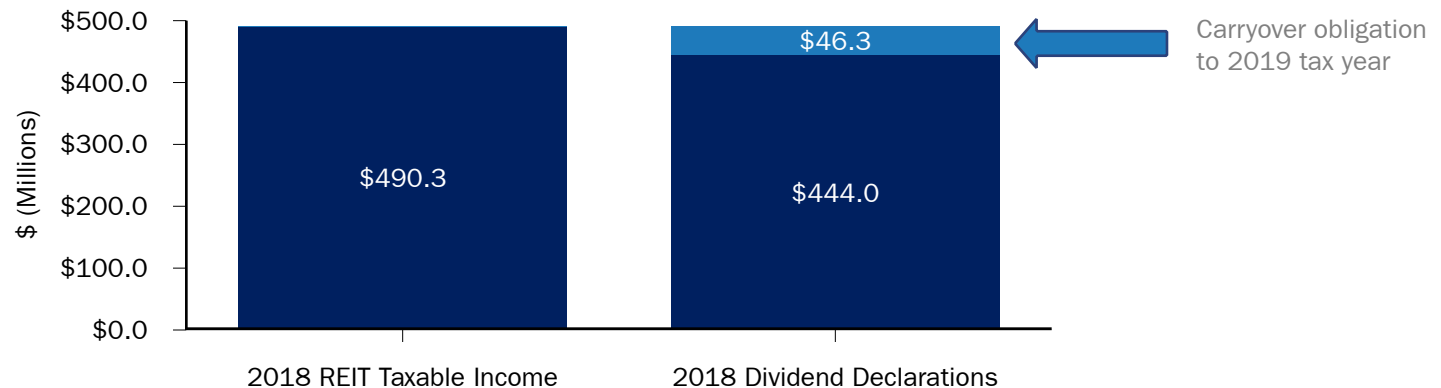
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Tax Characterization of Dividends in 2018

FULL YEAR 2018 DIVIDEND SUMMARY

- Generated REIT taxable income of \$490.3 million in 2018⁽¹⁾
- 2018 dividend declarations totaled \$444.0 million
 - \$444.0 million consists of dividends to common shares of \$384 million (\$1.88 per common share), dividends to preferred shares of \$58 million and deemed dividends from the convertible note conversion rate adjustments of \$2 million
 - No carryover dividend obligation from 2017 REIT taxable income
 - Distributed 90.6% of REIT taxable income
 - Carrying \$46.3 million, or approximately \$0.19 per share, of excess ordinary income and dividend obligation to 2019
- Dividends characterized fully as ordinary taxable income on Form 1099-DIV⁽²⁾



(1) Excludes net capital loss of \$393.6 million generated in 2018 tax year. Capital loss may be utilized in the next five future tax years before expiring.

(2) The U.S. federal income tax treatment of holding Two Harbors common stock to any particular stockholder will depend on the stockholder's particular tax circumstances. You are urged to consult your tax advisor regarding the U.S. federal, state, local and foreign income and other tax consequences to you, in light of your particular investment or tax circumstances, of acquiring, holding and disposing of Two Harbors common stock. Two Harbors does not provide tax, accounting or legal advice. Any tax statements contained herein were not intended or written to be used, and cannot be used for the purpose of avoiding U.S., federal, state or local tax penalties. Please consult your advisor as to any tax, accounting or legal statements made herein.

Optimizing Financing Profile and Capital Structure



DEBT-TO-EQUITY

- 5.8x debt-to-equity at December 31, 2018⁽¹⁾
- Economic debt-to-equity, which includes the implied debt on net to-be-announced (TBA) positions, of 7.2x at December 31, 2018, compared to 7.3x at September 30, 2018⁽²⁾

PREFERRED STOCK

- \$1.0 billion outstanding across all preferred series with weighted average dividend rate of 7.6%
- Accounts for approximately 24% of capital base

RATES – AGENCY RMBS

- Outstanding repurchase agreements of \$20.1 billion with 29 active counterparties
- Outstanding secured FHLB advances of \$865.0 million with weighted average borrowing rate of 2.79%
- Repo markets functioning efficiently for RMBS with new counterparties entering market

CREDIT – NON-AGENCY SECURITIES

- Outstanding borrowings of \$2.7 billion with 12 active counterparties
- Market for non-Agency securities has seen improvement in both advance rates and spreads; spreads came down about 40 basis points in 2018

RATES – MSR

- Outstanding borrowings of \$610.0 million under MSR financing facilities; additional available capacity of \$160.0 million
- Continue to advance MSR financing discussions with additional counterparties

(1) Defined as total borrowings to fund RMBS, MSR and Agency Derivatives, divided by total equity.

