



An Agency + MSR Mortgage REIT

Fourth Quarter 2021
Earnings Call

FEBRUARY 10, 2022



TWO HARBORS
Investment Corp.

Safe Harbor Statement



FORWARD-LOOKING STATEMENTS

This presentation includes “forward-looking statements” within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Actual results may differ from expectations, estimates and projections and, consequently, readers should not rely on these forward-looking statements as predictions of future events. Words such as “expect,” “target,” “assume,” “estimate,” “project,” “budget,” “forecast,” “anticipate,” “intend,” “plan,” “may,” “will,” “could,” “should,” “believe,” “predicts,” “potential,” “continue,” and similar expressions are intended to identify such forward-looking statements. These forward-looking statements involve significant risks and uncertainties that could cause actual results to differ materially from expected results, including, among other things, those described in our Annual Report on Form 10-K for the year ended December 31, 2020, 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 with PRCM Advisers 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.



Overall Performance Driven by Spread Widening

Quarterly Summary

- Reported book value of \$5.87 per common share, representing a (5.6)% quarterly return on book value⁽¹⁾
- Generated Comprehensive Loss of \$128.6 million, representing an annualized return on average common equity of (24.7)%
- Reported Earnings Available for Distribution (EAD) of \$73.3 million, or \$0.22 per weighted average basic common share⁽²⁾
- Declared a fourth quarter common stock dividend of \$0.17 per share
- Continued strength in mortgage servicing rights (MSR) flow program, which offset impact of fast prepayment speeds

Annual Summary

- Returned total dividends of \$0.68 per common share, equivalent to an average dividend yield of 10%⁽³⁾
- Reported book value of \$5.87 per common share compared to \$7.63 at December 31, 2020, representing a (14.2)% return on book value
- Acquired \$88.3 billion unpaid principal balance (UPB) of MSR through flow and bulk channels
- Optimized liability and capital structure
 - Issued \$287.5 million principal amount of 5-year convertible senior notes due 2026. Repurchased and retired \$144 million principal amount of convertible senior notes due 2022
 - Redeemed \$75 million Series D and \$200 million Series E preferred shares
 - Issued 70 million common shares for net proceeds of approximately \$450 million

Post-Quarter End Update

- Settled on \$17 billion UPB of MSR through bulk channel
- Expect to settle on additional commitments of \$22 billion UPB of MSR through bulk transactions in the first quarter of 2022
- Redeemed \$144 million of convertible senior notes that matured in January 2022

Note: Financial data throughout this presentation is as of or for the quarter ended December 31, 2021, unless otherwise noted.

Note: The End Notes are an integral part of this presentation. See slide [29](#) through [32](#) at the back of this presentation for information related to certain financial metrics and defined terms herein.

Key Market Highlights



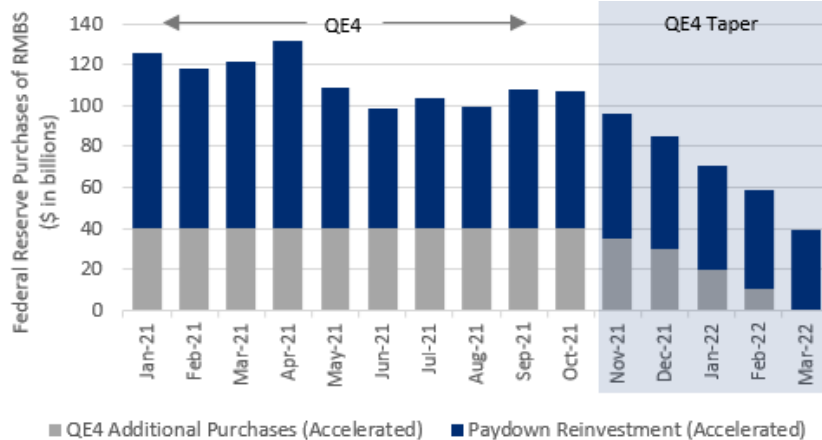
ACCELERATED TAPER ON THE PATH TO HIGHER INTEREST RATES

I. HIGHER RATES AND FLATTER YIELD CURVE⁽¹⁾

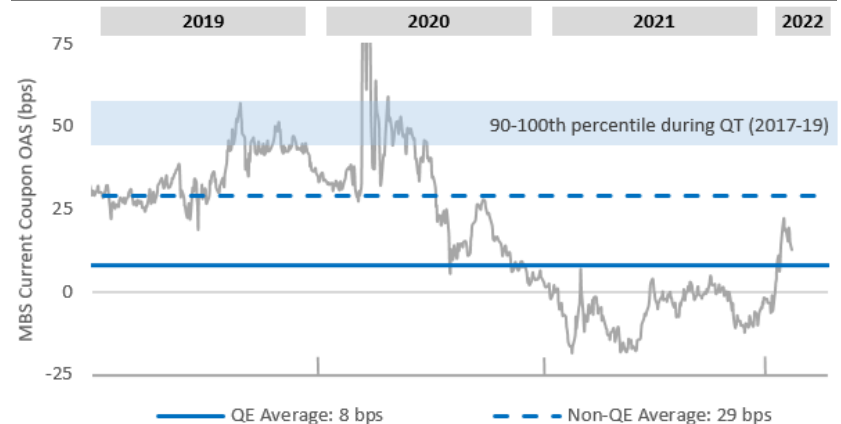


- In response to inflationary pressures and tight labor market, the Federal Reserve communicated an accelerated timeline to remove monetary accommodation
- The Fed moved its median expectation from one to three interest rate hikes in 2022 and from four to six hikes by the end 2023, pressuring short term rates and flattening the yield curve by over 50 bps
- Additionally, the Fed began tapering its purchases of U.S. Treasuries and Agency RMBS and expects to end its purchases by March
- Current coupon spreads remained tight through year-end but have widened 20 bps in January as the Fed signaled it could reduce its balance sheet later in 2022

II. FEDERAL RESERVE ACCELERATES TAPER⁽²⁾



III. TIGHT SPREADS WIDEN IN 2022⁽³⁾



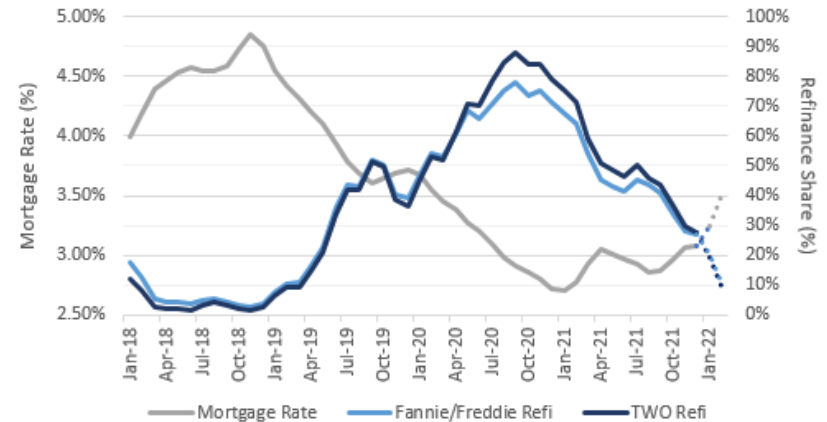
Looking Ahead



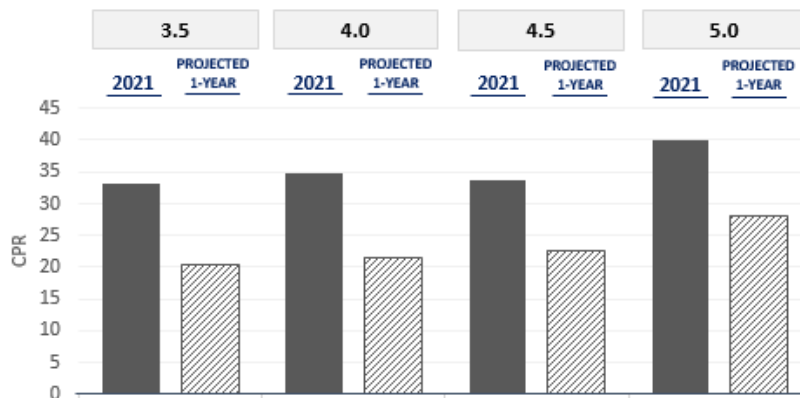
SLOWER PREPAYMENT SPEEDS ON THE HORIZON

- Realized prepayment speeds in 2021 were much faster than expected due to home price appreciation, increased use of property inspection waivers, remote notarization, and program changes by the FHFA
- Looking forward, prepayment speeds are expected to slow significantly as rising rates and the re-striking of the mortgage universe have pushed the refinancable share of loans to 11% as of the end of January 2022
- 3.5% coupons are expected to slow from 33% to 20% CPR and 4.5% from 34% to 23% CPR
- Slower speeds are expected to dramatically reduce runoff and meaningfully improve cash flow in the MSR portfolio

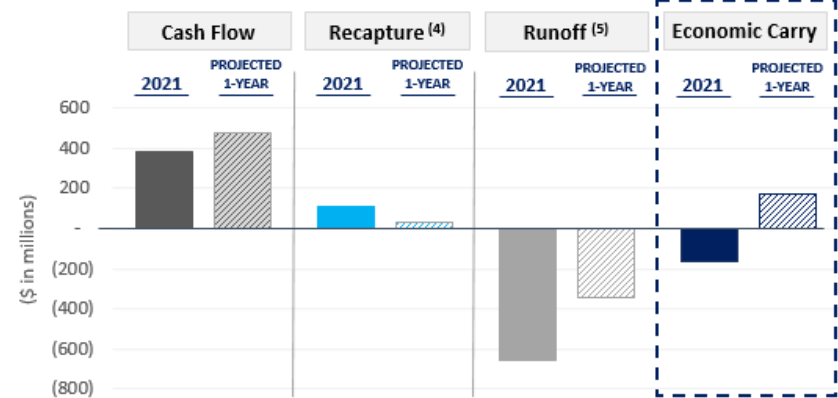
I. FEWER REFINANCEABLE MORTGAGES⁽¹⁾



II. POOLS: SLOWER SPEEDS PROJECTED⁽²⁾



III. MSR: CASH FLOW AND SLOWER SPEEDS⁽³⁾



Note: MSR prepayment speeds and cash flow projections based on Two Harbors' internal modeling and portfolio holdings as of January 25, 2022. These prepayment and cash flow projections are provided for illustration purposes only and are 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.

