

**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: November 8, 2022

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:

<u>Title of Each Class:</u>	<u>Trading Symbol(s)</u>	<u>Name of Exchange on Which Registered:</u>
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 November 8, 2022, Two Harbors Investment Corp. issued a press release announcing its financial results for the fiscal quarter ended September 30, 2022. A copy of the press release and the 2022 Third 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 8.01 Other Events.

On November 1, 2022, Two Harbors Investment Corp. effected a one-for-four reverse stock split (the “Reverse Stock Split”). As a result of the Reverse Stock Split, the conversion rate for Two Harbors Investment Corp.’s 6.25% convertible senior notes due 2026 (the “Notes”) was adjusted to 33.8752 shares of common stock per \$1,000 principal amount of the Notes. Pursuant to the supplemental indenture governing the Notes, this conversion rate was effective as of November 1, 2022.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	<u>Press Release of Two Harbors Investment Corp., dated November 8, 2022.</u>
99.2	<u>2022 Third Quarter Earnings Call Presentation.</u>
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: November 8, 2022



Two Harbors Investment Corp. Reports Third Quarter 2022 Financial Results

Book Value Impacted as Spreads Continued to Widen Beyond Historical Levels

NEW YORK, November 8, 2022 - Two Harbors Investment Corp. (NYSE: TWO), an Agency + MSR mortgage real estate investment trust (REIT), today announced its financial results for the quarter ended September 30, 2022.

Quarterly Summary⁽¹⁾

- Reported book value of \$16.42 per common share, representing a (16.2)% quarterly economic return on book value⁽²⁾
- Generated Comprehensive Loss of \$287.8 million, or \$(3.35) per weighted average basic common share
- Reported Earnings Available for Distribution (EAD) of \$55.2 million, or \$0.64 per weighted average basic common share⁽³⁾
- Declared a third quarter common stock dividend of \$0.68 per share
- GAAP debt-to-equity increased to 5.5x from 3.8x; economic debt-to-equity increased to 7.5x from 6.4x as the impact of the book value decline more than offset a \$1.6 billion decline in our Agency RMBS and TBA position⁽⁴⁾⁽⁵⁾
- Settled on sales of approximately \$20 billion unpaid principal balance (UPB) of mortgage servicing rights (MSR)

Post-Quarter End Update

- Repurchased approximately 2.9 million shares of preferred stock, contributing \$0.26 to book value per common share
- On November 1, 2022, effected the previously announced one-for-four reverse stock split of outstanding shares of common stock

“Our portfolio performance reflects one of the most challenging market environments in decades, and mortgage spreads widened to levels not seen except in crisis periods,” stated Bill Greenberg, Two Harbors’ President and Chief Executive Officer. “With the significant cheapening in RMBS, we are very constructive on forward-looking return potential, while being mindful of remaining risks.”

“With the 30-year mortgage rate 400 basis points higher than a year ago at around 7%, and with the economy softening, we expect prepayment speeds to be below those from previous discount environments,” stated Nick Letica, Two Harbors’ Chief Investment Officer. “We are well-positioned to benefit from slower speeds with our portfolio of low coupon MSR and high coupon RMBS”

(1) On November 1, 2022, the company completed its previously announced one-for-four reverse stock split of its outstanding shares of common stock. In accordance with generally accepted accounting principles, all common share and per common share amounts presented herein have been adjusted on a retroactive basis to reflect the reverse stock split.

(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) Earnings Available for Distribution is a non-GAAP measure. Please see page 11 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

(4) Economic debt-to-equity is defined as total borrowings to fund RMBS, MSR and Agency Derivatives, plus the implied debt on net TBA cost basis, divided by total equity.

(5) 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.

Operating Performance

The following table summarizes the company's GAAP and non-GAAP earnings measurements and key metrics for the third quarter of 2022 and second quarter of 2022:

Two Harbors Investment Corp. Operating Performance (unaudited)							
(dollars in thousands, except per common share data)							
Earnings attributable to common stockholders	Three Months Ended September 30, 2022			Three Months Ended June 30, 2022			
	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 Loss	\$ (287,808)	\$ (3.35)	(67.9)%	\$ (90,379)	\$ (1.05)	(19.1)%	
GAAP Net Income (Loss)	\$ 263,865	\$ 3.04	62.3 %	\$ (86,168)	\$ (1.00)	(18.2)%	
Earnings Available for Distribution ⁽¹⁾	\$ 55,173	\$ 0.64	13.0 %	\$ 75,250	\$ 0.87	15.9 %	
Operating Metrics							
Dividend per common share	\$ 0.68			\$ 0.68			
Annualized dividend yield ⁽²⁾	20.5 %			13.7 %			
Book value per common share at period end	\$ 16.42			\$ 20.41			
Economic return on book value ⁽³⁾	(16.2)%			(4.7)%			
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses ⁽⁴⁾	\$ 13,404			\$ 14,282			
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses, as a percentage of average equity ⁽⁴⁾	2.2 %			2.2 %			

(1) Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see page 11 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

(2) 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.

(3) 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.

(4) Excludes non-cash equity compensation expense of \$2.4 million for the third quarter of 2022 and \$3.5 million for the second quarter of 2022 and nonrecurring expenses of \$5.0 million for the third quarter of 2022 and \$2.4 million for the second quarter of 2022.

Portfolio Summary

As of September 30, 2022, the company's portfolio was comprised of \$12.5 billion of Agency residential mortgage-backed securities (RMBS), Agency Derivatives and MSR as well as their associated notional debt hedges. Additionally, the company held \$4.1 billion bond equivalent value of net long to-be-announced securities (TBAs).

The following tables summarize the company's investment portfolio as of September 30, 2022 and June 30, 2022:

Two Harbors Investment Corp. Portfolio					
(dollars in thousands)					
Portfolio Composition	As of September 30, 2022			As of June 30, 2022	
	(unaudited)			(unaudited)	
Agency					
Fixed Rate	\$	9,237,881	73.8 %	\$	8,694,737 72.2 %
Other Agency ⁽¹⁾		127,612	1.0 %		31,278 0.3 %
Total Agency		9,365,493	74.8 %		8,726,015 72.5 %
Mortgage servicing rights ⁽²⁾		3,021,790	24.2 %		3,226,191 26.8 %
Other		124,860	1.0 %		87,490 0.7 %
Aggregate Portfolio		12,512,143			12,039,696
Net TBA position ⁽³⁾		4,047,890			6,397,266
Total Portfolio	\$	16,560,033		\$	18,436,962
Portfolio Metrics	Three Months Ended			Three Months Ended	
	September 30, 2022			June 30, 2022	
	(unaudited)			(unaudited)	
Average portfolio yield ⁽⁴⁾			4.61 %		4.39 %
Average cost of financing ⁽⁵⁾			2.84 % 0.0284		1.69 %
Net spread			1.77 %		2.70 %

Note: Beginning with the third quarter of 2022, the above presentation of cost of financing and net spread includes U.S. Treasury futures income, which represents the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements. Second quarter 2022 comparative data has been updated to reflect this change.

(1) Other Agency includes hybrid ARMs and inverse interest-only Agency securities classified as "Agency Derivatives" for purposes of GAAP.

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

(3) 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.

(4) Average portfolio yield includes interest income on Agency RMBS and non-Agency 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.

(5) Average cost of financing includes interest expense and amortization of deferred debt issuance costs on borrowings, 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 RMBS and Agency Derivatives	As of September 30, 2022		As of June 30, 2022	
	(unaudited)		(unaudited)	
Weighted average cost basis of Agency principal and interest securities ⁽¹⁾	\$	102.84	\$	102.24
Weighted average three month CPR on Agency RMBS		9.1 %		14.2 %
Fixed-rate investments as a percentage of aggregate RMBS and Agency Derivatives portfolio		97.8 %		98.7 %
Adjustable-rate investments as a percentage of aggregate RMBS and Agency Derivatives portfolio		2.2 %		1.3 %

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

Portfolio Metrics Specific to MSR⁽¹⁾	As of September 30, 2022		As of June 30, 2022	
(dollars in thousands)	(unaudited)		(unaudited)	
Unpaid principal balance	\$	206,613,560	\$	227,074,413
Gross coupon rate		3.2 %		3.2 %
Current loan size	\$	335	\$	330
Original FICO ⁽²⁾		760		760
Original LTV		72 %		71 %
60+ day delinquencies		0.7 %		0.8 %
Net servicing fee		26.4 basis points		26.2 basis points
		Three Months Ended September 30, 2022		Three Months Ended June 30, 2022
		(unaudited)		(unaudited)
Fair value (losses) gains	\$	(6,720)	\$	85,557
Servicing income	\$	148,833	\$	157,526
Servicing expenses	\$	22,144	\$	24,095
Change in servicing reserves	\$	(1,005)	\$	(1,119)

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 September 30, 2022		As of June 30, 2022	
(dollars in thousands)	(unaudited)		(unaudited)	
Net long TBA notional amount ⁽¹⁾	\$	4,154,000	\$	6,317,000
Futures notional	\$	(15,296,550)	\$	(16,727,160)
Interest rate swaps notional	\$	—	\$	14,850,336
Swaptions net notional		—		(1,680,000)
Total interest rate swaps and swaptions notional	\$	—	\$	13,170,336

- (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 September 30, 2022 and June 30, 2022:

