

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

FORM 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report: July 31, 2023

Two Harbors Investment Corp.

(Exact name of registrant as specified in its charter)

Maryland
(State or other jurisdiction of incorporation or organization)

001-34506
(Commission File Number)

27-0312904
(I.R.S. Employer Identification No.)

1601 Utica Avenue South, Suite 900
(Address of Principal Executive Offices)

St. Louis Park, MN

55416
(Zip Code)

(612) 453-4100

Registrant's telephone number, including area code

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class:	Trading Symbol(s)	Name of Exchange on Which Registered:
Common Stock, par value \$0.01 per share	TWO	New York Stock Exchange
8.125% Series A Cumulative Redeemable Preferred Stock	TWO PRA	New York Stock Exchange
7.625% Series B Cumulative Redeemable Preferred Stock	TWO PRB	New York Stock Exchange
7.25% Series C Cumulative Redeemable Preferred Stock	TWO PRC	New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging Growth Company

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

Item 2.02 Results of Operations and Financial Condition.

On July 31, 2023, Two Harbors Investment Corp. issued a press release announcing its financial results for the fiscal quarter ended June 30, 2023. A copy of the press release and the 2023 Second Quarter Earnings Call Presentation are attached hereto as Exhibits 99.1 and 99.2, respectively, and are incorporated herein by reference.

The information in Item 2.02 of this Current Report, including Exhibits 99.1 and 99.2 attached hereto, is furnished pursuant to Item 2.02 of Form 8-K and shall not be deemed to be “filed” for any other purpose, including for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section. The information in Item 2.02 of this Current Report, including Exhibits 99.1 and 99.2, shall not be deemed incorporated by reference into any filing of the registrant under the Securities Act of 1933 or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filings (unless the registrant specifically states that the information or exhibit in this Item 2.02 is incorporated by reference).

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press Release of Two Harbors Investment Corp., dated July 31, 2023.
99.2	2023 Second Quarter Earnings Call Presentation.
104	Cover Page Interactive Data File, formatted in Inline XBRL.

SIGNATURES

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

TWO HARBORS INVESTMENT CORP.

By: /s/ REBECCA B. SANDBERG
Rebecca B. Sandberg
General Counsel and Secretary

Date: July 31, 2023



Two Harbors Investment Corp. Reports Second Quarter 2023 Financial Results

Benefitted From Attractive Spreads and Volatility Trending Lower

NEW YORK, July 31, 2023 - Two Harbors Investment Corp. (NYSE: TWO), an Agency RMBS + MSR real estate investment trust (REIT), today announced its financial results for the quarter ended June 30, 2023.

Quarterly Summary

- Reported book value of \$16.39 per common share, and declared a second quarter common stock dividend of \$0.45 per share, representing a 2.2% quarterly economic return on book value.⁽¹⁾
- Generated Comprehensive Income of \$31.5 million, or \$0.31 per weighted average basic common share.
- Generated Income Excluding Market-Driven Value Changes (IXM) of \$0.60 per weighted average basic common share.⁽²⁾
- Reported Earnings Available for Distribution (EAD) of \$(3.7) million, or \$(0.04) per weighted average basic common share.⁽³⁾
- Repurchased 593,453 shares of common stock at an average price of \$11.89 per share.
- Repurchased 513,818 shares of preferred stock at an average price of \$19.39 per share.⁽⁴⁾
- Settled \$14.8 billion unpaid principal balance (UPB) of MSR through flow-sale acquisitions and three bulk purchases.

“In the second quarter, many of the unknown variables in the market were resolved. Congress passed a resolution on the debt ceiling, inflation expectations and the Fed path of rate hikes appeared well contained, and the market readily absorbed the supply of RMBS being auctioned by the FDIC,” stated Bill Greenberg, Two Harbors’ President and CEO. “This led to lower volatility, which supported positive performance in our portfolio, while spreads remained at historically attractive levels. Further, with mortgage rates still around 7%, prepayment speeds should remain slow which is very accretive to our MSR asset. We believe that this is a terrific environment for investing in our Agency and MSR strategy.”

“After an initial bout of spread widening in the beginning of the quarter, volatility subsided and spreads tightened across the coupon stack leading to positive returns for RMBS. Low realized volatility in June improved hedge-adjusted returns for RMBS. We opportunistically added lower coupon RMBS to our portfolio mix early in the quarter which performed well as the fear of supply from FDIC sales diminished,” stated Nick Letica, Two Harbors’ Chief Investment Officer. “MSR packages remain well bid with notable strong demand, even with historically high supply this year. We settled \$14.7 billion UPB of MSR in the quarter. Our investments in MSR also positively contributed to our performance as prepayment speeds remained slow.”

(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 see page 11 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.

(3) Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see page 12 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.

(4) Includes 225,886 Series A, 215,072 Series B and 72,860 Series C preferred shares.

Operating Performance

The following table summarizes the company's GAAP and non-GAAP earnings measurements and key metrics for the second quarter of 2023 and first quarter of 2023:

Two Harbors Investment Corp. Operating Performance (unaudited)							
(dollars in thousands, except per common share data)							
Earnings attributable to common stockholders	Three Months Ended June 30, 2023			Three Months Ended March 31, 2023			
	Earnings	Per weighted average basic common share	Annualized return on average common equity	Earnings	Per weighted average basic common share	Annualized return on average common equity	
Comprehensive Income (Loss)	\$ 31,478	\$ 0.31	8.1 %	\$ (63,242)	\$ (0.69)	(15.5)%	
GAAP Net Income (Loss)	\$ 187,784	\$ 1.94	48.3 %	\$ (189,173)	\$ (2.05)	(46.3)%	
Income Excluding Market-Driven Value Changes ⁽¹⁾	\$ 57,501	\$ 0.60	14.8 %	\$ 54,393	\$ 0.59	13.3 %	
Earnings Available for Distribution ⁽²⁾	\$ (3,716)	\$ (0.04)	(1.0)%	\$ 8,273	\$ 0.09	2.0 %	
Operating Metrics							
Dividend per common share	\$ 0.45			\$ 0.60			
Annualized dividend yield ⁽³⁾	13.0 %			16.3 %			
Book value per common share at period end	\$ 16.39			\$ 16.48			
Economic return on book value ⁽⁴⁾	2.2 %			(3.6)%			
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses ⁽⁵⁾	\$ 11,885			\$ 13,097			
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses, as a percentage of average equity ⁽⁵⁾	2.2 %			2.3 %			

(1) Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please see page 11 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.

(2) Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see page 12 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.

(3) Dividend yield is calculated based on annualizing the dividends declared in the given period, divided by the closing share price as of the end of the period.

(4) Economic return on book value is defined as the (decrease) increase 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.

(5) Excludes non-cash equity compensation expense of \$1.7 million for the second quarter of 2023 and \$6.1 million for the first quarter of 2023 and nonrecurring expenses of \$7.1 million for the second quarter of 2023 and \$5.4 million for the first quarter of 2023.

Portfolio Summary

As of June 30, 2023, the company's portfolio was comprised of \$12.3 billion of Agency RMBS, MSR and other investment securities as well as their associated notional debt hedges. Additionally, the company held \$2.9 billion bond equivalent value of net long to-be-announced securities (TBAs).

The following tables summarize the company's investment portfolio as of June 30, 2023 and March 31, 2023:

Two Harbors Investment Corp. Portfolio					
(dollars in thousands)					
Portfolio Composition	As of June 30, 2023		As of March 31, 2023		
	(unaudited)		(unaudited)		
Agency RMBS	\$	8,887,839	72.6 %	\$	8,676,453 72.0 %
Mortgage servicing rights ⁽¹⁾		3,273,956	26.7 %		3,072,445 25.5 %
Other		87,808	0.7 %		300,126 2.5 %
Aggregate Portfolio		12,249,603			12,049,024
Net TBA position ⁽²⁾		2,894,560			3,692,956
Total Portfolio	\$	15,144,163		\$	15,741,980

Portfolio Metrics	Three Months Ended		Three Months Ended	
	June 30, 2023		March 31, 2023	
	(unaudited)		(unaudited)	
Average portfolio yield ⁽³⁾		5.24 %		5.09 %
Average cost of financing ⁽⁴⁾		5.08 %		4.57 %
Net spread		0.16 %		0.52 %

(1) Based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases.

(2) Represents bond equivalent value of TBA position. Bond equivalent value is defined as notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP.

(3) Average portfolio yield includes interest income on Agency and non-Agency investment securities, MSR servicing income, net of estimated amortization, and servicing expenses, and the implied asset yield portion of TBA dollar roll income on TBAs. MSR estimated 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. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.

(4) Average cost of financing 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, U.S. Treasury futures income, 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. 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.

Portfolio Metrics Specific to Agency RMBS	As of June 30, 2023		As of March 31, 2023	
	(unaudited)		(unaudited)	
Weighted average cost basis ⁽¹⁾	\$	101.41	\$	102.05
Weighted average experienced three-month CPR		6.5 %		5.3 %
Gross weighted average coupon rate		5.6 %		5.7 %
Weighted average loan age (months)		22		19

(1) Weighted average cost basis includes Agency principal and interest RMBS only and utilizes carrying value for weighting purposes.

Portfolio Metrics Specific to MSR⁽¹⁾	As of June 30, 2023		As of March 31, 2023	
(dollars in thousands)	(unaudited)		(unaudited)	
Unpaid principal balance	\$	222,622,177	\$	212,444,503
Gross coupon rate		3.4 %		3.4 %
Current loan size	\$	340	\$	337
Original FICO ⁽²⁾		759		760
Original LTV		72 %		72 %
60+ day delinquencies		0.6 %		0.7 %
Net servicing fee		26.4 basis points		26.5 basis points
		Three Months Ended June 30, 2023		Three Months Ended March 31, 2023
		(unaudited)		(unaudited)
Fair value gains (losses)	\$	21,679	\$	(28,079)
Servicing income	\$	175,223	\$	153,320
Servicing expenses	\$	25,477	\$	26,772
Change in servicing reserves	\$	(301)	\$	1,564

Note: The company does not directly service mortgage loans, but instead contracts with appropriately licensed subservicers to handle substantially all servicing functions in the name of the subservicer for the loans underlying the company's MSR.

- (1) Metrics exclude residential mortgage loans in securitization trusts for which the company is the named servicing administrator. Portfolio metrics, other than UPB, represent averages weighted by UPB.
(2) FICO represents a mortgage industry accepted credit score of a borrower.

