



# Fourth Quarter 2020 Earnings Call

FEBRUARY 10, 2021



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, 2019, 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; the occurrence, extent and timing of credit losses within our portfolio; the concentration of credit risks we are exposed to; declines in home prices; our ability to establish, adjust and maintain appropriate hedges for the risks in our portfolio; the availability and cost of our target assets; the availability and cost of financing; changes in the competitive landscape within our industry; our ability to effectively execute and to realize the benefits of strategic transactions and initiatives we have pursued or may in the future pursue; our decision to terminate our management agreement with PRCM Advisers LLC and the pending litigation related thereto; 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.

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## *Strong Performance in a Repositioned Portfolio*

### *Quarterly Summary*

- Reported book value of \$7.63 per common share, representing a 5.8% quarterly return on book value<sup>(1)</sup>
- Generated Comprehensive Income of \$113.5 million, representing an annualized return on average common equity of 22.1%
- Reported Core Earnings of \$82.0 million, or \$0.30 per weighted average basic common share<sup>(2)</sup>
- Declared a fourth quarter common stock dividend of \$0.17 per share, a 21% increase from the prior quarter
- Continued strength in MSR flow-sale program; settled \$23.0 billion unpaid principal balance (UPB) of MSR
- Closed on an additional \$20.4 billion of bulk purchases

### *Annual Summary*

- Completed transition to self-management and repositioned portfolio to Agency + MSR strategy
- Reported book value of \$7.63 per common share compared to \$14.54 at December 31, 2019, representing a (44%) return on book value. Return on book value was 16.8% from March 31, 2020<sup>(1)</sup> through year end
- Grew MSR flow program purchases by over 136% year-over-year
- Diversified and increased access to MSR financing; closed a \$200 million financing facility for servicing advances

### *Post-Quarter End Update*

- Issued \$287.5 million principal amount of 5-year convertible senior notes due 2026
- Repurchased and retired \$143.7 million principal amount of convertible senior notes due 2022
- Announced redemption of \$75 million Series D and \$200 million Series E preferred shares

(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) Core Earnings is a non-GAAP measure. Please see Appendix slide 20 for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.



# Book Value Summary

(Dollars in millions, except per share data)	Q4-2020 Book Value	Q4-2020 Book Value per share	YTD-2020 Book Value	YTD-2020 Book Value per share
<b>Beginning common stockholders' equity</b>	<b>\$ 2,018.4</b>	<b>\$ 7.37</b>	<b>\$ 3,969.2</b>	<b>\$ 14.54</b>
GAAP Net Income (Loss):				
Core Earnings, net of tax <sup>(1)</sup>	101.0		286.6	
Dividend declaration - preferred	(19.0)		(75.9)	
Core Earnings attributable to common stockholders, net of tax <sup>(1)</sup>	82.0		210.7	
Realized and unrealized gains and losses, net of tax	110.2		(1,916.6)	
Other comprehensive loss, net of tax	(78.7)		(47.8)	
Common stock dividends declared	(46.5)		(136.8)	
Other	2.2		9.7	
Repurchases of common stock	—		(1.1)	
Issuance of common stock, net of offering costs	0.1		0.4	
<b>Ending common stockholders' equity</b>	<b>\$ 2,087.7</b>	<b>\$ 7.63</b>	<b>\$ 2,087.7</b>	<b>\$ 7.63</b>
Total preferred stock liquidation preference	1,001.3		1,001.3	
<b>Ending total equity</b>	<b>\$ 3,089.0</b>		<b>\$ 3,089.0</b>	

- Book value of \$7.63 per common share, represented a 5.8% total economic return on book value<sup>(2)</sup>
- Generated Comprehensive Income of \$113.5 million, representing an annualized return on average common equity of 22.1%
- Book value growth was driven by outperformance of lower coupon TBAs, improvement in specified pool payups, marginal tightening in MSR spreads, and lower expenses

(1) Core Earnings is a non-GAAP measure. Please see Appendix slide 20 for a definition of Core Earnings 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.

# Core Earnings Review<sup>(1)</sup>



(\$ in millions, except per share data)	Q3-2020	Q4-2020	Variance (\$)
Interest income	89.7	72.5	\$ (17.2)
Interest expense	29.2	22.6	6.6
Net interest income	60.5	49.9	(10.6)
Servicing income, net of amortization on MSR	42.2	41.1	(1.1)
Gain on swaps and swaptions	0.8	2.0	1.2
Gain on other derivatives	32.9	43.5	10.6
Other	0.1	0.1	—
Total other income	76.0	86.7	10.7
Expenses	43.5	37.3	6.2
Provision for income taxes	(1.5)	(1.7)	0.2
<b>Core Earnings<sup>(1)</sup></b>	<b>94.5</b>	<b>101.0</b>	<b>6.5</b>
Dividends on preferred stock	18.9	19.0	(0.1)
<b>Core Earnings attributable to common stockholders<sup>(1)</sup></b>	<b>\$ 75.6</b>	<b>\$ 82.0</b>	<b>\$ 6.4</b>
<b>Basic weighted average Core EPS</b>	<b>\$ 0.28</b>	<b>\$ 0.30</b>	
<b>Core Earnings annualized return on average common equity</b>	<b>15.7 %</b>	<b>15.9 %</b>	

• Fourth quarter Core Earnings results impacted by:

- Interest income decreased from \$89.7 million to \$72.5 million due to lower average balance and coupon and higher Agency amortization due to prepays
- Interest expense decreased from \$29.2 million to \$22.6 million due to lower borrowing rates and lower average balance
- Gain on other derivatives increased from \$32.9 million to \$43.5 million due to higher TBA dollar roll income driven by higher average balance and continued roll specialness. Roll specialness contributed \$0.06 to Core Earnings per weighted average basic common share in the fourth quarter compared to \$0.04 in the third quarter
- Expenses were favorable by \$6.2 million primarily due to transition to self-management and lower servicing costs

(1) Core Earnings is a non-GAAP measure. Please see Appendix slide 20 for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.



# Portfolio Yield

## LOWER PORTFOLIO YIELD OFFSET BY LOWER COST OF FUNDS

- Lower portfolio yield due to higher Agency RMBS prepayments
- Lower cost of funds due to favorable repo rolls

	Realized Q3-2020	Realized Q4-2020	As of Dec. 31, 2020 <sup>(1)</sup>
Annualized portfolio yield <sup>(2)</sup>	2.42 %	2.26 %	2.23 %
Annualized cost of funds <sup>(3)</sup>	0.64 %	0.50 %	0.50 %
Annualized net spread for aggregate portfolio	1.78 %	1.76 %	1.73 %

- Yields shown in the table exclude the impact of net TBA dollar roll income<sup>(4)</sup>
- Including TBA implied asset yields and TBA implied cost of funds:
  - Realized Q4-2020 annualized portfolio yield was 2.10%, cost of funds was 0.14%, and net spread for aggregate portfolio was 1.96%
  - Realized Q3-2020 annualized portfolio yield was 2.41%, cost of funds was 0.47%, and net spread for aggregate portfolio was 1.94%

## CORE EARNINGS AND PORTFOLIO YIELDS EXCEED EXPECTED RETURNS IN THE NEAR TERM

- Expect annualized net yield for the aggregate portfolio to decline to market yields over time

(1) Represents yields on the portfolio held as of December 31, 2020 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.