September 30, 2022	Balance	Weighted Average Borrowing Rate	Weighted Average Months to Maturity	Number of Distinct Counterparties
(dollars in thousands, unaudited)				
Repurchase agreements collateralized by RMBS	\$ 9,640,018	3.19 %	3.15	21
Repurchase agreements collateralized by MSR	394,000	6.57 %	4.31	1
Total repurchase agreements	10,034,018	3.32 %	3.19	21
Revolving credit facilities collateralized by MSR and related servicing advance obligations	1,131,161	6.40 %	16.54	4
Term notes payable collateralized by MSR	397,697	5.88 %	20.84	n/a
Unsecured convertible senior notes	282,096	6.25 %	39.55	n/a
Total borrowings	\$ 11,844,972			

June 30, 2022	Balance	Weighted Average Borrowing Rate	Weighted Average Months to Maturity	Number of Distinct Counterparties
(dollars in thousands, unaudited)				
Repurchase agreements collateralized by RMBS	\$ 7,558,247	1.28 %	2.53	21
Repurchase agreements collateralized by MSR	400,000	5.12 %	7.33	1
Total repurchase agreements	7,958,247	1.48 %	2.77	21
Revolving credit facilities collateralized by MSR and related servicing advance obligations	825,761	4.93 %	19.76	4
Term notes payable collateralized by MSR	397,383	4.42 %	23.87	n/a
Unsecured convertible senior notes	281,711	6.25 %	42.58	n/a
Total borrowings	\$ 9,463,102			

Borrowings by Collateral Type	As of September 30, 2022	As of June 30, 2022
	(unaudited)	(unaudited)
(dollars in thousands)		
Agency RMBS and Agency Derivatives	\$ 9,563,755	\$ 7,510,313
Mortgage servicing rights and related servicing advance obligations	1,922,858	1,623,144
Other - secured	76,263	47,934
Other - unsecured ⁽¹⁾	282,096	281,711
Total	11,844,972	9,463,102
TBA cost basis	4,153,582	6,409,396
Total, including TBAs	\$ 15,998,554	\$ 15,872,498
Debt-to-equity ratio at period-end ⁽²⁾	5.5 :1.0	3.8 :1.0
Economic debt-to-equity ratio at period-end ⁽³⁾	7.5 :1.0	6.4 :1.0

Cost of Financing by Collateral Type	Three Months Ended September 30, 2022	Three Months Ended June 30, 2022
	(unaudited)	(unaudited)
Agency RMBS and Agency Derivatives	2.30 %	0.74 %
Mortgage servicing rights and related servicing advance obligations ⁽⁴⁾	6.19 %	4.73 %
Other - secured	4.00 %	2.50 %
Other - unsecured ⁽¹⁾⁽⁴⁾	6.92 %	6.82 %
Annualized cost of financing	3.04 %	1.66 %
Interest rate swaps ⁽⁵⁾	(0.01) %	0.19 %
U.S. Treasury futures ⁽⁶⁾	0.61 %	0.92 %
TBAs ⁽⁷⁾	1.31 %	— %
Annualized cost of financing, including swaps, U.S. Treasury futures and TBAs	2.84 %	1.69 %

(1) Unsecured convertible senior notes.

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

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

(4) Includes amortization of debt issuance costs.

(5) 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.

(6) 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.

(7) 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 November 9, 2022 at 9:00 a.m. ET to discuss third quarter 2022 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 November 9, 2022, through 12:00 p.m. ET on November 23, 2022. The playback can be accessed by calling (877) 660-6853, conference code 13732431. 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, 2021, 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; the ongoing impact of the COVID-19 pandemic, and the actions taken by federal and state governmental authorities and GSEs in response, on the U.S. economy, financial markets and our target assets; 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 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 earnings available for distribution and earnings available for distribution per basic common share that exclude certain items. 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 table on page 11 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

Paulina Sims, Senior Director, Investor Relations, Two Harbors Investment Corp., (612) 446-5431, Paulina.Sims@twoharborsinvestment.com

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- 7 -

TWO HARBORS INVESTMENT CORP.
CONDENSED CONSOLIDATED BALANCE SHEETS
(dollars in thousands, except share data)

	September 30, 2022	December 31, 2021
	(unaudited)	
ASSETS		
Available-for-sale securities, at fair value (amortized cost \$10,228,511 and \$7,005,013, respectively; allowance for credit losses \$8,535 and \$14,238, respectively)	\$ 9,473,843	\$ 7,161,703
Mortgage servicing rights, at fair value	3,021,790	2,191,578
Cash and cash equivalents	732,482	1,153,856
Restricted cash	842,534	934,814
Accrued interest receivable	37,701	26,266
Due from counterparties	215,473	168,449
Derivative assets, at fair value	18,406	80,134
Reverse repurchase agreements	207,206	134,682
Other assets	146,122	262,823
Total Assets	\$ 14,695,557	\$ 12,114,305
LIABILITIES AND STOCKHOLDERS' EQUITY		
Liabilities:		
Repurchase agreements	\$ 10,034,018	\$ 7,656,445
Revolving credit facilities	1,131,161	420,761
Term notes payable	397,697	396,776
Convertible senior notes	282,096	424,827
Derivative liabilities, at fair value	107,379	53,658
Due to counterparties	348,176	196,627
Dividends payable	72,802	72,412
Accrued interest payable	48,592	18,382
Other liabilities	129,159	130,464
Total Liabilities	12,551,080	9,370,352
Stockholders' Equity:		
Preferred stock, par value \$0.01 per share; 100,000,000 shares authorized and 29,050,000 shares issued and outstanding (\$726,250 liquidation preference)	702,550	702,550
Common stock, par value \$0.01 per share; 175,000,000 shares authorized and 86,371,867 and 85,977,831 shares issued and outstanding, respectively	864	860
Additional paid-in capital	5,643,493	5,627,758
Accumulated other comprehensive (loss) income	(701,383)	186,346
Cumulative earnings	1,703,445	1,212,983
Cumulative distributions to stockholders	(5,204,492)	(4,986,544)
Total Stockholders' Equity	2,144,477	2,743,953
Total Liabilities and Stockholders' Equity	\$ 14,695,557	\$ 12,114,305

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

(dollars in thousands, except share data)

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
	(unaudited)		(unaudited)	
Interest income:				
Available-for-sale securities	\$ 88,472	\$ 35,837	\$ 188,518	\$ 134,581
Other	5,916	203	7,719	1,011
Total interest income	94,388	36,040	196,237	135,592
Interest expense:				
Repurchase agreements	57,868	5,761	85,480	21,212
Revolving credit facilities	15,178	5,605	29,960	17,375
Term notes payable	5,427	3,249	12,608	9,685
Convertible senior notes	4,877	7,267	14,720	20,743
Total interest expense	83,350	21,882	142,768	69,015
Net interest income	11,038	14,158	53,469	66,577
Other income:				
(Loss) gain on investment securities	(6,426)	28,642	(256,487)	119,991
Servicing income	148,833	122,960	442,985	342,895
(Loss) gain on servicing asset	(6,720)	(42,500)	489,461	16,887
Gain (loss) on interest rate swap and swaption agreements	34,806	(3,947)	29,499	5,102
Gain (loss) on other derivative instruments	159,044	(15,019)	(43,991)	(239,718)
Other loss	—	—	(117)	(5,701)
Total other income	329,537	90,136	661,350	239,456
Expenses:				
Servicing expenses	21,152	21,041	68,847	64,668
Compensation and benefits	10,100	9,198	33,312	28,645
Other operating expenses	10,688	7,406	26,465	22,111
Total expenses	41,940	37,645	128,624	115,424
Income before income taxes	298,635	66,649	586,195	190,609
Provision for income taxes	21,023	325	95,733	2,088
Net income	277,612	66,324	490,462	188,521
Dividends on preferred stock	13,747	13,748	41,242	44,711
Net income attributable to common stockholders	\$ 263,865	\$ 52,576	\$ 449,220	\$ 143,810
Basic earnings per weighted average common share	\$ 3.04	\$ 0.68	\$ 5.19	\$ 2.01
Diluted earnings per weighted average common share	\$ 2.78	\$ 0.66	\$ 4.80	\$ 1.95
Dividends declared per common share	\$ 0.68	\$ 0.68	\$ 2.04	\$ 2.04
Weighted average number of shares of common stock:				
Basic	86,252,104	76,943,355	86,107,979	71,298,088
Diluted	96,132,100	86,682,518	96,120,844	79,991,529

TWO HARBORS INVESTMENT CORP.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME, CONTINUED

(dollars in thousands)

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
	(unaudited)		(unaudited)	
Comprehensive (loss) income:				
Net income	\$ 277,612	\$ 66,324	\$ 490,462	\$ 188,521
Other comprehensive loss, net of tax:				
Unrealized loss on available-for-sale securities	(551,673)	(7,350)	(887,729)	(341,702)
Other comprehensive loss	(551,673)	(7,350)	(887,729)	(341,702)
Comprehensive (loss) income	(274,061)	58,974	(397,267)	(153,181)
Dividends on preferred stock	13,747	13,748	41,242	44,711
Comprehensive (loss) income attributable to common stockholders	<u>\$ (287,808)</u>	<u>\$ 45,226</u>	<u>\$ (438,509)</u>	<u>\$ (197,892)</u>