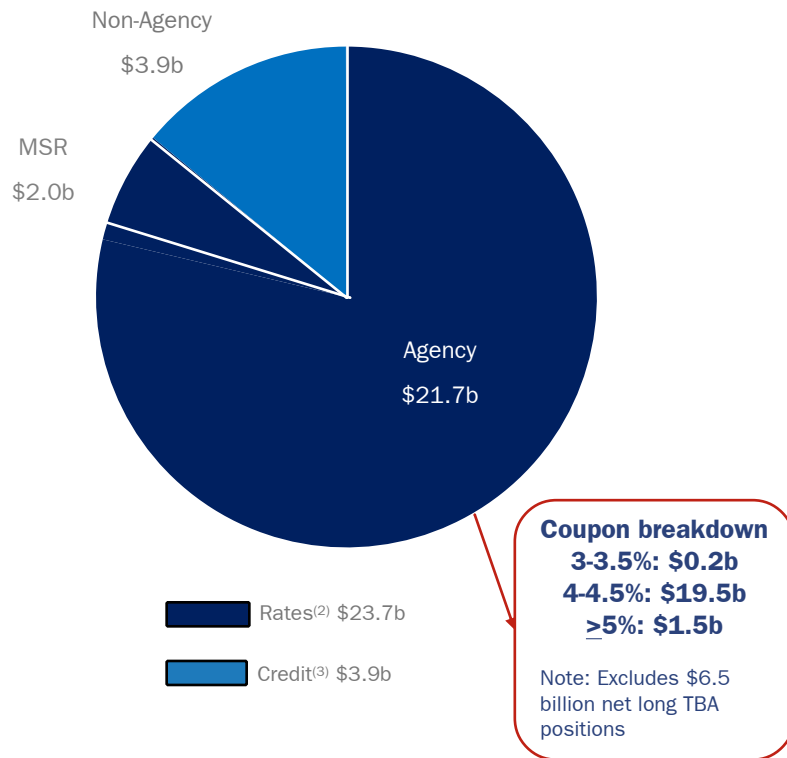
(2) Defined as total borrowings to fund RMBS, MSR and Agency Derivatives, plus the implied debt on net TBA positions, divided by total equity.



Portfolio Composition

PORTFOLIO COMPOSITION⁽¹⁾

\$27.6 BILLION PORTFOLIO AS OF DECEMBER 31, 2018



CAPITAL ALLOCATION

	March 31, 2018	July 31, 2018 - Acquisition of CYS	December 31, 2018
Rates	69%	77%	74%
Agency	50%	59%	50%
MSR	19%	18%	24%
Credit	31%	23%	26%

- Deployment of capital from CYS unfolded according to plan
- Actively evaluate capital allocation going forward based on best market opportunities

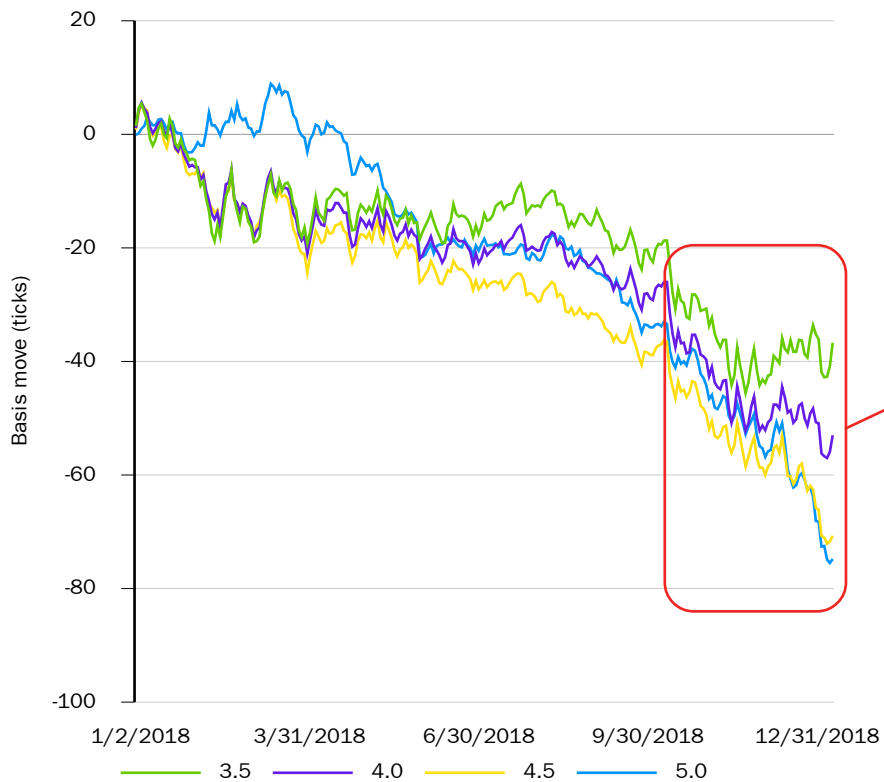
(1) For additional detail on the portfolio, see Appendix slides 21-25.
 (2) Assets in "Rates" include Agency RMBS, MSR and other interest rate sensitive assets.
 (3) Assets in "Credit" include non-Agency securities and other credit sensitive assets.