(2) Includes interest income on RMBS and servicing income net of servicing expenses and amortization on MSR.

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

(4) Net TBA dollar roll income represents the price differential, or price "drop," between the TBA price for current month settlement versus the TBA price for forward month settlement. Net TBA dollar roll income is then divided by the TBA notional balance to determine the net dollar roll yield. TBA implied cost of funds derived from the Company's executed TBA roll levels and TBA delivery assumptions sourced from J.P. Morgan for the associated weighted average coupon, weighted average maturity and 1 month projected CPR. Net TBA dollar roll income includes impact from implied asset yields derived from the implied funding costs and gross executed TBA levels.



# Financing Profile

## BALANCE SHEET AS OF 12/31/2020

Agency RMBS \$14.7 billion	Agency Repo \$15.1 billion
MSR \$1.6 billion	MSR financing \$0.7 billion
Cash & cash equivalents \$1.4 billion	Other liabilities \$0.3 billion
Restricted Cash \$1.3 billion	Convertible debt \$0.3 billion
Other assets \$0.5 billion	Preferred equity \$1.0 billion
	Common equity \$2.1 billion

Total Assets: \$19.5 billion

## CONSERVATIVE LEVERAGE FOR AGENCY + MSR STRATEGY

- Strong capital and liquidity position
- \$1.4 billion of unrestricted cash
- Economic debt-to-equity of 6.8x at December 31, 2020, compared to 7.7x at September 30, 2020<sup>(1)</sup>
- Average economic debt-to-equity of 7.5x in the fourth quarter, compared to 7.6x in the third quarter<sup>(1)</sup>

## DIVERSE FINANCING PROFILE

### AGENCY RMBS

- Outstanding repurchase agreements of \$15.1 billion with 20 counterparties
- Repo markets have been stable and orderly throughout 2020

### MORTGAGE SERVICING RIGHTS

- \$284 million of outstanding borrowings under bilateral MSR financing facilities
- \$400 million of outstanding 5-year MSR term notes<sup>(2)</sup>
- \$215 million of unused, committed MSR asset financing capacity
- \$200 million of committed capacity for servicing advance receivables

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

(2) Excludes deferred debt issuance costs.





# Special Topic: Capital Optimization

## ACTIONS TO OPTIMIZE LIABILITY STRUCTURE AND CAPITAL STRUCTURE POST-QUARTER END

### BALANCE SHEET COMPARISON

	\$ in millions	12/31/2020	Pro Forma 1/31/2022 <sup>(1)</sup>	Change
Assets	Available-for-sale securities	\$ 14,651	\$ 14,651	\$ —
	Mortgage servicing rights	1,596	1,596	—
	Cash and cash equivalents	1,385	1,363	(22)
	All other assets	1,884	1,884	—
	<b>Total Assets</b>	<b>\$ 19,516</b>	<b>\$ 19,494</b>	<b>\$ (22)</b>
Liabilities	Repurchase agreements	\$ 15,144	\$ 15,144	\$ —
	Revolving credit facilities	284	542	258
	Term notes payable	396	396	—
	Convertible senior notes	286	281	(5)
	All other liabilities	317	317	—
	<b>Total Liabilities</b>	<b>\$ 16,427</b>	<b>\$ 16,680</b>	<b>\$ 253</b>
Equity	Preferred equity <sup>(2)</sup>	\$ 1,001	\$ 726	\$ (275)
	Common equity	2,088	2,088	—
	<b>Total Equity</b>	<b>\$ 3,089</b>	<b>\$ 2,814</b>	<b>\$ (275)</b>
Ratios	Debt-to-equity	5.2x	5.8x	0.6x
	Economic debt-to-equity <sup>(3)</sup>	6.8x	7.6x	0.8x
	Preferred ratio <sup>(4)</sup>	32 %	26 %	(6)%

- Issued \$287.5 million of 5-year convertible notes
  - 6.25% coupon, 20.0% conversion premium
  - Initial strike price of \$7.38, minimal potential dilution of \$0.03 to current book value if converted
  - Repurchased \$143.7 million of convertible notes due 2022
- Planned optimization of MSR financing
- Announced redemption of \$275 million of preferred stock
  - \$75 million of 7.75% Series D
  - \$200 million of 7.5% Series E
- Benefits
  - Provides certainty of maturity obligation on convertible notes due January 2022, extended maturity on newly issued notes
  - Reduces ratio of preferred stock to Total Shareholders' Equity from 32% to 26%
  - Expect annual net benefit of ~\$0.04 per share starting in 2022 from reduction in preferred dividends offset by issuance and interest cost of convertible debt, incremental MSR financing costs

(1) Pro forma 1/31/2022 balance sheet is shown is for illustrative purposes only to show the effect of the 5-year convertible notes issuance, repurchase of convertible notes due in 2022, MSR financing optimization and call of Series D and Series E preferred stock on our capital structure. It does not take into account, for example, any expected revenue from operations, changes to our portfolio construction, or market factors and is not intended as a forecast of our expected financial condition or operating results. Actual results may differ materially.

(2) Represents the \$25.00 per share liquidation preference of preferred stock.

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

(4) Preferred ratio is preferred equity value divided by total shareholders' equity



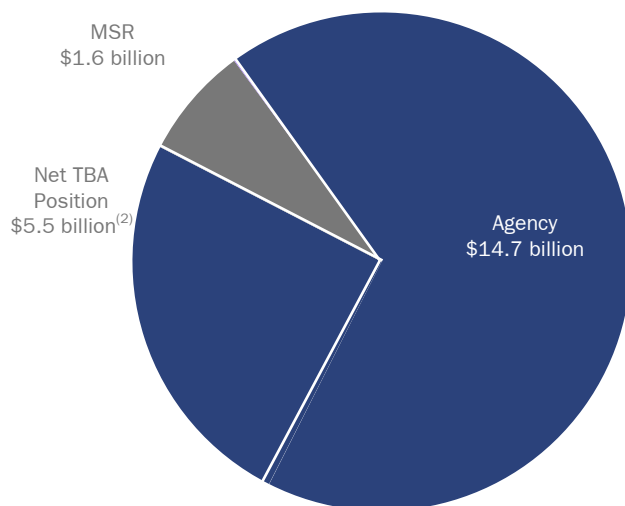


# Quarterly Activity and Portfolio Composition

## PORTFOLIO COMPOSITION<sup>(1)</sup>

\$21.8 billion portfolio

Includes \$16.3 billion settled positions



## PERFORMANCE COMMENTARY

- Return on book value of 5.8%<sup>(3)</sup>
- Spreads tightened in MBS as the Federal Reserve continued its purchases
- Current coupon mortgages continue to be the focus of the fourth round of quantitative easing
- MSR pricing was favorable due to marginal tightening in MSR spreads

## PORTFOLIO ACTIVITY

- Reduced specified pool positions by \$2.1 billion
- Average TBA position was \$6.7 billion during the quarter
  - Reduced position near the end of the quarter
- Settled \$23.0 billion UPB of MSR through flow-sale arrangements and an additional \$20.4 billion UPB through bulk purchases
- Opportunistically added \$195 million Agency interest-only (IO) RMBS
  - Offers similar characteristics to MSR

(1) For additional detail on the portfolio, see Appendix slides 22-23.