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

	<u>Three Months Ended September 30,</u>	<u>Three Months Ended June 30,</u>
	<u>2022</u>	<u>2022</u>
	(unaudited)	(unaudited)
Reconciliation of Comprehensive loss to Earnings Available for Distribution:		
Comprehensive loss attributable to common stockholders	\$ (287,808)	\$ (90,379)
Adjustment for other comprehensive loss attributable to common stockholders:		
Unrealized loss on available-for-sale securities	551,673	4,211
Net income (loss) attributable to common stockholders	<u>\$ 263,865</u>	<u>\$ (86,168)</u>
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized (gain) loss on securities	(18,265)	187,542
Unrealized loss on securities	23,294	9,640
Provision for credit losses	1,397	537
Realized and unrealized loss (gain) on mortgage servicing rights	6,720	(85,557)
Realized loss (gain) on termination or expiration of interest rate swaps and swaptions	146,750	(246,211)
Unrealized (gain) loss on interest rate swaps and swaptions	(181,378)	209,210
Realized and unrealized (gain) loss on other derivative instruments	(158,891)	101,577
Other realized and unrealized losses	—	73
Other adjustments:		
MSR amortization ⁽¹⁾	(75,585)	(81,452)
TBA dollar roll income ⁽²⁾	37,832	57,702
U.S. Treasury futures income ⁽³⁾	(16,643)	(20,602)
Change in servicing reserves	(1,005)	(1,120)
Non-cash equity compensation expense	2,355	3,461
Other nonrecurring expenses	5,029	2,428
Net provision for income taxes on non-EAD	19,698	24,190
Earnings available for distribution to common stockholders ⁽⁴⁾	<u>\$ 55,173</u>	<u>\$ 75,250</u>
Weighted average basic common shares	86,252,104	86,069,431
Earnings available for distribution to common stockholders per weighted average basic common share	\$ 0.64	\$ 0.87

(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 (loss) income attributable to common stockholders, excluding realized and unrealized gains and losses on the aggregate portfolio, 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 Mortgage REIT

Third Quarter 2022
Earnings Call

NOVEMBER 9, 2022



TWO HARBORS
Investment Corp.

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, 2021, 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; the ongoing impact of the COVID-19 pandemic, and the actions taken by federal and state governmental authorities and GSEs in response, on the U.S. economy, financial markets and our target assets; 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 Corporation; 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.

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

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

Book Value Impacted as Spreads Continued to Widen Beyond Historical Levels

Quarterly Summary

- Reported book value of \$16.42 per common share, representing a (16.2)% quarterly economic return on book value⁽¹⁾
- Generated Comprehensive Loss of \$287.8 million, or \$(3.35) per weighted average basic common share
- Reported Earnings Available for Distribution (EAD) of \$55.2 million, or \$0.64 per weighted average basic common share⁽²⁾
- Declared a third quarter common stock dividend of \$0.68 per share
- GAAP debt-to-equity increased to 5.5x from 3.8x; economic debt-to-equity increased to 7.5x from 6.4x as the impact of the book value decline more than offset a \$1.6 billion decline in our Agency RMBS and TBA position⁽³⁾⁽⁴⁾
- Settled on sales of approximately \$20 billion unpaid principal balance (UPB) of mortgage servicing rights (MSR)

Post-Quarter End Update

- Repurchased approximately 2.9 million shares of preferred stock, contributing \$0.26 to book value per common share
- On November 1, 2022, effected the previously announced one-for-four reverse stock split of outstanding shares of common stock

Note: Financial data throughout this presentation is as of or for the quarter ended September 30, 2022, unless otherwise noted. In accordance with generally accepted accounting principles, all common share and per common share amounts presented herein have been adjusted on a retroactive basis to reflect the one-for-four reverse stock split completed on November 1, 2022.

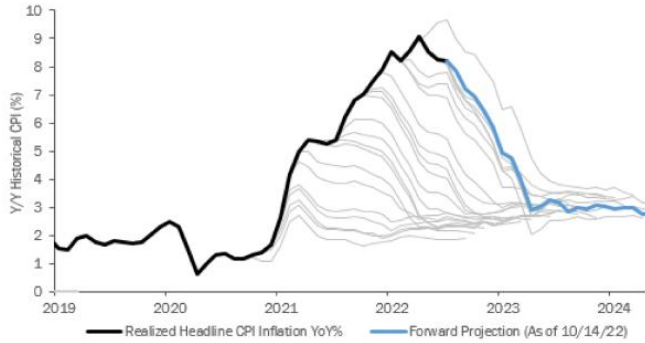
Note: The End Notes are an integral part of this presentation. See slide 27 through 31 at the back of this presentation for information related to certain financial metrics and defined terms herein.

Key Market Highlights



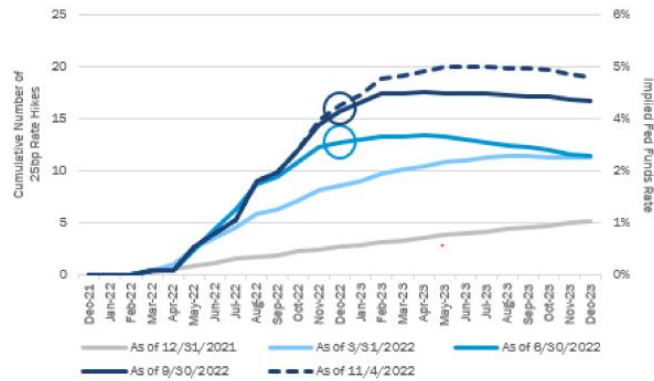
INFLATION, A HAWKISH FED, AND RISING RECESSION RISK MADE FOR A DIFFICULT ENVIRONMENT

I. INFLATION CONTINUED TO EXCEED EXPECTATIONS⁽¹⁾

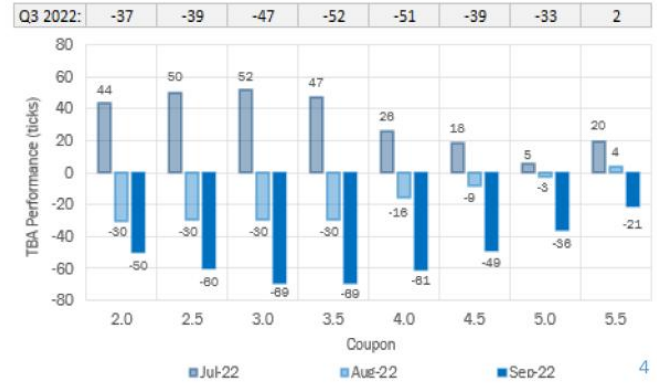


- Uncertainty around the path of forward rates and geopolitical turmoil contributed to extraordinarily high rate volatility
- Despite the accelerated pace of policy tightening, inflation has only slightly moderated while the labor market remains strong, all but guaranteeing more hikes from the Fed
 - CPI swaps are pricing in ~3% year-over-year by September 2023, implying that the markets believe the Fed will be successful
- Market expectations of forward rates revised upward during the quarter. The Fed has hiked rates by 375 bps in 2022 and the market expects another 125 bps increase this cycle, peaking around 5.10%, before the Fed pauses
- After a highly volatile Q2, spread volatility for RMBS increased with July seeing the best month ever for mortgage index excess returns, and September the worst ever

II. FORWARD RATES REFLECT A MORE HAWKISH FED⁽²⁾



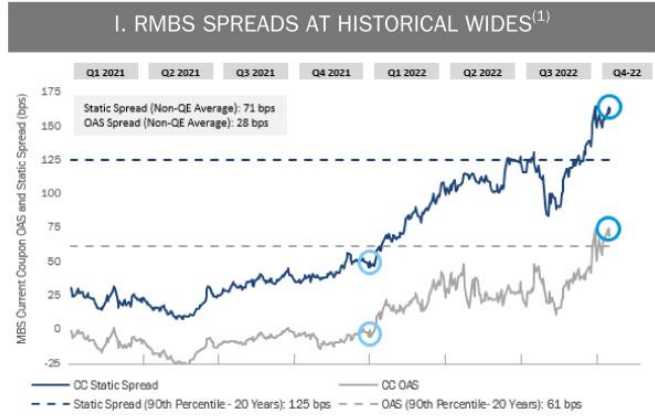
III. RMBS PERFORMANCE WAS EXTREMELY VOLATILE⁽³⁾



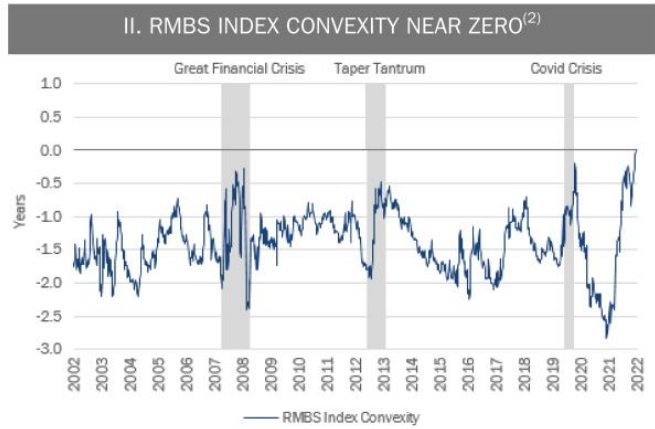
Key Market Highlights



SPREADS ARE AT HISTORICALLY ATTRACTIVE LEVELS IN BOTH STATIC AND OAS TERMS



- MBS spreads widened sharply to levels which have historically only been seen in acute phases of crisis periods
- Convexity of the RMBS index is near zero reflecting the index's deep discount dollar price and slow speed assumptions
 - Even the high coupons are below par and have minimal convexity and prepayment risk, reducing hedging costs going forward
- Both the static and OAS curves are downward sloping as slow prepayment speeds are detrimental to deep discount bonds
 - Higher coupons have more exposure to implied volatility and should outperform when volatility subsides
 - High coupons are also more attractive when spreads are expressed per unit of duration