Other Investments and Risk Management Metrics	As of June 30, 2023		As of March 31, 2023	
(dollars in thousands)	(unaudited)		(unaudited)	
Net long TBA notional amount ⁽¹⁾	\$	3,051,000	\$	3,718,000
Futures notional	\$	(6,624,550)	\$	(6,945,550)
Interest rate swaps notional	\$	8,977,714	\$	8,404,872
Swaptions net notional	\$	(200,000)	\$	(200,000)

- (1) Accounted for as derivative instruments in accordance with GAAP.

Financing Summary

The following tables summarize the company's financing metrics and outstanding repurchase agreements, revolving credit facilities, term notes and convertible senior notes as of June 30, 2023 and March 31, 2023:

June 30, 2023	Balance	Weighted Average Borrowing Rate	Weighted Average Months to Maturity	Number of Distinct Counterparties
(dollars in thousands, unaudited)				
Repurchase agreements collateralized by securities	\$ 8,807,824	5.23 %	2.19	18
Repurchase agreements collateralized by MSR	260,000	8.67 %	5.98	1
Repurchase agreements collateralized by U.S. Treasuries ⁽¹⁾	—	— %	—	—
Total repurchase agreements	9,067,824	5.33 %	2.30	19
Revolving credit facilities collateralized by MSR and related servicing advance obligations	1,455,421	8.46 %	18.71	4
Term notes payable collateralized by MSR	398,653	8.00 %	11.87	n/a
Unsecured convertible senior notes	267,791	6.25 %	30.58	n/a
Total borrowings	\$ 11,189,689			

March 31, 2023	Balance	Weighted Average Borrowing Rate	Weighted Average Months to Maturity	Number of Distinct Counterparties
(dollars in thousands, unaudited)				
Repurchase agreements collateralized by securities	\$ 8,633,946	5.01 %	2.67	19
Repurchase agreements collateralized by MSR	250,000	8.43 %	8.98	1
Repurchase agreements collateralized by U.S. Treasuries ⁽¹⁾	200,766	4.68 %	0.10	2
Total repurchase agreements	9,084,712	5.11 %	2.84	20
Revolving credit facilities collateralized by MSR and related servicing advance obligations	1,292,831	8.09 %	18.35	4
Term notes payable collateralized by MSR	398,326	7.65 %	14.86	n/a
Unsecured convertible senior notes	282,840	6.25 %	33.57	n/a
Total borrowings	\$ 11,058,709			

Borrowings by Collateral Type ⁽²⁾	As of June 30, 2023		As of March 31, 2023	
	(unaudited)		(unaudited)	
(dollars in thousands)				
Agency RMBS	\$	8,760,221	\$	8,394,999
Mortgage servicing rights and related servicing advance obligations		2,114,074		1,941,157
Other - secured		47,603		238,947
Other - unsecured ⁽³⁾		267,791		282,840
Total		11,189,689		10,857,943
TBA cost basis		2,905,852		3,644,540
Net payable (receivable) for unsettled RMBS		54,739		—
Total, including TBAs and net payable (receivable) for unsettled RMBS	\$	14,150,280	\$	14,502,483

Debt-to-equity ratio at period-end ⁽⁴⁾	5.0 :1.0	4.8 :1.0
Economic debt-to-equity ratio at period-end ⁽⁵⁾	6.4 :1.0	6.5 :1.0

Cost of Financing by Collateral Type ⁽²⁾	Three Months Ended June 30, 2023		Three Months Ended March 31, 2023	
	(unaudited)		(unaudited)	
Agency RMBS		5.20 %		4.49 %
Mortgage servicing rights and related servicing advance obligations ⁽⁶⁾		8.70 %		8.28 %
Other - secured		5.89 %		5.02 %
Other - unsecured ⁽³⁾⁽⁶⁾		6.88 %		6.84 %
Annualized cost of financing		5.89 %		5.21 %
Interest rate swaps ⁽⁷⁾		(0.13) %		(0.13) %
U.S. Treasury futures ⁽⁸⁾		(0.21) %		(0.01) %
TBAs ⁽⁹⁾		3.49 %		3.23 %
Annualized cost of financing, including swaps, U.S. Treasury futures and TBAs		5.08 %		4.57 %

(1) U.S. Treasury securities effectively borrowed under reverse repurchase agreements.

(2) Excludes repurchase agreements collateralized by U.S. Treasuries.

(3) Unsecured convertible senior notes.

(4) Defined as total borrowings to fund Agency and non-Agency investment securities and MSR, divided by total equity.

(5) 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.

(6) Includes amortization of debt issuance costs.

(7) The cost of financing on interest rate swaps held to mitigate interest rate risk associated with the company's outstanding borrowings includes interest spread income/expense and amortization of upfront payments made or received upon entering into interest rate swap agreements and is calculated using average borrowings balance as the denominator.

(8) 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.

(9) The implied financing benefit/cost of dollar roll income on TBAs is 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.

Conference Call

Two Harbors Investment Corp. will host a conference call on August 1, 2023 at 9:00 a.m. ET to discuss second quarter 2023 financial results and related information. The conference call will be webcast live and accessible in the Investors section of the company's website at www.twoharborsinvestment.com/investors. To participate in the teleconference, please call toll-free (877) 502-7185, approximately 10 minutes prior to the above start time. For those unable to attend, a telephone playback will be available beginning at 12:00 p.m. ET on August 1, 2023, through 12:00 p.m. ET on August 15, 2023. The playback can be accessed by calling (877) 660-6853, conference code 13737269. The call will also be archived on the company's website in the News & Events section.

Two Harbors Investment Corp.

Two Harbors Investment Corp., a Maryland corporation, is a real estate investment trust that invests in residential mortgage-backed securities, mortgage servicing rights and other financial assets. Two Harbors is headquartered in St. Louis Park, MN.

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 pending acquisition of RoundPoint Mortgage Servicing LLC; 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 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.

Non-GAAP Financial Measures

In addition to disclosing financial results calculated in accordance with United States generally accepted accounting principles (GAAP), this press release and the accompanying investor presentation present non-GAAP financial measures, such as income excluding market-driven value changes, earnings available for distribution and related per basic common share measures. The non-GAAP financial measures presented by the company provide supplemental information to assist investors in analyzing the company's results of operations and help facilitate comparisons to industry peers. However, because these measures are not calculated in accordance with GAAP, they should not be considered a substitute for, or superior to, the financial measures calculated in accordance with GAAP. The company's GAAP financial results and the reconciliations from these results should be carefully evaluated. See the GAAP to non-GAAP reconciliation tables on pages 11 and 12 of this release.

Additional Information

Stockholders of Two Harbors and other interested persons may find additional information regarding the company at www.twoharborsinvestment.com, at the Securities and Exchange Commission's Internet site at www.sec.gov or by directing requests to: Two Harbors Investment Corp., Attn: Investor Relations, 1601 Utica Avenue South, Suite 900, St. Louis Park, MN, 55416, telephone (612) 453-4100.

Contact

Margaret Karr, Head of Investor Relations, Two Harbors Investment Corp., (612) 453-4080, Margaret.Karr@twoharborsinvestment.com

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TWO HARBORS INVESTMENT CORP.
CONDENSED CONSOLIDATED BALANCE SHEETS

(dollars in thousands, except share data)

	June 30, 2023	December 31, 2022
	(unaudited)	
ASSETS		
Available-for-sale securities, at fair value (amortized cost \$9,278,950 and \$8,114,627, respectively; allowance for credit losses \$5,360 and \$6,958, respectively)	\$ 8,963,203	\$ 7,778,734
Mortgage servicing rights, at fair value	3,273,956	2,984,937
Cash and cash equivalents	699,081	683,479
Restricted cash	322,603	443,026
Accrued interest receivable	39,700	36,018
Due from counterparties	248,607	253,374
Derivative assets, at fair value	16,469	26,438
Reverse repurchase agreements	289,288	1,066,935
Other assets	157,092	193,219
Total Assets	\$ 14,009,999	\$ 13,466,160
LIABILITIES AND STOCKHOLDERS' EQUITY		
Liabilities:		
Repurchase agreements	\$ 9,067,824	\$ 8,603,011
Revolving credit facilities	1,455,421	1,118,831
Term notes payable	398,653	398,011
Convertible senior notes	267,791	282,496
Derivative liabilities, at fair value	14,976	34,048
Due to counterparties	267,050	541,709
Dividends payable	55,675	64,504
Accrued interest payable	120,504	94,034
Other liabilities	146,096	145,991
Total Liabilities	11,793,990	11,282,635
Stockholders' Equity:		
Preferred stock, par value \$0.01 per share; 100,000,000 shares authorized and 25,578,232 and 26,092,050 shares issued and outstanding, respectively (\$639,456 and \$652,301 liquidation preference, respectively)	618,579	630,999
Common stock, par value \$0.01 per share; 175,000,000 shares authorized and 96,165,535 and 86,428,845 shares issued and outstanding, respectively	962	864
Additional paid-in capital	5,824,509	5,645,998
Accumulated other comprehensive loss	(309,086)	(278,711)
Cumulative earnings	1,476,462	1,453,371
Cumulative distributions to stockholders	(5,395,417)	(5,268,996)
Total Stockholders' Equity	2,216,009	2,183,525
Total Liabilities and Stockholders' Equity	\$ 14,009,999	\$ 13,466,160

TWO HARBORS INVESTMENT CORP.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(dollars in thousands, except share data)

Certain prior period amounts have been reclassified to conform to the current period presentation

