

An MSR + Agency REIT

Fourth Quarter 2023
Earnings Call

JANUARY 30, 2024



TWO HARBORS
Investment Corp.

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, 2022, 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; 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 recognize the benefits of our acquisition of RoundPoint Mortgage Servicing LLC and to manage the risks associated with operating a mortgage loan servicer; our decision to terminate our management agreement with PRCM Advisers LLC and the ongoing litigation related to such termination; 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 to maintain our MSR portfolio; 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.

Financials Overview

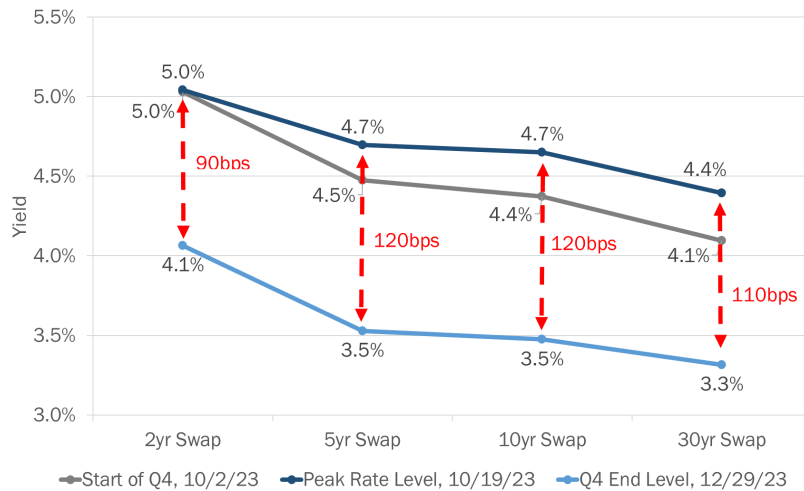


Note: Financial data throughout this presentation is as of or for the quarter ended December 31, 2023, unless otherwise noted. Per share metrics utilize basic common shares as the denominator. The End Notes are an integral part of this presentation. See slides 31 through 37 at the back of this presentation for information related to certain financial metrics and defined terms used herein.

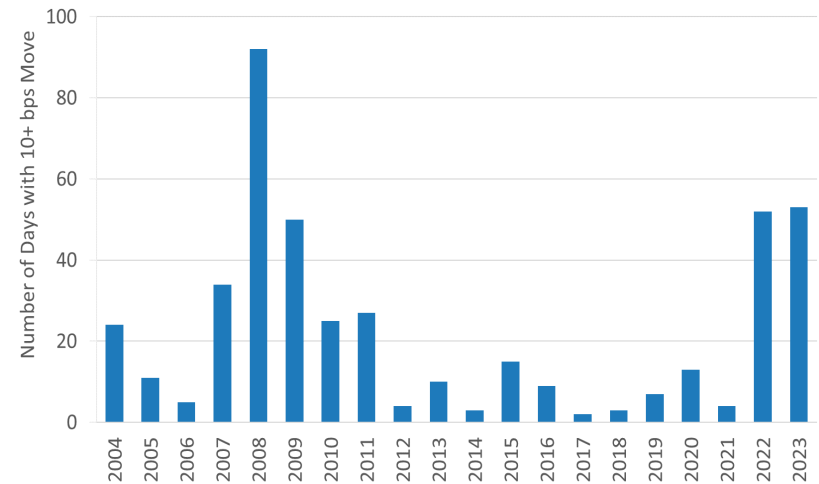
Markets Overview

- Driven by a strong September jobs report and labor market statistics, rates peaked in October with the 10-year Treasury briefly hitting 5% and mortgage rates pushing 8%
- Positive economic data and dovish comments from the Fed in early November led to rates plunging across the curve by 90 to 120 basis points (bps) from their peak through the end of the year
- 53 days in 2023 had 5-year Treasury rate moves of greater than 10 bps; ranks 2nd highest behind 2008

I. QUARTERLY YIELD CURVE CHANGE⁽¹⁾



II. VOLATILITY OF 5-YEAR TREASURY⁽²⁾

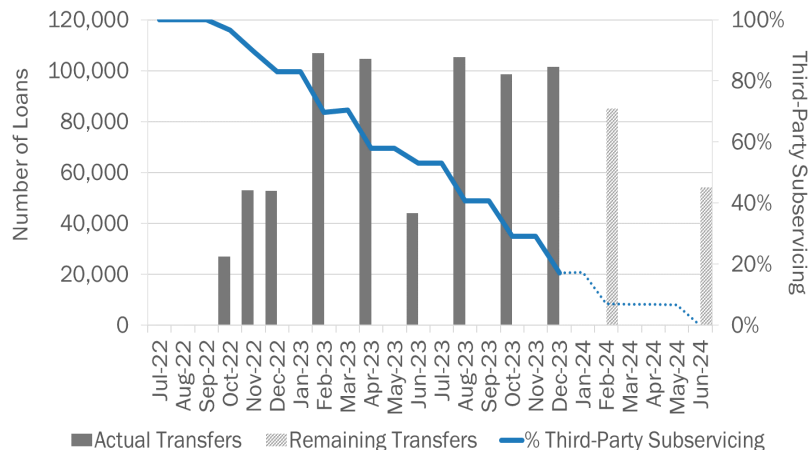


RoundPoint Operations Update



- Closed acquisition on September 30, 2023
- Completed 9 of 10 scheduled subservicing transfers of Two Harbors’ MSR to RoundPoint from our subservicing network; 10th scheduled transfer planned for February 1, 2024
- Final “clean up” transfer of loans planned for early June 2024
- All transfers executed in a manner that was supported by the GSEs each step of the way
- Added one new subservicing client in the fourth quarter
- Post quarter-end, signed term sheet with one additional subservicing client, which will bring total number of third-party subservicing clients to eight

I. SERVICING TRANSFERS⁽¹⁾



II. KEY INITIATIVES



Render cost savings and economies of scale



Develop direct-to-consumer origination channel



Expand third-party subservicing business

Book Value Summary

(\$ millions, except per share data)	Q4-2023 Book Value	Q4-2023 Book Value per share
Beginning common stockholders' equity	\$ 1,477.7	\$ 15.36
Net loss	(433.2)	
Other comprehensive income	483.6	
Comprehensive income	50.4	
Dividend declaration - preferred	(12.0)	
Gain on repurchase and retirement of preferred stock	0.5	
Comprehensive income attributable to common stockholders	38.9	
Common stock dividends declared	(46.7)	
Other	1.6	
Repurchase and retirement of preferred stock	0.2	
Issuance of common stock, net of offering costs	97.8	
Ending common stockholders' equity	\$ 1,569.5	\$ 15.21
Total preferred stock liquidation preference	633.9	
Ending total equity	<u>\$ 2,203.4</u>	

- Book value of \$15.21 per common share, resulting in a 2.0% quarterly economic return on book value⁽¹⁾
 - High rate and spread volatility muted portfolio performance
- Generated Comprehensive Income of \$38.9 million, or \$0.40 per weighted average common share
- Issued 7.0 million shares of common stock through at-the-market offering program for total proceeds of \$97.8 million
- Repurchased 221,806 shares of preferred stock⁽²⁾

Results and Return Contributions



Three Months Ended December 31, 2023 (\$ in thousands)	GAAP Net Loss	Other Comprehensive Income	Total Comprehensive Income	Market-Driven Value Changes and Certain Operating Expenses ⁽¹⁾⁽²⁾	Income Excluding Market-Driven Value Changes ⁽³⁾
RMBS and other Agency securities⁽⁴⁾					
RMBS and other Agency securities income (loss)	\$ 23,508	\$ 483,579	\$ 507,087	\$ 369,088	\$ 137,999
RMBS and other Agency securities funding expense	(117,156)		(117,156)	—	(117,156)
MSR					
MSR (loss) income	(6,009)		(6,009)	(104,529)	98,520
MSR funding expense	(46,267)		(46,267)	—	(46,267)
Derivatives and other					
Swaps and swaptions	(139,234)		(139,234)	(140,820)	1,586
TBAs	28,967		28,967	22,666	6,301
Futures and options on futures	(175,506)		(175,506)	(175,506)	—
Interest on cash, reverse repurchase agreements and other	19,145		19,145	—	19,145
Expenses					
Convertible debt interest expense	(4,651)		(4,651)	—	(4,651)
Operating expenses	(45,256)		(45,256)	(3,408)	(41,848)
Tax expense	29,259		29,259	32,714	(3,455)
(Losses) earnings attributable to Two Harbors	(433,200)	483,579	50,379	205	50,174
Dividends on preferred stock	(12,012)		(12,012)	—	(12,012)
(Losses) earnings attributable to common stockholders	\$ (444,693)	\$ 483,579	\$ 38,886	\$ 724	\$ 38,162
Annualized return on common equity					
					10.3%
Quarterly return per weighted average basic common share					
					\$ 0.39

Note: The columns labeled “GAAP Net Loss,” “Other Comprehensive Income,” and “Total Comprehensive Income” are based on the company’s Comprehensive Income (Loss), determined in accordance with GAAP, that has been reorganized into the categories that represent the company’s portfolio of target assets, unsecured and secured financing by asset collateral type, and derivatives and other items. This presentation illustrates both the positive and negative aspects of the company’s GAAP performance for the reporting period and provides a reconciliation with our non-GAAP measures shown in the columns labeled “Market-Driven Value Changes and Certain Operating Expenses” and “Income Excluding Market-Driven Value Changes.”