Book Value Summary



(\$ millions, except per share data)	Q3-2022 Book Value	Q3-2022 Book Value per share	YTD-2022 Book Value	YTD-2022 Book Value per share
Beginning common stockholders' equity	\$ 1,757.3	\$ 20.41	\$ 2,017.7	\$ 23.47
Earnings Available for Distribution, net of tax ⁽¹⁾	68.9		233.4	
Dividend declaration - preferred	(13.7)		(41.2)	
Earnings Available for Distribution to common stockholders, net of tax ⁽¹⁾	55.2		192.2	
Realized and unrealized gains and losses, net of tax	208.7		257.0	
Other comprehensive loss, net of tax	(551.7)		(887.7)	
Comprehensive loss	(287.8)		(438.5)	
Common stock dividends declared	(59.1)		(176.8)	
Other	2.4		10.0	
Issuance of common stock, net of offering costs	5.4		5.8	
Ending common stockholders' equity	\$ 1,418.2	\$ 16.42	\$ 1,418.2	\$ 16.42
Total preferred stock liquidation preference	726.3		726.3	
Ending total equity	\$ 2,144.5		\$ 2,144.5	

- Book value of \$16.42 per common share, resulting in a (16.2)% quarterly economic return on book value⁽²⁾
 - Quarterly performance was driven primarily by mortgage spread widening
 - Hedging costs resulting from historically high rate volatility also contributed to the negative returns
- Generated Comprehensive Loss of \$287.8 million, or \$3.35 per weighted average common share
- Post quarter-end, repurchased 2.9 million shares of preferred stock, contributing \$0.26 to common book value and lowering ratio of preferred stock to total equity

Earnings Available for Distribution



(\$ millions, except per share data)	Q3-2022	Q2-2022	Variance
Interest income	\$ 94.4	\$ 57.0	\$ 37.4
Interest expense	83.4	37.1	(46.3)
Net interest income	11.0	19.9	(8.9)
Servicing income	148.8	157.5	(8.7)
MSR amortization ⁽¹⁾	(75.6)	(81.4)	5.8
Interest spread income on interest rate swaps	0.2	(4.3)	4.5
TBA dollar roll income ⁽²⁾	37.8	57.7	(19.9)
U.S. Treasury futures income ⁽³⁾	(16.6)	(20.6)	4.0
Other derivatives income	0.2	0.3	(0.1)
Total other income	94.8	109.2	(14.4)
Servicing expenses	22.2	24.1	1.9
Operating expenses	13.4	14.3	0.9
Total expenses	35.6	38.4	2.8
Provision for income taxes	1.3	1.7	0.4
Earnings Available for Distribution⁽⁴⁾	\$ 68.9	\$ 89.0	\$ (20.1)
Dividends on preferred stock	13.7	13.7	—
Earnings Available for Distribution available to common stockholders	\$ 55.2	\$ 75.3	\$ (20.1)
Earnings Available for Distribution per weighted average basic common share	\$ 0.64	\$ 0.87	
Earnings Available for Distribution annualized return on average common equity	13.0 %	15.9 %	
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses, as a percentage of average equity	2.2 %	2.2 %	

- Third quarter EAD reflects:
 - Higher interest income due to a larger RMBS portfolio, a greater proportion of up-in-coupon RMBS, and lower amortization as prepayment speeds continued to slow
 - Interest income also benefited from higher rates on cash balances
 - Increased interest expense resulting from a rise in interest rates as well as higher balances in MSR revolving credit facilities and Agency repurchase agreements
 - Lower TBA dollar roll income reflecting a decline in average notional balances and lower price drop
 - Lower losses from U.S. Treasury futures as short term rates rose and the yield curve flattened
 - Lower servicing income, net of amortization, due primarily to MSR sales in the quarter
- Our calculation of EAD is expected to moderate over the next several quarters primarily due to rising rates and an inverted yield curve in combination with our accounting methods for assets and hedging⁽⁵⁾
 - EAD for assets utilize concepts of amortized cost and yield-to-maturity at purchase, as opposed to market value and expected return, and are therefore slower to respond to rate and spread changes
 - Financing costs are quick to react to changes in rates; a majority of our debt is floating rate and short-term
 - 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 22 bps to 4.61% primarily due to a greater amount of higher coupon available-for-sale securities
- Net spread narrowed by (93) bps as a combination of higher rates and borrowing balances offset a higher portfolio yield

(\$ thousands)	Q3-2022			Q2-2022		
	Average Amortized Cost	Income ⁽¹⁾	Average Yield	Average Amortized Cost	Income ⁽¹⁾	Average Yield
Portfolio Asset Type						
Available-for-sale securities	\$ 9,323,193	\$ 88,472	3.80%	\$ 7,248,502	\$ 55,399	3.06%
Mortgage servicing rights ⁽²⁾	1,925,372	51,159	10.63%	2,113,912	52,008	9.84%
Agency derivatives ⁽³⁾	26,096	153	2.35%	28,663	304	4.24%
TBAs ⁽⁴⁾	5,762,726	56,776	3.94%	5,686,796	57,646	4.05%
Total portfolio	\$ 17,037,387	\$ 196,560	4.61%	\$ 15,077,873	\$ 165,357	4.39%
Financing Collateral Type	Average Outstanding Balance	Expense ⁽⁵⁾	Average Cost	Average Outstanding Balance	Expense ⁽⁵⁾	Average Cost
Available-for-sale securities	\$ 8,951,012	\$ 51,769	2.31%	\$ 7,012,474	\$ 12,955	0.74%
Mortgage servicing rights and advances	1,718,842	26,579	6.19%	1,628,474	19,252	4.73%
Agency derivatives ⁽³⁾	21,601	125	2.31%	27,074	93	1.37%
Other - unsecured ⁽⁶⁾	281,961	4,877	6.92%	281,608	4,801	6.82%
Interest rate swaps ⁽⁷⁾		(178)	—%		4,267	0.12%
U.S. Treasury futures ⁽⁸⁾		16,643	0.40%		20,602	0.56%
TBAs ⁽⁴⁾	5,762,726	18,944	1.31%	5,686,796	(56)	—%
Total financing	\$ 16,736,142	\$ 118,759	2.84%	\$ 14,636,426	\$ 61,914	1.69%
Net Spread			1.77%			2.70%

Note: Beginning with the third quarter of 2022, the above presentation of financing costs includes U.S. Treasury futures income, which represents the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements. Second quarter 2022 comparative data has been updated to reflect this change. Refer to the End Notes at the back of this presentation for more information.

Strong Balance Sheet and Liquidity Position

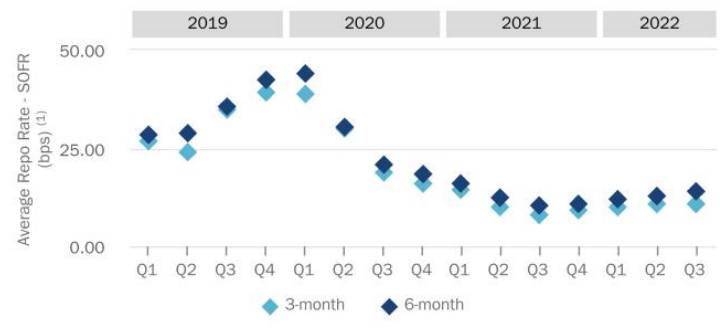


BALANCE SHEET AS OF SEPTEMBER 30, 2022

Agency RMBS \$9.4 billion	Agency repurchase agreements \$9.6 billion
MSR \$3.0 billion	MSR financing \$1.9 billion
Cash & cash equivalents \$0.7 billion	Convertible debt \$0.3 billion
Restricted cash \$0.8 billion	All other liabilities \$0.8 billion
All other assets \$0.8 billion	Preferred equity \$0.7 billion
	Common equity \$1.4 billion

AGENCY RMBS

- \$9.6 billion of outstanding repurchase agreements with 21 counterparties
- Weighted average days to maturity of 96 days