Book Value Summary



(\$ millions, except per share data)	Q4-2021 Book Value	Q4-2021 Book Value per share	YTD-2021 Book Value	YTD-2021 Book Value per share
Beginning common stockholders' equity	\$ 2,008.6	\$ 6.40	\$ 2,087.7	\$ 7.63
Earnings Available for Distribution, net of tax ⁽¹⁾	87.0		302.7	
Dividend declaration - preferred	(13.7)		(58.5)	
Earnings Available for Distribution to common stockholders, net of tax ⁽¹⁾	73.3		244.2	
Realized and unrealized gains and losses, net of tax	(88.3)		(115.4)	
Other comprehensive loss, net of tax	(113.6)		(455.3)	
Comprehensive loss	(128.6)		(326.5)	
Common stock dividends declared	(58.7)		(205.6)	
Other	2.6		11.5	
Issuance of common stock, net of offering costs	193.8		450.6	
Ending common stockholders' equity	\$ 2,017.7	\$ 5.87	\$ 2,017.7	\$ 5.87
Total preferred stock liquidation preference	726.3		726.3	
Ending total equity	\$ 2,744.0		\$ 2,744.0	

- Book value of \$5.87 per common share, resulting in a (5.6)% quarterly return on book value⁽²⁾
 - Book value declined as a result of spread widening in high coupon RMBS, IO securities and MSR, consistent with higher realized and implied volatility in the quarter
- Generated Comprehensive Loss of \$128.6 million, representing an annualized return on average common equity of (24.7)%

Earnings Available for Distribution and Portfolio Yield



(\$ millions, except per share data)	Q3-2021	Q4-2021	Variance
Interest income	\$ 36.0	\$ 33.0	\$ (3.0)
Interest expense	21.9	20.2	1.7
Net interest income	14.1	12.8	(1.3)
Servicing income, net of amortization on MSR	56.7	60.9	4.2
Gain on swaps and swaptions	4.5	5.8	1.3
Gain on other derivatives	46.3	39.5	(6.8)
Total other income	107.5	106.2	(1.3)
Servicing expenses	21.4	21.6	(0.2)
Operating expenses	12.8	9.8	3.0
Total expenses	34.2	31.4	2.8
Provision for income taxes	—	0.6	(0.6)
Earnings Available for Distribution⁽¹⁾	\$ 87.4	\$ 87.0	\$ (0.4)
Dividends on preferred stock	13.8	13.7	0.1
Earnings Available for Distribution available to common stockholders	\$ 73.6	\$ 73.3	\$ (0.3)
Earnings Available for Distribution per weighted average basic common share	\$ 0.24	\$ 0.22	
Earnings Available for Distribution annualized return on average common equity	14.7 %	14.1 %	
Operating expenses, excluding non-cash LTIP amortization and nonrecurring expenses, as a percentage of average equity	1.9 %	1.4 %	

- Fourth quarter EAD reflects:
 - Lower interest income on lower RMBS balances, partially offset by a decline in RMBS and MSR borrowing costs
 - Decrease in gain on other derivatives
 - Lower average TBA notional largely offset by roll specialness
 - Lower notional U.S. Treasury futures
 - Growth in servicing income driven by a higher average UPB balance and slower prepayment speeds
 - Lower compensation expenses as a result of accrual adjustments offset by the rescission of the CARES Act employee retention credit
- Annualized portfolio yield increased to 3.72% and net spreads widened by 44 bps, due primarily to higher MSR yields and a greater proportion of MSR in the portfolio

PORTFOLIO YIELD	Q3-2021	Q4-2021	As of December 31, 2021 ⁽²⁾
Annualized portfolio yield ⁽³⁾	3.33 %	3.72 %	3.84 %
Annualized cost of funds ⁽⁴⁾	0.78 %	0.73 %	0.74 %
Annualized net spread for aggregate portfolio	2.55 %	2.99 %	3.10 %

Financing Profile



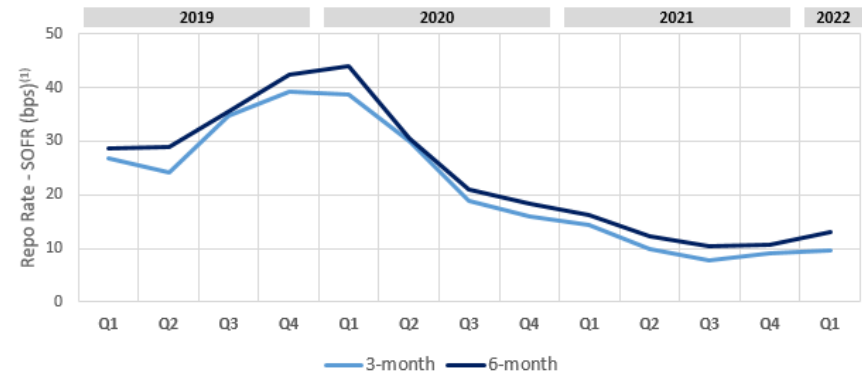
BALANCE SHEET AS OF DECEMBER 31, 2021

STRONG LIQUIDITY POSITION

Agency RMBS \$7.2 billion	Agency repurchase agreements \$7.5 billion
MSR \$2.2 billion	MSR financing \$1.0 billion
Cash & cash equivalents \$1.2 billion	Convertible debt \$0.4 billion
Restricted cash \$0.9 billion	All other liabilities \$0.5 billion
All other assets \$0.6 billion	Preferred equity \$0.7 billion
	Common equity \$2.0 billion

AGENCY RMBS

- \$7.5 billion of outstanding repurchase agreements with 19 counterparties
- Although repo term rates increased during the quarter in anticipation of rate hikes, spread to OIS / SOFR remains low



MORTGAGE SERVICING RIGHTS

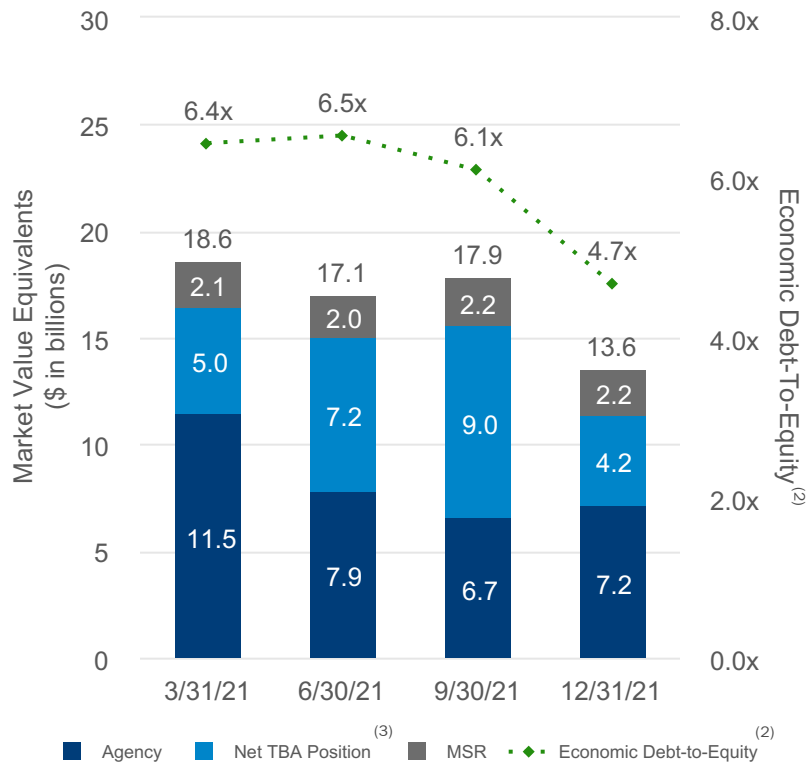
- \$527 million of outstanding borrowings under bilateral MSR asset financing facilities
- \$400 million of outstanding 5-year MSR term notes⁽²⁾
- \$313 million of unused, committed MSR asset financing capacity
- \$19 million outstanding borrowings and \$181 million of unused, committed capacity for servicing advance receivables



Quarterly Activity and Portfolio Composition

PORTFOLIO COMPOSITION⁽¹⁾

At December 31, 2021, \$13.6 billion portfolio
Includes \$9.4 billion settled positions