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(unaudited)		(unaudited)	
Interest income:				
Available-for-sale securities	\$ 104,195	\$ 55,399	\$ 201,233	\$ 100,046
Other	13,567	1,604	33,122	1,803
Total interest income	117,762	57,003	234,355	101,849
Interest expense:				
Repurchase agreements	116,946	19,269	221,301	27,612
Revolving credit facilities	29,684	9,106	55,340	14,782
Term notes payable	8,239	3,925	15,882	7,181
Convertible senior notes	4,692	4,801	9,528	9,843
Total interest expense	159,561	37,101	302,051	59,418
Net interest (expense) income	(41,799)	19,902	(67,696)	42,431
Other income (loss):				
Gain (loss) on investment securities	2,172	(197,719)	12,970	(250,061)
Servicing income	175,223	157,526	328,543	294,152
Gain (loss) on servicing asset	21,679	85,557	(6,400)	496,181
Gain (loss) on interest rate swap and swaption agreements	56,533	32,734	(25,621)	(5,307)
Gain (loss) on other derivative instruments	47,161	(101,273)	(108,610)	(203,035)
Other income (loss)	2,200	(73)	2,200	(117)
Total other income (loss)	304,968	(23,248)	203,082	331,813
Expenses:				
Servicing expenses	25,190	22,991	53,556	47,695
Compensation and benefits	8,868	11,019	22,951	23,212
Other operating expenses	11,886	9,152	22,370	15,777
Total expenses	45,944	43,162	98,877	86,684
Income (loss) before income taxes	217,225	(46,508)	36,509	287,560
Provision for income taxes	19,780	25,912	15,872	74,710
Net income (loss)	197,445	(72,420)	20,637	212,850
Dividends on preferred stock	(12,115)	(13,748)	(24,480)	(27,495)
Gain on repurchase and retirement of preferred stock	2,454	—	2,454	—
Net income (loss) attributable to common stockholders	\$ 187,784	\$ (86,168)	\$ (1,389)	\$ 185,355
Basic earnings (loss) per weighted average common share	\$ 1.94	\$ (1.00)	\$ (0.02)	\$ 2.14
Diluted earnings (loss) per weighted average common share	\$ 1.80	\$ (1.00)	\$ (0.02)	\$ 2.02
Dividends declared per common share	\$ 0.45	\$ 0.68	\$ 1.05	\$ 1.36
Weighted average number of shares of common stock:				
Basic	96,387,877	86,069,431	94,492,389	86,034,722
Diluted	106,062,378	86,069,431	94,492,389	96,085,473

TWO HARBORS INVESTMENT CORP.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS), CONTINUED

(dollars in thousands)

Certain prior period amounts have been reclassified to conform to the current period presentation

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2023	2022	2023	2022
	(unaudited)		(unaudited)	
Comprehensive income (loss):				
Net income (loss)	\$ 197,445	\$ (72,420)	\$ 20,637	\$ 212,850
Other comprehensive loss:				
Unrealized loss on available-for-sale securities	(156,306)	(4,211)	(30,375)	(336,056)
Other comprehensive loss	(156,306)	(4,211)	(30,375)	(336,056)
Comprehensive income (loss)	41,139	(76,631)	(9,738)	(123,206)
Dividends on preferred stock	(12,115)	(13,748)	(24,480)	(27,495)
Gain on repurchase and retirement of preferred stock	2,454	—	2,454	—
Comprehensive income (loss) attributable to common stockholders	\$ 31,478	\$ (90,379)	\$ (31,764)	\$ (150,701)

TWO HARBORS INVESTMENT CORP.
RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL INFORMATION

(dollars in thousands, except share data)

Certain prior period amounts have been reclassified to conform to the current period presentation

	Three Months Ended	
	June 30, 2023	March 31, 2023
	(unaudited)	(unaudited)
Reconciliation of Comprehensive income (loss) to Income Excluding Market-Driven Value Changes:		
Comprehensive income (loss) attributable to common stockholders	\$ 31,478	\$ (63,242)
Adjustments to exclude market-driven value changes and nonrecurring operating expenses:		
RMBS and other Agency securities market-driven value changes ⁽¹⁾	195,343	(107,556)
MSR market-driven value changes ⁽²⁾	(94,172)	(34,469)
Swap and swaption market-driven value changes ⁽³⁾	(57,085)	82,174
TBA market-driven value changes ⁽⁴⁾	87,800	33,764
Realized and unrealized (gains) losses on futures	(126,923)	140,087
Other realized gains	(2,201)	—
Change in servicing reserves	(301)	1,564
Nonrecurring deboarding fees ⁽⁵⁾	2,368	2,582
Other nonrecurring expenses	7,134	5,418
Gain on repurchase and retirement of preferred stock	(2,454)	—
Net provision for (benefit from) income taxes associated with market-driven value changes	16,514	(5,929)
Income Excluding Market-Driven Value Changes ⁽⁶⁾	<u>\$ 57,501</u>	<u>\$ 54,393</u>
Weighted average basic common shares	96,387,877	92,575,840
Income Excluding Market-Driven Value Changes per weighted average basic common share	\$ 0.60	\$ 0.59

- (1) 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 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.
- (2) 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, recurring 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 and volatility factored into the previous day ending fair value are unchanged.
- (3) 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.
- (4) 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.
- (5) Nonrecurring deboarding fees are associated with one-time transfers of MSR.
- (6) 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, nonrecurring 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, recurring 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 and volatility factored into the previous day ending fair value are unchanged. Assumptions for spreads, forward interest rates, 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 recurring operating expenses and provision for income taxes associated with IXM. 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.

TWO HARBORS INVESTMENT CORP.
RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL INFORMATION

(dollars in thousands, except share data)

Certain prior period amounts have been reclassified to conform to the current period presentation

	Three Months Ended	
	June 30, 2023	March 31, 2023
	(unaudited)	(unaudited)
Reconciliation of Comprehensive income (loss) to Earnings Available for Distribution:		
Comprehensive income (loss) attributable to common stockholders	\$ 31,478	\$ (63,242)
Adjustment for other comprehensive loss (income) attributable to common stockholders:		
Unrealized loss (gain) on available-for-sale securities	156,306	(125,931)
Net income (loss) attributable to common stockholders	<u>\$ 187,784</u>	<u>\$ (189,173)</u>
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized loss on securities	2,640	31,909
Unrealized gain on securities	(4,834)	(42,565)
Provision (reversal of provision) for credit losses	22	(142)
Realized and unrealized (gain) loss on mortgage servicing rights	(21,679)	28,079
Realized loss on termination or expiration of interest rate swaps and swaptions	—	18,580
Unrealized (gain) loss on interest rate swaps and swaptions	(53,080)	67,184
Realized and unrealized (gain) loss on other derivative instruments	(47,063)	155,836
Gain on repurchase and retirement of preferred stock	(2,454)	—
Other realized and unrealized gains	(2,200)	—
Other adjustments:		
MSR amortization ⁽¹⁾	(91,836)	(76,558)
TBA dollar roll (losses) income ⁽²⁾	(3,526)	6,341
U.S. Treasury futures income ⁽³⁾	5,652	403
Change in servicing reserves	(301)	1,564
Non-cash equity compensation expense	1,735	6,052
Other nonrecurring expenses	7,134	5,418
Net provision for (benefit from) income taxes on non-EAD	18,290	(4,655)
Earnings available for distribution to common stockholders ⁽⁴⁾	<u>\$ (3,716)</u>	<u>\$ 8,273</u>
Weighted average basic common shares	96,387,877	92,575,840
Earnings available for distribution to common stockholders per weighted average basic common share	\$ (0.04)	\$ 0.09

(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) 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 other nonrecurring 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 recurring 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.

An Agency + MSR REIT

Second Quarter 2023
Earnings Call

AUGUST 1, 2023



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 pending acquisition of RoundPoint Mortgage Servicing LLC; 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 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.

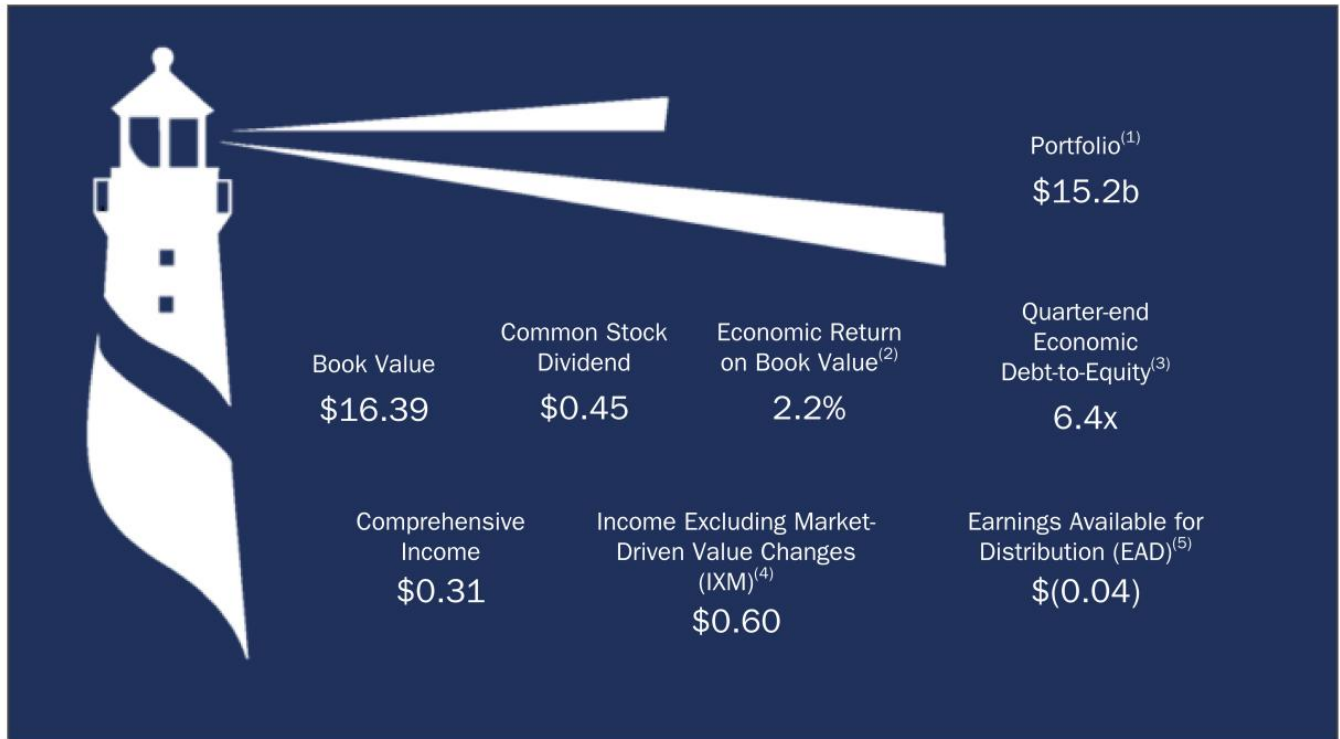
Readers are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Two Harbors does not undertake or accept any obligation to release publicly any updates or revisions to any forward-looking statement to reflect any change in its expectations 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.

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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.