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

(3) 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.

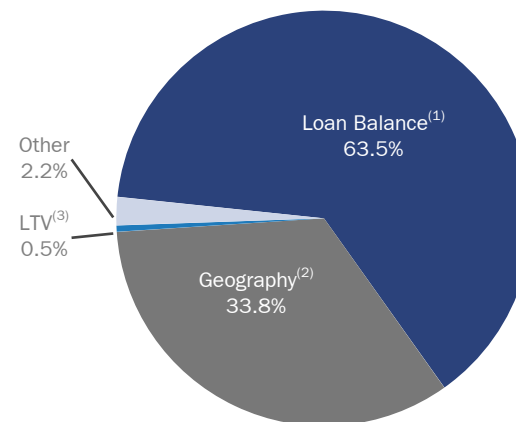


# Specified Pools

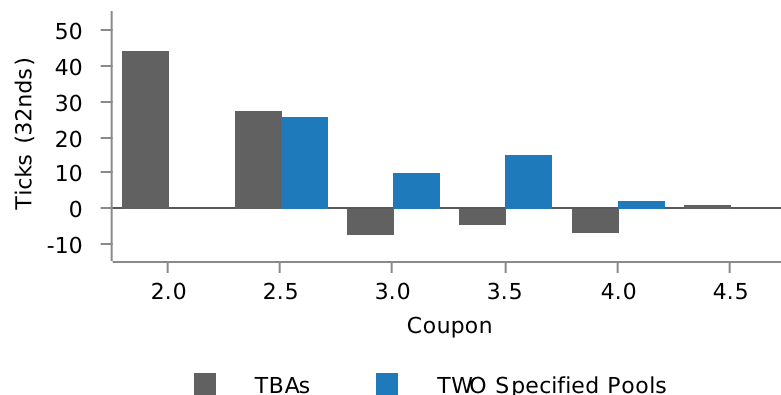
## SPECIFIED POOL PERFORMANCE

- Specified pools outperformed TBA on a relative basis in 3.0 through 4.0 coupons
- Specified pool prepayment speeds continue to be slower and more stable than TBA speeds
- Expect that while prepayments may remain elevated in specified pools, any increase may be modest compared to generic collateral
- Selectively reduced pools as spreads tightened, others sold while retaining the IO

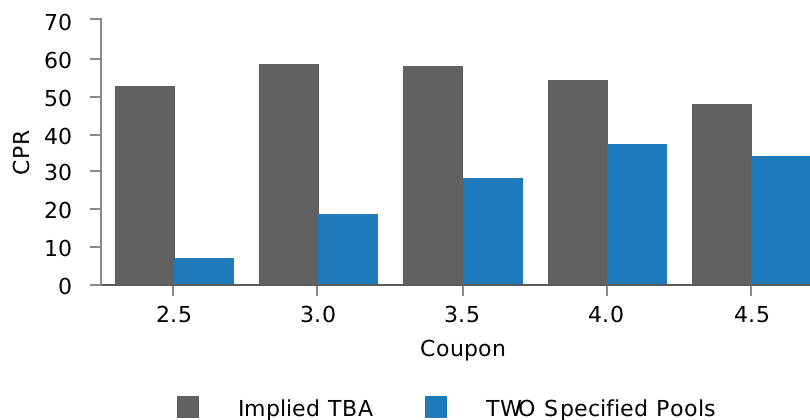
## SPECIFIED POOL PORTFOLIO



## QUARTERLY PERFORMANCE<sup>(4)</sup>



## SPECIFIED POOL PREPAYMENT SPEEDS<sup>(5)</sup>



(1) Securities collateralized by loans less than or equal to \$200 thousand of initial principal balance.

(2) Securities collateralized by loans from certain geographic concentrations.

(3) Securities collateralized by loans with greater than or equal to 80% LTV.

(4) J.P. Morgan Beta MBS Pricing and Analytics Package, as of December 31, 2020.

(5) Non-specified pool speeds from J.P. Morgan Beta MBS Pricing and Analytics Package, as of December 31, 2020.

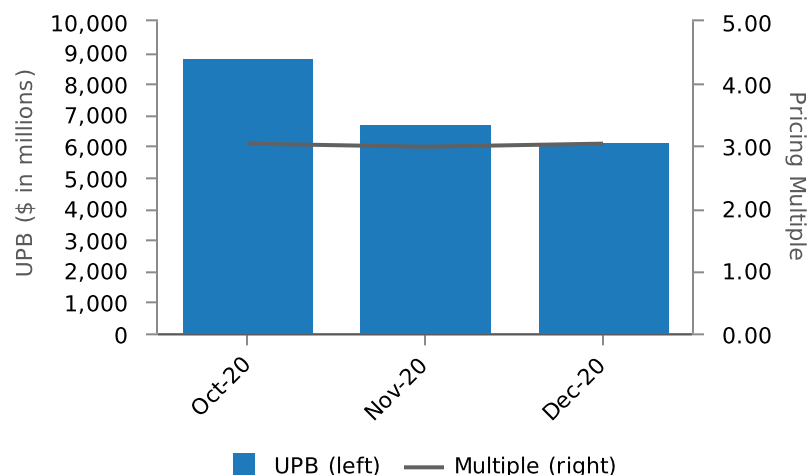


# Mortgage Servicing Rights

## 4Q-2020 MSR PORTFOLIO ACTIVITY

- Settled \$23.0 billion UPB of MSR through flow-sale arrangements and an additional \$20.4 billion UPB through bulk purchases
- Experienced \$22.5 billion UPB runoff in the fourth quarter
- Grew portfolio UPB balance year-over-year in the face of high prepayment speeds
- MSR speeds slower than generic speeds due to a majority of portfolio having some form of seasoning or prepayment protection
- Forbearance rates declined. 3.5% of our MSR portfolio by loan count was in forbearance, and 2.9% by loan count was in forbearance and not current at December 31, 2020

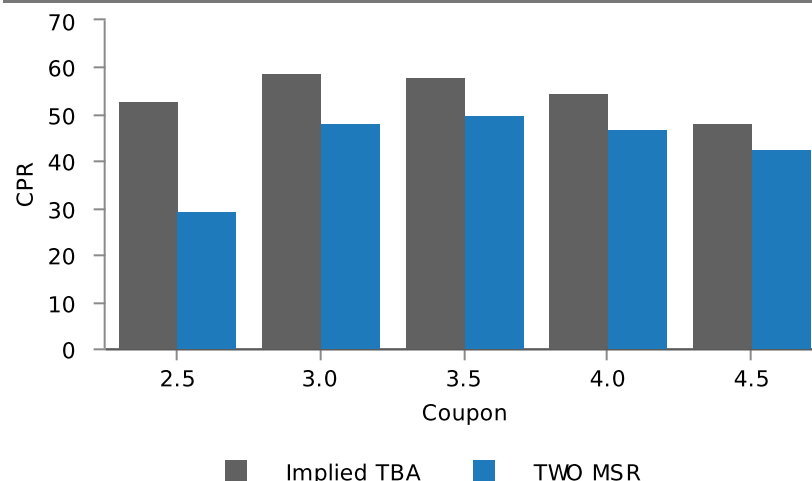
## FLOW PROGRAM LOCK ACTIVITY



## MSR PORTFOLIO<sup>(1)</sup>

	12/31/2019	12/31/2020
Fair value (\$ millions)	\$1,909	\$1,596
Pricing Multiple	3.9x	3.2x
UPB (\$ millions)	\$179,333	\$185,687
Gross weighted average coupon rate	4.1%	3.7%
Weighted average original FICO <sup>(2)</sup>	754	756
Weighted average original loan-to-value (LTV)	75%	74%
60+ day delinquencies	0.2%	3.2%
Net servicing fee (basis points)	27.0	26.8
Weighted average loan age (months)	36	32
% Fannie Mae	67%	64%