PORTFOLIO ACTIVITY

- In anticipation of wider spreads caused by a more active Fed, sold RMBS in early December, reducing leverage to 4.7x from 6.1x⁽²⁾
 - Average economic debt-to-equity of 5.1x in the fourth quarter, compared to 6.0x in the third quarter⁽²⁾
- Began to reduce TBA position and reinvest into specified pools, which should have better relative value as:
 - Roll specialness declines as the Fed steps away
 - The TBA deliverable deteriorates with the Fed no longer buying the fastest paying bonds
 - Increased loan limits worsen the negative convexity of the TBA
- Net TBA position declined to \$4.2 billion while the Agency RMBS position increased slightly to \$7.2 billion
 - Rotated out of almost all seasoned 3% pools into new production investor, loan balance and geography stories, reducing burn out risk and adding additional carry to the portfolio⁽⁴⁾
 - Added 2.5% coupon bank-serviced collateral⁽⁴⁾
- Utilized options to reduce spread exposure while maintaining carry and convexity in portfolio
- MSR portfolio was essentially flat at \$2.2 billion with acquisitions replacing runoff

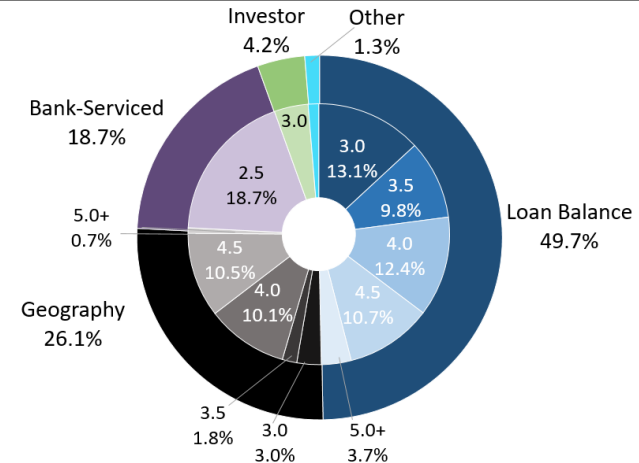
Specified Pools



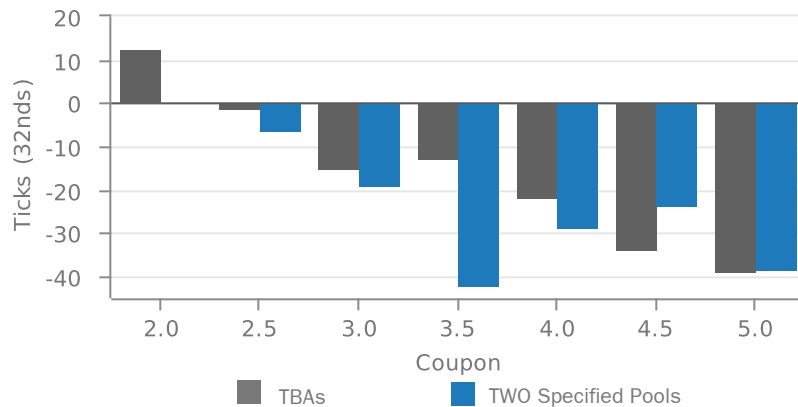
SPECIFIED POOL PERFORMANCE

- High coupon specified pools underperformed, reversing the spread tightening that occurred during the third quarter
 - Loan balance 3.5% coupon were particularly impacted as market expectations of burnout were delayed further
 - TBA speeds declined materially while specified pool speeds declined to a lesser extent
- Weighted average specified pool portfolio speeds declined to 27.7% from 30.1% in the third quarter
- In the current rising rate environment, speeds are expected to drop sharply in the coming months

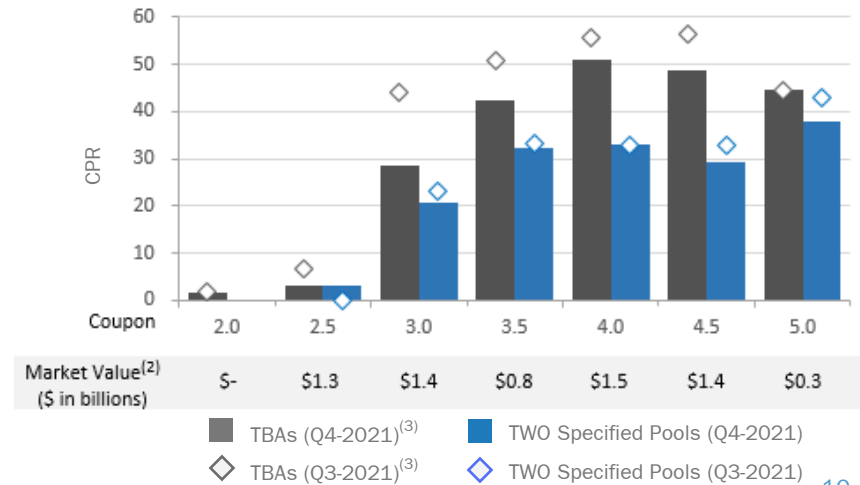
I. SPECIFIED POOL PORTFOLIO⁽¹⁾



II. QUARTERLY PERFORMANCE



III. SPECIFIED POOL PREPAYMENT SPEEDS





Mortgage Servicing Rights

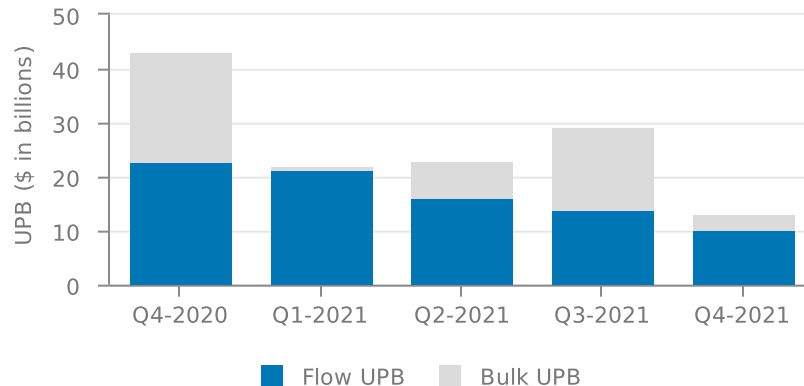
MSR PORTFOLIO PERFORMANCE

- Portfolio growth was flat with new volume replacing run-off
 - Maintained strong market share position notwithstanding flow volume decline as refinancing activity slowed
 - Buying opportunistically as bulk volume has been high
 - Expect to settle \$39 billion UPB from bulk transactions in the first quarter of 2022
- MSR price multiple was unchanged at 4.2x as long end rates ended roughly unchanged
- Loans in forbearance continued to decline and accounted for less than 1% of MSR portfolio by loan count

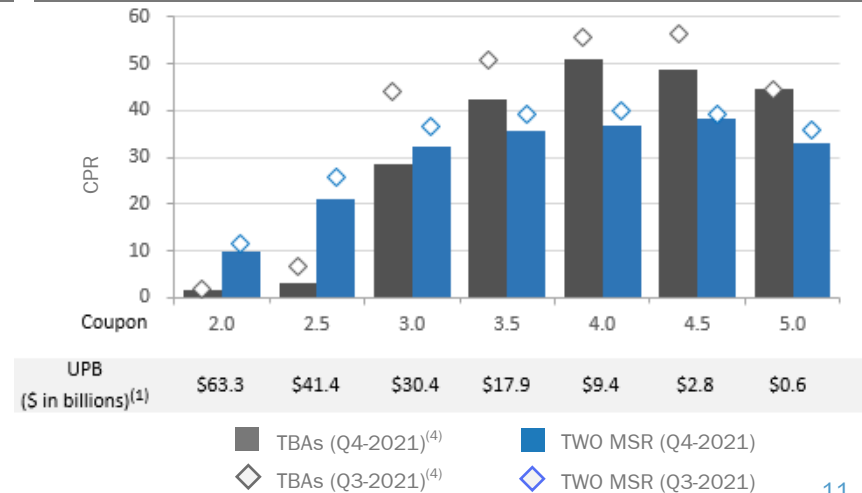
I. MSR PORTFOLIO⁽¹⁾

	9/30/2021	12/31/2021
Fair value (\$ millions)	\$ 2,213	\$ 2,192
Price Multiple	4.2x	4.2x
UPB (\$ millions)	\$ 199,931	\$ 197,782
Weighted average gross coupon rate	3.4%	3.3%
Weighted average loan size ⁽²⁾ (\$ thousands)	\$ 322	\$ 323
Weighted average original FICO ⁽³⁾	758	758
Weighted average original LTV	72%	72%
60+ day delinquencies	1.8%	1.4%
Net servicing fee (bps)	26.4	26.3
Weighted average loan age (months)	27	28
Weighted average CPR	27%	22%