MORTGAGE SERVICING RIGHTS

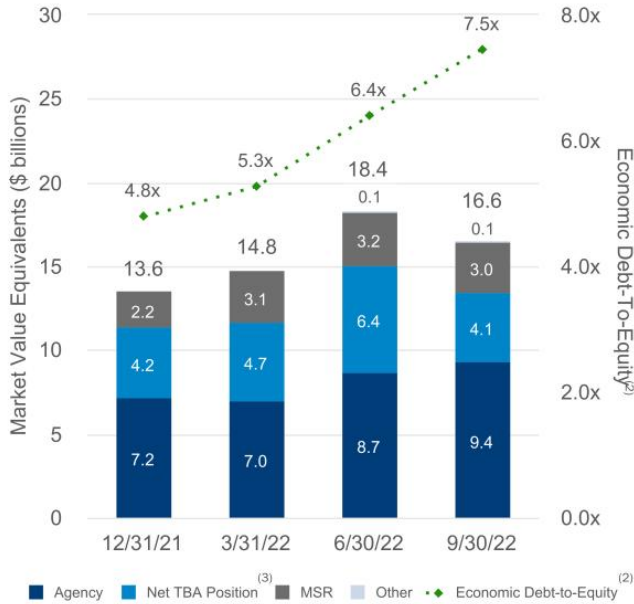
- \$1.5 billion of outstanding borrowings under bilateral MSR asset financing facilities
- \$400 million of outstanding 5-year MSR term notes⁽²⁾
- \$199 million of unused, uncommitted MSR asset financing capacity
- \$25 million outstanding borrowings and \$175 million of unused, committed capacity for servicing advance receivables

Quarterly Activity and Portfolio Composition



PORTFOLIO COMPOSITION⁽¹⁾

At September 30, 2022, \$16.6 billion portfolio
Includes \$12.5 billion settled positions



LEVERAGE

- MBS spread widening resulted in higher portfolio leverage taking us from a “neutral” to “overweight” position
 - Economic debt-to-equity rose to 7.5x from 6.4x due to decline in book value concurrent with a decline in our Agency RMBS and TBA position⁽²⁾
 - Average economic debt-to-equity of 7.1x in the third quarter, compared to 5.6x in the second quarter⁽²⁾

PORTFOLIO ACTIVITY

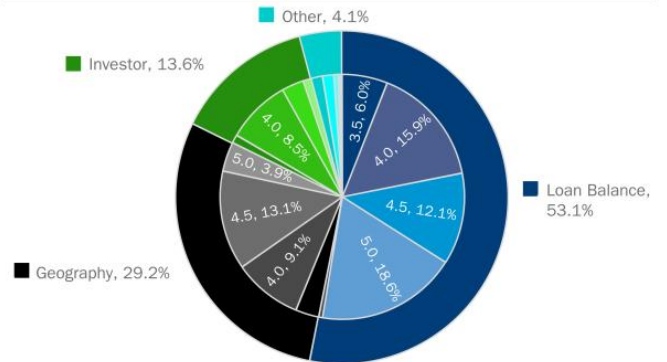
- Reduced overall RMBS portfolio by \$1.6 billion, with a decrease in TBA⁽³⁾ of \$2.3 billion offset by a \$0.7 billion increase in specified pools
 - Continued to rotate up-in-coupon in specified pools with net additions to exposure in 4.5% and 5.0% coupons versus 2.5% to 4.0% coupons to increase static yield and OAS spreads and reduce exposure to slowing prepayments in lower coupons
 - Added a long position in TBA 5.5% to capture current coupon basis and move up-in-coupon versus lower exposure to 2.5% through 5.0% coupons; sales of 5.0% TBAs were largely offset by pool purchases
 - Added exposure to GNMA 4.5% and 5.0% coupons versus same coupon FNMAs
- MSR portfolio was \$3.0 billion, reflecting the settlement of MSR sales totaling \$19.8 billion in UPB partially offset by an increase in value due to higher mortgage rates

Specified Pools

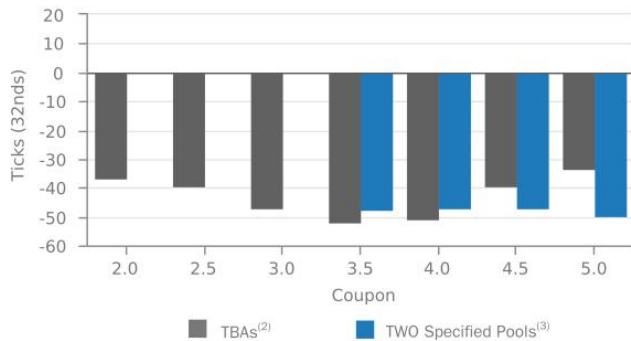
QUARTERLY HIGHLIGHTS

- Specified pools significantly underperformed rate hedges across the stack
 - 3.5% to 4.0% coupons performed in line to TBAs, wider by 45 to 50 ticks
 - Higher coupons like 4.5% and 5.0% underperformed TBAs by 8 to 16 ticks into the sharp rate sell-off and deterioration in market liquidity at the end of September
- Pool additions were focused on 5% coupon loan balance stories, which provide a durable convexity advantage to TBAs with attractive OAS and levered return profiles
- Weighted average specified pool portfolio speeds declined 35.9%, to 9.1% in the third quarter, from 14.2% in the second quarter

I. SPECIFIED POOL PORTFOLIO⁽¹⁾



II. RMBS QUARTERLY PERFORMANCE



III. SPECIFIED POOL PREPAYMENT SPEEDS



Mortgage Servicing Rights



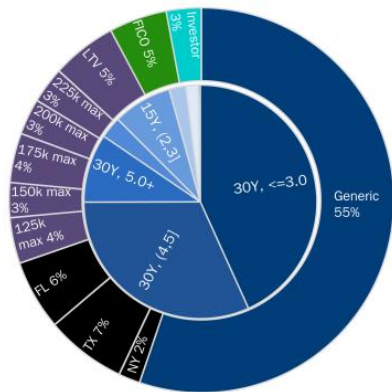
QUARTERLY HIGHLIGHTS

- Market activity, which was robust in the first half of the year, has moderated
 - Almost \$100 billion UPB of conventional MSR offered in the third quarter, bringing the year-to-date total to approximately \$440 billion, a record amount
- Flow channel purchases and recaptured MSR of \$4.4 billion offset the portfolio runoff experienced during the quarter
- MSR price multiple rose modestly to 5.5x despite sharp rise in interest rates reflecting very low rate sensitivity of the MSR
- MSR speeds declined by 31.0% from 10.0% in the second quarter to 6.9%
- Settled on MSR sales totaling \$19.8 billion UPB

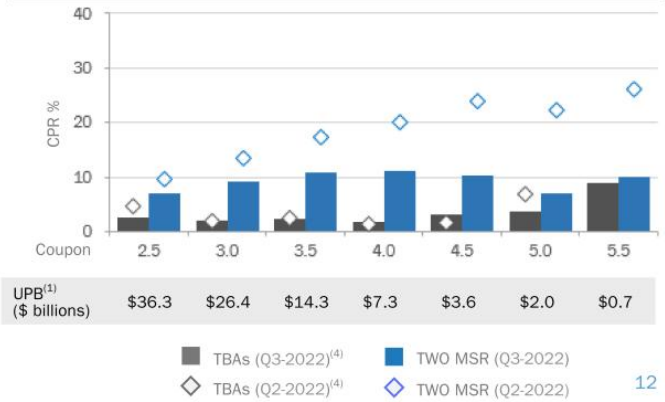
I. MSR PORTFOLIO CHARACTERISTICS⁽¹⁾

	9/30/2022	6/30/2022
Fair value (\$ millions)	\$ 3,022	\$ 3,226
Price multiple	5.5x	5.4x
UPB (\$ millions)	\$ 208,229	\$ 229,459
Gross coupon rate	3.24%	3.21%
Current loan size (\$ thousands)	\$ 336	\$ 330
Original FICO ⁽²⁾	760	760
Original LTV	72%	71%
60+ day delinquencies	0.7%	0.8%
Net servicing fee (bps)	26.4	26.3
Loan age (months)	30	28
3-month CPR	6.9%	10.0%