## MSR PREPAYMENT SPEEDS<sup>(3)</sup>



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

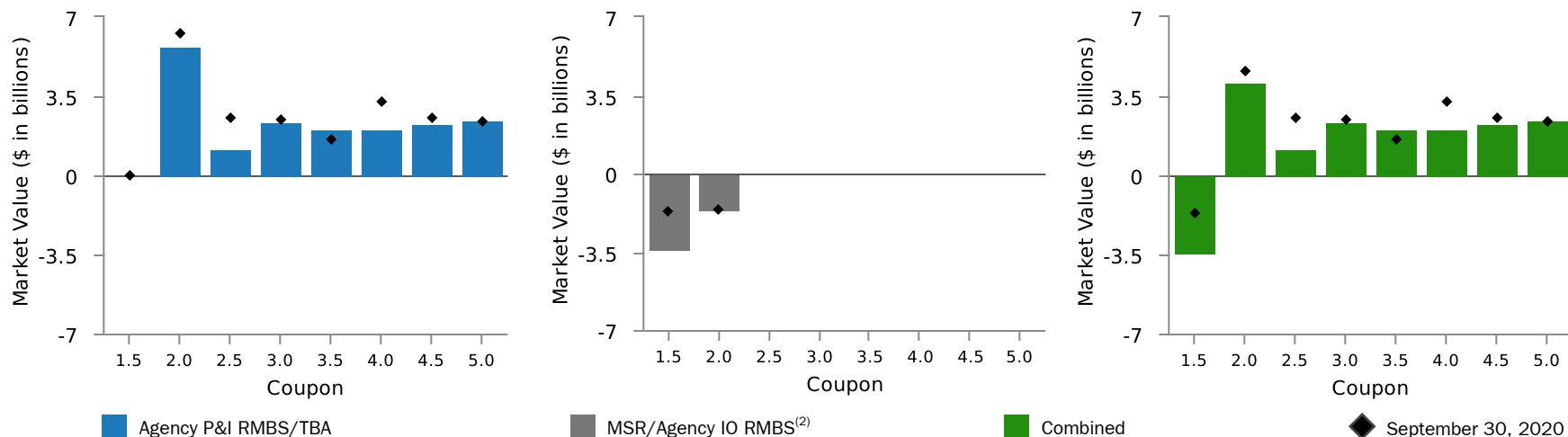
(2) FICO represents a mortgage industry accepted credit score of a borrower.

(3) J.P. Morgan Beta MBS Pricing and Analytics Package and Two Harbors portfolio, as of December 31, 2020.

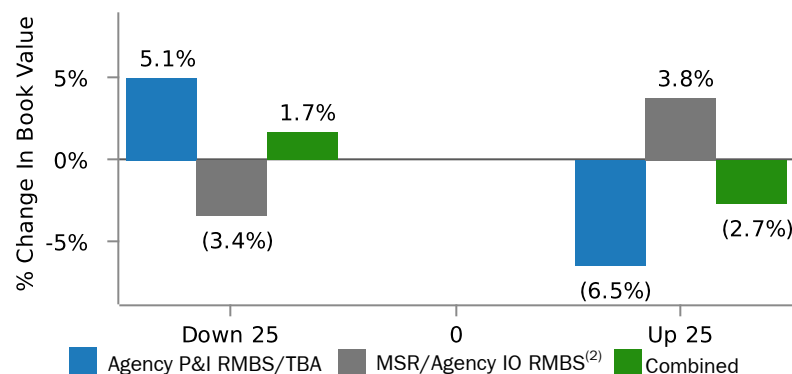
# Agency + MSR Advantage



## EFFECTIVE COUPON POSITIONING<sup>(1)</sup>



## BOOK VALUE EXPOSURE TO CHANGES IN SPREAD<sup>(3)</sup>



## PRESENCE OF MSR REDUCES MORTGAGE SPREAD RISK

- MSR and Agency IO RMBS have similar risks to a short pools/TBA position in 1.5% and 2.0% coupons
- Portfolio long 2.0% through 5.0% coupons
- In a 25 basis point spread widening scenario, potential book value decrease of (2.7%)

Note: Sensitivity data as of December 31, 2020. 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.

(1) The effective coupon positioning for MSR is an internally calculated exposure that represents the current coupon equivalents of our MSR assets. Data as of December 31, 2020.

(2) Includes the effect of unsettled MSR.

(3) Represents estimated change in common book value for theoretical parallel shifts in spreads.

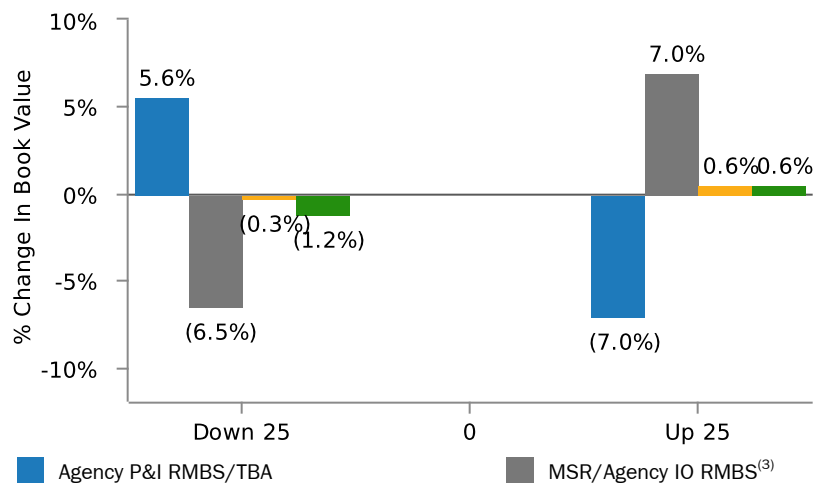


# Risk Positioning

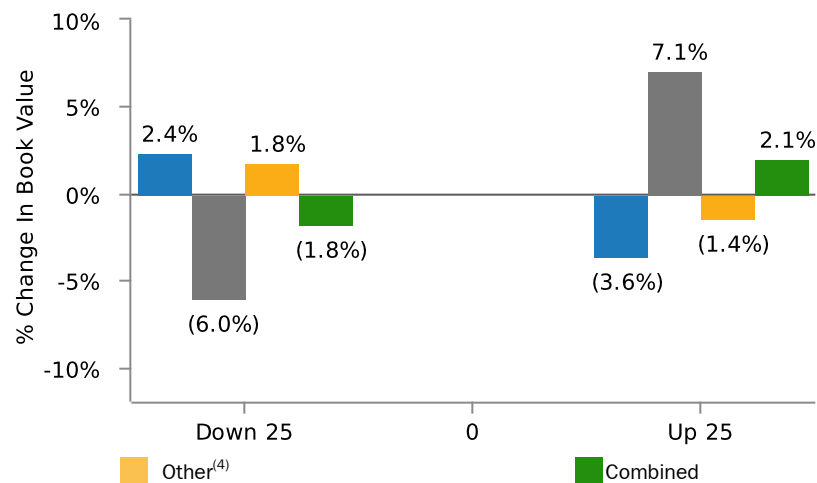
## AGENCY + MSR DELIVERS BOOK VALUE STABILITY