IXM Quarterly Review

(\$ in thousands)	Income Excluding Market-Driven Value Changes ⁽¹⁾		
	Q4-2023	Q3-2023	Variance
RMBS and other Agency securities⁽²⁾			
RMBS and other Agency securities income	\$ 137,999	\$ 145,549	\$ (7,550)
RMBS and other Agency securities funding expense	(117,156)	(122,919)	5,763
MSR			
MSR income	98,520	82,239	16,281
MSR funding expense	(46,267)	(45,539)	(728)
Derivatives and other			
Swaps and swaptions	1,586	1,145	441
TBAs	6,301	7,951	(1,650)
Interest on cash, reverse repurchase agreements and other	19,145	15,781	3,364
Expenses			
Convertible debt interest expense	(4,651)	(4,636)	(15)
Operating expenses	(41,848)	(14,205)	(27,643)
Tax expense	(3,455)	(3,963)	508
Earnings attributable to Two Harbors	50,174	61,403	(11,229)
Dividends on preferred stock	(12,012)	(12,115)	103
Earnings attributable to common stockholders	\$ 38,162	\$ 49,288	\$ (11,126)
Annualized return on common equity	10.3%	12.6%	
Quarterly return per weighted average basic common share	\$ 0.39	\$ 0.51	

- Fourth quarter IXM primarily impacted by:
 - Moving RMBS exposure down in coupon
 - Lower RMBS balances
 - Year-end expense adjustments

Strong Balance Sheet and Liquidity Position

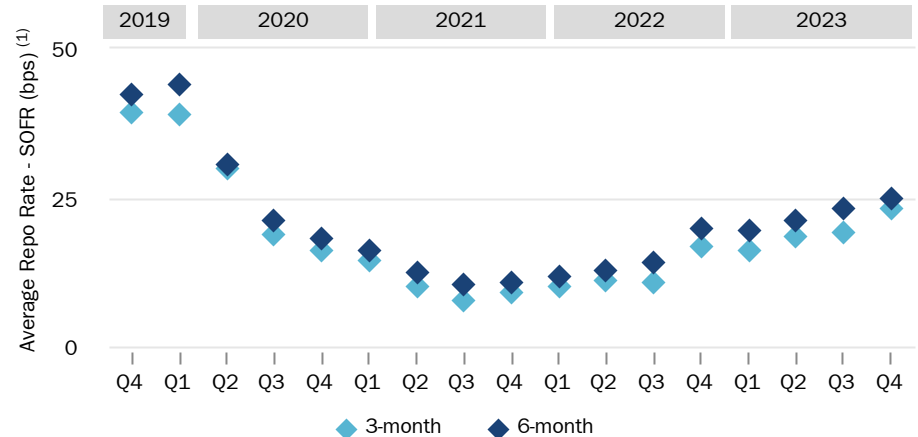


BALANCE SHEET AS OF DECEMBER 31, 2023

Agency RMBS \$8.3 billion	Agency RMBS repurchase agreements \$7.7 billion
MSR \$3.1 billion	MSR financing \$1.9 billion
Cash & cash equivalents \$0.7 billion	Convertible debt \$0.3 billion
All other assets \$1.0 billion	All other liabilities \$1.0 billion
	Preferred equity \$0.6 billion
	Common equity \$1.6 billion

AGENCY RMBS

- \$7.7 billion of outstanding repurchase agreements with 18 counterparties
- Weighted average days to maturity of 48 days



MORTGAGE SERVICING RIGHTS

- \$1.6 billion of outstanding borrowings under bilateral MSR asset financing facilities
- \$296 million of outstanding 5-year MSR term notes⁽²⁾
- \$591 million of unused MSR asset financing capacity; \$168 million committed and \$423 million uncommitted
- \$34 million outstanding borrowings and \$166 million of unused, committed capacity for servicing advance receivables

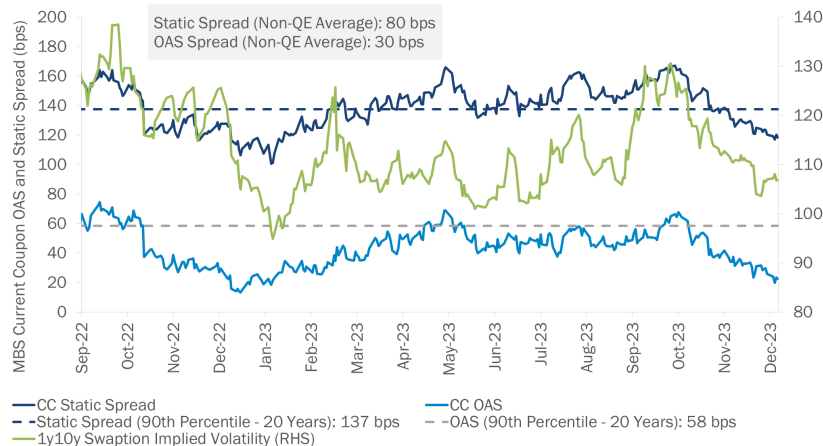
Investment Portfolio Landscape



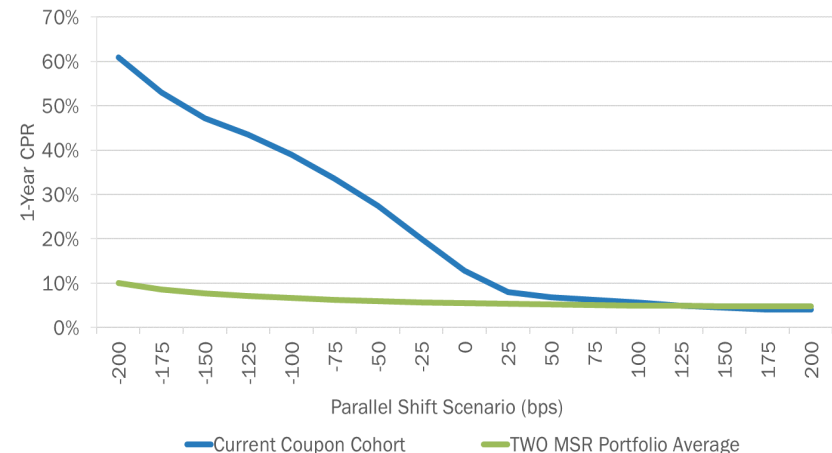
REALIZED VOLATILITY REMAINS ELEVATED; MSR PROVIDES STABILITY

- MBS spreads widened in October as rates rose and realized volatility soared, then tightened in November and December as rates reversed on the Fed’s optimistic assessment of bringing down inflation
 - Spreads finished the year on the tighter end of the range for 2023, reflecting the market’s expectations of more than five Fed rate cuts in 2024
 - Spreads could tighten further with a reduction in realized volatility, but risks of increased supply and existing money manager overweights continue to pose challenges
- MSR spreads remain well supported and stable
- \$500 billion UPB of MSR offered in 2023, the second highest on record
- CPRs broadly declined, reflecting weaker seasonals and the highest mortgage rates in over 20 years
- Our portfolio of MSR, with a weighted average coupon of 3.45%, is still very insensitive to further declines in rates

I. MBS SPREADS AND IMPLIED VOLATILITY⁽¹⁾



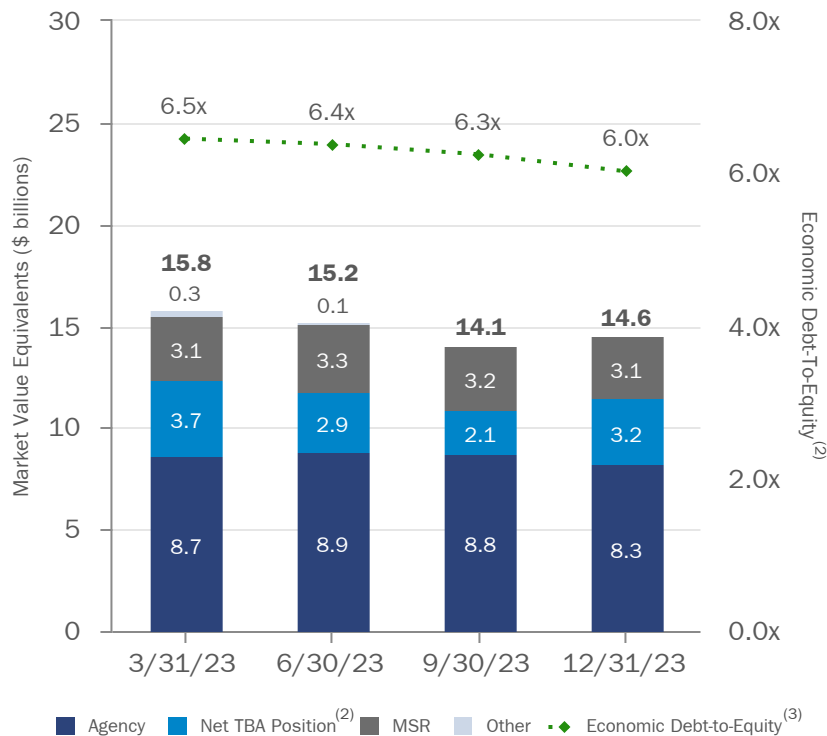
II. TWO’S MSR CPR SENSITIVITY⁽²⁾



Quarterly Activity and Portfolio Composition

PORTFOLIO COMPOSITION⁽¹⁾

At December 31, 2023, \$14.6 billion portfolio
Includes \$11.4 billion settled positions



LEVERAGE AND RISK POSITIONING

- Quarter-end economic debt-to-equity decreased slightly to 6.0x from 6.3x⁽³⁾
 - Average economic debt-to-equity of 5.8x in the fourth quarter, compared to 6.5x in the third quarter⁽³⁾
 - Maintained a neutral leverage position
- Maintained prudent hedge portfolio across the curve; increased the share of swaps versus futures towards quarter end