II. MSR SETTLEMENT ACTIVITY



III. 30-YEAR MSR PREPAYMENT SPEEDS

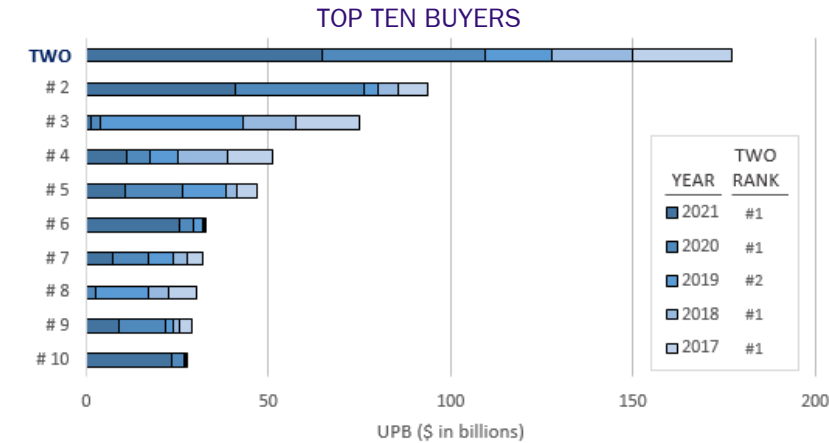




Special Topic: Sourcing Mortgage Servicing Rights

DIVERSIFIED ACQUISITION THROUGH FLOW AND BULK CHANNELS

I. FLOW CHANNEL: MARKET LEADER⁽¹⁾



Took advantage of robust market activity in 2021 to grow the portfolio by \$15.9 billion, offsetting the impact of fast prepayments

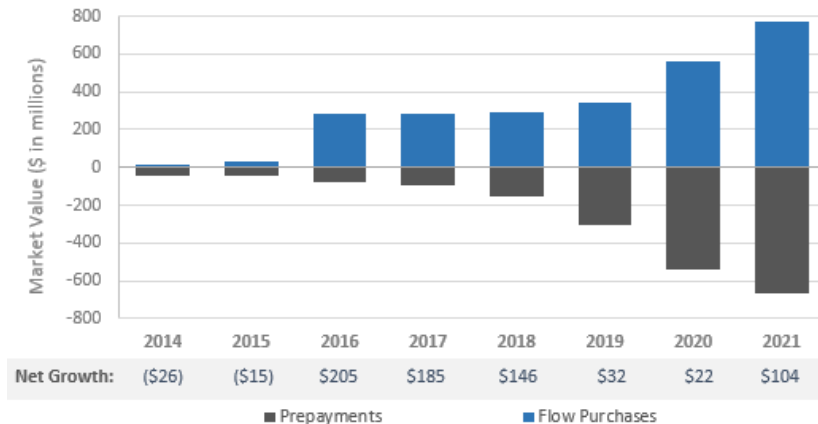
FLOW CHANNEL

- A leading purchaser of MSR with average market share of 25% over the last five years
- Flow volumes largely track prepayments and provide an offset to runoff
- Ten buyers accounted for 83% of the aggregate flow market purchases over the last five years

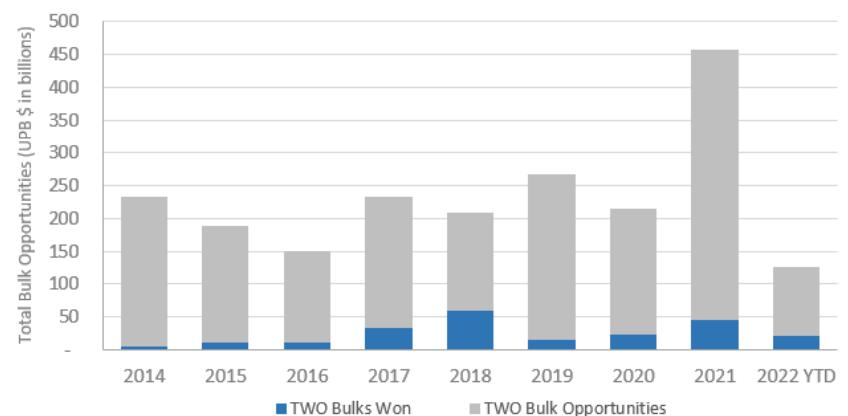
BULK CHANNEL

- Bulk volume provides for opportunistic growth of the portfolio and varies by year; elevated activity has continued into 2022

II. FLOW CHANNEL: RELIABLE SOURCE OF MSR⁽²⁾



III. BULK CHANNEL: OPPORTUNISTIC GROWTH⁽³⁾

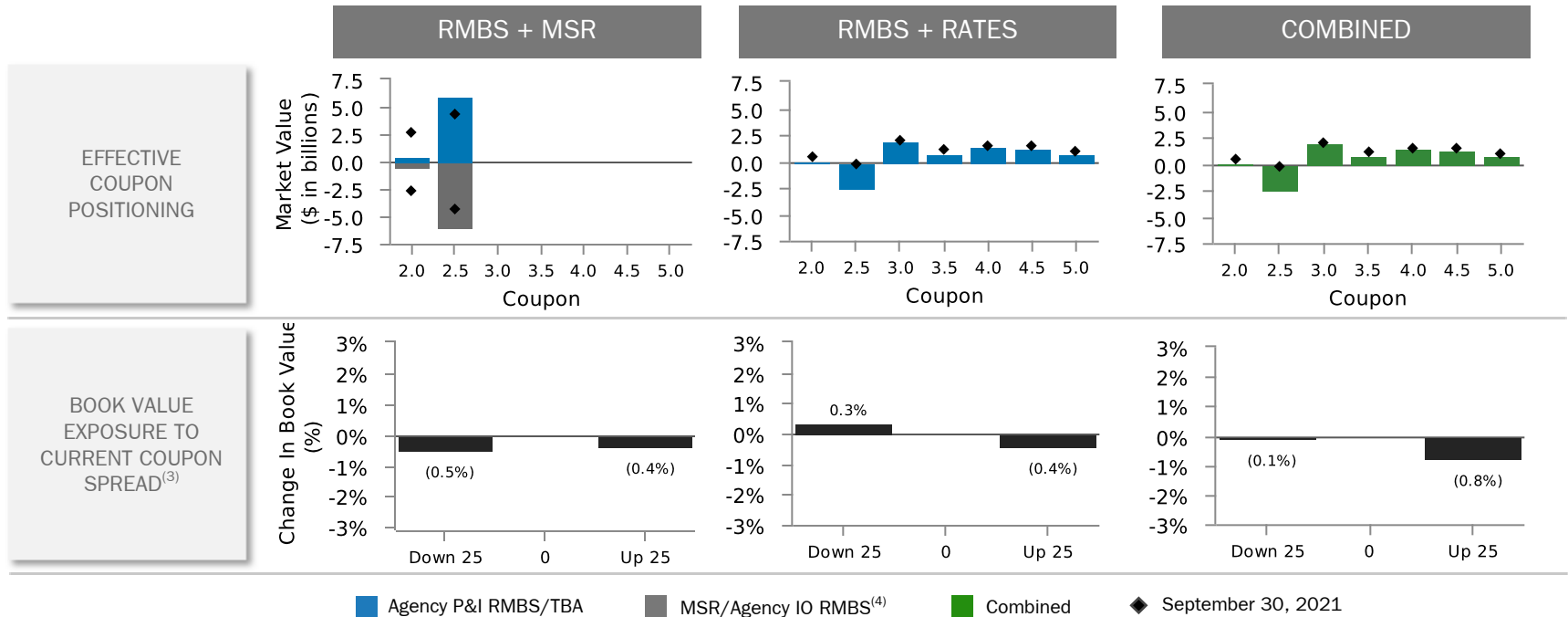




Agency + MSR Advantage

LOW EXPOSURE TO CURRENT COUPON SPREAD

- The charts below illustrate a point-in-time view of risk exposure through the lens of: Agency RMBS paired with MSR (RMBS + MSR⁽¹⁾) and Agency RMBS hedged with Rates (RMBS + RATES⁽²⁾)
 - RMBS + MSR: The rates sell-off moved the effective short RMBS positions to almost entirely in the 2.5 coupon; book value exposure to current coupon spreads is low, at -0.4% for a 25 bps widening
 - RMBS + RATES: The short 2.5 coupon position largely reflects TBA sales in December in anticipation of spread widening; book value exposure to current coupon spreads is low at -0.4% for a 25 bps widening



Note: Sensitivity data as of December 31, 2021. 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.