- Interest rate and curve exposure remains low and in line with historical positioning
- MSR/IO position duration offsets RMBS/TBA duration
- In a 25 basis point parallel shift up in rates, potential book value increase of 0.6%
- In a 25 basis point non-parallel shift up in the yield curve, potential book value increase of 2.1%

### BOOK VALUE EXPOSURE TO CHANGES IN RATES<sup>(1)</sup>



### BOOK VALUE EXPOSURE TO CHANGES IN YIELD CURVE<sup>(2)</sup>



Note: Sensitivity data as of December 31, 2020. The above scenarios are provided for illustration purposes only and is not necessarily indicative of Two Harbors' financial condition and operating results, nor is it necessarily indicative of the financial condition or results of operations that may be expected for any future period or date.

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

(2) 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 near term rates constant.

(3) Includes the effect of unsettled MSR.

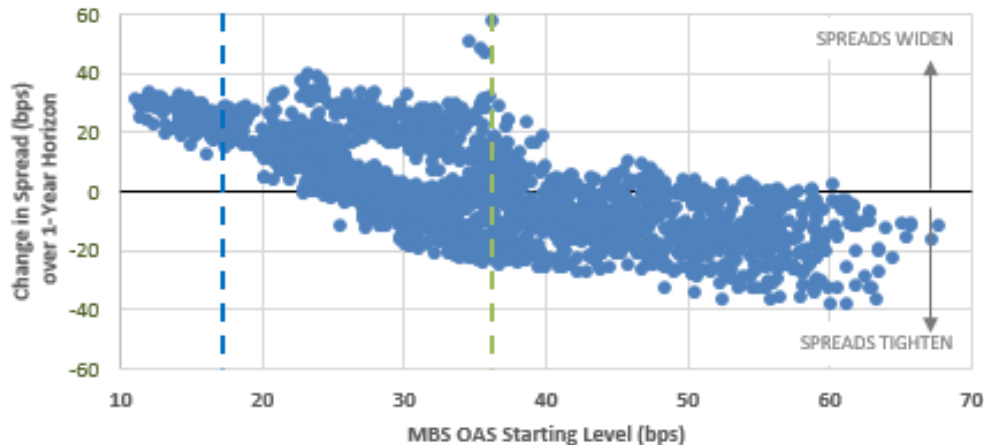
(4) Other includes all other derivative assets and liabilities and borrowings. Other excludes TBAs, which are included in the Agency P&I RMBS/TBA category.

# Special Topic: Stability of Agency + MSR Returns

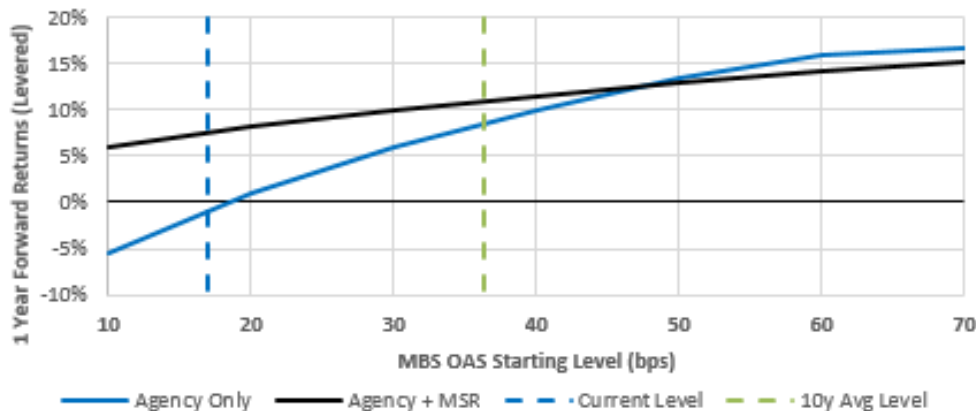


AGENCY + MSR IS ESPECIALLY ATTRACTIVE VERSUS AGENCY-ONLY DURING TIGHT SPREAD ENVIRONMENTS

## HISTORICAL CHANGE IN SPREAD FOR A GIVEN STARTING SPREAD<sup>(1)</sup>



## PROJECTED RETURNS GIVEN HISTORICAL SPREAD CHANGE<sup>(2)</sup>



- Historical returns of Agency MBS show a correlation between the initial spread level and ending spread level over a 1-year horizon
  - When spreads are very low, they tend to widen
  - When spreads are very high, they tend to tighten
- Current option-adjusted spread is near the low end of the historical range
  - Data suggests spreads may widen, however, magnitude and timing are unclear
- Agency + MSR is constructed to deliver returns while reducing MBS spread risk, leading to a more stable return profile
  - Return profile suggests significant advantage to Agency Only in low spread environments, and similar profile in high spread environments

(1) Source: JPM MBS MAX Conventional 30-year Composite OAS to swaps. As of January 4, 2021.

(2) Projected one-year returns are based on an internal assessment of prepayment rates, interest rates, leverage, mortgage and MSR prices, and other factors. Actual results may differ materially from our estimates.

# Two Harbors Outlook



## OPPORTUNITY SET IN OUR TARGET ASSETS REMAINS ATTRACTIVE TODAY

- Estimate returns for Agency RMBS / swaps in mid-to-high single digits
- Higher returns available in the near term in current coupon TBA in the low teens
- Estimate returns for Agency RMBS / flow MSR in low teens