II. MSR PORTFOLIO⁽³⁾



III. 30-YEAR MSR PREPAYMENT SPEEDS

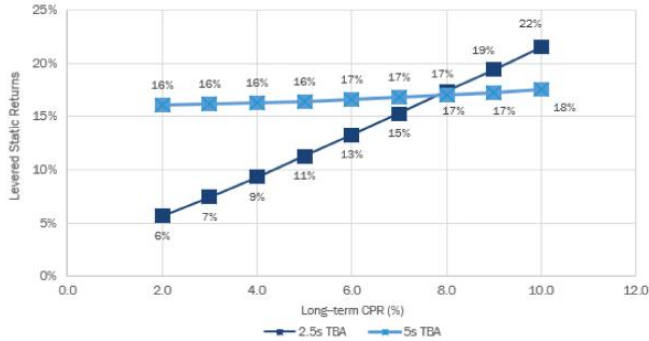


Special Topic: Low Coupon MSR + Higher Coupon RMBS



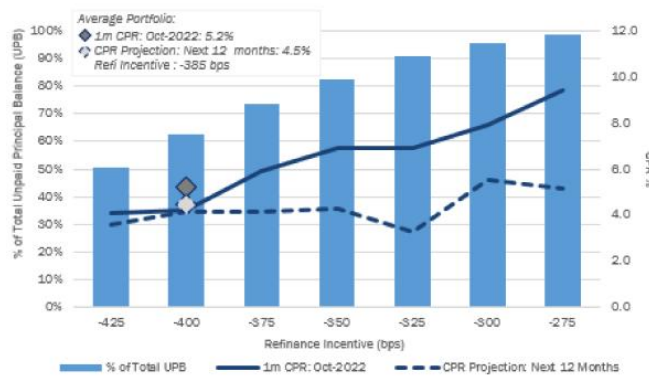
SPEEDS FAVOR HIGH COUPON RMBS AND LOW COUPON MSR

I. THE ADVANTAGE OF HIGHER COUPONS⁽¹⁾

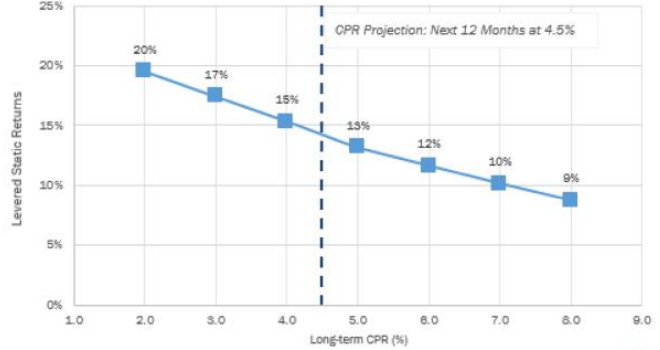


- Prepayment rates continue to decline as mortgage rates increase to new cycle highs pushing more than 99% of the mortgage universe out-of-the money
- Very low coupon mortgages are expected to pay at very slow speeds given that homeowners will experience very strong 'lock-in' effect
 - Negatively impacts very low coupon RMBS, like 2.5%, that are trading at a deep discount; we favor higher coupon RMBS that have higher and more stable return profiles
 - Slowing speeds are a positive for the MSR portfolio, which is on average about 385 bps out-of-the-money
- Expected further slowing in prepayment rates should boost levered MSR returns by hundreds of basis points

II. SLOWER SPEEDS AHEAD FOR MSR⁽²⁾



III. SLOWING SPEEDS BOOST MSR RETURN⁽³⁾



Return Potential and Outlook



HISTORICALLY WIDE MORTGAGE SPREADS OFFER ATTRACTIVE OPPORTUNITIES BUT RISKS REMAIN

PROSPECTIVE MARKET RETURNS As of Sep-30-2022	INVESTED CAPITAL ALLOCATED ⁽¹⁾	PORTFOLIO MARKET VALUE (\$ millions)	STATIC MARKET RETURN ESTIMATE ⁽²⁾
RMBS + MSR			
MSR		3,022	
TBA ⁽³⁾		1,649	
Hedged MSR	55%	4,671	12% - 14%
RMBS + RATES			
Pools		9,121	
TBA ⁽³⁾		2,399	
Other Securities		369	
Hedged Securities	45%	11,889	16% - 18%

PROSPECTIVE MARKET RETURNS

- Market return estimates reflect static assumptions using quarter-end spreads and market data
- Hedged MSR offer a gross return potential in the low-to-mid-teens
- RMBS spreads stand at near-record wide levels on many metrics and offer gross return potential in the mid-to-high teens

PROSPECTIVE TWO HARBORS RETURNS As of Sep-30-2022	INVESTED CAPITAL (\$ millions)	STATIC TWO HARBORS RETURN ESTIMATE ⁽⁴⁾
Total Portfolio Before Expense		14% - 16%
Expenses ⁽⁵⁾		(3.4)% - (3.2)%
Total Portfolio After Expenses		10.6% - 12.8%
INVESTED CAPITAL		
Convertible Notes	288	6.1%
Preferred Equity	726	7.6%
Common Equity	1,418	13.0% - 16.8%
PROSPECTIVE QUARTERLY RETURN PER BASIC COMMON SHARE⁽⁶⁾:		\$0.53 - \$0.69

PROSPECTIVE TWO HARBORS RETURNS

- After including the effects of expenses, our convertible notes and preferred equity, prospective static return estimates are 13.0% - 16.8% on common equity
- Changes in market prices will certainly cause realized returns to differ from these static estimates, perhaps meaningfully so if the recently delivered volatility in rates and spreads continues into the fourth quarter

Note: This slide presents estimates for illustrative purposes only, using TWO's base case assumptions (e.g., spreads, prepayment speeds, financing costs and expenses), and does not contemplate market-driven value changes, active portfolio management, or future impacts from the acquisition of RoundPoint. Actual results may differ materially.

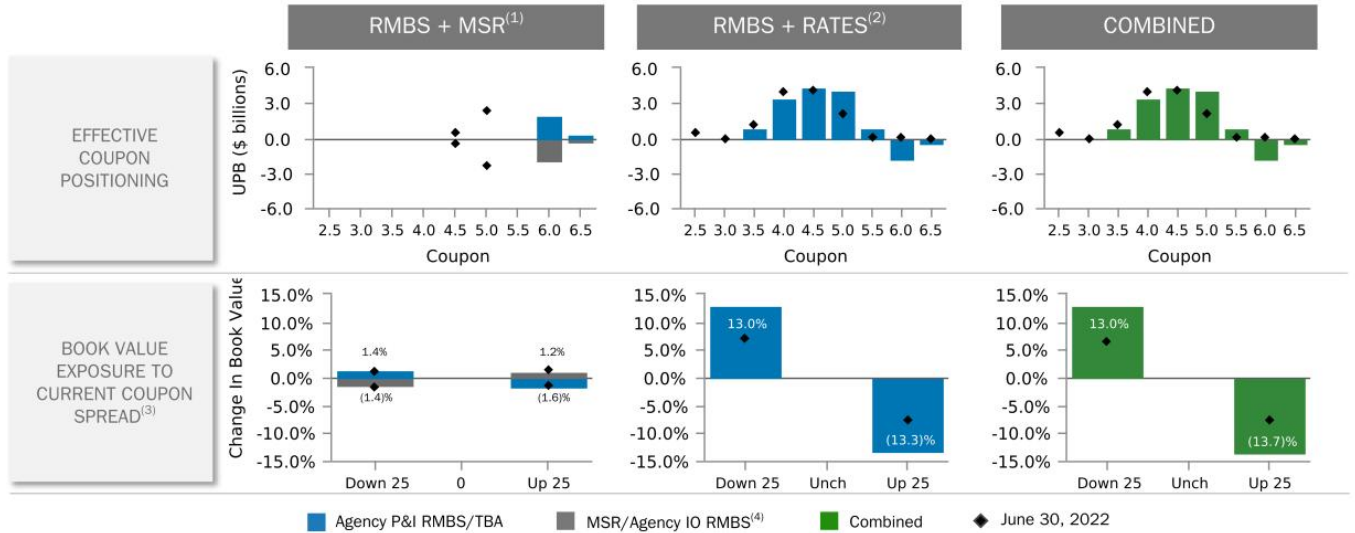
An aerial, top-down view of a city at night, showing a dense grid of buildings and streets. The scene is illuminated by city lights, creating a blue and white color palette. The word "Appendix" is centered in the middle of the image in a white, sans-serif font. The buildings vary in size and shape, with some featuring distinctive architectural details like circular or octagonal roofs. The overall atmosphere is that of a bustling urban environment at night.

Appendix

Effective Coupon Positioning

GREATER EXPOSURE TO MORTGAGE SPREADS TO CAPTURE HISTORICALLY WIDE LEVELS

- Overall exposure to a 25 bps widening of mortgages increased from (7.6)% in the second quarter to (13.7)% driven by two factors
 - MSR has less sensitivity to mortgage rates with note rates being far out-of-the-money, hedging 1.2% of book value in a 25 bps mortgage spread widening scenario, down from 1.3% in the second quarter
 - Increased leverage and capital allocation to RMBS with RMBS spreads at wide levels

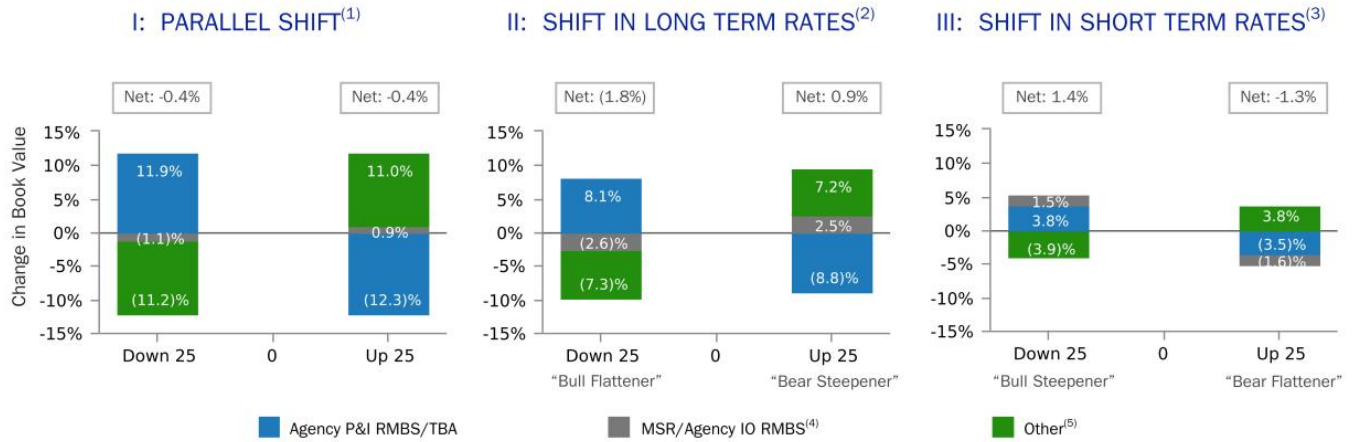


Note: Sensitivity data as of September 30, 2022. The above spread scenario is provided for illustration purposes only and is not necessarily indicative of Two Harbors' financial condition and operating results, nor is it necessarily indicative of the financial condition or results of operations that may be expected for any future period or date.