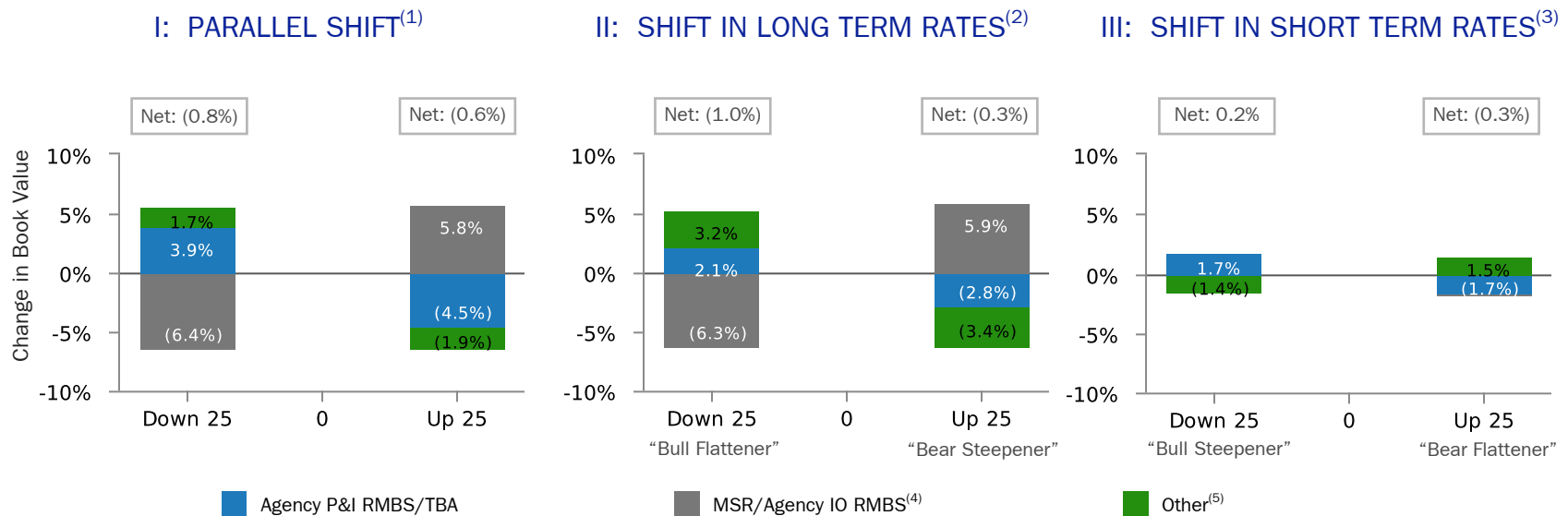
Risk Positioning



AGENCY + MSR DELIVERS BOOK VALUE STABILITY

- Interest rate and curve exposure remains low and in line with historical positioning
 - For an instantaneous parallel shift in rates, the estimated change in book value would be -0.8% for a 25 bps decline and -0.6% for a 25 bps increase
 - In a 25 bps “bear steepener” (Figure II), where rates 10 years and longer increase by 25 bps and 2-year rates and shorter are unchanged, the estimated change in book value would be -0.3%
 - In a 25 bps “bear flattener” (Figure III), where rates 2 years and shorter increase by 25 bps and 10-year rates and longer are unchanged, the estimated change in book value would -0.3%

BOOK VALUE EXPOSURE TO CHANGES IN RATES



Note: Sensitivity data as of December 31, 2021. 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.

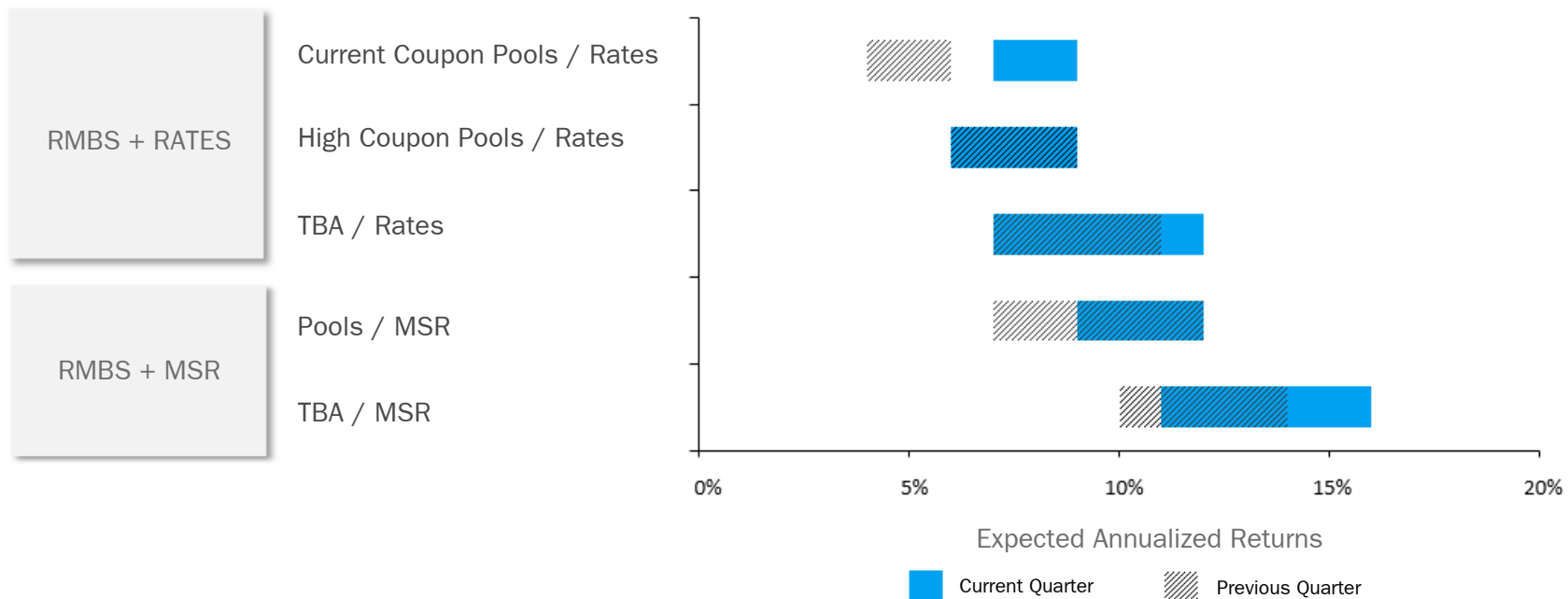
Two Harbors Outlook



OPPORTUNITY SET IN TARGET ASSETS REMAINS ATTRACTIVE TODAY

- The paired MSR construction remains the most attractive opportunity to deploy capital with returns in the low double digits
- Lower coupon mortgages widened sharply after quarter end and returns are now in the high single digits

STATIC RETURN OUTLOOK FOR TARGET ASSETS⁽¹⁾



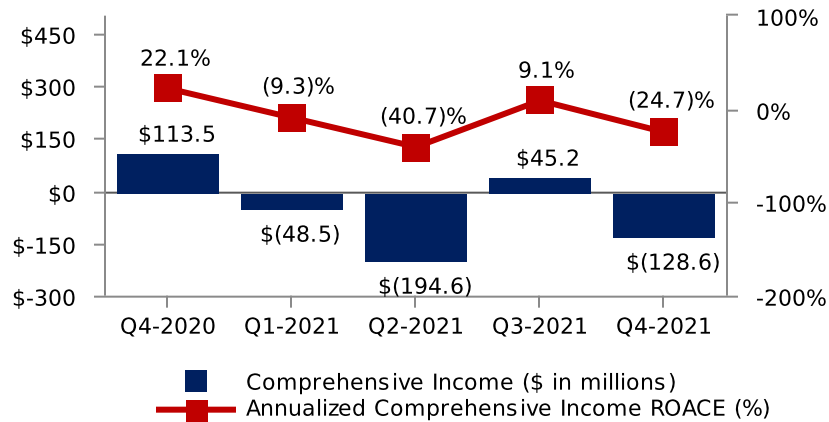
An aerial night photograph of a city grid, likely New York City, showing building footprints highlighted in white. The scene is dominated by a dark blue color palette, with lights from buildings and streets providing contrast. The word "Appendix" is centered in white text.

Appendix

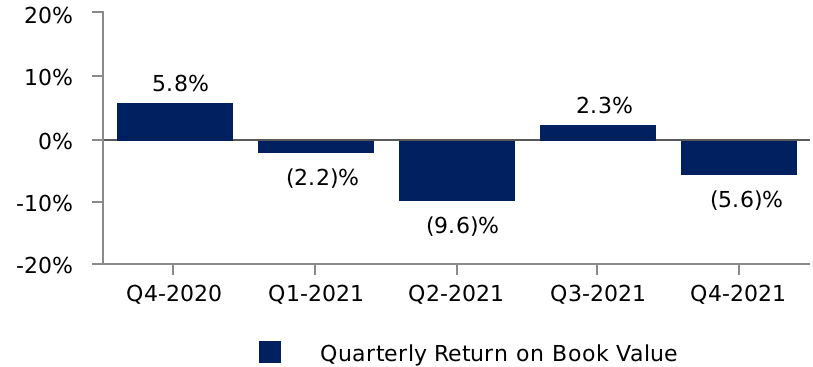
Financial Performance



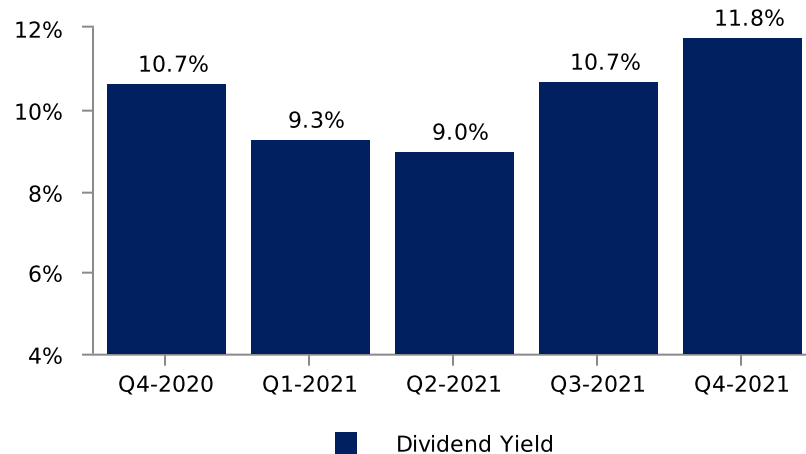
COMPREHENSIVE INCOME (LOSS)