### MARKET OUTLOOK



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





## Appendix

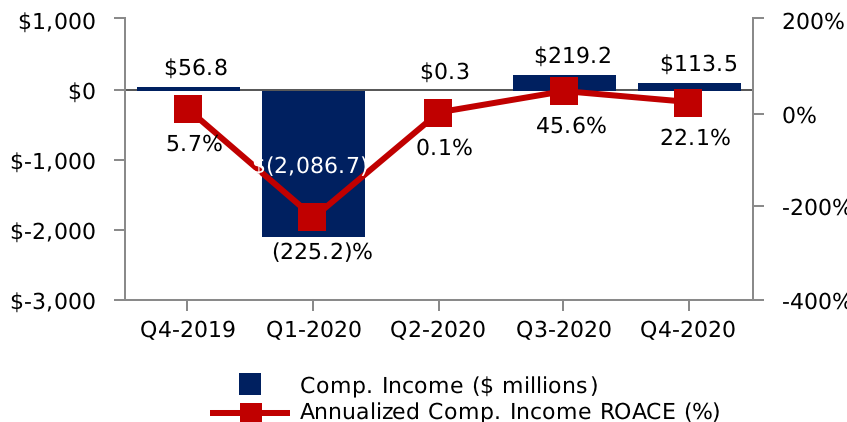


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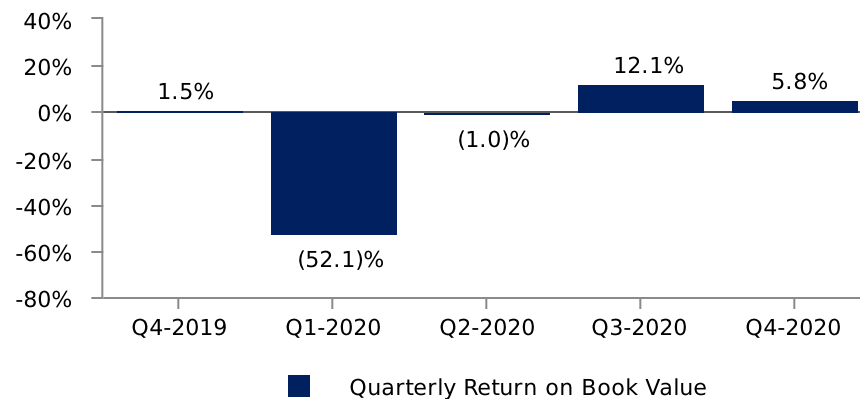
# Financial Performance



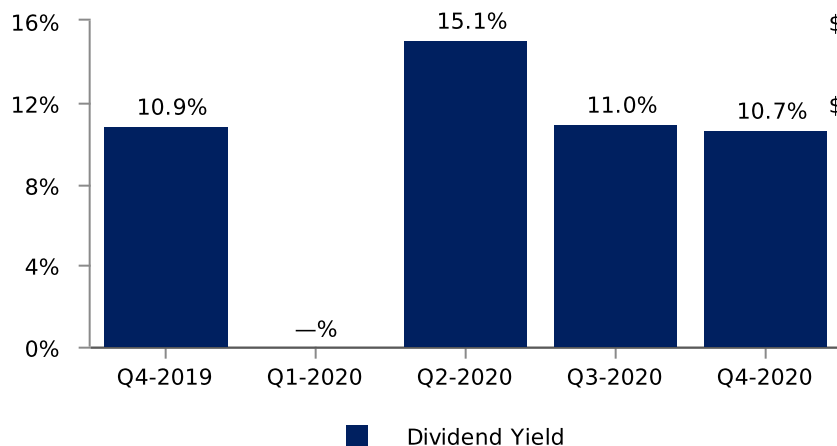
## COMPREHENSIVE INCOME (LOSS)



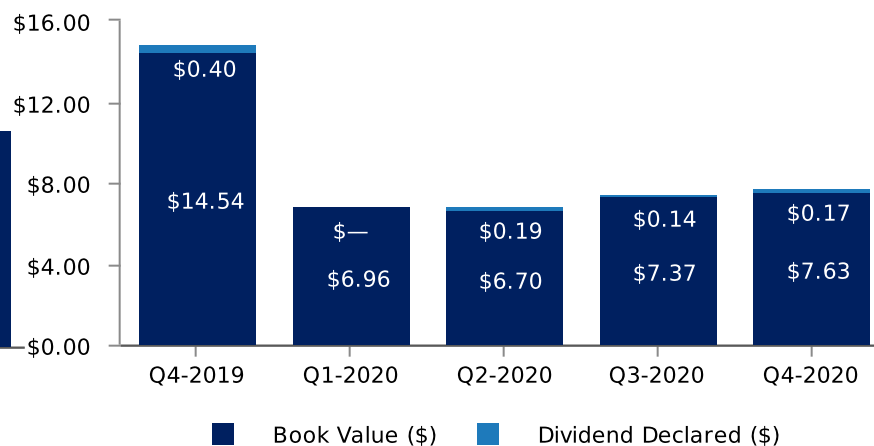
## QUARTERLY RETURN ON BOOK VALUE<sup>(1)</sup>



## DIVIDEND YIELD<sup>(2)</sup>



## BOOK VALUE AND DIVIDEND PER COMMON SHARE<sup>(2)</sup>



- (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.

# Q4-2020 Operating Performance



	Q4-2020			
(In millions, except for per common share data)	Core Earnings <sup>(1)</sup>	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 72.5	\$ —	\$ —	\$ 72.5
Interest expense	22.6	—	—	22.6
Net interest income	49.9	—	—	49.9
Gain (loss) on investment securities	—	47.6	(10.2)	37.4
Servicing income	100.5	—	—	100.5
(Loss) gain on servicing asset	(59.4)	(0.5)	62.4	2.5
Gain (loss) on interest rate swaps and swaptions	2.0	(2.6)	(14.1)	(14.7)
Gain (loss) on other derivative instruments	43.5	74.1	(36.3)	81.3
Other income	0.1	0.4	—	0.5
Total other income	86.7	119.0	1.8	207.5
Expenses	37.3	5.1	—	42.4
Net income before income taxes	99.3	113.9	1.8	215.0
(Benefit from) provision for Income taxes	(1.7)	(0.9)	6.4	3.8
<b>Net income (loss)</b>	<b>101.0</b>	<b>114.8</b>	<b>(4.6)</b>	<b>211.2</b>
Dividends on preferred stock	19.0	—	—	19.0
<b>Net income (loss) attributable to common stockholders</b>	<b>\$ 82.0</b>	<b>\$ 114.8</b>	<b>\$ (4.6)</b>	<b>\$ 192.2</b>
Weighted average earnings (loss) per basic common share	\$ 0.30	\$ 0.42	\$ (0.02)	\$ 0.70

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

# Q3-2020 Operating Performance



	Q3-2020			
(In millions, except for per common share data)	Core Earnings <sup>(1)</sup>	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$ 89.7	\$ —	\$ —	\$ 89.7
Interest expense	29.2	—	—	29.2
Net interest income	60.5	—	—	60.5
Loss on investment securities	—	(8.9)	(0.2)	(9.1)
Servicing income	99.1	—	—	99.1
Loss on servicing asset	(56.9)	—	(55.9)	(112.8)
Gain on interest rate swaps and swaptions	0.8	—	0.6	1.4
Gain (loss) on other derivative instruments	32.9	85.8	(53.1)	65.6
Other income	0.1	—	—	0.1
Total other income (loss)	76.0	76.9	(108.6)	44.3
Management fees & other expenses	43.5	(132.4)	—	(88.9)
Net income (loss) before income taxes	93.0	209.3	(108.6)	193.7
Benefit from Income taxes	(1.5)	(0.2)	(6.5)	(8.2)
<b>Net income (loss)</b>	<b>94.5</b>	<b>209.5</b>	<b>(102.1)</b>	<b>201.9</b>
Dividends on preferred stock	18.9	—	—	18.9
<b>Net income (loss) attributable to common stockholders</b>	<b>\$ 75.6</b>	<b>\$ 209.5</b>	<b>\$ (102.1)</b>	<b>\$ 183.0</b>
Weighted average earnings (loss) per basic common share	\$ 0.28	\$ 0.77	\$ (0.38)	\$ 0.67