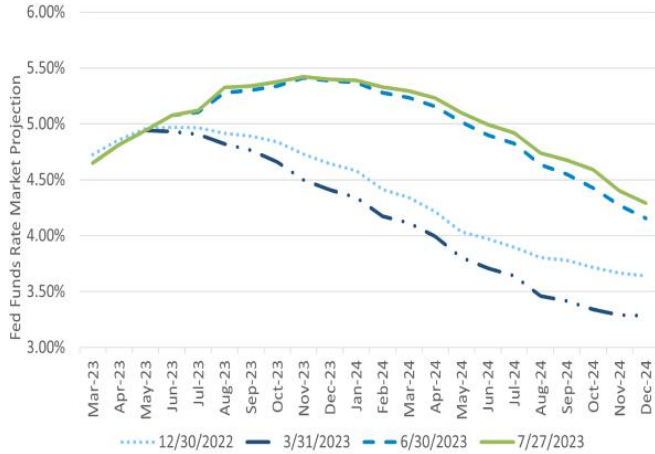
Financials Overview

Benefitted From Attractive Spreads and Volatility Trending Lower



Note: Financial data throughout this presentation is as of or for the quarter ended June 30, 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 36 at the back of this presentation for information related to certain financial metrics and defined terms used herein.

I. FED FUNDS RATE EXPECTATIONS⁽¹⁾



II. HISTORICAL YIELD SPREADS⁽²⁾



- Amidst ongoing concerns about stress in the banking system and the debt ceiling debate, the Federal Reserve hiked interest rates once in the quarter to 5.25% and subsequently in July to 5.5%, while signaling that any future rate hikes will be data dependent
- Hawkish sentiment from the Fed resulted in higher rates, led by the front end of the yield curve: 2-year Treasury rates increased by 87 basis points to 4.90% while 10-year Treasury rates increased by 37 basis points to 3.84%, taking the spread back to pre-banking crisis levels of -106 basis points
- With the re-flattening of the yield curve, short-term funding rates are approximately equal to the current coupon mortgage rate, with a spread of 23 basis points as of June 30th

Hedging Mitigates Funding Rate Risk

Consider a REIT with a portfolio of RMBS that is levered 9x and funded with repo funding tied to SOFR

I. UNHEDGED REIT EXPOSED TO LEVEL OF REPO FUNDING

- Unhedged REIT is highly exposed to net asset value changes due to the duration gap that exists



Unhedged Levered REIT Static Return

$$= \$1,000 \times \text{Yield} - \$900 \times \text{SOFR} \quad (1)$$

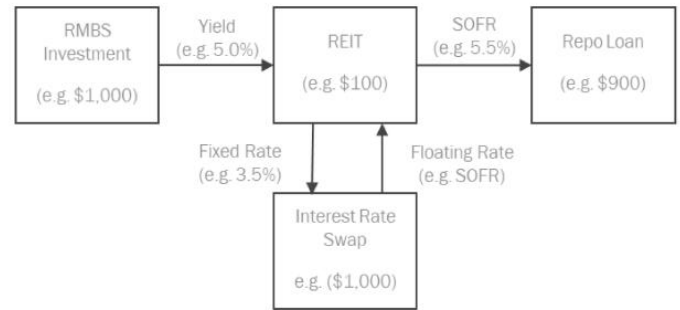
$$= \$100 \times \text{Yield} + \$900 \times (\text{Yield} - \text{SOFR}) \quad (2)$$

$$= 5.0\% + 9 \times (5.0 - 5.5\%) = 0.5\% \quad (3)$$

Duration without Interest Rate Swap Debt Hedges	
RMBS Investment	+ 5.0 years
Repo Loan	0.0 years
Net Duration Gap	+ 5.0 years

II. HEDGED REIT MITIGATES EXPOSURE FROM CHANGES TO SOFR

- Hedged REIT eliminates the duration gap by hedging the repo loan with an interest rate swap



Hedged Levered REIT Static Return

$$= [\$1,000 \times \text{Yield} - \$900 \times \text{SOFR}] + [\$1,000 \times (\text{SOFR} - \text{Fixed Rate})] \quad (4)$$

$$= \$100 \times \text{SOFR} + \$1,000 \times (\text{Yield} - \text{Fixed Rate}) \quad (5)$$

$$= 5.5\% + 10 \times (5.0\% - 3.5\%) = 20.5\% \quad (6)$$

Duration with Interest Rate Swap Debt Hedges	
RMBS Investment	+ 5.0 years
Repo Loan + IRS Hedge	< 5.0 > years
Net Duration Gap	0.0 years

Note: The hypothetical scenarios on this slide are provided for illustration purposes only and do not represent all assumptions used. Results of an actual portfolio may differ materially.

Book Value Summary



(\$ millions, except per share data)	Q2-2023 Book Value	Q2-2023 Book Value per share
Beginning common stockholders' equity	\$ 1,593.4	\$ 16.48
Net income	197.4	
Other comprehensive income	(156.3)	
Comprehensive income	41.1	
Dividend declaration - preferred	(12.1)	
Gain on repurchase and retirement of preferred stock	2.5	
Comprehensive income attributable to common stockholders	31.5	
Common stock dividends declared	(43.6)	
Other	1.7	
Repurchase and retirement of preferred stock	0.4	
Repurchases of common stock	(7.0)	
Issuance of common stock, net of offering costs	0.1	
Ending common stockholders' equity	\$ 1,576.5	\$ 16.39
Total preferred stock liquidation preference	639.5	
Ending total equity	\$ 2,216.0	

- Book value of \$16.39 per common share, resulting in a 2.2% quarterly economic return on book value⁽²⁾
 - Both components of our strategy contributed positive returns this quarter, which reflected the high carry of the portfolio partially offset by a small widening in higher coupon spreads
- Generated Comprehensive Income of \$31.5 million, or \$0.31 per weighted average common share
- Repurchased 513,818 shares of preferred stock at an average price of \$19.39 per share⁽³⁾
- Repurchased 593,453 shares of common stock at an average price of \$11.89 per share

Results and Return Contributions



(\$ in thousands)	GAAP Net Income	Other Comprehensive Loss	Total Comprehensive Income	Market-Driven Value Changes and Nonrecurring Operating Expenses	Income Excluding Market-Driven Value Changes ⁽¹⁾
RMBS and other Agency securities⁽²⁾					
RMBS and other Agency securities income (loss)	\$ 103,688	\$ (156,306)	\$ (52,618)	\$ (195,343)	\$ 142,725
RMBS and other Agency securities funding expense	(111,317)		(111,317)	—	(111,317)
MSR					
MSR income	171,712		171,712	92,105	79,607
MSR funding expense	(43,552)		(43,552)	—	(43,552)
Derivatives and other					
Swaps and swaptions	56,533		56,533	57,085	(552)
TBAs	(77,083)		(77,083)	(87,800)	10,717
Futures	126,923		126,923	126,923	—
Interest on cash, reverse repurchase agreements and other	15,767		15,767	2,201	13,566
Expenses					
Convertible debt interest expense	(4,692)		(4,692)	—	(4,692)
Operating expenses	(20,754)		(20,754)	(7,134)	(13,620)
Tax expense	(19,780)		(19,780)	(16,514)	(3,266)
Earnings (losses) attributable to Two Harbors	197,445	(156,306)	41,139	(28,477)	69,616
Dividends on preferred stock	(12,115)		(12,115)	—	(12,115)
Gain on repurchase and retirement of preferred stock	2,454		2,454	2,454	—
Earnings (losses) attributable to common stockholders	\$ 187,784	\$ (156,306)	\$ 31,478	\$ (26,023)	\$ 57,501
Annualized return on common equity					14.8%
Quarterly return per weighted average basic common share					\$ 0.60

Earnings Available for Distribution



(\$ millions, except per share data)	Q2-2023	Q1-2023	Variance
Interest income	\$ 117.8	\$ 116.6	\$ 1.2
Interest expense	159.6	142.5	(17.1)
Net interest (expense) income	(41.8)	(25.9)	(15.9)
Servicing income	175.2	153.3	21.9
MSR amortization ⁽¹⁾	(91.8)	(76.5)	(15.3)
Interest spread income on interest rate swaps	3.5	3.6	(0.1)
TBA dollar roll income ⁽²⁾	(3.5)	6.3	(9.8)
U.S. Treasury futures income ⁽³⁾	5.6	0.4	5.2
Other derivatives income	0.1	0.1	—
Total other income	89.1	87.2	1.9
Servicing expenses	25.5	26.8	1.3
Operating expenses	11.9	13.1	1.2
Total expenses	37.4	39.9	2.5
Provision for income taxes	1.5	0.8	(0.7)
Earnings Available for Distribution⁽⁴⁾	\$ 8.4	\$ 20.6	\$ (12.2)
Dividends on preferred stock	(12.1)	(12.3)	(0.2)
Earnings Available for Distribution available to common stockholders	\$ (3.7)	\$ 8.3	\$ (12.0)
Earnings Available for Distribution per weighted average basic common share	\$ (0.04)	\$ 0.09	
Earnings Available for Distribution annualized return on average common equity	(1.0)%	2.0 %	
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses, as a percentage of average equity	2.2 %	2.3 %	

- Second quarter EAD primarily driven by:
 - Increased interest expense as a result of higher rates and higher average balances on both RMBS and MSR financing
 - Increase in servicing income, net of estimated MSR amortization
 - Losses on TBA dollar rolls, partially offset by an increase in U.S. Treasury futures income
- EAD is expected to continue to diverge from ongoing earnings power⁽⁵⁾
 - 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

Portfolio Yields and Financing Costs



- Portfolio yield increased 15 bps to 5.24% primarily due to purchases of higher coupon available-for-sale securities with lower unamortized premium and a higher proportion of the total portfolio invested in higher yielding assets, offset by a slightly higher CPR experienced by available-for-sale securities
 - Portfolio yields based on amortized cost, not market values and market returns
- Net spread narrowed by 36 bps due to higher rates and higher borrowing balances on both RMBS and MSR