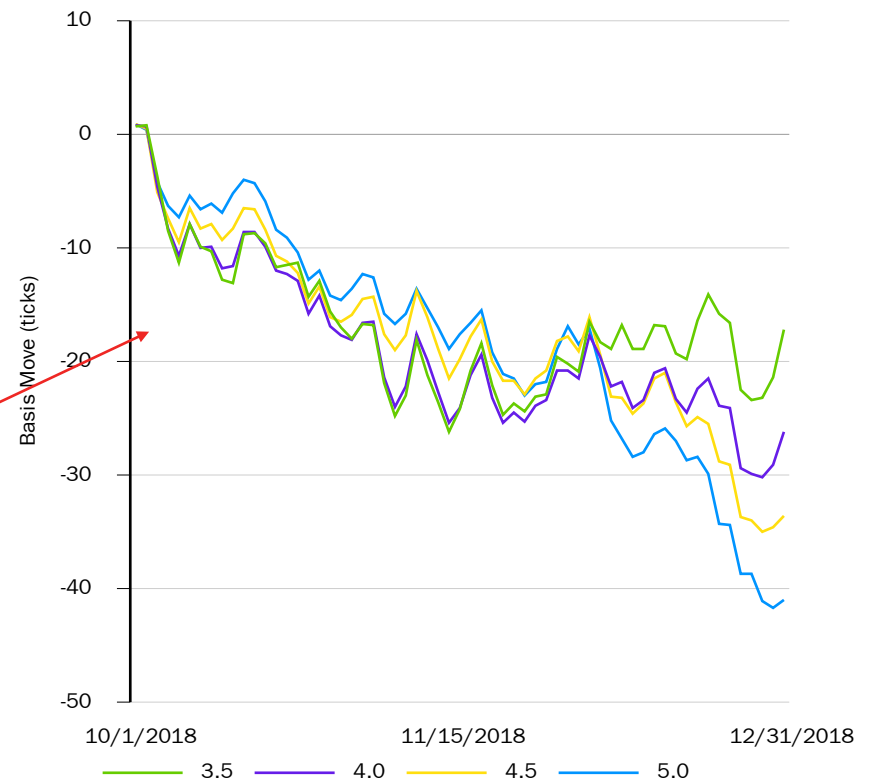
Market Performance

- Current coupon Agencies underperformed hedges in the quarter
- Higher coupons performed worse

2018 Mortgage Coupon Price Performance⁽¹⁾



Q4-2018 Mortgage Coupon Price Performance⁽¹⁾



(1) Mortgage basis price underperformance of individual Agency coupons is hedge-adjusted versus the swap curve. Source: J.P Morgan Live. 2018 underperformance from December 31, 2017 through December 31, 2018 and Q4-2018 underperformance from September 30, 2018 through December 31, 2018.



Estimated Book Value Attribution⁽¹⁾

- Rate volatility did not contribute to any meaningful change in book value
- MSR performed in line with current coupon Agency spread widening
- Book value primarily impacted by underperformance of higher coupon Agencies
- Legacy non-Agency securities also widened close to 50 basis points

Fourth Quarter Book Value Performance Estimated Attribution	Estimated book value impact (% of common equity, rounded to nearest half percent)
Impact of interest rate/curve move	—%
MSR performance versus current coupon MBS	—%
Impact of high coupon underperformance	(8.0%)
Impact of specified pool underperformance	(0.5%)
Non-Agency credit markdowns	(3.0%)
Total book value impact	(11.5%)

(1) Represents estimated book value impact by asset class. Attribution is based on results from third party models in conjunction with inputs from our internal investment professionals.

Performance Summary



- Net interest margin benefitted from purchases of Agency pools at attractive yields
- MSR benefitted from slower prepayment speeds and higher interest rate environment
- Non-Agency yields stable

Three Months Ended	September 30, 2018	December 31, 2018
Annualized portfolio yield during the quarter	3.76%	4.14%
Rates		
Agency RMBS, Agency Derivatives and MSR	3.3%	3.6%
Credit		
Non-Agency securities, Legacy ⁽¹⁾	7.6%	7.7%
Non-Agency securities, New issue ⁽¹⁾	5.4%	7.8%
Annualized cost of funds on average borrowings during the quarter⁽²⁾	2.28%	2.53%
Annualized interest rate spread for aggregate portfolio during the quarter	1.48%	1.61%

(1) "Legacy" non-Agency securities includes non-Agency bonds issued up to and including 2009. "New issue" non-Agency securities includes bonds issued after 2009.

(2) Cost of funds includes interest spread income/expense associated with the portfolio's interest rate swaps and caps.

Portfolio Highlights & Opportunities for 2019



ATTRACTIVE INVESTMENT OPPORTUNITIES IN 2019 AS A RESULT OF SPREAD WIDENING

RATES STRATEGY

- Wider spreads creates attractive opportunities to invest capital in Agency RMBS
- Acquired \$36.1 billion UPB of MSR in the fourth quarter 2018; grew portfolio by over 60% year-over-year
- MSR market continues to be robust; over \$30 billion UPB in bulk deals transacted in January 2019

CREDIT STRATEGY

- Discounted legacy non-Agencies continue to benefit from residential tailwinds that support strong total returns
- Added \$266 million legacy non-Agencies in the quarter
- As deeply discounted legacy non-Agency securities realize their upside potential, we expect to recycle capital into the best market opportunities at that time

Risk Metrics



- Active management of risk positioning with goal of maintaining low exposures to rates and spreads

HEDGING ACROSS THE CURVE

Book value exposure to changes in rates ⁽¹⁾		Net interest income exposure to changes in rates ⁽²⁾	
+25 basis points	0.1%	+25 basis points	(1.8%)
+50 basis points	(2.6%)	+50 basis points	(3.6%)

BOOK VALUE SENSITIVITY TO MORTGAGE SPREADS⁽³⁾

Mortgage spreads	Change in Agency RMBS and mortgage derivatives	Change in MSR	Total overall Rates strategy change
25 basis points increase	(\$224)	\$80	(\$144) / (4.4%)
15 basis points increase	(\$131)	\$49	(\$82) / (2.5%)
15 basis points decrease	\$117	(\$54)	\$63 / 1.9%
25 basis points decrease	\$189	(\$91)	\$98 / 3.0%

Note: The above scenario is provided for illustration purposes only and is not necessarily indicative of Two Harbors' financial condition and operating results, nor is it necessarily indicative of the financial condition or results of operations that may be expected for any future period or date.

(1) Represents estimated change in book value for theoretical parallel shift in interest rates.