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

# GAAP to Core Earnings Reconciliation<sup>(1)</sup>



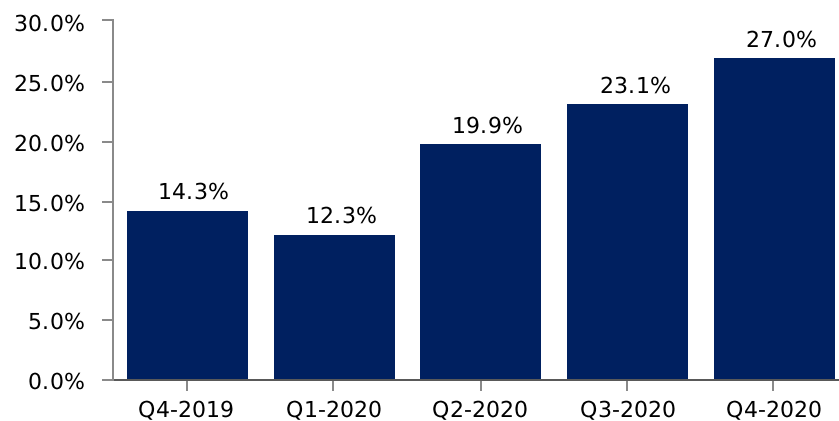
Reconciliation of GAAP to non-GAAP Information (In thousands, except for per common share data)	Three Months Ended September 30, 2020	Three Months Ended December 31, 2020
Reconciliation of Comprehensive income to Core Earnings:		
<b>Comprehensive income attributable to common stockholders</b>	<b>\$ 219,180</b>	<b>\$ 113,481</b>
Adjustment for other comprehensive (income) loss attributable to common stockholders:		
Unrealized (gain) loss on available-for-sale securities	(36,216)	78,739
<b>Net income attributable to common stockholders</b>	<b>\$ 182,964</b>	<b>\$ 192,220</b>
Adjustments for non-core earnings:		
Realized loss (gain) on securities	1,725	(52,082)
Unrealized loss on securities	281	10,210
Provision for credit losses	7,101	4,509
Realized and unrealized losses (gains) on mortgage servicing rights	55,858	(61,968)
Realized loss on termination or expiration of swaps and swaptions	—	2,546
Unrealized (gain) loss on interest rate swaps, caps and swaptions	(583)	14,096
Gain on other derivative instruments	(32,696)	(37,752)
Other loss (income)	5	(399)
Change in servicing reserves	898	1,591
Non-cash equity compensation expense	2,857	2,243
Other nonrecurring expenses	3,664	1,541
Change in restructuring charges	(139,788)	(294)
Net (benefit from) provision for income taxes on non-Core Earnings	(6,715)	5,546
<b>Core Earnings attributable to common stockholders<sup>(1)</sup></b>	<b>\$ 75,571</b>	<b>\$ 82,007</b>
Weighted average basic common shares	273,705,785	273,699,079
Core Earnings per weighted average basic common share	\$ 0.28	\$ 0.30

(1) Core Earnings is a non-U.S. GAAP measure that we define as comprehensive (loss) income attributable to common stockholders, excluding “realized and unrealized gains and losses” (impairment losses, provision for 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, Core Earnings includes net interest income, accrual and settlement of interest on derivatives, dollar roll income on TBAs, servicing income, net of estimated amortization on MSR, management fees and recurring cash related operating expenses. Dollar roll income is the economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements. Core Earnings provides supplemental information to assist investors in analyzing the Company’s results of operations and helps facilitate comparisons to industry peers.

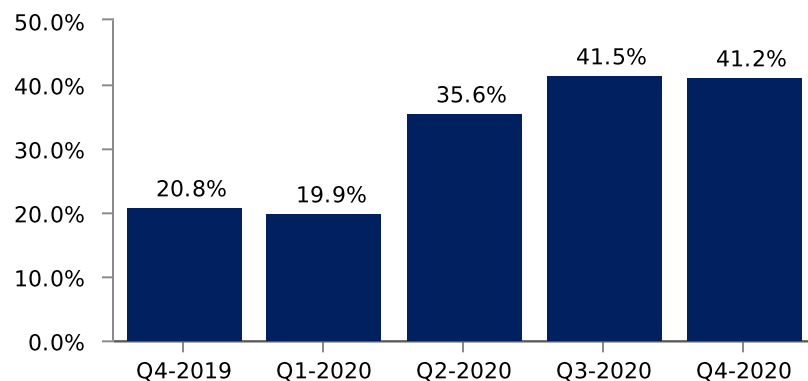
# Portfolio Metrics



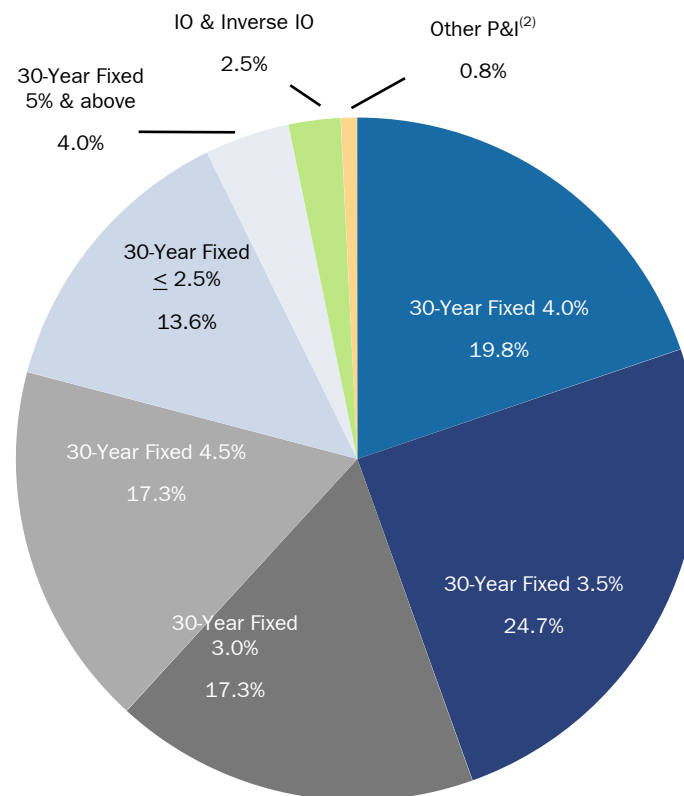
## AGENCY RMBS CPR<sup>(1)</sup>



## MSR CPR



## AGENCY PORTFOLIO COMPOSITION



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

(2) Includes 15-year fixed, Hybrid ARMs, CMO and DUS pools.