(\$ thousands)	Q2-2023			Q1-2023		
	Average Amortized Cost	Income ⁽¹⁾	Average Yield	Average Amortized Cost	Income ⁽¹⁾	Average Yield
Portfolio Asset Type						
Available-for-sale securities	\$ 8,960,056	\$ 104,195	4.65%	\$ 8,649,865	\$ 97,038	4.49%
Mortgage servicing rights ⁽²⁾	2,026,643	57,941	11.44%	1,900,434	50,004	10.52%
Agency derivatives ⁽³⁾	19,424	98	2.02%	20,158	65	1.29%
TBAs ⁽⁴⁾	3,291,680	25,219	3.06%	4,109,533	39,539	3.85%
Total portfolio	\$ 14,297,803	\$ 187,453	5.24%	\$ 14,679,990	\$ 186,646	5.09%
Financing Collateral Type	Average Outstanding Balance	Expense ⁽⁵⁾	Average Cost	Average Outstanding Balance	Expense ⁽⁵⁾	Average Cost
Available-for-sale securities	\$ 8,533,628	\$ 111,090	5.21%	\$ 8,181,110	\$ 92,023	4.50%
Mortgage servicing rights and advances	2,001,554	43,552	8.70%	1,878,322	38,895	8.28%
Agency derivatives ⁽³⁾	12,295	175	5.69%	12,463	159	5.10%
Other - unsecured ⁽⁶⁾	272,753	4,692	6.88%	282,729	4,836	6.84%
Interest rate swaps ⁽⁷⁾		(3,453)	(0.10)%		(3,610)	(0.10)%
U.S. Treasury futures ⁽⁸⁾		(5,652)	(0.16)%		(403)	(0.01)%
TBAs ⁽⁴⁾	3,291,680	28,745	3.49%	4,109,533	33,198	3.23%
Total financing	\$ 14,111,910	\$ 179,149	5.08%	\$ 14,464,157	\$ 165,098	4.57%
Net Spread			0.16%			0.52%

Strong Balance Sheet and Liquidity Position

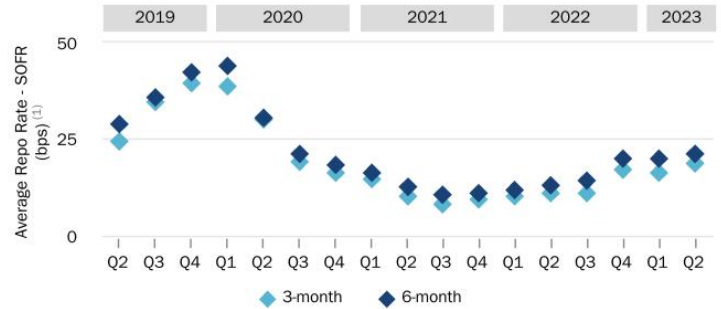


BALANCE SHEET AS OF JUNE 30, 2023

Agency RMBS \$8.9 billion	Agency RMBS repurchase agreements \$8.8 billion
MSR \$3.3 billion	MSR financing \$2.1 billion
Cash & cash equivalents \$0.7 billion	Convertible debt \$0.3 billion
All other assets \$1.1 billion	All other liabilities \$0.6 billion
	Preferred equity \$0.6 billion
	Common equity \$1.6 billion

AGENCY RMBS

- \$8.8 billion of outstanding repurchase agreements with 18 counterparties
- Weighted average days to maturity of 67 days



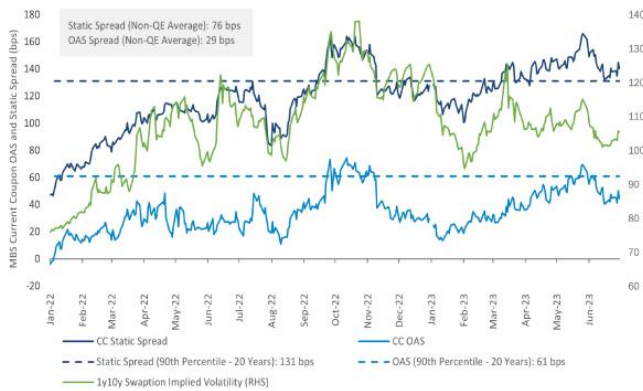
MORTGAGE SERVICING RIGHTS

- \$1.7 billion of outstanding borrowings under bilateral MSR asset financing facilities
- \$400 million of outstanding 5-year MSR term notes⁽²⁾
- \$428 million of unused MSR asset financing capacity; \$85 million committed and \$342 million uncommitted
- \$43 million outstanding borrowings and \$157 million of unused, committed capacity for servicing advance receivables

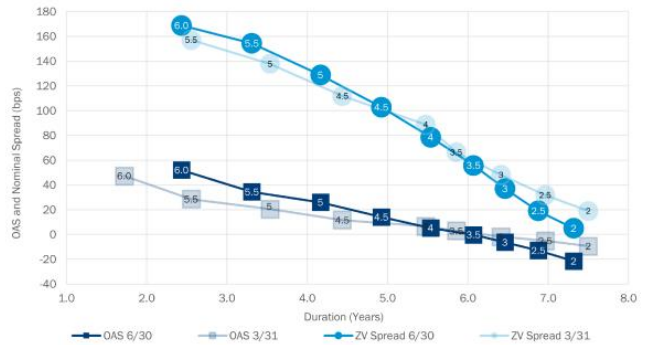
VOLATILITY TRENDED LOWER INTO QUARTER END, DRIVING RMBS PERFORMANCE

- Spreads initially widened in the beginning of the quarter, but the resolution of the debt ceiling in late May coupled with falling rate volatility drove spreads tighter across the coupon stack into the end of the quarter
- Lower coupons net outperformed as supply concerns from FDIC-related sales diminished, while higher coupon performance was aided by higher spread
- MSR spreads performed well as strong demand kept pace with supply and prepayment speeds remained slow
- Spreads for RMBS remain at historically attractive levels; we favor belly coupons for their combination of dollar price and spread
- Organic supply of RMBS in second half of 2023 will likely be a headwind for spread tightening; inflows into RMBS are expected to remain strong, providing good support for spreads
- Barring a drop in rates, prepayment speeds should decline in the third quarter owing to weaker seasonal factors and high primary mortgage rates

I. RMBS SPREADS REMAIN ATTRACTIVE⁽¹⁾



II. 4.0%-6.0% COUPONS HAVE WIDER SPREADS⁽²⁾

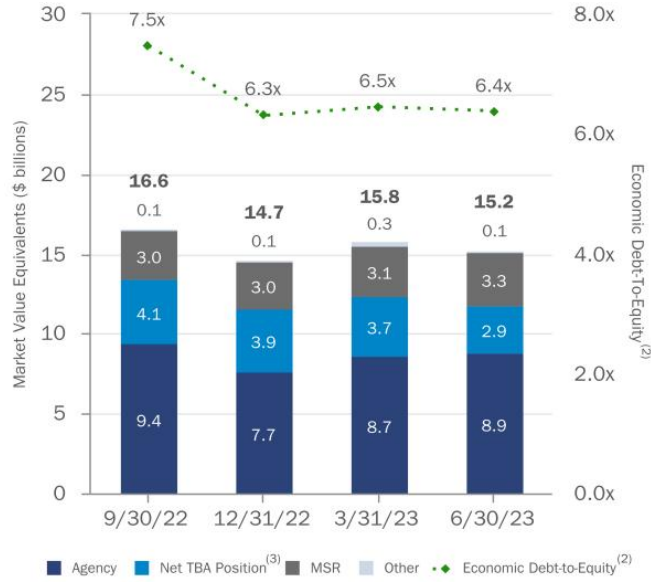


Quarterly Activity and Portfolio Composition



PORTFOLIO COMPOSITION⁽¹⁾

At June 30, 2023, \$15.2 billion portfolio
Includes \$12.3 billion settled positions



LEVERAGE AND RISK POSITIONING

- Quarter-end economic debt-to-equity decreased slightly to 6.4x from 6.5x⁽²⁾
 - Average economic debt-to-equity of 6.4x in the second quarter, compared to 6.3x in the first quarter⁽²⁾
 - Maintained a neutral leverage position balancing wide nominal spreads against elevated rate volatility
- Low book value exposure to changes in rates

PORTFOLIO ACTIVITY

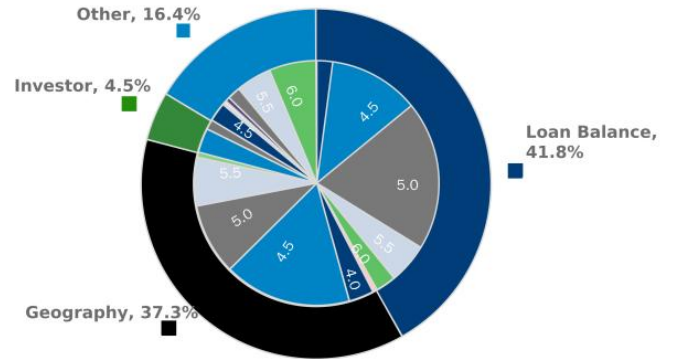
- Moved \$1.2 billion notional of higher coupon TBAs into lower coupon TBAs to capture the relative widening of lower coupons triggered by FDIC sale of failed bank assets
- Subsequently, rotated approximately \$330 million notional of lower coupon TBAs into semi-seasoned specified pools to improve carry
- Settled \$14.2 billion UPB of MSR through three bulk acquisitions and \$539.1 million UPB in MSR recapture and flow sale purchases
- Post quarter end, securitized approximately 1.2 basis points of servicing fee on our aggregate portfolio through Fannie Mae and Freddie Mac

Specified Pools

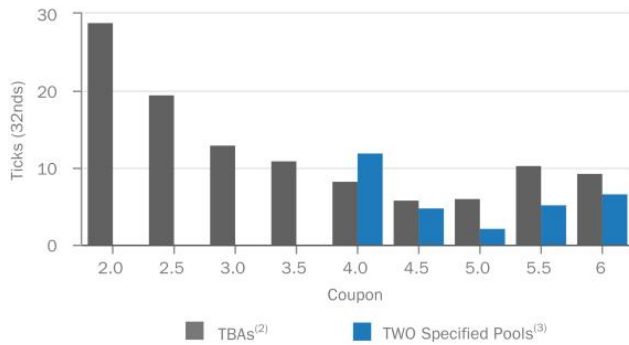
QUARTERLY HIGHLIGHTS

- The TBA stack outperformed over the quarter driven by (1) the continued market recovery from bank stress initiated in March, (2) inflows into fixed-income funds and (3) strong money manager interest in bonds sold by the FDIC
- Specified pool performance varied across the stack, with production coupon specs underperforming and lower coupon specs outperforming same coupon TBAs
- Weighted average specified pool portfolio speeds increased to 6.5% in the second quarter, from 5.3% in the first quarter, driven by increased turnover seasonality