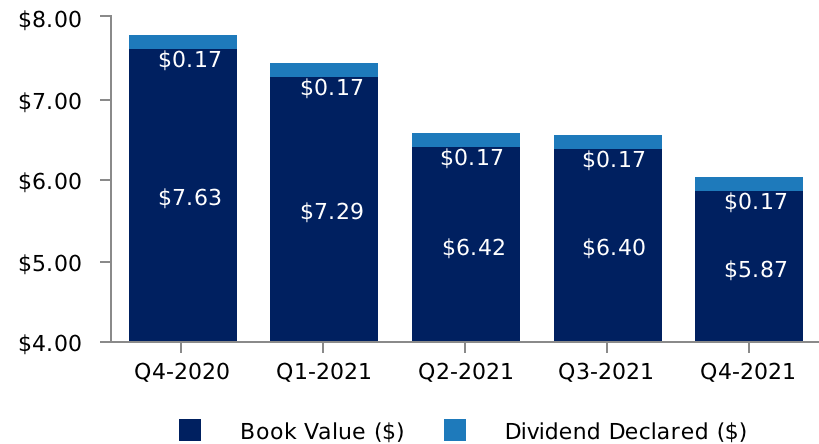
QUARTERLY RETURN ON BOOK VALUE⁽¹⁾



DIVIDEND YIELD⁽²⁾



BOOK VALUE AND DIVIDEND PER COMMON SHARE⁽²⁾



Q4-2021 Operating Performance



\$ millions, except for per common share data	Q4-2021			
	Earnings Available for Distribution ⁽⁴⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 33.0	\$ —	\$ —	\$ 33.0
Interest expense	20.2	—	—	20.2
Net interest income	12.8	—	—	12.8
Gain (loss) on investment securities	—	25.6	(24.0)	1.6
Servicing income	125.5	—	—	125.5
Loss on servicing asset	(64.6)	(0.6)	(66.6)	(131.8)
Gain (loss) on interest rate swap and swaption agreements	5.8	(5.2)	36.4	37.0
Gain (loss) on other derivative instruments	39.5	(122.1)	71.0	(11.6)
Other income	—	1.9	—	1.9
Total other income (loss)	106.2	(100.4)	16.8	22.6
Servicing expenses	21.6	—	—	21.6
Operating expenses	9.8	3.2	—	13.0
Total expenses	31.4	3.2	—	34.6
Income (loss) before income taxes	87.6	(103.6)	16.8	0.8
Provision for (benefit from) income taxes	0.6	(3.9)	5.4	2.1
Net income (loss)	87.0	(99.7)	11.4	(1.3)
Dividends on preferred stock	13.7	—	—	13.7
Net income (loss) attributable to common stockholders	\$ 73.3	\$ (99.7)	\$ 11.4	\$ (15.0)
Earnings (loss) per weighted average basic common share	\$ 0.22	\$ (0.30)	\$ 0.03	\$ (0.05)

Q3-2021 Operating Performance



(\$ millions, except for per common share data)	Q3-2021			
	Earnings Available for Distribution ⁽¹⁾	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 36.0	\$ —	\$ —	\$ 36.0
Interest expense	21.9	—	—	21.9
Net interest income	14.1	—	—	14.1
Gain on investment securities	—	20.9	7.7	28.6
Servicing income	123.0	—	—	123.0
(Loss) gain on servicing asset	(66.3)	(11.0)	34.8	(42.5)
Gain (loss) on interest rate swap and swaption agreements	4.5	5.2	(13.6)	(3.9)
Gain (loss) on other derivative instruments	46.3	60.6	(121.9)	(15.0)
Other income	—	—	—	—
Total other income (loss)	107.5	75.7	(93.0)	90.2
Servicing expenses	21.4	(0.4)	—	21.0
Operating expenses	12.8	3.8	—	16.6
Total expenses	34.2	3.4	—	37.6
Income (loss) before income taxes	87.4	72.3	(93.0)	66.7
(Benefit from) provision for income taxes	—	(1.5)	1.8	0.3
Net income (loss)	87.4	73.8	(94.8)	66.4
Dividends on preferred stock	13.8	—	—	13.8
Net income (loss) attributable to common stockholders	\$ 73.6	\$ 73.8	\$ (94.8)	\$ 52.6
Earnings (loss) per weighted average basic common share	\$ 0.24	\$ 0.24	\$ (0.31)	\$ 0.17

GAAP to EAD Reconciliation



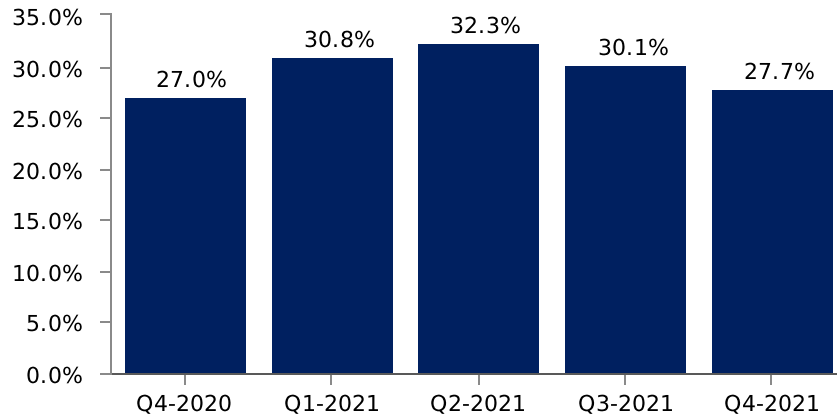
Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended September 30, 2021	Three Months Ended December 31, 2021
Comprehensive income (loss) attributable to common stockholders	\$ 45,226	\$ (128,594)
Adjustment for other comprehensive loss attributable to common stockholders:		
Unrealized loss on available-for-sale securities	7,350	113,553
Net income (loss) attributable to common stockholders	\$ 52,576	\$ (15,041)
Adjustments for non-EAD:		
Realized gain on securities	(21,087)	(28,912)
Unrealized (gain) loss on securities	(7,714)	23,939
Provision for credit losses	159	3,347
Realized and unrealized (gain) loss on mortgage servicing rights	(23,749)	67,197
Realized (gain) loss on termination or expiration of interest rate swaps and swaptions	(5,220)	5,143
Unrealized loss (gain) on interest rate swaps and swaptions	13,608	(36,360)
Loss on other derivative instruments	61,355	51,116
Change in servicing reserves	(378)	(22)
Non-cash equity compensation expense	2,559	2,525
Other nonrecurring expenses	1,187	665
Net provision for income taxes on non-Core Earnings	311	1,535
Earnings available for distribution to common stockholders	\$ 73,607	\$ 73,276
Weighted average basic common shares	307,773,420	335,100,737
Earnings available for distribution to common stockholders per weighted average basic common share	\$ 0.24	\$ 0.22

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” (provision for (reversal of) credit losses, realized and unrealized gains and losses on the aggregate portfolio, reserve expense for representation and warranty obligations on MSR, non-cash compensation expense related to restricted common stock, other nonrecurring expenses and restructuring charges). 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. Dollar roll income is the 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. 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.