PORTFOLIO ACTIVITY HIGHLIGHTS

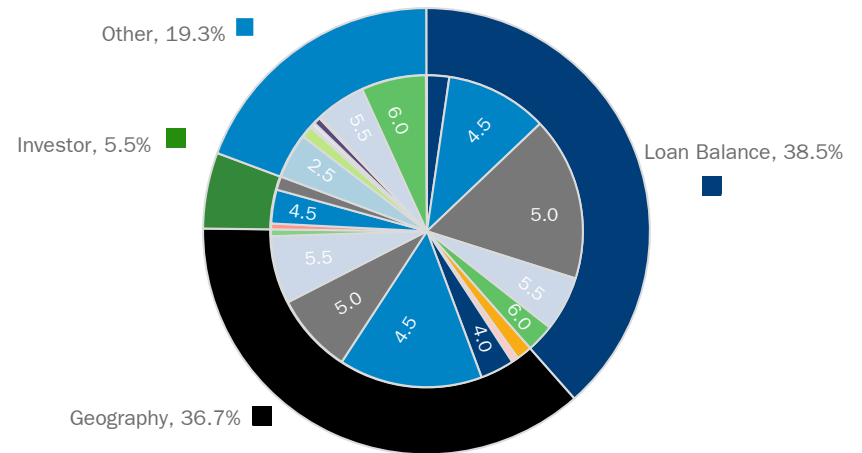
- Reduced exposure to mortgage spread sensitivity
- Migrated Agency position down in coupon to take advantage of the sharp cheapening of lower coupons
- Settled \$829 million UPB in MSR flow sale purchases

Agency RMBS

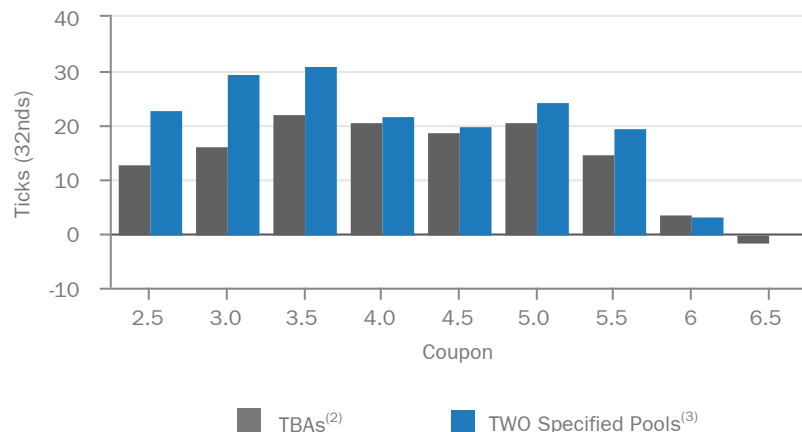
QUARTERLY HIGHLIGHTS

- Replaced approximately \$2.5 billion notional 4.5% and 6.5% TBAs with an equal amount of 2.5-4% TBAs, to take advantage of the sharp cheapening of lower coupons that occurred in October
- Enhanced liquidity by rotating approximately \$1.0 billion notional 4-4.5% specified pools into same coupon TBAs⁽¹⁾
- Weighted average specified pool portfolio prepayment speed of 5.4% compared to 6.7% in third quarter 2023⁽¹⁾

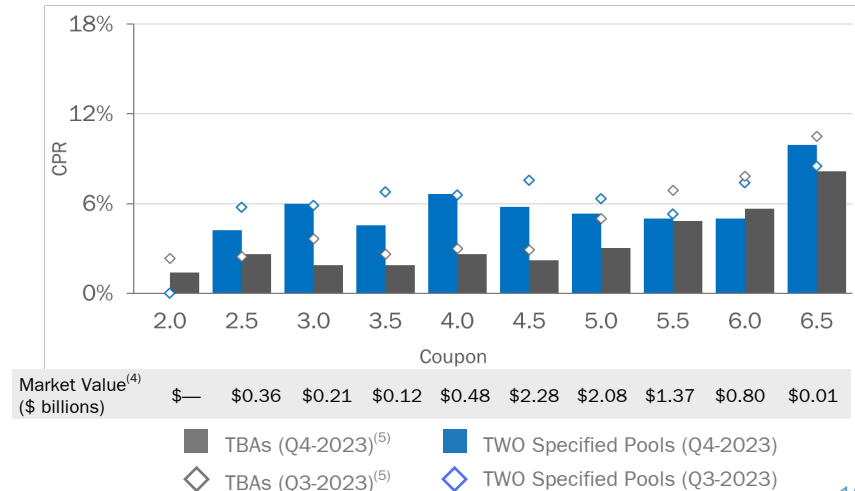
I. SPECIFIED POOL PORTFOLIO⁽¹⁾



II. RMBS QUARTERLY PERFORMANCE



III. SPECIFIED POOL PREPAYMENT SPEEDS



Market Value ⁽⁴⁾ (\$ billions)	\$—	\$0.36	\$0.21	\$0.12	\$0.48	\$2.28	\$2.08	\$1.37	\$0.80	\$0.01
	TBAs (Q4-2023) ⁽⁵⁾	TWO Specified Pools (Q4-2023)	TBAs (Q3-2023) ⁽⁵⁾	TWO Specified Pools (Q3-2023)						

Mortgage Servicing Rights

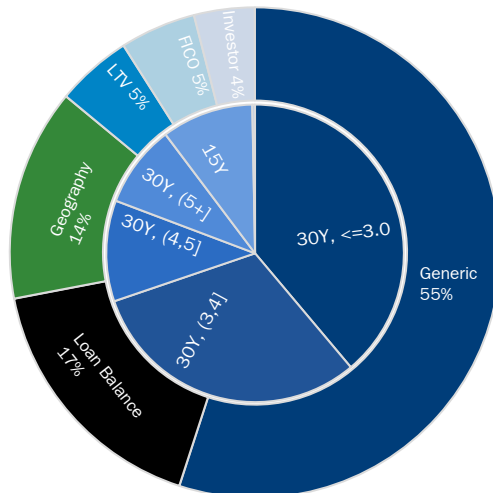
QUARTERLY HIGHLIGHTS

- Settled \$829.1 million UPB through flow purchases and recapture
- Price multiple decreased to 5.6x from 5.8x
- Prepay speeds decreased to 3.8% from 4.9%
- Weighted average coupon of 3.45%
 - Less than 1% of balances have 50 bps or more of incentive to refinance
- Post quarter-end, signed term sheet to sell \$1.5 billion UPB of MSR on a servicing retained basis
- Post quarter-end, signed term sheet to buy \$3 billion UPB of MSR to settle in the first quarter 2024

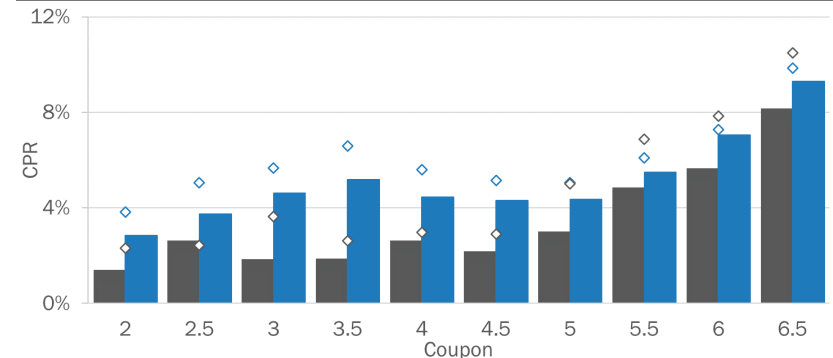
I. MSR PORTFOLIO CHARACTERISTICS⁽¹⁾

	12/31/2023	9/30/2023
Fair value (\$ millions)	\$ 3,052	\$ 3,213
Price multiple	5.6x	5.8x
UPB (\$ millions)	\$ 216,884	\$ 220,054
Gross coupon rate	3.45%	3.44%
Current loan size (\$ thousands)	\$ 337	\$ 339
Original FICO ⁽³⁾	759	759
Original Loan-to-Value (LTV)	72%	72%
60+ day delinquencies	0.7%	0.7%
Net servicing fee (bps)	25.3	25.2
Loan age (months)	41	39
3-month CPR	3.8%	4.9%

II. MSR PORTFOLIO⁽⁴⁾



III. 30-YEAR MSR PREPAYMENT SPEEDS⁽⁵⁾



UPB ⁽⁴⁾ (\$ billions)	\$80.0	\$36.0	\$25.7	\$13.7	\$10.6	\$8.2	\$5.9	\$2.2	\$1.4	\$1.3
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- TBAs (Q4-2023)⁽⁶⁾
- TWO MSR (Q4-2023)
- ◇ TBAs (Q3-2023)⁽⁶⁾
- ◇ TWO MSR (Q3-2023)

Return Potential and Outlook

ATTRACTIVE RETURN OPPORTUNITIES FOR UNIQUELY POSITIONED AGENCY RMBS AND MSR PORTFOLIO

PROSPECTIVE MARKET RETURNS As of December 31, 2023	PORTFOLIO MARKET VALUE (\$ millions)	INVESTED CAPITAL ALLOCATED ⁽¹⁾	STATIC MARKET RETURN ESTIMATE ⁽²⁾		
RMBS + MSR					
MSR	3,045				
TBA ⁽³⁾	4,970				
Hedged MSR	8,015	62%	12%	-	16%
RMBS + RATES					
Pools	7,737				
TBA ⁽³⁾	(1,737)				
Other Securities	743				
Hedged Securities	6,743	38%	10%	-	11%

PROSPECTIVE TWO HARBORS RETURNS As of December 31, 2023	INVESTED CAPITAL (\$ millions)	STATIC TWO HARBORS RETURN ESTIMATE ⁽⁴⁾		
Total Portfolio Before RoundPoint After-Tax Income and Expenses		11.1%	-	13.7%
RoundPoint After-Tax Income		0.5%	-	0.5%
Corporate Operating and Tax Expenses ⁽⁵⁾		(2.7)%	-	(2.7)%
Total Portfolio After RoundPoint After- Tax Income and Expenses		8.9%	-	11.5%
INVESTED CAPITAL				
Convertible Notes	272			6.2%
Preferred Equity	634			7.6%
Common Equity	1,569	9.9%	-	14.0%
PROSPECTIVE QUARTERLY STATIC RETURN PER BASIC COMMON SHARE⁽⁶⁾:		\$0.38 - \$0.53		

- **Market Presence:** Our size allows us to be nimble and actively allocate capital to MSR and Agency RMBS.
- **Investment Strategy:** Our portfolio is uniquely constructed with MSR and Agency RMBS, as well as an operational platform, RoundPoint Mortgage Servicing LLC. Our goal is to deliver high quality returns despite interest rate and spread volatility.
- **Market Environment:** MSR in the current market environment generate a very stable cash flow, with speeds that are historically low and very little duration and convexity. Agency spreads have tightened back to historical norms, but implied volatility remains high and can be a tailwind to returns.
- **Financing and Liquidity:** We have a strong balance sheet and diversified financing for both MSR and Agency RMBS.