I. SPECIFIED POOL PORTFOLIO⁽¹⁾



II. RMBS QUARTERLY PERFORMANCE



III. SPECIFIED POOL PREPAYMENT SPEEDS



Mortgage Servicing Rights



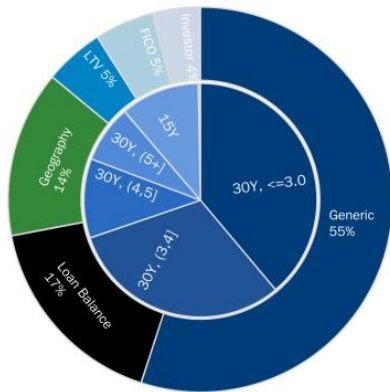
QUARTERLY HIGHLIGHTS

- MSR bulk packages remain well bid with notable strong demand: \$145 billion UPB of conventional MSR offered in the second quarter, bringing total to \$370 billion UPB in the first half of 2023
- Settled \$14.2 billion UPB of MSR through 3 bulk purchases and \$539.1 million through flow purchases and recapture
- MSR price multiple increased slightly quarter-over-quarter to 5.5x from 5.4x
- MSR speeds increased to 5.4% in the second quarter, from 4.1% in the first quarter, as expected, due to seasonality
- Completed transfers of approximately 63% of our MSR from our subservicing network to RoundPoint through June 30th
- Post quarter end, securitized approximately 1.2 basis points of servicing fee on our aggregate portfolio through Fannie Mae and Freddie Mac

I. MSR PORTFOLIO CHARACTERISTICS⁽¹⁾

	6/30/2023	3/31/2023
Fair value (\$ millions)	\$ 3,274	\$ 3,072
Price multiple	5.5x	5.4x
UPB (\$ millions)	\$ 224,327	\$ 213,905
Gross coupon rate	3.43%	3.38%
Current loan size (\$ thousands)	\$ 340	\$ 338
Original FICO ⁽²⁾	759	760
Original Loan-to-Value (LTV)	72%	72%
60+ day delinquencies	0.6%	0.7%
Net servicing fee (bps)	26.4	26.5
Loan age (months)	36	34
3-month CPR	5.4%	4.1%

II. MSR PORTFOLIO⁽³⁾



III. 30-YEAR MSR PREPAYMENT SPEEDS⁽⁴⁾



Return Potential and Outlook



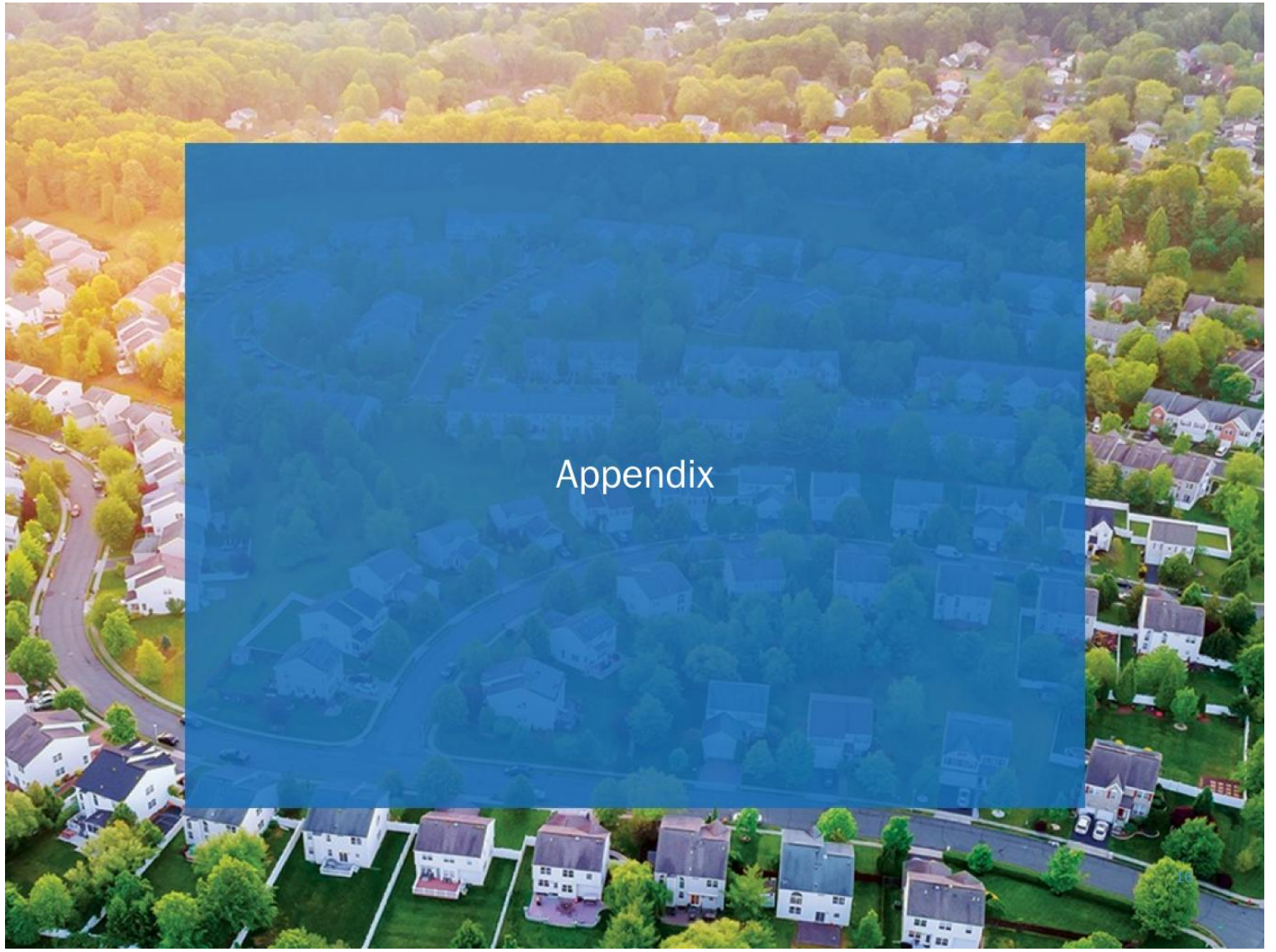
ATTRACTIVE RETURN OPPORTUNITIES FOR UNIQUELY POSITIONED AGENCY RMBS AND MSR PORTFOLIO

PROSPECTIVE MARKET RETURNS As of June 30, 2023	PORTFOLIO MARKET VALUE (\$ millions)	INVESTED CAPITAL ALLOCATED ⁽¹⁾	STATIC MARKET RETURN ESTIMATE ⁽²⁾	
RMBS + MSR				
MSR	3,274			
TBA ⁽³⁾	4,427			
Hedged MSR	7,701	62%	13%	16%
RMBS + RATES				
Pools	8,603			
TBA ⁽³⁾	(1,526)			
Other Securities	404			
Hedged Securities	7,481	38%	11%	13%

PROSPECTIVE TWO HARBORS RETURNS As of June 30, 2023	INVESTED CAPITAL (\$ millions)	STATIC TWO HARBORS RETURN ESTIMATE ⁽⁴⁾	
Total Portfolio Before Expenses		12.5%	15.0%
Operating and Tax Expenses ⁽⁵⁾		(3.0)%	(3.0)%
Total Portfolio After Expenses		9.5%	12.0%
INVESTED CAPITAL			
Convertible Notes	272		6.2%
Preferred Equity	639		7.6%
Common Equity	1,593	10.9%	14.9%
PROSPECTIVE QUARTERLY STATIC RETURN PER BASIC COMMON SHARE⁽⁶⁾:		\$0.45	\$0.61

- **Market Presence:** Our size allows us to be nimble and actively allocate capital to our paired Agency and MSR strategy
- **Investment Strategy:** Our portfolio is uniquely constructed with Agency RMBS and MSR; we believe this strategy will further benefit from the acquisition of RoundPoint, which will help us grow our MSR business, realize additional cost efficiencies and provide potential opportunities to more broadly capitalize in the mortgage finance space
- **Market Environment:** Agency spreads are historically wide and we believe are very attractive at their current levels, even in the absence of spread tightening; MSR in this market environment generate a very stable cash flow, with speeds that are historically low and very little duration and convexity
- **Financing and Liquidity:** We have a strong balance sheet and diversified financing for both Agency and MSR

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, nonrecurring expenses or future impacts from the acquisition of RoundPoint Mortgage Servicing LLC. Actual results may differ materially.



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%	\$ 84.75	\$ 187	\$ 248	\$ —	\$ 435
3.0%	\$ 87.97	—	—	—	—
3.5%	\$ 91.09	670	80	—	750
4.0%	\$ 93.81	353	527	—	880
4.5%	\$ 96.13	189	2,889	—	3,078
5.0%	\$ 97.97	1,852	2,793	—	4,645
5.5%	\$ 99.53	50	1,405	(4,140)	(2,685)
6.0%	\$ 100.88	(250)	810	(331)	229
Total		\$ 3,051	\$ 8,752	\$ (4,471)	\$ 7,332

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⁾	2.4 %	0.7 %	(2.0)%	1.1 %
0	-25	Bull Flattener ⁽⁴⁾	6.0 %	(3.2)%	(4.4)%	(1.6)%
-50	-50	Parallel Shift ⁽⁵⁾	16.5 %	(5.7)%	(13.0)%	(2.2)%
-25	-25	Parallel Shift ⁽⁵⁾	8.5 %	(2.5)%	(6.5)%	(0.5)%
0	0	Base	— %	— %	— %	— %
+25	+25	Parallel Shift ⁽⁵⁾	(8.9)%	2.0 %	6.3 %	(0.6)%
+50	+50	Parallel Shift ⁽⁵⁾	(18.3)%	3.4 %	12.6 %	(2.3)%
+25	0	Bear Flattener ⁽³⁾	(2.2)%	(0.4)%	2.0 %	(0.6)%
0	+25	Bear Steepener ⁽⁴⁾	(6.7)%	2.5 %	4.3 %	0.1 %

BOOK VALUE EXPOSURE TO CURRENT COUPON SPREAD⁽⁶⁾

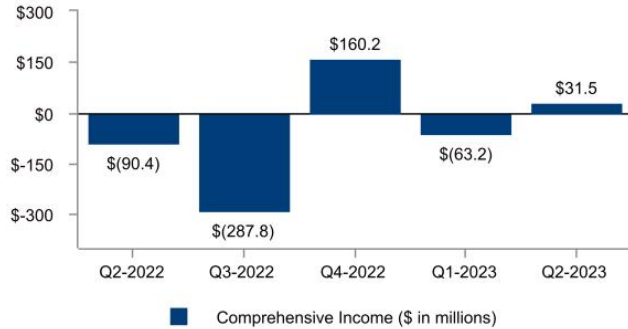
		% Change in Common Book Value		
Parallel Shift in Spreads (basis points)		Agency P&I RMBS/TBA	MSR/Agency IO RMBS ⁽¹⁾	Combined
-25		8.3 %	(3.0)%	5.3 %
0		— %	— %	— %
+25		(8.6)%	2.6 %	(6.0)%

Note: Sensitivity data as of June 30, 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.