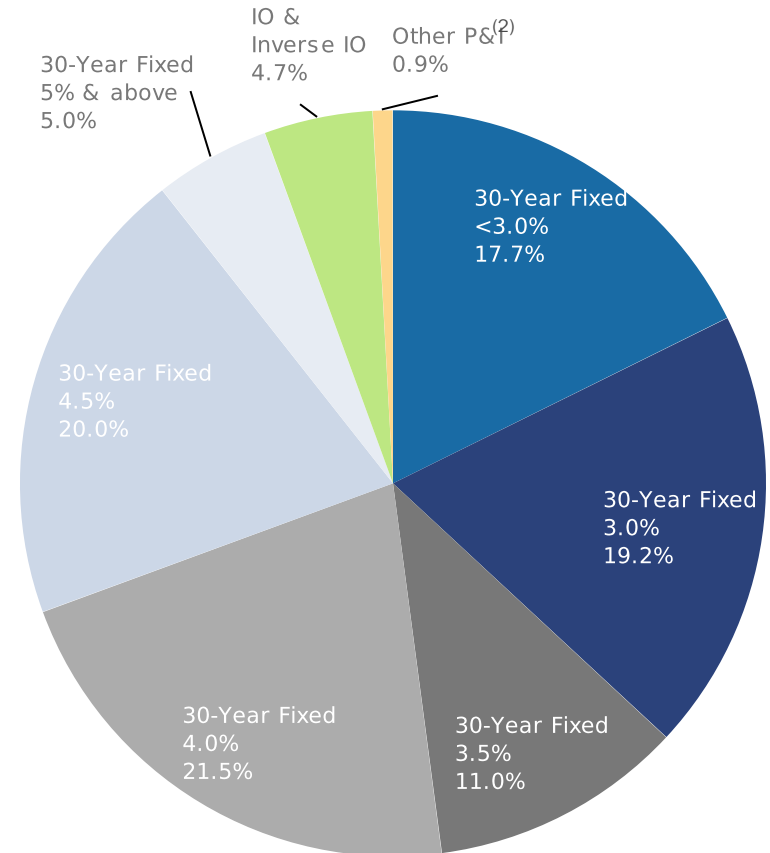
Portfolio Metrics



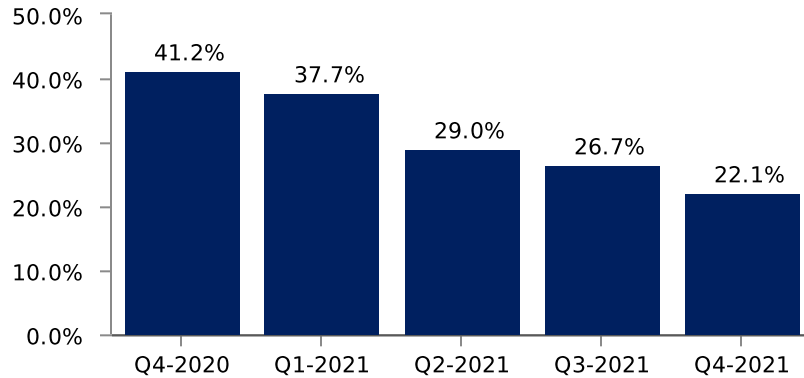
AGENCY RMBS CPR⁽¹⁾



AGENCY PORTFOLIO COMPOSITION



MSR CPR



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	\$ 1,244	\$ 1,271	5.9 %	— %	\$ 1,272	3.3 %	3
3.0%	1,317	1,384	9.6 %	100.0 %	1,382	3.7 %	8
3.5%	740	789	27.3 %	100.0 %	770	4.2 %	29
4.0%	1,422	1,544	26.5 %	100.0 %	1,478	4.6 %	49
4.5%	1,307	1,436	27.7 %	100.0 %	1,373	5.0 %	47
≥ 5.0%	325	362	37.6 %	98.0 %	345	5.9 %	84
	6,355	6,786	20.5 %	81.2 %	6,620	4.3 %	31
Other P&I⁽³⁾	56	62	53.9 %	— %	62	6.5 %	224
IOs and IIOs⁽⁴⁾	3,446	342	20.1 %	— %	339	4.0 %	66
Total Agency RMBS	\$ 9,857	\$ 7,190		76.6 %	\$ 7,021		

	Notional Amount (\$ millions)	Bond Equivalent Value (\$ millions) ⁽⁵⁾	Through-the-Box Speeds ⁽⁶⁾
TBA Positions			
2.5% & below	\$ 2,905	\$ 2,954	3.1 %
3.0%	618	640	28.6 %
3.5%	—	—	42.3 %
4.0%	—	—	51.0 %
4.5%	—	—	48.6 %
5.0%	593	646	44.5 %
Net TBA position	\$ 4,116	\$ 4,240	

Mortgage Servicing Rights Portfolio⁽¹⁾

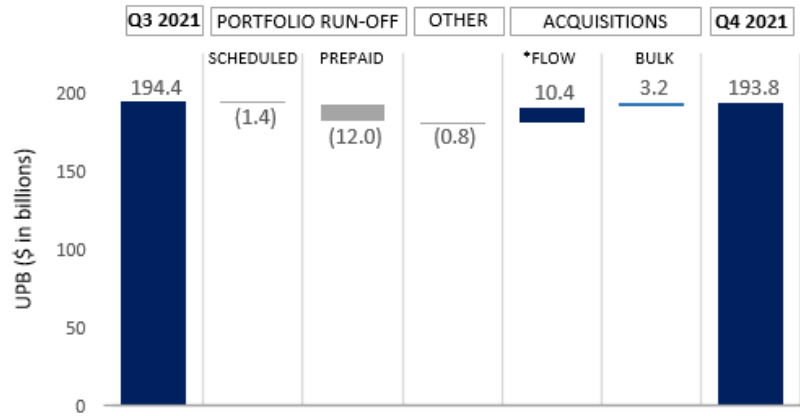


	Number of Loans	Unpaid Principal Balance (\$ millions)	Gross Weighted Average Coupon Rate	Weighted Average Loan Size ⁽²⁾ (\$ thousands)	Weighted Average Loan Age (months)	Weighted Average Original FICO ⁽³⁾	Weighted Average Original LTV	60+ Day Delinquencies	3-Month CPR	Net Servicing Fee (bps)
30-Year Fixed										
≤ 3.25%	215,128	\$ 72,198	2.8%	\$ 395	11	767	71%	0.3%	10.7%	25.7
3.25% - 3.75%	167,615	43,577	3.4%	321	28	755	74%	0.8%	24.0%	26.3
3.75% - 4.25%	125,831	26,250	3.9%	263	54	753	76%	2.3%	34.0%	27.4
4.25% - 4.75%	79,107	14,291	4.4%	239	58	737	78%	4.4%	36.4%	26.3
4.75% - 5.25%	38,902	6,319	4.9%	230	52	722	79%	6.4%	37.4%	27.3
> 5.25%	15,796	2,176	5.5%	211	51	705	79%	9.2%	37.6%	30.5
	642,379	164,811	3.4%	332	29	756	73%	1.5%	22.7%	26.3
15-Year Fixed										
≤ 2.25%	16,525	5,397	2.0%	371	9	778	57%	0.1%	8.3%	25.2
2.25% - 2.75%	41,168	9,901	2.4%	294	13	774	58%	0.2%	14.2%	25.6
2.75% - 3.25%	46,236	7,568	2.9%	220	40	768	61%	0.4%	21.6%	26.1
3.25% - 3.75%	28,010	3,486	3.4%	172	55	758	64%	1.1%	26.6%	27.4
3.75% - 4.25%	12,685	1,303	3.9%	152	55	742	65%	2.1%	28.5%	28.8
> 4.25%	5,965	513	4.5%	130	47	727	66%	2.6%	29.4%	31.2
	150,589	28,168	2.7%	264	27	769	60%	0.5%	18.1%	26.1
Total ARMs	3,237	792	3.0%	315	54	762	68%	2.9%	29.5%	25.2
Total Portfolio	796,205	\$ 193,771	3.3%	\$ 322	28	758	72%	1.3%	22.1%	26.3

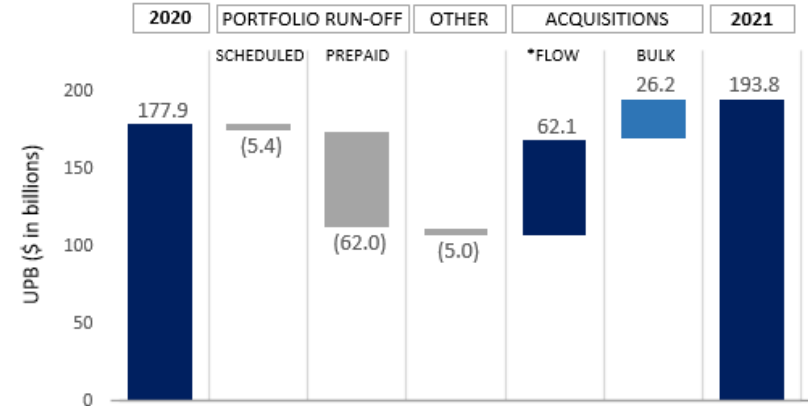
Mortgage Servicing Rights Portfolio UPB Roll-Forward



MSR ROLL-FORWARD: Q4-2021



MSR ROLL-FORWARD: FULL YEAR 2021



*Includes recapture

Financing



\$ millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	Revolving Credit Facilities	Term Notes Payable	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 1,627.3	\$ —	\$ —	\$ 143.7	\$ 1,771.0	19.9 %
30 to 59 days	1,807.5	—	—	—	1,807.5	20.3 %
60 to 89 days	1,981.1	—	—	—	1,981.1	22.3 %
90 to 119 days	1,249.4	—	—	—	1,249.4	14.0 %
120 to 364 days	991.1	274.5	—	—	1,265.6	14.2 %
One to three years	—	146.3	396.8	—	543.1	6.1 %
Three to five years	—	—	—	281.1	281.1	3.2 %
	<u>\$ 7,656.4</u>	<u>\$ 420.8</u>	<u>\$ 396.8</u>	<u>\$ 424.8</u>	<u>\$ 8,898.8</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	\$ 7,009.4	\$ —	\$ —	n/a	\$ 7,009.4	76.1 %
Derivative assets, at fair value	39.6	—	—	n/a	39.6	0.4 %
Mortgage servicing rights, at fair value	726.0	904.8	500.0	n/a	2,130.8	23.1 %
Other assets (includes servicing advances)	—	33.8	—	n/a	33.8	0.4 %
	<u>\$ 7,775.0</u>	<u>\$ 938.6</u>	<u>\$ 500.0</u>	<u>n/a</u>	<u>\$ 9,213.6</u>	<u>100.0 %</u>

Interest Rate Swaps and Swaptions



INTEREST RATE SWAPS					
Maturities	Notional Amounts (\$B)	Average Fixed Pay Rate	Average Receive Rate	Average Maturity (Years)	
Payers					
2022	\$ 7.4	0.420 %	0.070 %	0.7	
2023	2.6	0.113 %	0.068 %	1.5	
2024	—	— %	— %	—	
2025	0.4	1.030 %	0.050 %	4.0	
2026 and Thereafter	2.8	0.652 %	0.063 %	6.6	
	<u>\$ 13.2</u>	<u>0.213 %</u>	<u>0.067 %</u>	<u>2.2</u>	
Maturities	Notional Amounts (\$B)	Average Pay Rate	Average Fixed Receive Rate	Average Maturity (Years)	
Receivers					
2022	\$ 2.2	0.070 %	0.118 %	1.2	
2023	—	— %	— %	—	
2024	—	— %	— %	—	
2025	—	— %	— %	—	
2026 and Thereafter	5.0	0.058 %	1.049 %	10.0	
	<u>\$ 7.2</u>	<u>0.062 %</u>	<u>0.763 %</u>	<u>7.3</u>	