Note: This slide presents estimates for illustrative purposes only, using Two Harbors' base case assumptions (e.g., spreads, prepayment speeds, financing costs and expenses), and does not contemplate market-driven value changes, active portfolio management, and certain operating expenses. Actual results may differ materially.

An aerial photograph of a suburban residential neighborhood. The houses are mostly two-story structures with light-colored siding and dark roofs. The area is interspersed with green trees and lawns. A large, semi-transparent blue rectangle is overlaid on the center of the image, containing the word "Appendix" in white text.

Appendix

Effective Coupon Positioning

Coupon (%)	TBA Market Price ⁽¹⁾	TBA Notional (\$m)	Specified Pools Par Value (\$m) ⁽²⁾	MSR/Agency IO UPB (\$m) ⁽³⁾	Combined (\$m)
2.5%	\$ 85.23	\$ 825	\$ 421	\$ —	\$ 1,246
3.0%	\$ 88.58	975	238	—	1,213
3.5%	\$ 91.86	751	126	—	877
4.0%	\$ 94.67	250	503	—	753
4.5%	\$ 97.05	(697)	2,331	—	1,634
5.0%	\$ 99.03	240	2,084	(3,050)	(726)
5.5%	\$ 100.52	375	1,358	(2,043)	(310)
6.0%	\$ 101.61	778	780	—	1,558
6.5%	\$ 102.47	—	2	—	2
Total		\$ 3,497	\$ 7,843	\$ (5,093)	\$ 6,247

Risk Positioning



BOOK VALUE EXPOSURE TO CHANGES IN RATES

			% Change in Common Book Value			
2-Year Rate (basis points)	10-Year Rate (basis points)		Agency P&I RMBS/TBA	MSR/Agency IO RMBS ⁽¹⁾	Other ⁽²⁾	Combined
-25	0	Bull Steepener ⁽³⁾	2.2 %	1.4 %	(3.0)%	0.6 %
0	-25	Bull Flattener ⁽⁴⁾	7.5 %	(3.9)%	(4.5)%	(0.9)%
-50	-50	Parallel Shift ⁽⁵⁾	19.0 %	(5.1)%	(15.1)%	(1.2)%
-25	-25	Parallel Shift ⁽⁵⁾	9.7 %	(2.5)%	(7.5)%	(0.3)%
0	0	Base	— %	— %	— %	— %
+25	+25	Parallel Shift ⁽⁵⁾	(10.0)%	2.1 %	7.4 %	(0.5)%
+50	+50	Parallel Shift ⁽⁵⁾	(20.3)%	4.2 %	14.7 %	(1.4)%
+25	0	Bear Flattener ⁽³⁾	(2.1)%	(1.2)%	2.9 %	(0.4)%
0	+25	Bear Steepener ⁽⁴⁾	(7.9)%	3.4 %	4.5 %	— %

BOOK VALUE EXPOSURE TO CURRENT COUPON SPREAD⁽⁶⁾

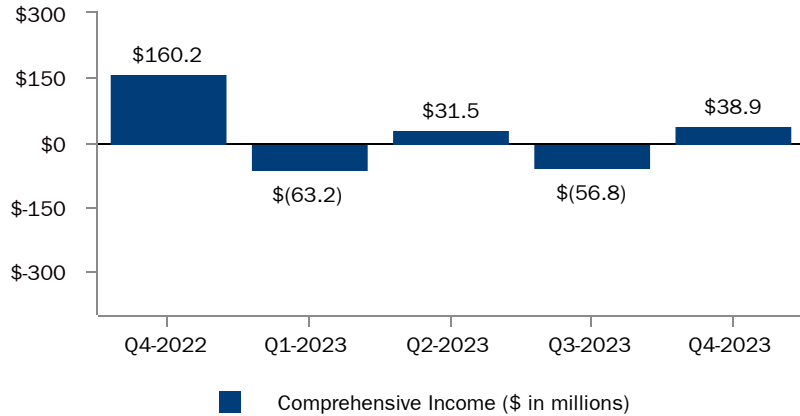
		% Change in Common Book Value		
Parallel Shift in Spreads (basis points)		Agency P&I RMBS/TBA	MSR/Agency IO RMBS ⁽¹⁾	Combined
-25		7.9 %	(2.5)%	5.4 %
0		— %	— %	— %
+25		(8.3)%	2.0 %	(6.3)%

Note: Sensitivity data as of December 31, 2023. The above scenarios are provided for illustration purposes only and is not necessarily indicative of Two Harbors' financial condition and operating results, nor are they necessarily indicative of the financial condition or results of operations that may be expected for any future period or date.

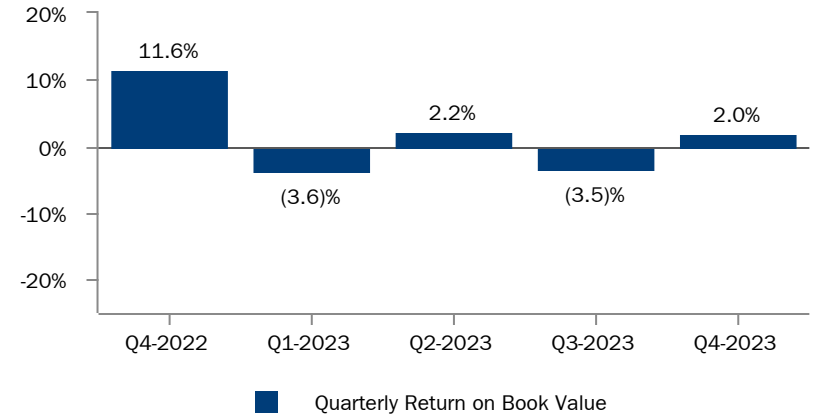
Financial Performance



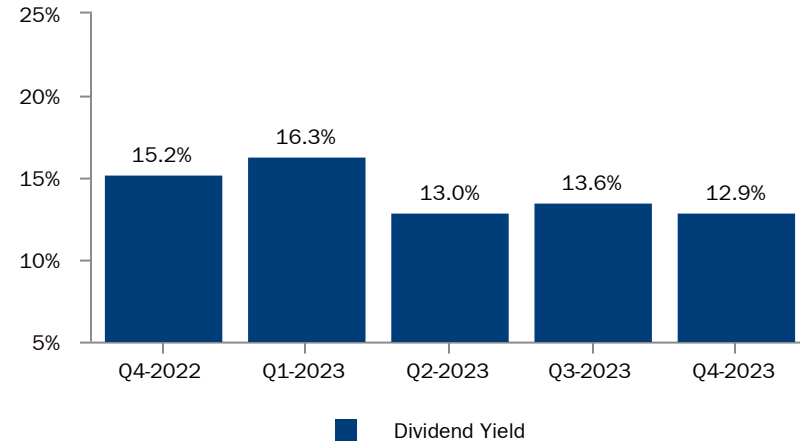
COMPREHENSIVE INCOME (LOSS)



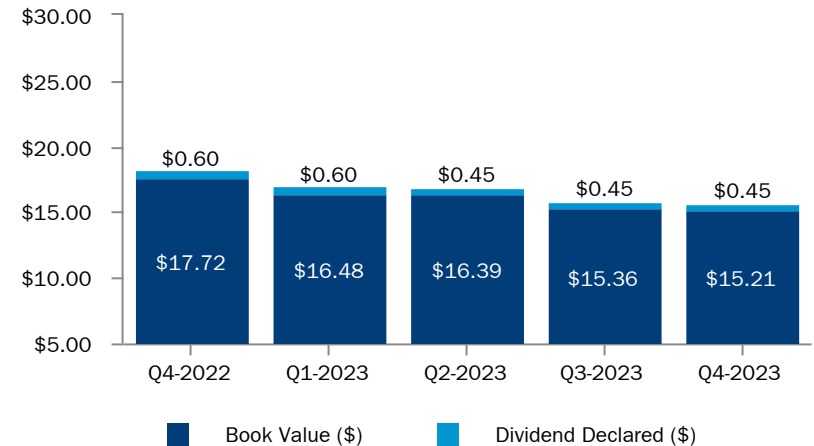
QUARTERLY ECONOMIC RETURN ON BOOK VALUE⁽¹⁾