(2) Represents estimated percentage change in net interest income for theoretical parallel shifts in interest rates. Amounts include the effect of interest spread from our interest rate swaps and caps and float income from custodial accounts associated with our MSR, but do not reflect any potential changes to dollar roll income associated with our TBA positions, which are accounted for as derivative instruments in accordance with GAAP.

(3) Dollars in millions. The information presented in this table projects the potential impact on book value of instantaneous changes in current coupon mortgage spreads. Spread sensitivity is based on results from third party models in conjunction with inputs from our internal investment professionals. Actual results could differ materially from these estimates.



Appendix



TWO HARBORS
Investment Corp.

A Pine River Capital Managed Company

Return on Book Value



Return on common book value Q4-2018	
(Per common share amounts, except for percentage)	
Book value at September 30, 2018	\$14.81
Book value at December 31, 2018	13.11
Decrease in book value	(1.70)
Dividend declared in Q4-2018	0.47
Return on book value Q4-2018	(\$1.23)
Percent return on book value Q4-2018 ⁽¹⁾	(8.3)%
Return on common book value FY-2018	
(Per common share amounts, except for percentage)	
Book value at December 31, 2017	\$16.31
Book value at December 31, 2018	13.11
Decrease in book value	(3.20)
Dividends declared FY-2018	1.88
Return on book value FY-2018	(\$1.32)
Percent return on book value FY-2018 ⁽²⁾	(8.1)%

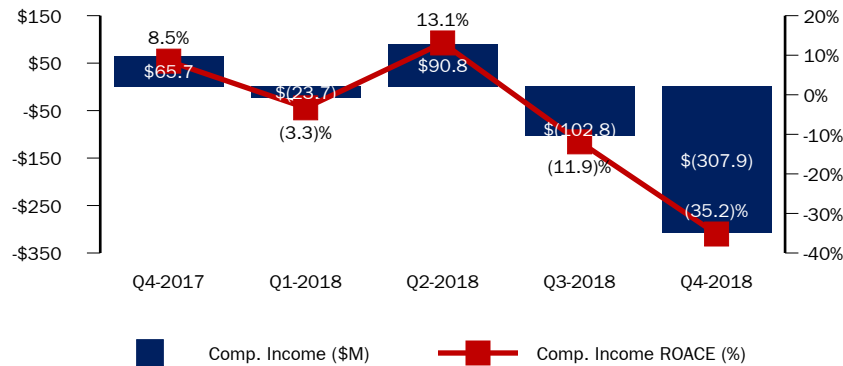
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(2) Return on book value for the twelve-month period ended December 31, 2018 is defined as the decrease in book value per common share from December 31, 2017 to December 31, 2018 of \$3.20 per common share, plus dividends declared of \$1.88 per common share, divided by December 31, 2017 book value of 16.31 per common share.

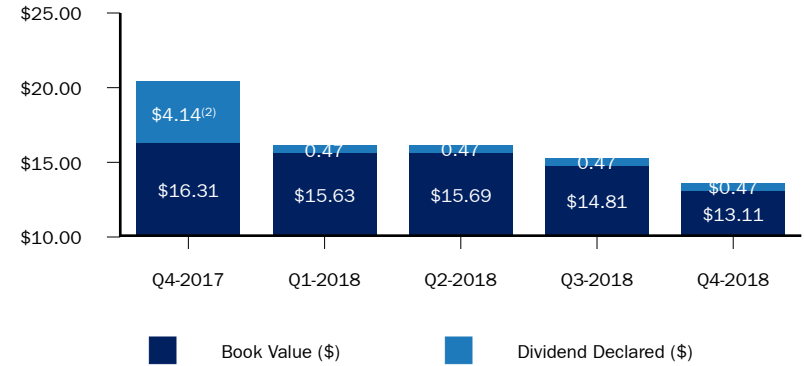
Financial Performance



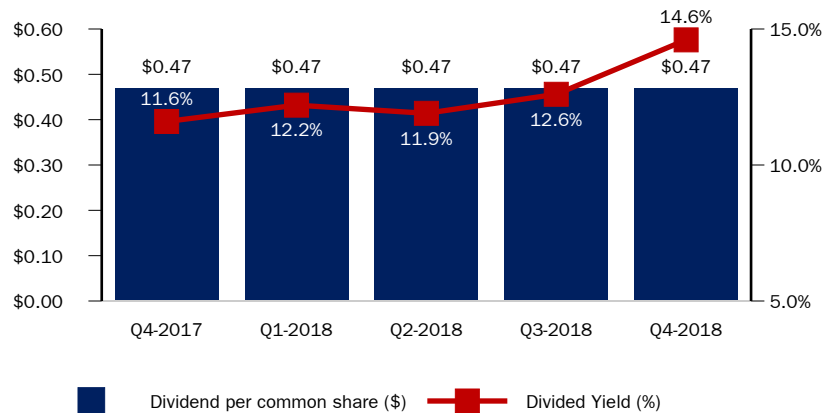
COMPREHENSIVE INCOME (LOSS)