INTEREST RATE SWAPTIONS								
Option					Underlying Swap			
Swaption	Expiration	Cost (\$M)	Fair Value (\$M)	Average Months to Expiration	Notional Amount (\$M)	Average Pay Rate	Average Receive Rate	Average Term (Years)
Purchase Contracts:								
Payer	<6 Months	\$ 11.3	\$ 3.5	5.3	\$ 886.0	2.26 %	3M LIBOR	10.0
Sale Contracts:								
Payer	≥6 Months	\$ (26.3)	\$ (24.0)	17.8	\$ (780.0)	1.72 %	3M LIBOR	10.0
Receiver	<6 Months	\$ (10.6)	\$ (6.9)	5.1	\$ (1,087.0)	3M LIBOR	1.26 %	10.0
Receiver	≥6 Months	\$ (26.3)	\$ (24.5)	18.9	\$ (780.0)	3M LIBOR	1.72 %	10.0

Futures



FUTURES			
Type & Maturity	Notional Amount (\$ thousands)	Carrying Value (\$ thousands)	Weighted Average Days to Expiration
U.S. Treasury futures - 10 year	\$ 687,900	\$ 1,809	90
Eurodollar futures - 3 month			
< 1 year	(3,582,000)	15,121	213
> 1 and < 2 years	(2,269,500)	14,952	560
> 2 and < 3 years	(666,000)	3,480	854
Total futures	\$ (5,829,600)	\$ 35,362	370

Tax Characterization of Dividends in 2021



FULL YEAR 2021 DISTRIBUTION SUMMARY

- Generated estimated REIT taxable income of \$63.9 million in 2021
- 2021 distribution declarations for tax purposes totaled \$256.2 million
 - \$256.2 million consists of distributions to common shares of \$192.5 million (\$0.68 per common share) and distributions to preferred shares of \$63.7 million
 - Q4 2020 common stock distribution payable to shareholders on January 29, 2021 with a record date of December 30, 2020 is treated as a 2021 distribution for tax purposes ⁽¹⁾
 - Q4 2021 common stock distribution payable to shareholders on January 28, 2022 with a record date of December 29, 2021 is treated as a 2022 distribution for tax purposes ⁽²⁾
 - No convertible note conversion rate adjustments or deemed distributions occurred in 2021
- 2021 preferred distributions are characterized for tax purposes as 100% ordinary dividends
- 2021 common distributions are characterized for tax purposes as 0.1231% ordinary dividends and 99.8769% non-dividend distributions (return of capital) ⁽³⁾



PAGE 3 - Executive Overview

1. 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. Beginning in the third quarter, the company changed the title of its non-GAAP measure of Core Earnings to Earnings Available for Distribution. Please see Appendix slide 20 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.
3. Average dividend yield is calculated based on the dividends declared in the given period, divided by the average daily closing share price during the given period.

PAGE 4 - Key Market Highlights

1. Source: Bloomberg.
2. Source: Citi Research.
3. Source: J.P. Morgan DataQuery current coupon OAS. 90-100th percentile for October 1, 2017 to December 31, 2019.

PAGE 5 - Looking Ahead

1. Source: eMBS, Inc., Freddie Mac. Mortgage Rate: Freddie Mac Primary Mortgage Market Survey.
2. Realized and projected speeds for Two Harbors' specified pool portfolio holdings and rates as of 1/25/2022. CPR projections based on Two Harbors' internal prepayment modeling.
3. MSR cash flow projections based on Two Harbors' settled and committed MSR portfolio and rates as of 1/25/2022 using internal prepayment and cash flow modeling.
4. Recapture is the net market value of the MSR delivered through our recapture agreements.
5. Runoff is the market value decrease in the MSR caused by prepayments.

PAGE 6 - Book Value Summary

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 20 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.
2. 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 and Portfolio Yield

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 20 for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.
2. Portfolio yields on the portfolio held as of December 31, 2021 and projected over the remaining life of the investments. Assumes a static portfolio and, as a result, does not represent a projection of future yields due to excluding portfolio reinvestment. Cost of funds includes projected interest rate swap spread income for swap positions held as of January 31, 2022.
3. Annualized portfolio yield includes interest income on RMBS and servicing income net of servicing expenses and estimated amortization on MSR.
4. Annualized cost of funds includes interest spread income/expense associated with the portfolio's interest rate swaps.

End Notes (continued)



PAGE 8 - Financing Profile

1. Source: Bloomberg.
2. Balance of 5-year MSR term notes excludes deferred debt issuance costs.

PAGE 9 - Quarterly Activity and Portfolio Composition

1. For additional detail on the portfolio, see Appendix slides 21-23.
2. Economic debt-to-equity is defined as total borrowings to fund RMBS, MSR and Agency Derivatives, plus the implied debt on net TBA positions, 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 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.

PAGE 10 - 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. Specified pool market value by coupon as of December 31, 2021.
3. Three month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Credit Suisse, and Citi data.

PAGE 11 - Mortgage Servicing Rights

1. December 31, 2021 MSR portfolio based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases.
2. Weighted average loan size represents the current weighted average loan size.
3. FICO represents a mortgage industry accepted credit score of a borrower.
4. Three month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Credit Suisse, and Citi data.

PAGE 12 - Special Topic: Sourcing Mortgage Servicing Rights

1. Source: eMBS, Inc. Flow purchases are loans in Fannie Mae or Freddie Mac mortgage-backed securities where a servicing transfer occurred in the first reporting period and it was within 1 month of the first payment due date. The ten Buyers represent the ten largest servicing buyers in aggregate UPB for the five-year period of 2017 through 2021.
2. Flow purchases represent the pricing provider market value of flow and recapture, which may be different than the acquisition price. Prepayments includes prepayments on the entire MSR portfolio, excluding Ginnie Mae collateral held in earlier years, and primarily represent changes due to the realization of expected cash flows.
3. Bulk Opportunities are bulk packages of MSR offered to the company. TWO Bulks Won represents bulk transactions where TWO was the winning bidder based on the date the pool was bid.

End Notes (continued)



PAGE 13 - Agency + MSR Advantage

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 14 - 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 10 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 15 - Two Harbors Outlook

1. Source: Company's indicative estimates based on portfolio assumptions and market conditions, for illustrative purposes only.

PAGE 17 - Financial Performance

1. 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 18 - Q4-2021 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 20 of this presentation for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

PAGE 19 - Q3-2021 Operating Performance

1. Earnings Available for Distribution, or EAD, is a non-GAAP measure. Please see Appendix slide 20 of this presentation for a definition of Earnings Available for Distribution and a reconciliation of GAAP to non-GAAP financial information.

End Notes (continued)



PAGE 21 - Portfolio Metrics

1. Agency weighted average 3-month Constant Prepayment Rate (CPR) includes IIOs (or Agency Derivatives).
2. Other P&I includes 15-year fixed, Hybrid ARMs, CMO and DUS pools.

PAGE 22 - Agency RMBS Portfolio

1. Weighted average actual 1 month annualized 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 \$40.9 million of Agency Derivatives and \$300.9 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.
2. Weighted average loan size represents the current weighted average loan size.
3. FICO represents a mortgage industry accepted credit score of a borrower.

PAGE 25 - 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 28 - Tax Characterization of Dividends in 2021

1. Pursuant to IRC Section 857(b)(9), cash distributions made on January 29, 2021 with a record date of December 30, 2020 are treated as received by stockholders on December 31, 2020 to the extent of 2020 earnings and profits. As Two Harbors' aggregate 2020 cash distributions exceeded its 2020 earnings and profits, the January 2021 cash distribution declared in the fourth quarter of 2020 is treated as a 2021 distribution for federal income tax purposes and is included on the 2021 Form 1099-DIV.
2. Pursuant to IRC Section 857(b)(9), cash distributions made on January 28, 2022 with a record date of December 29, 2021 are treated as received by stockholders on December 31, 2021 to the extent of 2021 earnings and profits. As Two Harbors' aggregate 2021 cash distributions exceeded its 2021 earnings and profits, the January 2022 cash distribution declared in the fourth quarter of 2021 is treated as a 2022 distribution for federal income tax purposes and is not included on the 2021 Form 1099-DIV.
3. The U.S. federal income tax treatment of holding Two Harbors common stock to any particular stockholder will depend on the stockholder's particular tax circumstances. You are urged to consult your tax advisor regarding the U.S. federal, state, local and foreign income and other tax consequences to you, in light of your particular investment or tax circumstances, of acquiring, holding and disposing of Two Harbors common stock. Two Harbors does not provide tax, accounting or legal advice. Any tax statements contained herein were not intended or written to be used, and cannot be used for the purpose of avoiding U.S., federal, state or local tax penalties. Please consult your advisor as to any tax, accounting or legal statements made herein.



TWO HARBORS
Investment Corp.