DIVIDEND YIELD⁽²⁾



BOOK VALUE AND DIVIDEND PER COMMON SHARE⁽²⁾



Comparison of GAAP and non-GAAP Measures

(\$ in thousands)	Comprehensive Income	Earnings Available for Distribution (EAD) ⁽¹⁾	Income Excluding Market-Driven Value Changes (IXM) ⁽²⁾
RMBS and other Agency securities⁽³⁾			
Coupon income	\$ 107,368	\$ 107,368	\$ 107,368
Amortization	(4,024)	(4,024)	(4,024)
Realized and unrealized, and provision for credit losses	403,743	—	34,655 ⁽⁴⁾
Funding expense	(117,156)	(117,156)	(117,156)
MSR			
Servicing fee income	139,798	139,798	139,798
Float, ancillary and other income	38,811	38,811	38,811
Servicing expenses	(13,259)	(13,259)	(9,102) ⁽⁵⁾
Amortization	(55,486)	(88,286)	(55,486)
Realized and unrealized, including change in servicing reserves	(115,873)	—	(15,501) ⁽⁶⁾
Funding expense	(46,267)	(46,267)	(46,267)
Derivatives and other			
Swaps net interest spread	7,444	7,444	7,444
Swaps and swaptions realized and unrealized	(146,678)	—	(5,858) ⁽⁷⁾
TBAs	28,967	(777)	6,301 ⁽⁸⁾
U.S. Treasury futures	(162,890)	5,143	—
Other futures and options on futures	(12,616)	—	—
Interest on cash, reverse repurchase agreements and other	19,145	19,145	19,145 ⁽⁹⁾
Expenses			
Convertible debt interest expense	(4,651)	(4,651)	(4,651)
Operating expenses	(45,256)	(40,235)	(41,848) ⁽¹⁰⁾
Tax expense ⁽¹¹⁾	29,259	(1,547)	(3,455)
Earnings attributable to Two Harbors	50,379	1,507	50,174
Dividends on preferred stock	(12,012)	(12,012)	(12,012)
Earnings (losses) attributable to common stockholders	\$ 38,886	\$ (10,505)	\$ 38,162
Annualized return on common equity	10.5%	(2.8)%	10.3%
Quarterly return per weighted average basic common share	\$ 0.40	\$ (0.11)	\$ 0.39

For each of RMBS and MSR, combination of amounts represents price changes under realized forwards method⁽²⁾

GAAP to IXM Reconciliation

Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended December 31, 2023	Three Months Ended September 30, 2023
Comprehensive income (loss) attributable to common stockholders	\$ 38,886	\$ (56,845)
Adjustments to exclude market-driven value changes ⁽¹⁾ and certain operating expenses:		
RMBS and other Agency securities market-driven value changes ⁽²⁾	(369,088)	391,159
MSR market-driven value changes ⁽³⁾	101,602	(138,182)
Swap and swaption market-driven value changes ⁽⁴⁾	140,820	(110,764)
TBA market-driven value changes ⁽⁵⁾	(22,666)	98,613
Realized and unrealized losses (gains) on futures	175,506	(178,918)
Other realized gains	—	(2,903)
Change in servicing reserves	(1,230)	994
Deboarding fees associated with RoundPoint acquisition	4,157	3,336
Certain operating expenses ⁽⁶⁾	3,408	10,396
Gain on repurchase and retirement of preferred stock	(519)	—
Net (benefit from) provision for income taxes associated with market-driven value changes	(32,714)	32,402
Income Excluding Market-Driven Value Changes to common stockholders	\$ 38,162	\$ 49,288
Weighted average basic common shares	97,489,039	96,176,287
Income Excluding Market-Driven Value Changes per weighted average basic common share	\$ 0.39	\$ 0.51

Note: Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure defined as total comprehensive income attributable to common stockholders, excluding market-driven value changes on the aggregate portfolio, provision for income taxes associated with market-driven value changes, certain operating expenses and gains on the repurchase and retirement of preferred stock and convertible senior notes. As defined, IXM includes the realization of portfolio cash flows which incorporates actual prepayments, changes in portfolio accrued interest, servicing income and servicing expenses, and certain modeled price changes. These modeled price changes are measured daily based on a “Realized Forwards” methodology, which includes the assumption that spreads, forward interest rates, shape of the term structure and volatility factored into the previous day ending fair value are unchanged. Assumptions for spreads, forward interest rates, shape of the term structure, volatility and the previous day ending fair value include applicable market data, data from third-party brokers and pricing vendors and management’s assessment. This applies to RMBS, MSR and derivatives, as applicable, and is net of all certain operating expenses and provision for income taxes associated with IXM. The purpose of presenting IXM, and the various adjustments related to market-driven value changes and certain legal expenses and acquisition transaction costs, is to provide management, analysts and investors with a profit and loss attribution that allows them to better understand the sources of returns from the company’s investment portfolio, operating expenses and tax expenses. IXM provides supplemental information to assist investors in analyzing the company’s results of operations and helps facilitate comparisons to industry peers. IXM is one of several measures the company’s board of directors considers to determine the amount of dividends to declare on the company’s common stock and should not be considered an indication of taxable income or as a proxy for the amount of dividends the company may declare.

Earnings Available for Distribution

(\$ millions, except per share data)	Q4-2023	Q3-2023	Variance
Interest income	\$ 122.4	\$ 123.6	\$ (1.2)
Interest expense	168.1	173.1	5.0
Net interest expense	(45.7)	(49.5)	3.8
Servicing income	178.6	178.6	—
Servicing costs	13.2	28.9	15.7
Net servicing income	165.4	149.7	15.7
MSR amortization ⁽¹⁾	(88.3)	(90.5)	2.2
Interest spread income on interest rate swaps	7.4	6.9	0.5
TBA dollar roll losses ⁽²⁾	(0.8)	(2.1)	1.3
U.S. Treasury futures income ⁽³⁾	5.2	11.2	(6.0)
Other derivatives income	0.1	—	0.1
Total other income	(76.4)	(74.5)	(1.9)
Total expenses	40.3	12.6	(27.7)
Provision for income taxes	1.5	1.8	0.3
Earnings Available for Distribution⁽⁴⁾	\$ 1.5	\$ 11.3	\$ (9.8)
Dividends on preferred stock	(12.0)	(12.1)	(0.1)
Earnings Available for Distribution available to common stockholders	\$ (10.5)	\$ (0.8)	\$ (9.7)
Earnings Available for Distribution per weighted average basic common share	\$ (0.11)	\$ (0.01)	
Earnings Available for Distribution annualized return on average common equity	(2.8)%	(0.2)%	
Operating expenses, excluding non-cash LTIP amortization and certain operating expenses, as a percentage of average equity ⁽⁵⁾	7.6 %	2.3 %	

- Fourth quarter EAD primarily driven by:
 - Lower U.S. Treasury futures income due to implied repo spread widening
 - Higher compensation and benefits due to year-end adjustments
- With the closing of RoundPoint, costs of servicing operations are captured in compensation and other operating expenses vs. servicing expenses
- EAD is expected to continue to diverge from ongoing earnings power⁽⁶⁾
 - EAD for assets utilizes concepts of amortized cost and yield-to-maturity at purchase (RMBS) or amortized cost and original pricing yield (MSR), as opposed to market value and expected return
 - EAD may not reflect total return of hedging derivatives, and impacts to EAD differ depending on the instrument utilized

Q4-2023 Portfolio Yields and Financing Costs



(\$ thousands)				
Portfolio Asset Type	Measure	Average Amortized Cost	Income ⁽¹⁾	Average Yield
Available-for-sale securities	GAAP	\$ 8,822,467	\$ 103,250	4.68%
<i>Adjustments to include other portfolio items:</i>				
Mortgage servicing rights ⁽²⁾⁽³⁾	Non-GAAP	1,956,958	57,981	11.85%
Agency derivatives ⁽²⁾⁽⁴⁾	Non-GAAP	17,870	94	2.10%
TBAs ⁽²⁾⁽⁵⁾	Non-GAAP	1,747,435	15,103	3.46%
Total portfolio	Non-GAAP	<u>\$ 12,544,730</u>	<u>\$ 176,428</u>	<u>5.63%</u>
Financing Collateral Type	Measure	Average Outstanding Balance	Expense ⁽⁶⁾	Average Cost
Borrowings collateralized by available-for-sale securities	GAAP	\$ 8,157,185	\$ 117,021	5.74%
<i>Adjustments to include other financing items:</i>				
Borrowings collateralized by mortgage servicing rights and advances	GAAP	2,014,734	46,267	9.19%
Borrowings collateralized by Agency derivatives ⁽⁴⁾	GAAP	8,694	135	6.21%
Convertible senior notes ⁽⁷⁾	GAAP	268,447	4,651	6.93%
Interest rate swaps ⁽²⁾⁽⁸⁾	Non-GAAP		(7,444)	(0.24)%
U.S. Treasury futures ⁽²⁾⁽⁹⁾	Non-GAAP		(5,143)	(0.17)%
TBAs ⁽²⁾⁽⁵⁾	Non-GAAP	1,747,435	15,880	3.64%
Total financing	Non-GAAP	<u>\$ 12,196,495</u>	<u>\$ 171,367</u>	<u>5.62%</u>
Net Spread	Measure			Average Yield, less Cost
Net spread on AFS securities	GAAP			(1.06%)
Net spread on total portfolio	Non-GAAP			0.01%

GAAP to EAD Reconciliation



Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended December 31, 2023	Three Months Ended September 30, 2023
Comprehensive income (loss) attributable to common stockholders	\$ 38,886	\$ (56,845)
Adjustment for other comprehensive (income) loss attributable to common stockholders:		
Unrealized (gain) loss on available-for-sale securities	(483,579)	350,922
Net (loss) income attributable to common stockholders	\$ (444,693)	\$ 294,077
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized loss on securities	83,505	289
Unrealized (gain) loss on securities	(708)	280
Reversal of provision for credit losses	(328)	(98)
Realized and unrealized loss (gain) on mortgage servicing rights	172,589	(67,369)
Realized loss on termination or expiration of interest rate swaps and swaptions	12,438	5,176
Unrealized loss (gain) on interest rate swaps and swaptions	134,240	(110,234)
Realized and unrealized loss (gain) on other derivative instruments	143,906	(86,121)
Gain on repurchase and retirement of preferred stock	(519)	—
Other realized and unrealized gains	—	(2,903)
Other adjustments:		
MSR amortization ⁽¹⁾	(88,286)	(90,485)
TBA dollar roll losses ⁽²⁾	(777)	(2,106)
U.S. Treasury futures income ⁽³⁾	5,143	11,174
Change in servicing reserves	(1,230)	994
Non-cash equity compensation expense	1,613	1,576
Certain operating expenses ⁽⁴⁾	3,408	10,396
Net (benefit from) provision for income taxes on non-EAD	(30,806)	34,578
Earnings available for distribution to common stockholders	\$ (10,505)	\$ (776)
Weighted average basic common shares	97,489,039	96,176,287
Earnings available for distribution to common stockholders per weighted average basic common share	\$ (0.11)	\$ (0.01)