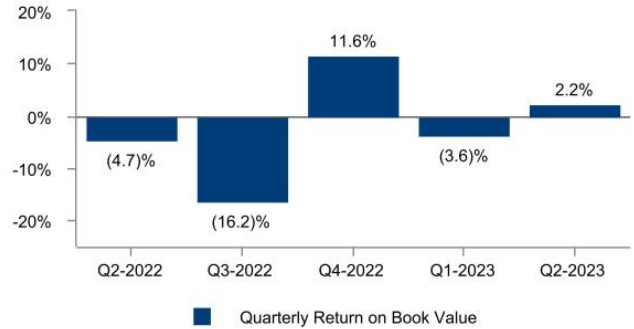
Financial Performance



COMPREHENSIVE (LOSS) INCOME



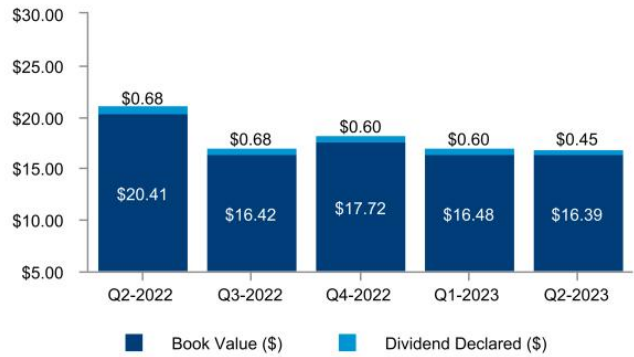
QUARTERLY ECONOMIC RETURN ON BOOK VALUE⁽¹⁾



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) ^(1,2)	Income Excluding Market-Driven Value Changes (IXM) ⁽²⁾
RMBS and other Agency securities⁽³⁾			
Coupon income	\$ 112,678	\$ 112,678	\$ 112,678
Amortization	(8,385)	(8,385)	(8,385)
Realized and unrealized, and provision for credit losses	(156,911)	—	38,432 ⁽⁴⁾
Funding expense	(111,317)	(111,317)	(111,317)
MSR			
Servicing fee income	144,370	144,370	144,370
Float, ancillary and other income	30,853	30,853	30,853
Servicing expenses	(25,491)	(25,491)	(23,123) ⁽⁵⁾
Amortization	(60,517)	(91,836)	(60,517)
Realized and unrealized, including change in servicing reserves	82,497	—	(11,977) ⁽⁶⁾
Funding expense	(43,552)	(43,552)	(43,552)
Derivatives and other			
Swaps net interest spread	3,453	3,453	3,453
Swaps and swaptions realized and unrealized	53,080	—	(4,004) ⁽⁷⁾
TBAs	(77,083)	(3,526)	10,717 ⁽⁸⁾
U.S. Treasury futures	107,676	5,652	—
Other futures	19,247	—	—
Interest on cash, reverse repurchase agreements and other	15,767	13,566	13,566 ⁽⁹⁾
Expenses			
Convertible debt interest expense	(4,692)	(4,692)	(4,692)
Operating expenses	(20,754)	(11,885)	(13,620) ⁽¹⁰⁾
Tax benefit (expense) ⁽¹¹⁾	(19,780)	(1,490)	(3,266)
(Losses) earnings attributable to Two Harbors	41,139	8,398	69,616
Dividends on preferred stock	(12,115)	(12,115)	(12,115)
Gain on repurchase and retirement of preferred stock	2,454	—	—
(Losses) earnings attributable to common stockholders	\$ 31,478	\$ (3,717)	\$ 57,501
Annualized return on common equity	8.1%	(1.0)%	14.8%
Quarterly return per weighted average basic common share	\$ 0.31	\$ (0.04)	\$ 0.60

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 June 30, 2023	Three Months Ended March 31, 2023
Comprehensive income (loss) attributable to common stockholders	\$ 31,478	\$ (63,242)
Adjustments to exclude market-driven value changes and nonrecurring operating expenses:		
RMBS and other Agency securities market-driven value changes ⁽¹⁾	195,343	(107,556)
MSR market-driven value changes ⁽²⁾	(94,172)	(34,469)
Swap and swaption market-driven value changes ⁽³⁾	(57,085)	82,174
TBA market-driven value changes ⁽⁴⁾	87,800	33,764
Realized and unrealized (gains) losses on futures	(126,923)	140,087
Other realized gains	(2,201)	—
Change in servicing reserves	(301)	1,564
Nonrecurring deboarding fees ⁽⁵⁾	2,368	2,582
Other nonrecurring expenses	7,134	5,418
Gain on repurchase and retirement of preferred stock	(2,454)	—
Net provision for (benefit from) income taxes associated with market-driven value changes	16,514	(5,929)
Income Excluding Market-Driven Value Changes to common stockholders	\$ 57,501	\$ 54,393
Weighted average basic common shares	96,387,877	92,575,840
Income Excluding Market-Driven Value Changes per weighted average basic common share	\$ 0.60	\$ 0.59

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, nonrecurring 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, recurring 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 and volatility factored into the previous day ending fair value are unchanged. Assumptions for spreads, forward interest rates, 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 recurring operating expenses and provision for income taxes associated with IXM. 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.

Q2-2023 Operating Performance



(\$ millions, except for per common share data)	Q2-2023			
	Earnings Available for Distribution ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 117.8	\$ —	\$ —	\$ 117.8
Interest expense	159.6	—	—	159.6
Net interest income	(41.8)	—	—	(41.8)
(Loss) gain on investment securities	—	(2.7)	4.9	2.2
Servicing income	175.2	—	—	175.2
(Loss) gain on servicing asset	(91.8)	—	113.5	21.7
Gain on interest rate swap and swaption agreements	3.5	—	53.0	56.5
Gain (loss) on other derivative instruments	2.2	(39.2)	84.2	47.2
Other income	—	2.2	—	2.2
Total other income (loss)	89.1	(39.7)	255.6	305.0
Servicing expenses	25.5	(0.3)	—	25.2
Operating expenses	11.9	8.9	—	20.8
Total expenses	37.4	8.6	—	46.0
Income (loss) before income taxes	9.9	(48.3)	255.6	217.2
Provision for income taxes	1.5	0.6	17.7	19.8
Net income (loss)	8.4	(48.9)	237.9	197.4
Dividends on preferred stock	(12.1)	—	—	(12.1)
Gain on repurchase and retirement of preferred stock	—	2.5	—	2.5
Net (loss) income attributable to common stockholders	\$ (3.7)	\$ (46.4)	\$ 237.9	\$ 187.8
(Loss) earnings per weighted average basic common share	\$ (0.04)	\$ (0.49)	\$ 2.47	\$ 1.94

Q1-2023 Operating Performance



(\$ millions, except for per common share data)	Q1-2023			
	Earnings Available for Distribution(1)	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 116.6	\$ —	\$ —	\$ 116.6
Interest expense	142.5	—	—	142.5
Net interest income	(25.9)	—	—	(25.9)
(Loss) gain on investment securities	—	(31.8)	42.6	10.8
Servicing income	153.3	—	—	153.3
(Loss) gain on servicing asset	(76.5)	0.5	47.9	(28.1)
Gain (loss) on interest rate swap and swaption agreements	3.6	(18.6)	(67.2)	(82.2)
Gain (loss) on other derivative instruments	6.8	(86.1)	(76.5)	(155.8)
Other income	—	—	—	—
Total other income (loss)	87.2	(136.0)	(53.2)	(102.0)
Servicing expenses	26.8	1.5	—	28.3
Operating expenses	13.1	11.5	—	24.6
Total expenses	39.9	13.0	—	52.9
Income (loss) before income taxes	21.4	(149.0)	(53.2)	(180.8)
Provision for (benefit from) income taxes	0.8	(2.2)	(2.5)	(3.9)
Net income (loss)	20.6	(146.8)	(50.7)	(176.9)
Dividends on preferred stock	(12.3)	—	—	(12.3)
Gain on repurchase and retirement of preferred stock	—	—	—	—
Net income (loss) attributable to common stockholders	\$ 8.3	\$ (146.8)	\$ (50.7)	\$ (189.2)
Earnings (loss) per weighted average basic common share	\$ 0.09	\$ (1.59)	\$ (0.55)	\$ (2.05)

GAAP to EAD Reconciliation



Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended June 30, 2023	Three Months Ended March 31, 2023
Comprehensive income (loss) attributable to common stockholders	\$ 31,478	\$ (63,242)
Adjustment for other comprehensive loss (income) attributable to common stockholders:		
Unrealized loss (gain) on available-for-sale securities	156,306	(125,931)
Net income (loss) attributable to common stockholders	\$ 187,784	\$ (189,173)
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized loss on securities	2,640	31,909
Unrealized gain on securities	(4,834)	(42,565)
Provision (reversal of provision) for credit losses	22	(142)
Realized and unrealized (gain) loss on mortgage servicing rights	(21,679)	28,079
Realized loss on termination or expiration of interest rate swaps and swaptions	—	18,580
Unrealized (gain) loss on interest rate swaps and swaptions	(53,080)	67,184
Realized and unrealized (gain) loss on other derivative instruments	(47,063)	155,836
Gain on repurchase and retirement of preferred stock	(2,454)	—
Other realized and unrealized gains	(2,200)	—
Other adjustments:		
MSR amortization ⁽¹⁾	(91,836)	(76,558)
TBA dollar roll (losses) income ⁽²⁾	(3,526)	6,341
U.S. Treasury futures income ⁽³⁾	5,652	403
Change in servicing reserves	(301)	1,564
Non-cash equity compensation expense	1,735	6,052
Other nonrecurring expenses	7,134	5,418
Net provision for (benefit from) income taxes on non-EAD	18,290	(4,655)
Earnings available for distribution to common stockholders	\$ (3,716)	\$ 8,273
Weighted average basic common shares	96,387,877	92,575,840
Earnings available for distribution to common stockholders per weighted average basic common share	\$ (0.04)	\$ 0.09