INTEREST RATE AND CURVE EXPOSURE REMAINS LOW

- During this period of heightened movement in the front end of the yield curve, portfolio exposure across the yield curve is well-hedged
- Inert nature of MSR results in RMBS being primarily hedged with interest rate products
 - Net interest rate exposure of (0.4)% in a +25 bps parallel shift and (1.3)% in a +25 bps bear flattening scenario

BOOK VALUE EXPOSURE TO CHANGES IN RATES

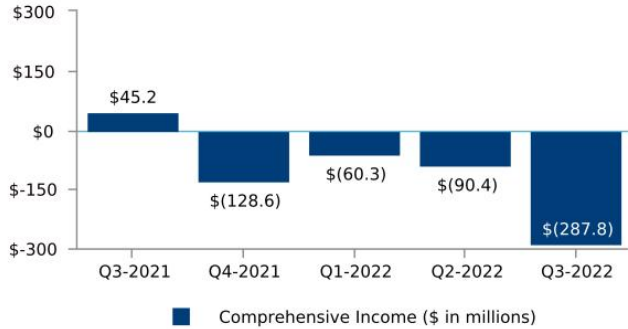


Note: Sensitivity data as of September 30, 2022. The above scenarios are provided for illustration purposes only and is not necessarily indicative of Two Harbors' financial condition and operating results, nor are they necessarily indicative of the financial condition or results of operations that may be expected for any future period or date.

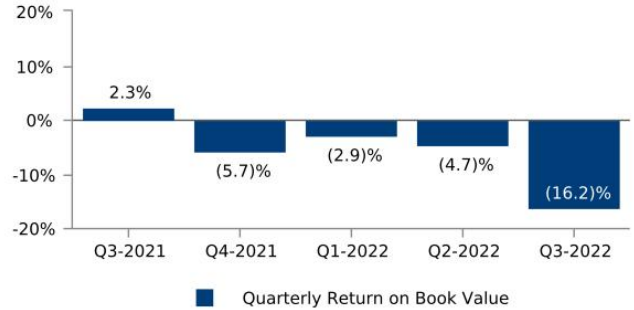
Financial Performance



COMPREHENSIVE INCOME (LOSS)



QUARTERLY ECONOMIC RETURN ON BOOK VALUE⁽¹⁾



DIVIDEND YIELD⁽²⁾



BOOK VALUE AND DIVIDEND PER COMMON SHARE⁽²⁾



Q3-2022 Operating Performance



	Q3-2022			
	Earnings Available for Distribution ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
\$ millions, except for per common share data)				
Interest income	\$ 94.4	\$ —	\$ —	\$ 94.4
Interest expense	83.4	—	—	83.4
Net interest income	11.0	—	—	11.0
Gain (loss) on investment securities	—	16.9	(23.3)	(6.4)
Servicing income	148.8	—	—	148.8
(Loss) gain on servicing asset	(75.6)	76.8	(8.0)	(6.8)
Gain (loss) on interest rate swap and swaption agreements	0.2	(146.8)	181.4	34.8
Gain (loss) on other derivative instruments	21.4	194.4	(56.7)	159.1
Other income	—	—	—	—
Total other income	94.8	141.3	93.4	329.5
Servicing expenses	22.2	(1.1)	—	21.1
Operating expenses	13.4	7.4	—	20.8
Total expenses	35.6	6.3	—	41.9
Income before income taxes	70.2	135.0	93.4	298.6
Provision for income taxes	1.3	4.0	15.7	21.0
Net income	68.9	131.0	77.7	277.6
Dividends on preferred stock	13.7	—	—	13.7
Net income attributable to common stockholders	\$ 55.2	\$ 131.0	\$ 77.7	\$ 263.9
Earnings per weighted average basic common share	\$ 0.64	\$ 1.50	\$ 0.90	\$ 3.04

Q2-2022 Operating Performance



(\$ millions, except for per common share data)	Q2-2022			
	Earnings Available for Distribution ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 57.0	\$ —	\$ —	\$ 57.0
Interest expense	37.1	—	—	37.1
Net interest income	19.9	—	—	19.9
Loss on investment securities	—	(188.1)	(9.6)	(197.7)
Servicing income	157.5	—	—	157.5
(Loss) gain on servicing asset	(81.4)	—	167.0	85.6
(Loss) gain on interest rate swap and swaption agreements	(4.3)	246.2	(209.2)	32.7
Gain (loss) on other derivative instruments	37.4	(105.5)	(33.2)	(101.3)
Other income	—	—	(0.1)	(0.1)
Total other income (loss)	109.2	(47.4)	(85.1)	(23.3)
Servicing expenses	24.1	(1.1)	—	23.0
Operating expenses	14.3	5.9	—	20.2
Total expenses	38.4	4.8	—	43.2
Income (loss) before income taxes	90.7	(52.2)	(85.1)	(46.6)
Provision for (benefit from) income taxes	1.7	(7.6)	31.8	25.9
Net income (loss)	89.0	(44.6)	(116.9)	(72.5)
Dividends on preferred stock	13.7	—	—	13.7
Net income (loss) attributable to common stockholders	\$ 75.3	\$ (44.6)	\$ (116.9)	\$ (86.2)
Earnings (loss) per weighted average basic common share	\$ 0.87	\$ (0.52)	\$ (1.36)	\$ (1.01)

GAAP to EAD Reconciliation



Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended September 30, 2022	Three Months Ended June 30, 2022
Comprehensive loss attributable to common stockholders	\$ (287,808)	\$ (90,379)
Adjustment for other comprehensive loss attributable to common stockholders:		
Unrealized loss on available-for-sale securities	551,673	4,211
Net (loss) income attributable to common stockholders	\$ 263,865	\$ (86,168)
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized loss (gain) on securities	(18,265)	187,542
Unrealized loss on securities	23,294	9,640
Provision for credit losses	1,397	537
Realized and unrealized (gain) loss on mortgage servicing rights	6,720	(85,557)
Realized (gain) loss on termination or expiration of interest rate swaps and swaptions	146,750	(246,211)
Unrealized loss (gain) on interest rate swaps and swaptions	(181,378)	209,210
Realized and unrealized loss (gain) on other derivative instruments	(158,891)	101,577
Other realized and unrealized losses	—	73
Other adjustments:		
MSR amortization ⁽¹⁾	(75,585)	(81,452)
TBA dollar roll income ⁽²⁾	37,832	57,702
U.S. Treasury futures income ⁽³⁾	(16,643)	(20,602)
Change in servicing reserves	(1,005)	(1,120)
Non-cash equity compensation expense	2,355	3,461
Other nonrecurring expenses	5,029	2,428
Net provision for income taxes on non-Core Earnings	19,698	24,190
Earnings available for distribution to common stockholders	\$ 55,173	\$ 75,250
Weighted average basic common shares	86,252,104	86,069,431
Earnings available for distribution to common stockholders per weighted average basic common share	\$ 0.64	\$ 0.87

Note: Earnings Available for Distribution, or EAD, is a non-GAAP measure that we define as comprehensive (loss) income attributable to common stockholders, excluding realized and unrealized gains and losses on the aggregate portfolio, 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% & below	\$ —	\$ —	—%	—%	\$ —	—%	—
3.0%	—	—	—%	—%	—	—%	—
3.5%	1,165	1,054	6.4%	100.0%	1,203	4.1%	13
4.0%	3,393	3,172	6.5%	100.0%	3,453	4.6%	24
4.5%	2,779	2,670	7.4%	100.0%	2,858	5.1%	25
5.0%	2,182	2,145	5.8%	100.0%	2,253	5.8%	8
≥ 5.5%	77	80	10.5%	93.3%	82	6.4%	181
	9,596	9,121	6.6%	99.9%	9,849	5.0%	21
Other P&I⁽³⁾	199	190	2.1%	21.1%	197	5.3%	59
IOs and IIOs⁽⁴⁾	1,318	55	10.1%	—%	73	5.0%	161
Total Agency RMBS	\$ 11,113	\$ 9,366		97.8%	\$ 10,119		

	Notional Amount (\$ millions)	Bond Equivalent Value (\$ millions) ⁽⁵⁾	Through-the-Box Speeds ⁽⁶⁾
TBA Positions			
2.5% & below	\$ —	\$ —	2.7%
3.0%	—	—	2.2%
3.5%	(300)	(270)	2.4%
4.0%	—	—	1.9%
4.5%	1,657	1,580	3.2%
5.0%	1,997	1,943	3.8%
5.5%	800	795	9.0%
Net TBA position	\$ 4,154	\$ 4,048	