Note: Earnings Available for Distribution, or EAD, is a non-GAAP measure that we define as comprehensive income (loss) attributable to common stockholders, excluding realized and unrealized gains and losses on the aggregate portfolio, gains and losses on repurchases of preferred stock, provision for (reversal of) credit losses, reserve expense for representation and warranty obligations on MSR, non-cash compensation expense related to restricted common stock, and certain operating expenses. As defined, EAD includes net interest income, accrual and settlement of interest on derivatives, dollar roll income on TBAs, U.S. Treasury futures income, servicing income, net of estimated amortization on MSR and certain cash related operating expenses. EAD provides supplemental information to assist investors in analyzing the company's results of operations and helps facilitate comparisons to industry peers. EAD is one of several measures our board of directors considers to determine the amount of dividends to declare on our common stock and should not be considered an indication of our taxable income or as a proxy for the amount of dividends we may declare.

Agency RMBS Portfolio



	Par Value (\$ millions)	Market Value (\$ millions)	Weighted Average CPR ⁽¹⁾	% Prepay Protected ⁽²⁾	Amortized Cost Basis (\$ millions)	Gross Weighted Average Coupon	Weighted Average Age (Months)
30-Year Fixed							
≤ 2.5%	\$ 421	\$ 360	3.6 %	— %	\$ 359	3.3 %	30
3.0%	238	212	2.6 %	85.4 %	211	3.7 %	26
3.5%	126	116	2.0 %	84.9 %	113	4.3 %	22
4.0%	503	480	5.2 %	100.0 %	508	4.6 %	49
4.5%	2,331	2,281	5.2 %	100.0 %	2,385	5.1 %	40
5.0%	2,084	2,078	3.6 %	100.0 %	2,126	5.8 %	21
5.5%	1,358	1,371	5.4 %	99.8 %	1,372	6.4 %	18
6.0%	780	796	6.1 %	99.8 %	799	6.9 %	17
≥ 6.5%	8	9	7.4 %	97.8 %	9	7.8 %	249
	7,849	7,703	4.7 %	94.7 %	7,882	5.5 %	28
Other P&I⁽³⁾	572	569	0.8 %	— %	564	5.3 %	9
IOs and IIOs⁽⁴⁾	1,005	63	6.0 %	— %	76	4.8 %	124
Total Agency RMBS	<u>\$ 9,426</u>	<u>\$ 8,335</u>		<u>87.5 %</u>	<u>\$ 8,522</u>		

	Notional Amount (\$ millions)	Bond Equivalent Value (\$ millions) ⁽⁵⁾	Through-the-Box Speeds ⁽⁶⁾
TBA Positions			
≤ 2.5%	\$ 825	\$ 703	2.3 %
3.0%	975	864	2.4 %
3.5%	751	690	2.4 %
4.0%	250	237	3.1 %
4.5%	(697)	(677)	3.1 %
5.0%	240	238	5.4 %
5.5%	375	377	7.8 %
6.0%	778	790	12.0 %
≥ 6.5%	—	—	16.5 %
Net TBA Position	<u>\$ 3,497</u>	<u>\$ 3,222</u>	

Mortgage Servicing Rights Portfolio⁽¹⁾



	Number of Loans	Unpaid Principal Balance (\$ millions)	Gross Coupon Rate	Current Loan Size (\$ thousands)	Loan Age (months)	Original FICO ⁽²⁾	Original LTV	60+ Day Delinquencies	3-Month CPR	Net Servicing Fee (bps)
30-Year Fixed										
≤ 3.25%	300,020	\$ 94,895	2.8%	\$ 374	35	768	71%	0.4%	2.9%	25.1
3.25% - 3.75%	146,125	37,951	3.4%	329	48	753	74%	0.8%	3.9%	25.2
3.75% - 4.25%	106,188	22,116	3.9%	274	70	751	76%	1.1%	4.8%	25.5
4.25% - 4.75%	59,731	10,989	4.4%	262	69	739	77%	2.0%	5.4%	25.3
4.75% - 5.25%	41,155	9,621	4.9%	355	38	746	79%	1.6%	4.4%	25.2
> 5.25%	62,101	17,412	6.0%	382	19	745	80%	1.3%	5.0%	26.4
	715,320	192,984	3.5%	347	42	758	74%	0.8%	3.7%	25.3
15-Year Fixed										
≤ 2.25%	22,725	5,921	2.0%	307	32	777	59%	0.2%	2.9%	25.0
2.25% - 2.75%	38,338	8,012	2.4%	258	36	772	59%	0.2%	3.6%	25.0
2.75% - 3.25%	34,192	4,585	2.9%	190	62	766	62%	0.3%	5.7%	25.3
3.25% - 3.75%	19,514	1,915	3.4%	149	75	756	64%	0.6%	7.0%	25.4
3.75% - 4.25%	9,125	762	3.9%	139	71	741	65%	1.0%	8.1%	25.3
> 4.25%	6,546	794	5.0%	227	32	742	65%	0.9%	8.5%	27.9
	130,440	21,989	2.6%	242	45	769	60%	0.3%	4.5%	25.2
Total ARMs	2,504	674	4.5%	358	56	761	71%	0.9%	12.8%	25.4
Total Portfolio	848,264	\$ 215,647	3.5%	\$ 336	42	759	72%	0.7%	3.8%	25.3

Mortgage Servicing Rights UPB Roll-Forward



<i>\$ millions</i>	Q4-2023	Q3-2023	Q2-2023	Q1-2023	Q4-2022
UPB at beginning of period	\$ 218,662	\$ 222,622	\$ 212,445	\$ 204,877	\$ 206,614
Bulk purchases of mortgage servicing rights	—	—	14,234	10,713	—
Flow purchases of mortgage servicing rights	829	472	539	669	2,678
Sales of mortgage servicing rights	(62)	—	—	(143)	—
Scheduled payments	(1,640)	(1,640)	(1,595)	(1,527)	(1,538)
Prepaid	(2,127)	(2,787)	(2,993)	(2,120)	(2,440)
Other changes	(15)	(5)	(8)	(24)	(437)
UPB at end of period	\$ 215,647	\$ 218,662	\$ 222,622	\$ 212,445	\$ 204,877

Financing



\$ millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	Revolving Credit Facilities	Term Notes Payable	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 2,833.2	\$ —	\$ —	\$ —	\$ 2,833.2	28.6 %
30 to 59 days	1,918.8	—	—	—	1,918.8	19.4 %
60 to 89 days	2,059.4	—	—	—	2,059.4	20.8 %
90 to 119 days	994.8	—	—	—	994.8	10.0 %
120 to 364 days	214.0	324.3	295.3	—	833.6	8.4 %
One to three years	—	1,004.9	—	268.6	1,273.5	12.8 %
	<u>\$ 8,020.2</u>	<u>\$ 1,329.2</u>	<u>\$ 295.3</u>	<u>\$ 268.6</u>	<u>\$ 9,913.3</u>	<u>100.0 %</u>
Collateral Pledged for Borrowings	Repurchase Agreements ⁽²⁾	Revolving Credit Facilities ⁽²⁾	Term Notes Payable	Convertible Notes	Total Collateral Pledged	Percent (%)
Available-for-sale securities, at fair value	\$ 8,126.0	\$ —	\$ —	n/a	\$ 8,126.0	71.8 %
Mortgage servicing rights, at fair value	463.5	2,186.5	397.9	n/a	3,047.9	27.0 %
Restricted cash	12.4	—	0.2	n/a	12.6	0.1 %
Due from counterparties	36.4	—	—	n/a	36.4	0.3 %
Derivative assets, at fair value	11.9	—	—	n/a	11.9	0.1 %
Other assets (includes servicing advances)	—	79.7	—	n/a	79.7	0.7 %
	<u>\$ 8,650.2</u>	<u>\$ 2,266.2</u>	<u>\$ 398.1</u>	<u>n/a</u>	<u>\$ 11,314.5</u>	<u>100.0 %</u>

Futures



Type & Maturity	Notional Amount (\$M)	Carrying Value (\$M) ⁽¹⁾	Weighted Average Days to Expiration
U.S. Treasury futures - 2 year	\$ (549.6)	\$ —	88
U.S. Treasury futures - 5 year	(1,876.7)	—	88
U.S. Treasury futures - 10 year	(983.3)	—	79
U.S. Treasury futures - 20 year	(388.2)	—	79
SOFR futures			
< 1 year	(1,842.8)	—	184
> 1 and < 2 years	(562.5)	—	534
Total futures	\$ (6,203.1)	\$ —	155

Interest Rate Swaps and Swaptions



INTEREST RATE SWAPS					
Maturities	Notional Amounts (\$B)	Average Fixed Pay Rate	Average Receive Rate	Average Maturity (Years)	
Payers					
2024	\$ —	— %	— %	—	
2025	4.8	4.741 %	5.380 %	1.2	
2026	2.0	4.087 %	5.380 %	2.0	
2027	—	— %	— %	—	
2028 and Thereafter	5.3	3.748 %	5.380 %	7.8	
	<u>\$ 12.1</u>	<u>4.245 %</u>	<u>5.380 %</u>	<u>3.9</u>	
Maturities	Notional Amounts (\$B)	Average Pay Rate	Average Fixed Receive Rate	Average Maturity (Years)	
Receivers					
2024	\$ —	— %	— %	—	
2025	3.1	5.380 %	4.204 %	1.4	
2026	—	— %	— %	—	
2027	0.3	5.380 %	3.328 %	3.8	
2028 and Thereafter	2.3	5.380 %	3.970 %	9.1	
	<u>\$ 5.7</u>	<u>5.380 %</u>	<u>4.052 %</u>	<u>5.0</u>	