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 other nonrecurring 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 recurring 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%	\$ 248	\$ 211	5.6 %	— %	\$ 212	3.3 %	24
3.0%	—	—	— %	— %	—	— %	—
3.5%	80	73	4.8 %	75.0 %	74	4.3 %	17
4.0%	527	498	7.4 %	100.0 %	532	4.6 %	43
4.5%	2,889	2,796	9.1 %	100.0 %	2,949	5.2 %	31
5.0%	2,793	2,754	7.2 %	100.0 %	2,846	5.8 %	14
5.5%	1,405	1,404	5.6 %	99.8 %	1,419	6.4 %	12
6.0%	810	822	9.3 %	99.8 %	831	6.9 %	11
≥ 6.5%	9	10	10.7 %	97.7 %	10	7.8 %	246
	8,761	8,568	7.7 %	97.3 %	8,873	5.6 %	21
Other P&I⁽³⁾	287	278	3.4 %	— %	279	5.1 %	12
IOs and IIOs⁽⁴⁾	961	42	10.7 %	— %	58	5.8 %	170
Total Agency RMBS	\$ 10,009	\$ 8,888		93.8 %	\$ 9,210		

	Notional Amount (\$ millions)	Bond Equivalent Value (\$ millions) ⁽⁵⁾	Through-the-Box Speeds ⁽⁶⁾
TBA Positions			
≤ 2.5%	\$ 187	\$ 159	2.3 %
3.0%	—	—	2.4 %
3.5%	670	610	2.4 %
4.0%	353	331	3.1 %
4.5%	189	183	3.1 %
5.0%	1,852	1,815	5.4 %
5.5%	50	50	7.8 %
6.0%	(250)	(253)	12.0 %
≥ 6.5%	—	—	16.5 %
Net TBA Position	\$ 3,051	\$ 2,895	

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%	305,114	\$ 97,790	2.1%	\$ 378	29	768	71%	0.3%	4.4%	25.8
3.25% - 3.75%	149,620	39,340	3.4%	333	42	753	74%	0.7%	5.7%	26.2
3.75% - 4.25%	109,245	23,049	3.9%	277	64	751	76%	1.0%	6.9%	27.2
4.25% - 4.75%	61,741	11,481	4.4%	264	63	739	77%	1.8%	7.1%	26.3
4.75% - 5.25%	42,450	9,951	4.9%	356	33	745	79%	1.4%	5.6%	26.8
> 5.25%	59,734	16,800	5.9%	383	14	745	80%	0.9%	6.4%	29.5
	727,904	198,411	3.5%	350	36	758	74%	0.7%	5.3%	26.4
15-Year Fixed										
≤ 2.25%	23,033	6,241	2.0%	319	26	777	59%	0.1%	4.3%	25.2
2.25% - 2.75%	39,057	8,495	2.4%	267	30	772	59%	0.2%	5.7%	25.9
2.75% - 3.25%	35,543	4,999	2.9%	196	57	766	61%	0.3%	7.6%	26.2
3.25% - 3.75%	20,556	2,122	3.4%	154	70	756	64%	0.4%	9.3%	26.9
3.75% - 4.25%	9,628	841	3.9%	143	66	742	65%	0.8%	9.4%	28.5
> 4.25%	6,574	793	4.9%	224	29	741	65%	0.7%	11.5%	32.0
	134,391	23,491	2.6%	250	39	769	60%	0.2%	6.4%	26.2
Total ARMs	2,684	720	4.1%	355	52	761	70%	1.0%	16.8%	25.4
Total Portfolio	864,979	\$ 222,622	3.4%	\$ 340	37	759	72%	0.6%	5.5%	26.4

Mortgage Servicing Rights UPB Roll-Forward



<i>\$ millions</i>	Q2-2023	Q1-2023	Q4-2022	Q3-2022	Q2-2022
UPB at beginning of period	\$ 212,445	\$ 204,877	\$ 206,614	\$ 227,074	\$ 229,416
Bulk purchases of mortgage servicing rights	14,234	10,713	—	—	—
Flow purchases of mortgage servicing rights	539	669	2,678	4,449	5,720
Sales of mortgage servicing rights	—	(143)	—	(19,807)	—
Scheduled payments	(1,595)	(1,527)	(1,538)	(1,565)	(1,697)
Prepaid	(2,993)	(2,120)	(2,440)	(3,709)	(6,027)
Other changes	(8)	(24)	(437)	172	(338)
UPB at end of period	<u>\$ 222,622</u>	<u>\$ 212,445</u>	<u>\$ 204,877</u>	<u>\$ 206,614</u>	<u>\$ 227,074</u>

Financing



\$ millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	Revolving Credit Facilities	Term Notes Payable	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 3,160.0	\$ —	\$ —	\$ —	\$ 3,160.0	28.2 %
30 to 59 days	1,833.3	—	—	—	1,833.3	16.4 %
60 to 89 days	1,433.2	—	—	—	1,433.2	12.8 %
90 to 119 days	1,339.3	—	—	—	1,339.3	12.0 %
120 to 364 days	1,302.0	329.0	398.7	—	2,029.7	18.1 %
One to three years	—	1,126.4	—	—	1,126.4	10.1 %
Three to five years	—	—	—	267.8	267.8	2.4 %
	<u>\$ 9,067.8</u>	<u>\$ 1,455.4</u>	<u>\$ 398.7</u>	<u>\$ 267.8</u>	<u>\$ 11,189.7</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	\$ 8,900.4	\$ —	\$ —	n/a	\$ 8,900.4	70.1 %
Mortgage servicing rights, at fair value	432.9	2,279.9	500.0	n/a	3,212.8	25.3 %
Restricted cash	277.9	—	0.2	n/a	278.1	2.2 %
Due from counterparties	248.6	—	—	n/a	248.6	1.9 %
Derivative assets, at fair value	12.1	—	—	n/a	12.1	0.1 %
Other assets (includes servicing advances)	—	49.3	—	n/a	49.3	0.4 %
	<u>\$ 9,871.9</u>	<u>\$ 2,329.2</u>	<u>\$ 500.2</u>	<u>n/a</u>	<u>\$ 12,701.3</u>	<u>100.0 %</u>

Futures



Type & Maturity	Notional Amount (\$M)	Carrying Value (\$M) ⁽¹⁾	Weighted Average Days to Expiration
U.S. Treasury futures - 5 year	\$ (2,386)	\$ —	96
U.S. Treasury futures - 10 year	(1,676)	—	91
U.S. Treasury futures - 20 year	30	—	91
SOFR futures			
< 1 year	(1,322)	—	286
> 1 and < 2 years	(1,083)	—	540
> 2 and < 3 years	(188)	—	809
Total futures	\$ (6,625)	\$ —	255

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	—	— %		— %		—	
2026	2.6	4.730 %		5.090 %		1.7	
2027	—	— %		— %		—	
2028 and Thereafter	3.1	3.508 %		5.090 %		6.5	
	<u>\$ 5.7</u>	<u>4.099 %</u>		<u>5.090 %</u>		<u>4.2</u>	
Maturities	Notional Amounts (\$B)	Average Pay Rate		Average Fixed Receive Rate		Average Maturity (Years)	
Receivers							
2024	\$ —	— %		— %		—	
2025	—	— %		— %		—	
2026	1.8	5.090 %		3.899 %		1.7	
2027	—	— %		— %		—	
2028 and Thereafter	1.4	5.090 %		3.328 %		6.3	
	<u>\$ 3.2</u>	<u>5.090 %</u>		<u>3.684 %</u>		<u>8.0</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	\$ 0.7	\$ 0.5	2.2	\$ 200.0	5.19 %	1.0
Sale Contracts:							
Payer	<6 Months	\$ (0.6)	\$ (0.2)	2.2	\$ (400.0)	5.72 %	1.0

PAGE 3 - Financials Overview

1. Includes \$12.3 billion in settled positions and \$2.9 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 12 and Appendix slides 25 and 26.
2. 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.
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.
4. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 21 for a definition of IXM and a reconciliation of GAAP to non-GAAP financial information.
5. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 24 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.

PAGE 4 - Markets Overview

1. Bloomberg data as of the dates noted.
2. Source: J.P. Morgan DataQuery. Data as of July 19, 2023.

PAGE 6 - Book Value Summary

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 24 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.
2. 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.
3. Includes 225,886 Series A, 215,072 Series B and 72,860 Series C preferred shares.

PAGE 7 - Results and Return Contributions

1. Income Excluding Market-Driven Value Changes, or IXM, is a non-GAAP measure. Please Appendix slide 21 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.

End Notes (continued)



PAGE 8 - 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 24 for a definition of EAD and a reconciliation of GAAP to non-GAAP financial information.
5. 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.

PAGE 9 - 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. 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.
3. Represents inverse interest-only Agency RMBS which are accounted for as derivative instruments in accordance with GAAP.
4. 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.
5. 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.
6. Unsecured convertible senior notes.
7. 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.
8. 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.

End Notes (continued)



PAGE 10 - 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 3-month and 6-month periods between Q2 2019 and Q2 2023 (as of June 30, 2023).
2. Balance of 5-year MSR term notes excludes deferred debt issuance costs.

PAGE 11 - RMBS Market Conditions

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. Source: Internally-generated data. Data as of June 30, 2023.

PAGE 12 - Quarterly Activity and Portfolio Composition

1. For additional detail on the portfolio, see Appendix slides 25 and 26.
2. 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.
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. 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.

PAGE 13 - Specified Pools

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 certain coupons in which we were not invested for the full duration of the quarter.
4. Specified pool market value by coupon as of June 30, 2023.
5. Three month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Credit Suisse, and Citi data.

End Notes (continued)



PAGE 14 - 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, Credit Suisse, and Citi data.

PAGE 15 - 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 17 - Effective Coupon Positioning

1. Represents UMBS TBA market prices as of June 30, 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 18 - 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.

PAGE 19 - 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 20 - Comparison of GAAP and non-GAAP Measures

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 24 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 21 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 recurring 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 other nonrecurring expenses.
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.

PAGE 21 - GAAP to IXM Reconciliation

1. 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 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.
2. 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, recurring 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 and volatility factored into the previous day ending fair value are unchanged.
3. 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.
4. 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.
5. Nonrecurring deboarding fees are associated with one-time transfers of MSR.

PAGE 22 - Q2-2023 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 24 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

PAGE 23 - Q1-2023 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 24 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

PAGE 24 - 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.

End Notes (continued)



PAGE 25 - Agency RMBS Portfolio

1. Weighted average actual 1 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 \$12.4 million of Agency derivatives and \$29.9 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, Credit Suisse, and Citi data.

PAGE 26 - 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 28 - Financing

1. Outstanding borrowings have a weighted average of 5.5 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 29 - 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 30 - Interest Rate Swaps and Swaptions

1. As of June 30, 2023, 100% of the underlying swap floating rates were tied to SOFR.