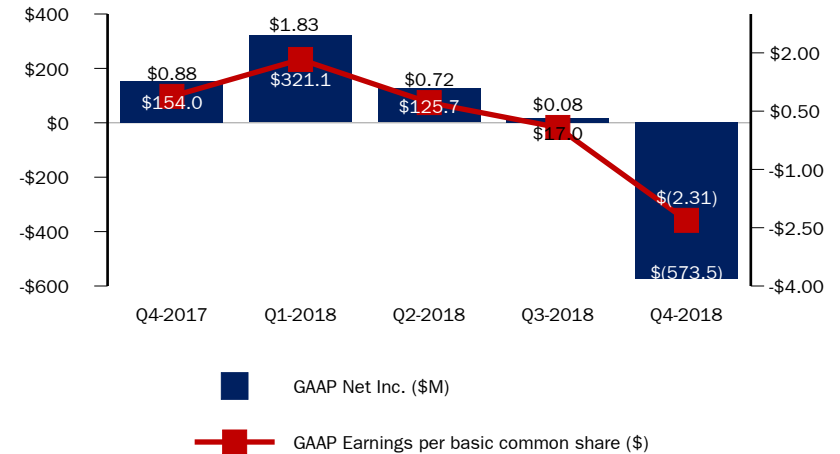
BOOK VALUE AND DIVIDEND PER COMMON SHARE⁽¹⁾



DIVIDENDS⁽¹⁾



GAAP NET INCOME



(1) Historical dividends may not be indicative of future dividend distributions. The company ultimately distributes dividends based on its taxable income per common share, not GAAP earnings. The annualized dividend yield on the company's common stock is calculated based on the closing price of the last trading day of the relevant quarter.

(2) Includes the special dividend of Granite Point common stock of \$3.67 per common share.

Q4-2018 Operating Performance



(In millions, except for per common share data)	Q4-2018			
	Core Earnings, including dollar roll income ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$252.0	\$—	\$—	\$252.0
Interest expense	162.3	—	—	162.3
Net interest income	89.7	—	—	89.7
Total other-than-temporary impairment losses	—	—	(0.1)	(0.1)
(Loss) gain on investment securities	—	(248.8)	3.1	(245.7)
Servicing income	104.6	—	—	104.6
(Loss) gain on servicing asset	(57.7)	0.2	(113.8)	(171.3)
Gain (loss) on interest rate swaps, caps and swaptions	15.3	(35.7)	(219.1)	(239.5)
Gain (loss) on other derivative instruments	29.8	(38.9)	(30.0)	(39.1)
Other income (loss)	0.6	(0.1)	(0.2)	0.3
Total other income (loss)	92.6	(323.3)	(360.1)	(590.8)
Management fees & other expenses	42.3	4.4	—	46.7
Net income (loss) before income taxes	140.0	(327.7)	(360.1)	(547.8)
Income tax expense (benefit)	0.3	(0.2)	6.6	6.7
Net income (loss)	139.7	(327.5)	(366.7)	(554.5)
Dividends on preferred stock	19.0	—	—	19.0
Net income (loss) attributable to common stockholders	\$120.7	(\$327.5)	(\$366.7)	(\$573.5)
Weighted average earnings (loss) per basic common share	\$0.49	(\$1.32)	(\$1.48)	(\$2.31)

(1) Core Earnings, including dollar roll income, is a non-GAAP measure. Please see Appendix slide 20 of this presentation for a definition of Core Earnings, including dollar roll income, and a reconciliation of GAAP to non-GAAP financial information.

Q3-2018 Operating Performance



(In millions, except for per common share data)	Q3-2018			
	Core Earnings, including dollar roll income ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$236.7	\$—	\$—	\$236.7
Interest expense	152.4	—	—	152.4
Net interest income	84.3	—	—	84.3
Total other-than-temporary impairment losses	—	—	(0.1)	(0.1)
Loss on investment securities	—	(40.9)	(2.1)	(43.0)
Servicing income	89.6	—	—	89.6
(Loss) gain on servicing asset	(52.5)	—	73.1	20.6
Gain (loss) on interest rate swaps and swaptions	16.2	(39.9)	99.5	75.8
Gain (loss) on other derivative instruments	30.2	(23.3)	(38.3)	(31.4)
Other income	0.6	0.2	0.1	0.9
Total other income (loss)	84.1	(103.9)	132.3	112.5
Management fees & other expenses	42.5	80.8	—	123.3
Net income (loss) before income taxes	125.9	(184.7)	132.2	73.4
Income tax (benefit) expense	(0.1)	3.9	33.6	37.4
Net income (loss)	126.0	(188.6)	98.6	36.0
Dividends on preferred stock	19.0	—	—	19.0
Net income (loss) attributable to common stockholders	\$107.0	(\$188.6)	\$98.6	\$17.0
Weighted average earnings (loss) per basic common share	\$0.48	(\$0.84)	\$0.44	\$0.08

(1) Core Earnings, including dollar roll income, is a non-GAAP measure. Please see Appendix slide 20 of this presentation for a definition of Core Earnings, including dollar roll income, and a reconciliation of GAAP to non-GAAP financial information.