INTEREST RATE SWAPTIONS								
Option					Underlying Swap			
Swaption	Expiration	Cost (\$M)	Fair Value (\$M)	Average Months to Expiration	Notional Amount (\$M)	Average Fixed Rate ⁽¹⁾	Average Term (Years)	
Purchase Contracts:								
Payer	<6 Months	\$ 0.5	\$ —	2.4	\$ 200.0	5.13 %	1.0	
Sale Contracts:								
Payer	<6 Months	\$ (0.3)	\$ —	2.4	\$ (400.0)	5.61 %	1.0	

Tax Characterization of Dividends in 2023



FULL YEAR 2023 DISTRIBUTIONS SUMMARY

- Generated REIT taxable income, before dividend distributions and net operating loss deductions, of \$296.8 million
- Utilized net operating loss carryover of \$51.5 million
- 2023 distributions for tax purposes totaled \$245.3 million
 - \$245.3 million consists of distributions to common shares of \$196.4 million and distributions to preferred shares of \$48.9 million
 - Q4 2022 common stock distribution payable to shareholders on January 27, 2023 with a record date of January 5, 2023 is treated as a 2023 distribution for tax purposes
 - Q4 2023 common stock distribution payable to shareholders on January 29, 2024 with a record date of January 12, 2024 is treated as a 2024 distribution for tax purposes
 - No convertible note deemed distributions occurred in 2023
- Distributed 100% of REIT taxable income after net operating loss deduction
- 2023 common and preferred distributions are characterized for tax purposes as 100% ordinary dividends, of which 26.5% of the total ordinary dividends is characterized as qualified dividends⁽¹⁾

(1) The U.S. federal income tax treatment of holding Two Harbors 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 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.

PAGE 3 - Financials Overview

1. Economic return on book value is defined as the increase (decrease) in book value per common share from the beginning to the end of the given period, plus dividends declared in the period, divided by book value as of the beginning of the period.
2. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 20 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
3. Includes \$11.4 billion in settled positions and \$3.2 billion net TBA position, which represents the bond equivalent value of the company's TBA position. Bond equivalent value is defined as notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP. For additional detail on the portfolio, see slide 11 and Appendix slides 24 and 25.
4. Economic debt-to-equity is defined as total borrowings to fund Agency and non-Agency investment securities and MSR, plus the implied debt on net TBA cost basis and net payable (receivable) for unsettled RMBS, divided by total equity.

PAGE 4 - Markets Overview

1. Bloomberg data as of the dates noted.
2. Total number of trading dates when the 5-Year Treasury rate moved more than 10 basis points on the day in a calendar year. Source: Bloomberg.

PAGE 5 - RoundPoint Operations

1. "Third-Party Subservicing" includes all subservicers of the company's MSR portfolio other than RoundPoint Mortgage Servicing LLC.

PAGE 6 - Book Value Summary

1. Economic return on book value is defined as the increase (decrease) in book value per common share from the beginning to the end of the given period, plus dividends declared in the period, divided by book value as of the beginning of the period.
2. Includes 10,297 Series A, 58,822 Series B and 152,687 Series C preferred shares for the quarter ended December 31, 2023.

PAGE 7 - Results and Return Contributions

1. Market-Driven Value Changes represents the company's portfolio return from unexpected price changes. Unexpected price changes represent the differences between (a) actual spreads, forward interest rates, shape of the term structure and volatility, and (b) the spreads, forward interest rates, shape of the term structure and volatility that were factored into the previous day ending fair value. Unexpected price changes are measured daily and used to determine the portion of actual market price changes not attributable to modeled price changes. The reported market-driven value changes adjustment for each of RMBS and other Agency securities, MSR, swap and swaptions and TBA is the sum of all daily unexpected price changes for the referenced period. Please Appendix slide 20 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
2. Certain operating expenses predominantly consists of expenses incurred in connection with the company's ongoing litigation with PRCM Advisers LLC. It also includes certain transaction expenses incurred in connection with the company's acquisition of RoundPoint Mortgage Servicing LLC.
3. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 20 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
4. RMBS and other Agency securities includes inverse interest-only Agency RMBS, which are accounted for as derivative instruments in accordance with GAAP.

End Notes (continued)



PAGE 8 - IXM Quarterly Review

1. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 20 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
2. RMBS and other Agency securities includes inverse interest-only Agency RMBS, which are accounted for as derivative instruments in accordance with GAAP.

PAGE 9 - Strong Balance Sheet and Liquidity Position

1. Source: Bloomberg. Represents the average spread between repurchase rates and the Secured Overnight Financing Rate (SOFR) over trailing three-month and six-month periods between Q4 2019 and Q4 2023 (as of December 31, 2023).
2. Balance of five-year MSR term notes excludes deferred debt issuance costs.

PAGE 10 - Investment Portfolio Landscape

1. Source: J.P. Morgan DataQuery. Data is model-based and represents universal mortgage-backed securities (UMBS) TBA spreads as of the dates noted. In 2023, J.P. Morgan updated their model affecting only 2023 data.
2. Sensitivity data as of December 31, 2023. Scenario prepayment speeds generated with The Yield Book® Software using internally calibrated prepayment dials. Portfolio metrics represent averages weighted by UPB. Current coupon represented by illustrative cohort with a weighted average coupon of 6.79%. These scenarios are provided for illustration purposes only.

PAGE 11 - Quarterly Activity and Portfolio Composition

1. For additional detail on the portfolio, see Appendix slides 24 and 25.
2. Net TBA position represents the bond equivalent value of the company's TBA position. Bond equivalent value is defined as notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP.
3. Economic debt-to-equity is defined as total borrowings to fund Agency and non-Agency investment securities and MSR, plus the implied debt on net TBA cost basis and net payable (receivable) for unsettled RMBS, divided by total equity.

PAGE 12 - Agency RMBS

1. Specified pools include securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores, as well as securities without such protection, including large bank-serviced and others.
2. Represents UMBS generic TBA performance during the quarter.
3. Specified pool performance excludes (1) certain coupons in which we were not invested for the full duration of the quarter and (2) certain coupons with de minimis balances.
4. Specified pool market value by coupon as of December 31, 2023.
5. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

End Notes (continued)



PAGE 13 - Mortgage Servicing Rights

1. MSR portfolio based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases. Portfolio metrics, other than fair value and UPB, represent averages weighted by UPB.
2. FICO represents a mortgage industry accepted credit score of a borrower.
3. MSR portfolio based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer.
4. MSR portfolio based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer as well as MSR on loans recently settled for which transfer to the company is not yet complete.
5. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

PAGE 14 - Return Potential and Outlook

1. Capital allocated represents management's internal allocation. Certain financing balances and associated interest expenses are allocated between investments based on management's assessment of leverage ratios and required capital or liquidity to support the investment.
2. Market return estimates reflect static assumptions using quarter-end spreads and market data.
3. Net TBA position represents the bond equivalent value of the company's TBA position. Bond equivalent value is defined as notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP.
4. Estimated return on invested capital reflects static return assumptions using quarter-end portfolio valuations.
5. Total expenses includes operating expenses and tax expense within the company's taxable REIT subsidiaries.
6. Prospective quarterly static return estimate per basic common share reflects portfolio performance expectations given current market conditions and represents the comprehensive income attributable to common stockholders (net of dividends on preferred stock).

PAGE 16 - Effective Coupon Positioning

1. Represents UMBS TBA market prices as of December 31, 2023.
2. Specified pools include securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores, as well as securities without such protection, including large bank-serviced and others.
3. MSR/Agency IO represents an internally calculated exposure of a synthetic TBA position and the current coupon equivalents of our MSR, including the effect of unsettled MSR, and Agency IO RMBS.

PAGE 17 - Risk Positioning

1. MSR/Agency IO RMBS includes the effect of unsettled MSR.
2. Other includes all other derivative assets and liabilities and borrowings. Other excludes TBAs, which are included in the Agency P&I RMBS/TBA category.
3. Bull Steepener/Bear Flattener is a shift in short-term rates that represents estimated change in common book value for theoretical non-parallel shifts in the yield curve. Analysis uses a +/- 25 basis point shift in 2-year rates while holding long-term rates constant.
4. Bull Flattener/Bear Steepener is a shift in long-term rates that represents estimated change in common book value for theoretical non-parallel shifts in the yield curve. Analysis uses a +/- 25 basis point shift in 10-year rates while holding short-term rates constant.
5. Parallel shift represents estimated change in common book value for theoretical parallel shift in interest rates.
6. Book value exposure to current coupon represents estimated change in common book value for theoretical parallel shifts in spreads.

End Notes (continued)



PAGE 18 - Financial Performance

1. Economic return on book value is defined as the increase (decrease) in book value per common share from the beginning to the end of the given period, plus dividends declared in the period, divided by the book value as of the beginning of the period.
2. 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.