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%	301,688	\$ 98,335	2.8%	\$ 384	20	768	71%	0.3%	4.9%	25.8
3.25% - 3.75%	142,330	37,217	3.4%	328	35	754	74%	0.7%	7.6%	26.3
3.75% - 4.25%	110,019	23,109	3.9%	273	58	751	76%	1.2%	9.5%	27.3
4.25% - 4.75%	61,421	10,961	4.4%	249	60	736	78%	2.4%	11.6%	26.4
4.75% - 5.25%	31,321	5,519	4.9%	278	44	730	79%	3.1%	11.1%	28.2
> 5.25%	25,663	5,703	5.8%	337	16	733	81%	1.5%	8.4%	33.0
	672,442	180,844	3.3%	346	31	759	73%	0.8%	6.8%	26.4
15-Year Fixed										
≤ 2.25%	23,289	6,679	2.0%	336	17	777	59%	0.1%	4.5%	25.2
2.25% - 2.75%	39,168	9,024	2.4%	282	21	772	59%	0.1%	6.2%	25.9
2.75% - 3.25%	37,039	5,521	2.9%	206	50	766	62%	0.3%	9.0%	26.2
3.25% - 3.75%	21,947	2,422	3.4%	162	63	757	64%	0.6%	10.8%	26.9
3.75% - 4.25%	10,269	946	3.9%	147	59	742	65%	0.9%	13.3%	28.5
> 4.25%	5,419	512	4.6%	177	37	732	66%	1.3%	12.6%	32.9
	137,131	25,104	2.6%	261	32	769	60%	0.3%	7.2%	26.1
Total ARMs	2,669	666	3.3%	329	55	761	69%	1.0%	19.2%	25.5
Total Portfolio	812,242	\$ 206,614	3.2%	\$ 335	31	760	72%	0.7%	6.9%	26.4

Mortgage Servicing Rights UPB Roll-Forward



<i>\$ millions</i>	Q3-2022	Q2-2022	Q1-2022	Q4-2021	Q3-2021
UPB at beginning of period	\$ 227,074	\$ 229,416	\$ 193,771	\$ 194,394	\$ 185,210
Bulk purchases of mortgage servicing rights	—	—	37,197	3,214	15,328
Flow purchases of mortgage servicing rights	4,449	5,720	7,940	10,349	14,019
Sales of mortgage servicing rights	(19,807)	—	—	9	(3,634)
Scheduled payments	(1,565)	(1,697)	(1,573)	(1,442)	(1,408)
Prepaid	(3,709)	(6,027)	(8,250)	(11,967)	(14,564)
Other changes	172	(338)	331	(786)	(557)
UPB at end of period	\$ 206,614	\$ 227,074	\$ 229,416	\$ 193,771	\$ 194,394

Financing



\$ millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	Revolving Credit Facilities	Term Notes Payable	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 2,098.5	\$ —	\$ —	\$ —	\$ 2,098.5	17.7 %
30 to 59 days	1,121.3	—	—	—	1,121.3	9.5 %
60 to 89 days	—	—	—	—	—	— %
90 to 119 days	2,490.2	—	—	—	2,490.2	21.0 %
120 to 364 days	4,324.0	200.0	—	—	4,524.0	38.2 %
One to three years	—	931.2	397.7	—	1,328.9	11.2 %
Three to five years	—	—	—	282.1	282.1	2.4 %
	\$ 10,034.0	\$ 1,131.2	\$ 397.7	\$ 282.1	\$ 11,845.0	100.0 %
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	\$ 9,360.4	\$ —	\$ —	n/a	\$ 9,360.4	72.0 %
Mortgage servicing rights, at fair value	682.8	1,782.4	500.0	n/a	2,965.2	22.8 %
Restricted cash	559.3	—	0.2	n/a	559.5	4.3 %
Due from counterparties	72.4	—	—	n/a	72.4	0.6 %
Derivative assets, at fair value	16.0	—	—	n/a	16.0	0.1 %
Other assets (includes servicing advances)	—	28.8	—	n/a	28.8	0.2 %
	\$ 10,690.9	\$ 1,811.2	\$ 500.2	n/a	\$ 13,002.3	100.0 %

Futures



Type & Maturity	Notional Amount (\$M)	Carrying Value (\$M) ⁽¹⁾	Weighted Average Days to Expiration
U.S. Treasury futures - 2 year	\$ (643)	\$ —	97
U.S. Treasury futures - 5 year	(4,706)	—	97
U.S. Treasury futures - 10 year	(3,219)	—	91
U.S. Treasury futures - 20 year	(554)	—	91
Federal Funds futures - 30 day	(1,250)	—	50
Eurodollar futures - 3 month			
< 1 year	(3,832)	—	152
> 1 and < 2 years	(1,093)	—	457
Total futures	\$ (15,297)	\$ —	126

PAGE 3 - Executive Overview

1. Economic return on book value is defined as the increase (decrease) in book value per common share from the beginning to the end of the given period, plus dividends declared in the period, divided by book value as of the beginning of the period.
2. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 21 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.
3. Economic debt-to-equity is defined as total borrowings to fund RMBS, MSR and Agency Derivatives, plus the implied debt on net TBA cost basis, divided by total equity.
4. 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.

PAGE 4 - Key Market Highlights

1. Source: J.P. Morgan. As of October 14, 2022.
2. Source: Bloomberg. As of November 4, 2022.
3. Represents generic TBA performance during the quarter.

PAGE 5 - Key Market Highlights

1. Source: J.P. Morgan DataQuery. As of October 14, 2022.
2. Source: J.P. Morgan DataQuery. As of October 14, 2022.
3. Represents generic TBA spreads as of the dates noted.

PAGE 6 - Book Value Summary

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 21 for a definition of Earnings Available for Distribution 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.

PAGE 7 - 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 21 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.
5. Agency fixed rate RMBS use GAAP concept of amortized cost and yield-to-maturity determined at time of purchase. Net MSR service income and 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. Futures income represents the sum of the implied net cash and expected change in price of a financed U.S. treasury, but excludes unexpected price change.

End Notes (continued)



PAGE 8 - Portfolio Yields and Financing Costs

1. Includes interest income, net of premium amortization/discount accretion, on available-for-sale securities and Agency Derivatives, 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, 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.

PAGE 9 - Strong Balance Sheet and Liquidity Position

1. Source: Bloomberg. Represents the average spread between repo rates and the Secured Overnight Financing Rate (SOFR) over trailing 3-month and 6-month periods between Q1 2019 and Q3 2022 (as of September 30, 2022).
2. Balance of 5-year MSR term notes excludes deferred debt issuance costs.

PAGE 10 - Quarterly Activity and Portfolio Composition

1. For additional detail on the portfolio, see Appendix slides 22 and 23.
2. Economic debt-to-equity is defined as total borrowings to fund RMBS, MSR and Agency Derivatives, plus the implied debt on net TBA cost basis, 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.

End Notes (continued)



PAGE 11 - Specified Pools

1. Specified pools include securities with implicit or explicit protection including lower loan balances (securities collateralized by loans less than or equal to \$200K 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 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 September 30, 2022.
5. Three month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Credit Suisse, and Citi data.

PAGE 12 - Mortgage Servicing Rights

1. MSR portfolio based on the loans underlying the MSR reported by servicers 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 servicers on a month lag, adjusted for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer.
4. Three month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Credit Suisse, and Citi data.

PAGE 13 - Special Topic: Low Coupon MSR + Higher Coupon RMBS

1. Represents generic TBA returns based on internal assumptions of leverage, prepayments and financing.
2. MSR portfolio based on the loans underlying the MSR reported by servicers on a month lag, adjusted for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer. Refinance incentive is based on "current" mortgage rate as of October 31, 2022.
3. MSR portfolio based on the loans underlying the MSR reported by servicers on a month lag, adjusted for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer. Returns based on internal assumptions of leverage, prepayments and financing.

PAGE 14 - Return Potential and Outlook

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

End Notes (continued)



PAGE 16 - Effective Coupon Positioning

1. RMBS + MSR represents an internally calculated exposure of a synthetic TBA position and the current coupon equivalents of our MSR and Agency IO RMBS.
2. RMBS + RATES represents our investment portfolio after excluding the internally calculated exposure of a synthetic TBA position and the current coupon equivalents of our MSR / Agency IO RMBS.
3. Book value exposure to current coupon represents estimated change in common book value for theoretical parallel shifts in spreads.
4. MSR/Agency IO RMBS includes the effect of unsettled MSR.

PAGE 17 - Risk Positioning

1. Parallel shift represents estimated change in common book value for theoretical parallel shift in interest rates.
2. Shift in long term rates 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.
3. Shift in short term rates 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. MSR/Agency IO RMBS includes the effect of unsettled MSR.
5. Other includes all other derivative assets and liabilities and borrowings. Other excludes TBAs, which are included in the Agency P&I RMBS/TBA category.

PAGE 18 - Financial Performance

1. Economic return on book value is defined as the increase (decrease) in book value per common share from the beginning to the end of the given period, plus dividends declared in the period, divided by the book value as of the beginning of the period.
2. Historical dividends may not be indicative of future dividend distributions. The company ultimately distributes dividends based on its taxable income per common share, not GAAP earnings. The annualized dividend yield on the company's common stock is calculated based on the closing price of the last trading day of the relevant quarter.

PAGE 19 - Q3-2022 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 21 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

PAGE 20 - Q2-2022 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 21 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

End Notes (continued)



PAGE 21 - 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.

PAGE 22 - 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 protection including lower loan balances (securities collateralized by loans less than or equal to \$200K 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 \$16.5 million of Agency Derivatives and \$38.5 million of IOs.
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 23 - 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 25 - Financing

1. Outstanding borrowings have a weighted average of 5.9 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 26 - 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.



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