GAAP to Core Earnings Reconciliation⁽¹⁾

Reconciliation of GAAP to non-GAAP Information (In thousands, except for per common share data)	Three Months Ended September 30, 2018	Three Months Ended December 31, 2018
Reconciliation of Comprehensive income (loss) to Core Earnings:		
Comprehensive loss attributable to common stockholders	(\$102,801)	(\$307,939)
Adjustment for other comprehensive loss (income) attributable to common stockholders:		
Unrealized loss (gain) on available-for-sale securities attributable to common stockholders	119,796	(265,546)
Net income attributable to common stockholders	\$16,995	(\$573,485)
Adjustments for non-core earnings:		
Realized losses on securities and residential mortgage loans	40,758	248,930
Unrealized loss (gain) on securities	1,965	(2,908)
Other-than-temporary impairment loss	95	107
Unrealized (gain) loss on interest rate swaps, caps and swaptions hedging interest rate exposure (or duration)	(99,486)	219,066
Realized losses on termination or expiration of swaps, caps and swaptions	39,866	35,757
Losses on other derivative instruments	28,697	34,967
Realized and unrealized (gain) loss on mortgage servicing rights	(73,104)	113,523
Change in servicing reserves	141	1,200
Non-cash equity compensation expense	3,211	3,211
Management fee reduction associated with CYS acquisition	(17,484)	—
Transaction expenses and purchase premium associated with CYS acquisition	86,703	—
Restructuring charges	8,238	—
Net provision for income taxes on non-Core Earnings	37,504	6,390
Core Earnings attributable to common stockholders⁽¹⁾	74,099	86,758
Dollar roll income	32,922	33,961
Core Earnings attributable to common stockholders, including dollar roll income⁽¹⁾	\$107,021	\$120,719
Weighted average basic common shares	224,399,436	248,081,168
Core Earnings per weighted average basic common share	\$0.33	\$0.35
Dollar roll income per weighted average basic common share	0.15	0.14
Core Earnings, including dollar roll income, per weighted average basic common share	\$0.48	\$0.49

(1) Core Earnings is a non-U.S. GAAP measure that we define as comprehensive (loss) income attributable to common stockholders, excluding “realized and unrealized gains and losses” (impairment losses, realized and unrealized gains and losses on the aggregate portfolio, reserve expense for representation and warranty obligations on MSR, non-cash compensation expense related to restricted common stock and restructuring charges) and transaction costs and purchase premium associated with the acquisition of CYS. As defined, Core Earnings includes interest income or expense and premium income or loss on derivative instruments and servicing income, net of estimated amortization on MSR. Dollar roll income is the economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements. We believe the presentation of Core Earnings, including dollar roll income, provides investors greater transparency into our period-over-period financial performance and facilitates comparisons to peer REITs.



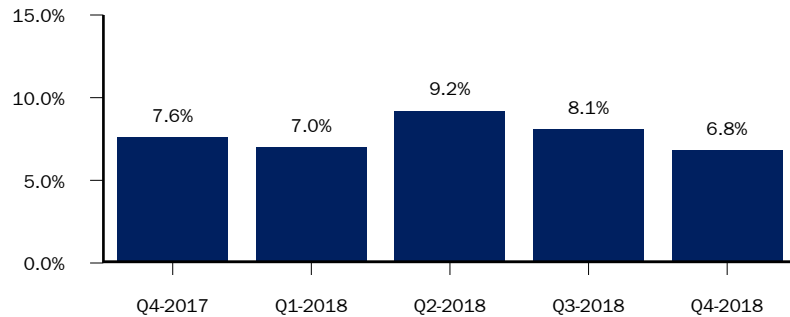
Rates: Agency RMBS Metrics

AGENCY PORTFOLIO YIELDS AND METRICS

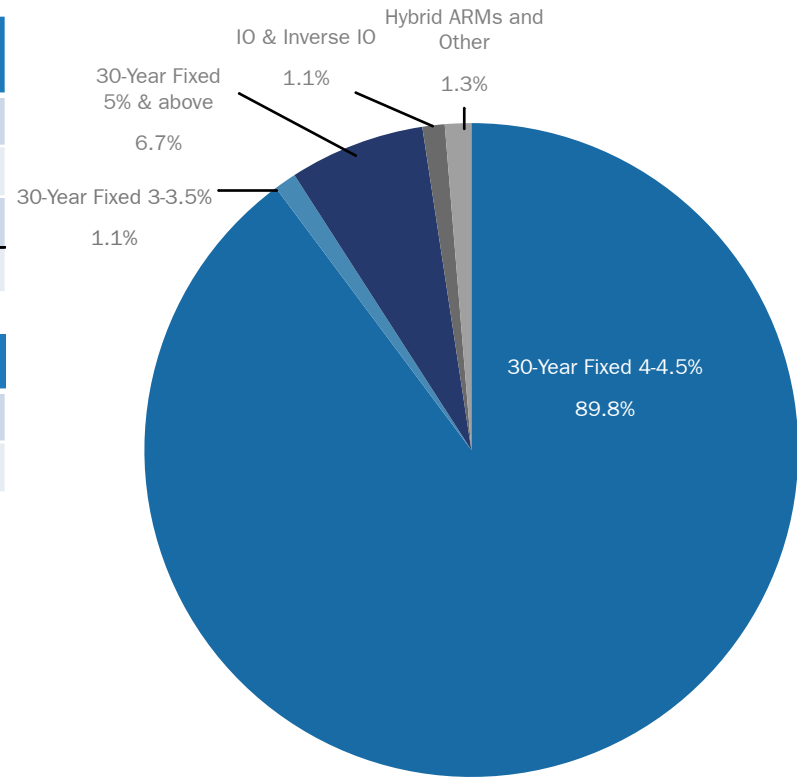
Portfolio Yield	Realized Q3-2018	At September 30, 2018	Realized Q4-2018	At December 31, 2018
Agency yield	3.1%	3.4%	3.3%	3.5%
Repo and FHLB costs	(2.3%)	(2.3%)	(2.5%)	(2.5%)
Swap and cap income	0.3%	0.4%	0.3%	0.6%
Net interest spread	1.1%	1.5%	1.1%	1.6%

Portfolio Metrics	Q3-2018	Q4-2018
Weighted average 3-month CPR ⁽¹⁾	8.1%	6.8%
Weighted average cost basis ⁽²⁾	\$105.2	\$105.2

AGENCY RMBS CPR⁽¹⁾



AGENCY PORTFOLIO COMPOSITION



(1) Agency weighted average 3-month Constant Prepayment Rate (CPR) includes IIOs (or Agency Derivatives).