PAGE 19 - Comparison of GAAP and non-GAAP Measures

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 23 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.
2. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 20 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
3. RMBS and other Agency securities includes inverse interest-only Agency RMBS, which are accounted for as derivative instruments in accordance with GAAP.
4. RMBS and other Agency securities daily price change based on Realized Forwards for IXM is equal to the previous day ending fair value multiplied by the sum of the risk-free rate and zero-volatility OAS, less coupon income. RMBS and other Agency securities daily price change for IXM is reflected as the sum of amortization and realized and unrealized, and provision for credit losses.
5. Servicing expenses for IXM excludes deboarding fees associated with one-time transfers of MSR.
6. MSR daily price change based on Realized Forwards for IXM is equal to the previous day ending fair value multiplied by the the sum of the risk-free rate and zero-volatility OAS, less service fee income and servicing expenses. MSR daily price change for IXM is reflected as the sum of amortization and realized and unrealized, including change in servicing reserves.
7. Swaps daily IXM is equal to the previous day ending fair value multiplied by the overnight SOFR, which is reflected as the sum of swap net interest spread and swap realized and unrealized. Swaptions daily IXM is equal to the previous day ending fair value multiplied by the realized forward rate.
8. TBAs daily income for IXM is equal to the zero-volatility OAS less the implied repo spread, multiplied by the previous day ending fair value.
9. Other income for IXM excludes gains on repurchases of convertible senior notes.
10. Operating expenses for IXM excludes certain operating expenses. Certain operating expenses predominantly consists of expenses incurred in connection with the company's ongoing litigation with PRCM Advisers LLC. It also includes certain transaction expenses incurred in connection with the company's acquisition of RoundPoint Mortgage Servicing LLC.
11. Tax benefit (expense) for each GAAP and non-GAAP metric includes the estimated tax expense associated with each pre-tax GAAP and non-GAAP metric earned or incurred in the company's taxable REIT subsidiaries, or TRSs.

End Notes (continued)



PAGE 20 - GAAP to IXM Reconciliation

1. The market-driven value changes adjustment for each of RMBS and other Agency securities, MSR, swap and swaptions and TBA represents unexpected price changes for the referenced period. As defined, the calculation of IXM includes modeled price changes that are measured daily based on a “Realized Forwards” methodology, which includes the assumption that spreads, forward interest rates, shape of the term structure and volatility factored into the previous day ending fair value are unchanged. Unexpected price changes represent the differences between (a) actual spreads, forward interest rates, shape of the term structure and volatility, and (b) the spreads, forward interest rates, shape of the term structure and volatility that were factored into the previous day ending fair value. Unexpected price changes are measured daily and used to determine the portion of actual market price changes not attributable to modeled price changes. The reported market-driven value changes adjustment for each of RMBS and other Agency securities, MSR, swap and swaptions and TBA is the sum of all daily unexpected price changes for the referenced period. Please refer to end notes (2) through (5) for this slide for further information.
2. RMBS and other Agency securities market-driven value changes refers to the sum of interest income, realized and unrealized gains and losses on RMBS and other Agency securities, less the sum of the realization of RMBS and other Agency securities cash flows which incorporates actual prepayments, changes in RMBS and other Agency securities accrued interest, and modeled price changes. Modeled price changes are measured daily based on a “Realized Forwards” methodology, which includes the assumption that spreads, forward interest rates, shape of the term structure and volatility factored into the previous day ending fair value are unchanged. RMBS and other Agency securities includes inverse interest-only Agency RMBS which are accounted for as derivative instruments in accordance with GAAP.
3. MSR market-driven value changes refers to the sum of servicing income, servicing expenses, realized and unrealized gains and losses on MSR, less the sum of the realization of MSR cash flows which incorporates actual prepayments, servicing income and servicing expenses, and modeled price changes. Modeled price changes are measured daily based on a “Realized Forwards” methodology, which includes the assumption that spreads, forward interest rates, shape of the term structure and volatility factored into the previous day ending fair value are unchanged.
4. Swap and swaption market-driven value changes refers to the net interest spread and realized and unrealized gains and losses on interest rate swap and swaption agreements, less the swaps daily IXM that is equal to the previous day ending fair value, multiplied by the overnight SOFR and swaptions daily IXM that is equal to the previous day ending fair value, multiplied by the realized forward rate.
5. TBA market-driven value changes refers to the total realized and unrealized gains and losses, less the daily zero-volatility OAS less the implied repo spread, multiplied by the previous day ending fair value.
6. Certain operating expenses predominantly consists of expenses incurred in connection with the company’s ongoing litigation with PRCM Advisers LLC. It also includes certain transaction expenses incurred in connection with the company’s acquisition of RoundPoint Mortgage Servicing LLC.

PAGE 21 - Earnings Available for Distribution

1. MSR amortization refers to the portion of change in fair value of MSR primarily attributed to the realization of expected cash flows (runoff) of the portfolio, which is deemed a non-GAAP measure due to the company’s decision to account for MSR at fair value.
2. TBA dollar roll income is the economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
3. U.S. Treasury futures income is the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements.
4. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 23 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.
5. Certain operating expenses predominantly consists of expenses incurred in connection with the company’s ongoing litigation with PRCM Advisers LLC. It also includes certain transaction expenses incurred in connection with the company’s acquisition of RoundPoint Mortgage Servicing LLC.
6. Agency fixed-rate RMBS use the GAAP concept of amortized cost and yield-to-maturity determined at time of purchase. Net servicing income and MSR amortization is based on original pricing yield and does not include the benefit of increased float income and lower compensating interest. Financing costs are largely variable and short-term, responding more quickly to rising rates than our longer-term assets. U.S. Treasury futures income represents the sum of the implied net cash and expected change in price of a financed U.S. Treasury security, but excludes unexpected price change.

End Notes (continued)



PAGE 22 - Portfolio Yields and Financing Costs

1. Includes interest income, net of premium amortization/discount accretion, on Agency and non-Agency investment securities, servicing income, net of estimated amortization and servicing expenses, on MSR, and the implied asset yield portion of dollar roll income on TBAs. Amortization on MSR refers to the portion of change in fair value of MSR primarily attributed to the realization of expected cash flows (runoff) of the portfolio, which is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
2. As reported elsewhere in the company's filings with the Securities and Exchange Commission, MSR, Agency derivatives, TBA, interest rate swap agreements and U.S. Treasury futures are reported at fair value in the company's consolidated financial statements in accordance with GAAP, and the GAAP presentation and disclosure requirements for these items do not define or include the concepts of yield or cost of financing, amortized cost, or outstanding borrowings.
3. Amortized cost on MSR for a given period equals the net present value of the remaining future cash flows (obtained by applying original prepayment assumptions to the actual unpaid principal balance at the start of the period) using a discount rate equal to the original pricing yield. Original pricing yield is the discount rate which makes the net present value of the cash flows projected at purchase equal to the purchase price. MSR amortized cost is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value.
4. Represents inverse interest-only Agency RMBS which are accounted for as derivative instruments in accordance with GAAP.
5. Both the implied asset yield and implied financing benefit/cost of dollar roll income on TBAs are calculated using the average cost basis of TBAs as the denominator. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements. TBAs are accounted for as derivative instruments in accordance with GAAP.
6. Includes interest expense and amortization of deferred debt issuance costs on borrowings under repurchase agreements (excluding those collateralized by U.S. Treasuries), revolving credit facilities, term notes payable and convertible senior notes, interest spread income/expense and amortization of upfront payments made or received upon entering into interest rate swap agreements, and the implied financing benefit/cost portion of dollar roll income on TBAs. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
7. Unsecured convertible senior notes.
8. The cost of financing on interest rate swaps held to mitigate interest rate risk associated with the company's outstanding borrowings is calculated using average borrowings balance as the denominator.
9. The cost of financing on U.S. Treasury futures held to mitigate interest rate risk associated with the company's outstanding borrowings is calculated using average borrowings balance as the denominator. U.S. Treasury futures income is the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements.

PAGE 23 - GAAP to EAD Reconciliation

1. MSR amortization refers to the portion of change in fair value of MSR primarily attributed to the realization of expected cash flows (runoff) of the portfolio, which is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value.
2. TBA dollar roll income is the economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
3. U.S. Treasury futures income is the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements.
4. Certain operating expenses predominantly consists of expenses incurred in connection with the company's ongoing litigation with PRCM Advisers LLC. It also includes certain transaction expenses incurred in connection with the company's acquisition of RoundPoint Mortgage Servicing LLC.

End Notes (continued)



PAGE 24 - Agency RMBS Portfolio

1. Weighted average actual one-month CPR released at the beginning of the following month based on RMBS held as of the preceding month-end.
2. Determination of the percentage of prepay protected 30-year fixed Agency RMBS includes securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores.
3. Other P&I includes 15-year fixed, Hybrid ARMs, CMO and DUS pools.
4. IOs and IIOs represent market value of \$12.2 million of Agency derivatives and \$51.1 million of interest-only Agency RMBS. Agency derivatives are inverse interest-only Agency RMBS, which are accounted for as derivative instruments in accordance with GAAP.
5. Bond equivalent value is defined as the notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP.
6. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

PAGE 25 - Mortgage Servicing Rights Portfolio

1. MSR portfolio excludes residential mortgage loans for which the company is the named servicing administrator. Portfolio metrics, other than fair value and UPB, represent averages weighted by UPB.
2. FICO represents a mortgage industry-accepted credit score of a borrower.

PAGE 27 - Financing

1. Outstanding borrowings have a weighted average of 4.1 months to maturity.
2. Repurchase agreements and revolving credit facilities secured by MSR and/or other assets may be over-collateralized due to operational considerations.

PAGE 28 - Futures

1. Exchange-traded derivative instruments (futures and options on futures) require the posting of an "initial margin" amount determined by the clearing exchange, which is generally intended to be set at a level sufficient to protect the exchange from the derivative instrument's maximum estimated single-day price movement. The company also exchanges "variation margin" based upon daily changes in fair value, as measured by the exchange. The exchange of variation margin is considered a settlement of the derivative instrument, as opposed to pledged collateral. Accordingly, the receipt or payment of variation margin is accounted for as a direct reduction to the carrying value of the exchange-traded derivative asset or liability.

PAGE 29 - Interest Rate Swaps and Swaptions

1. As of December 31, 2023, all underlying swap floating rates were tied to SOFR.



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