(2) Weighted average cost basis includes RMBS principal and interest securities only. Average purchase price utilized carrying value for weighting purposes.



Rates: Agency RMBS

As of December 31, 2018	Par Value (\$M)	Market Value (\$M)	% Prepay Protected ⁽¹⁾	Amortized Cost Basis (\$M)	Weighted Average Coupon	Weighted Average Age (Months)
30-Year fixed						
3.0-3.5%	\$234	\$235	100.0%	\$236	3.5%	19
4.0-4.5%	18,878	19,533	91.8%	19,812	4.3%	19
≥ 5.0%	1,368	1,452	74.4%	1,449	5.1%	24
	20,480	21,220	90.7%	21,497	4.3%	19
Hybrid ARMs	18	19	—%	19	5.1%	177
Other	278	271	0.3%	272	4.7%	149
IOs and IIOs	3,592	246 ⁽²⁾	—%	279	2.6%	115
Total Agency holdings	\$24,368	\$21,756	88.4%	\$22,067		
Net TBA notional	6,484					
Total	\$30,852					

(1) Includes securities with implicit or explicit protection including lower loan balances (securities collateralized by loans less than or equal to \$175K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations and lower FICO scores.

(2) Represents market value of \$175.4 million of IOs and \$70.3 million of Agency Derivatives.



Rates: Mortgage Servicing Rights⁽¹⁾

	As of September 30, 2018	As of December 31, 2018
Fair value (\$M)	\$1,664.0	\$1,993.4
Unpaid principal balance (\$M)	\$131,114.5	\$163,102.3
Weighted average coupon	4.1%	4.1%
Original FICO score⁽²⁾	751	752
Original LTV	74%	75%
60+ day delinquencies	0.4%	0.3%
Net servicing spread	25.7 basis points	25.9 basis points
Vintage:		
Pre-2013	9.4%	7.4%
2013-2016	20.1%	19.7%
Post-2016	70.5%	72.9%

(1) Excludes residential mortgage loans for which the company is the named servicing administrator.

(2) FICO represents a mortgage industry accepted credit score of a borrower.



Credit: Non-Agency Securities Metrics

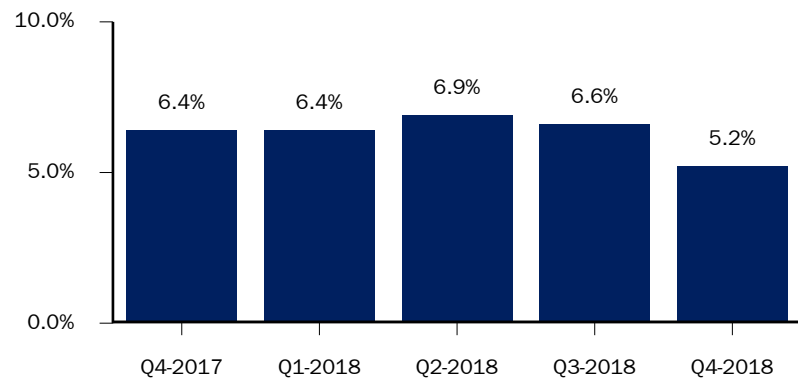
NON-AGENCY PORTFOLIO YIELDS AND METRICS

Portfolio Yield	Realized Q3-2018	At September 30, 2018	Realized Q4-2018	At December 31, 2018
Non-Agency yield	7.4%	7.2%	7.7%	7.0%
Repo and FHLB costs	(3.6%)	(3.6%)	(3.7%)	(3.7%)
Swap and cap income	0.1%	0.1%	0.1%	0.1%
Net interest spread	3.9%	3.7%	4.1%	3.4%

LEGACY NON-AGENCY PORTFOLIO COMPOSITION

Non-Agency: Loan Type	September 30, 2018	December 31, 2018
Sub-prime	75%	76%
Option-ARM	11%	11%
Prime	1%	1%
Alt-A	13%	13%
Portfolio Metrics	Q3-2018	Q4-2018
Weighted average 3-month CPR	6.6%	5.2%
Weighted average cost basis ⁽¹⁾	\$61.7	\$61.9

LEGACY NON-AGENCY CPR



(1) Weighted average cost basis includes legacy non-Agency principal and interest securities only. Average purchase price utilized carrying value for weighting purposes. If current face were utilized for weighting purposes, total legacy non-Agency securities excluding the company's non-Agency interest-only portfolio would have been \$59.07 at December 31, 2018.

Credit: Legacy Non-Agency Securities



As of December 31, 2018	Senior Bonds	Mezzanine Bonds	Total P&I
Portfolio characteristics:			
Carrying value (\$M)	\$2,842.7	\$799.9	3,642.6
% of non-Agency portfolio	78.0%	22.0%	100.0%
Average purchase price ⁽¹⁾	\$60.72	\$65.96	\$61.87
Average coupon	3.4%	3.2%	3.3%
Weighted average market price ⁽²⁾	\$67.47	\$82.18	\$70.23
Collateral attributes:			
Average loan age (months)	148	157	150
Average loan size (\$K)	\$373	\$385	\$376
Average original Loan-to-Value	67.3%	66.9%	67.2%
Average original FICO ⁽³⁾	608	574	601
Current performance:			
60+ day delinquencies	19.6%	17.7%	19.2%
Average credit enhancement ⁽⁴⁾	5.1%	15.8%	7.5%
3-Month CPR ⁽⁵⁾	4.9%	6.4%	5.2%

(1) Average purchase price utilized carrying value for weighting purposes. If current face were utilized for weighting purposes, the average purchase price for senior, mezzanine and total legacy non-Agency securities, excluding our non-Agency interest-only portfolio, would have been \$58.12, \$63.19 and \$59.07, respectively.

(2) Weighted average market price utilized current face for weighting purposes.

(3) FICO represents a mortgage industry accepted credit score of a borrower.

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

(5) 3-Month CPR is reflective of the prepayment speed on the underlying securitization; however, it does not necessarily indicate the proceeds received on our investment tranche. Proceeds received for each security are dependent on the position of the individual security within the structure of each deal.

Financing



\$ in millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	FHLB Advances	Revolving Credit Facilities	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 7,488.9	\$ —	\$ —	\$ —	\$ 7,488.9	30.5%
30 to 59 days	5,077.6	—	—	—	5,077.6	20.6%
60 to 89 days	5,655.1	—	—	—	5,655.1	23.0%
90 to 119 days	1,938.8	—	—	—	1,938.8	7.9%
120 to 364 days	2,673.1	815.0	20.0	—	3,508.1	14.3%
One to three years	300.0	—	—	—	300.0	1.2%
Three to five years	—	—	290.0	283.9	573.9	2.3%
Five to ten years	—	—	—	—	—	—%
Ten years and over ⁽²⁾	—	50.0	—	—	50.0	0.2%
	\$ 23,133.5	\$ 865.0	\$ 310.0	\$ 283.9	\$ 24,592.4	100.0%
Collateral Pledged for Borrowings ⁽³⁾	Repurchase Agreements ⁽⁴⁾	FHLB Advances	Revolving Credit Facilities ⁽⁴⁾	Convertible Notes	Total Collateral Pledged	Percent (%)
Available-for-sale securities, at fair value	\$ 24,240.5	\$ 917.5	\$ —	n/a	\$ 25,158.0	95.4%
Derivative assets, at fair value	70.2	—	—	n/a	70.2	0.3%
Mortgage servicing rights, at fair value	685.7	—	458.2	n/a	1,143.9	4.3%
	\$ 24,996.4	\$ 917.5	\$ 458.2	n/a	\$ 26,372.1	100.0%

(1) Weighted average of 3.7 months to maturity.

(2) Includes FHLB advances of \$50 million with original maturities of 20 years.

(3) Excludes FHLB membership and activity stock totaling \$40.8 million.

(4) Repurchase agreements and/or revolving credit facilities secured by MSR may be over-collateralized due to operational considerations.



Interest Rate Swaps and Caps

INTEREST RATE SWAPS

Maturities	Notional Amounts (\$B) ⁽¹⁾	Average Fixed Pay Rate ⁽²⁾	Average Receive Rate ⁽²⁾	Average Maturity Years ⁽²⁾
Payers				
2019	\$4.3	1.769%	2.565%	0.8
2020	3.6	1.806%	2.689%	1.8
2021	4.1	1.550%	2.687%	2.7
2022	2.5	2.002%	2.728%	3.7
2023 and after	6.8	2.495%	2.636%	7.6
	\$21.4	1.978%	2.651%	3.7
Maturities	Notional Amounts (\$B)	Average Pay Rate	Average Fixed Receive Rate	Average Maturity (Years)
Receivers				
2020	\$0.2	2.469%	2.258%	1.1
2021	\$2.5	2.538%	2.736%	2.2
2022	0.8	2.653%	2.975%	3.4
2023 and after	4.6	2.653%	2.757%	7.4
	\$8.1	2.612%	2.757%	5.2

INTEREST RATE CAPS

Swaps Maturities	Notional Amount (\$B)	Weighted Average Cap Rate	Weighted Average Receive Rate	Weighted Average Maturity (Years)
2019	\$ 0.8	1.344%	2.422%	0.5
2020	\$1.7	1.250%	2.766%	1.3
Total	\$2.5	1.280%	2.656%	1.0

(1) Notional amount includes \$0.6 billion in forward starting interest rate swaps as of December 31, 2018.

(2) Weighted averages exclude forward starting interest rate swaps. As of December 31, 2018, the weighted average fixed pay rate on interest rate swaps was 2.8%.

Interest Rate Swaptions



Option					Underlying Swap			
Swaption	Expiration	Cost (\$M)	Fair Value (\$M)	Average Months to Expiration	Notional Amount (\$M)	Average Pay Rate	Average Receive Rate	Average Term (Years)
Purchase Contracts:								
Payer	<6 Months	\$4.9	\$2.4	5.1	\$900	3.16%	3M LIBOR	10.0
Payer	≥6 Months	8.4	6.0	8.6	800	3.14%	3M LIBOR	10.0
Total Payer		\$13.3	\$8.4	7.9	\$1,700	3.15%	3M LIBOR	10.0
Sale Contracts:								
Receiver	<6 Months	(\$4.9)	(\$9.0)	4.8	(\$845)	3M LIBOR	2.66%	10.0
Receiver	≥6 Months	(\$8.4)	(\$12.9)	8.6	(\$792)	3M LIBOR	2.64%	10.0
Total Receiver		(\$13.3)	(\$21.9)	7.5	(\$1,637)	3M LIBOR	2.65%	10.0



TWO HARBORS
Investment Corp.

A Pine River Capital Managed Company