# Agency RMBS Portfolio



	Par Value (\$ millions)	Market Value (\$ millions)	Weighted Average CPR	% Prepay Protected <sup>(1)</sup>	Amortized Cost Basis (\$ millions)	Gross Weighted Average Coupon	Weighted Average Age (Months)
<b>30-Year fixed</b>							
2.5% & below	\$ 1,878	\$ 2,005	7.7 %	100.0 %	\$ 1,977	3.4 %	7
3.0%	2,360	2,542	19.3 %	100.0 %	2,434	3.7 %	14
3.5%	3,327	3,637	28.5 %	100.0 %	3,485	4.2 %	17
4.0%	2,643	2,912	37.5 %	100.0 %	2,751	4.6 %	36
4.5%	2,276	2,538	34.3 %	100.0 %	2,400	5.0 %	35
≥ 5.0%	520	590	33.6 %	98.4 %	551	5.8 %	65
	13,004	14,224	27.4 %	99.9 %	13,598	4.3 %	24
<b>Other P&amp;I<sup>(2)</sup></b>	99	113	9.6 %	— %	110	6.6 %	226
<b>IOs and IIOs<sup>(3)</sup></b>	3,968	362	14.3 %	— %	362	4.1 %	73
<b>Total Agency RMBS</b>	\$ 17,071	\$ 14,699		96.7 %	\$ 14,070		

	Notional Amount (\$ millions)	Bond Equivalent Value (\$ millions) <sup>(4)</sup>	Implied CPR <sup>(5)</sup>
<b>TBA Positions</b>			
2.5% & below	\$ 5,050	\$ 5,236	52.9 %
3.0%	—	—	58.9 %
3.5%	(1,253)	(1,325)	58.1 %
4.0%	(550)	(588)	54.5 %
4.5%	—	—	48.4 %
5.0%	1,950	2,158	43.6 %
<b>Net TBA position</b>	\$ 5,197	\$ 5,481	

(1) 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 and lower FICO scores.

(2) Includes 15-year fixed, Hybrid ARMs, CMO and DUS pools.

(3) Represents market value of \$300.6 million of IOs and \$61.6 million of Agency Derivatives.

(4) Bond equivalent value is defined as the notional amount multiplied by market price. Accounted for as derivative instruments in accordance with GAAP.

(5) Implied TBA speeds from J.P. Morgan Beta MBS Pricing and Analytics Package, as of December 31, 2020.



# Mortgage Servicing Rights Portfolio<sup>(1)</sup>



	Number of Loans	Unpaid Principal Balance (\$ in millions)	% Fannie Mae	Gross Weighted Average Coupon Rate	Weighted Average Loan Age (months)	Weighted Average Original FICO <sup>(2)</sup>	Weighted Average Original LTV	60+ Day Delinquencies	3-Month CPR	Net Servicing Fee (bps)
<b>30-Year Fixed</b>										
≤ 3.25%	87,561	\$ 29,305	50%	2.9%	4	769	72%	0.1%	9.0%	25.5
3.25% - 3.75%	148,065	39,634	68%	3.5%	30	764	73%	1.6%	38.2%	26.3
3.75% - 4.25%	188,805	43,124	64%	3.9%	44	757	76%	3.8%	49.1%	27.5
4.25% - 4.75%	130,598	26,096	66%	4.4%	45	741	78%	6.2%	49.2%	26.6
4.75% - 5.25%	64,424	11,727	67%	4.9%	39	727	80%	8.5%	46.5%	27.8
> 5.25%	25,637	3,958	70%	5.5%	36	707	80%	10.8%	41.2%	30.8
	645,090	153,844	63%	3.8%	32	755	75%	3.5%	42.7%	26.8
<b>15-Year Fixed</b>										
≤ 2.25%	1,996	665	88%	2.0%	2	780	60%	—%	7.8%	25.0
2.25% - 2.75%	19,260	5,257	71%	2.5%	7	778	60%	0.1%	12.4%	25.8
2.75% - 3.25%	47,710	8,571	72%	2.9%	37	771	62%	1.1%	27.6%	26.1
3.25% - 3.75%	36,327	5,224	72%	3.4%	45	759	65%	2.2%	33.7%	27.6
3.75% - 4.25%	17,611	2,148	64%	3.9%	43	745	66%	3.4%	35.1%	29.2
> 4.25%	9,149	959	63%	4.5%	34	731	66%	3.6%	37.0%	31.2
	132,053	22,824	71%	3.1%	32	766	63%	1.4%	28.8%	26.8
<b>Total ARMs</b>	4,762	1,193	62%	3.3%	47	762	67%	4.3%	45.4%	25.2
<b>Total Portfolio</b>	781,905	\$ 177,861	64%	3.7%	32	756	74%	3.2%	41.2%	26.8

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

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

# Financing



\$ in millions						
Outstanding Borrowings and Maturities <sup>(1)</sup>	Repurchase Agreements	Revolving Credit Facilities	Term Notes Payable	Convertible Notes	Total Outstanding Borrowings	Percent (%)
Within 30 days	\$ 5,370.5	\$ —	\$ —	\$ —	\$ 5,370.5	33.3 %
30 to 59 days	4,292.9	—	—	—	4,292.9	26.6 %
60 to 89 days	2,062.2	—	—	—	2,062.2	12.8 %
90 to 119 days	1,610.2	—	—	—	1,610.2	10.0 %
120 to 364 days	1,808.1	60.0	—	—	1,868.1	11.6 %
One to three years	—	223.8	—	286.2	510.0	3.2 %
Three to five years	—	—	395.6	—	395.6	2.5 %
	\$ 15,143.9	\$ 283.8	\$ 395.6	\$ 286.2	\$ 16,109.5	100.0 %
Collateral Pledged for Borrowings	Repurchase Agreements	Revolving Credit Facilities <sup>(2)</sup>	Term Notes Payable	Convertible Notes	Total Collateral Pledged	Percent (%)
Available-for-sale securities, at fair value	\$ 14,633.2	\$ —	\$ —	n/a	\$ 14,633.2	92.3 %
Derivative assets, at fair value	61.6	—	—	n/a	61.6	0.4 %
Mortgage servicing rights, at fair value	—	608.8	537.9	n/a	1,146.7	7.2 %
Other assets (includes servicing advances)	—	20.1	—	n/a	20.1	0.1 %
	\$ 14,694.8	\$ 628.9	\$ 537.9	n/a	\$ 15,861.6	100.0 %

(1) Weighted average of 3.3 months to maturity.

(2) Revolving credit facilities secured by MSR and other assets may be over-collateralized due to operational considerations.

# Interest Rate Swaps



## INTEREST RATE SWAPS

Maturities	Notional Amounts (\$B)	Average Fixed Pay Rate	Average Receive Rate	Average Maturity Years
<b>Payers</b>				
2021	\$ —	— %	— %	0.0
2022	7.4	0.042 %	0.090 %	1.7
2023	2.3	0.023 %	0.090 %	2.5
2024	—	— %	— %	—
2025 and after	1.5	0.257 %	0.090 %	6.5
	\$ 11.2	0.067 %	0.090 %	2.5
Maturities	Notional Amounts (\$B)	Average Pay Rate	Average Fixed Receive Rate	Average Maturity (Years)
<b>Receivers</b>				
2025 and after	\$ 1.5	0.090 %	0.468 %	9.5
	\$ 1.5	0.090 %	0.468 %	9.5

# 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	\$ 7.2	\$ 2.4	4.2	\$ 2,800	1.32 %	SOFR	10.0
Receiver	<6 Months	3.0	—	1.0	2,000	SOFR	0.23 %	10.0
Sale Contracts:								
Receiver	<6 Months	(2.6)	\$ (3.0)	5.1	(1,050)	SOFR	0.55 %	10.0



# Tax Characterization of Dividends in 2020

## FULL YEAR 2020 DIVIDEND SUMMARY

- Generated estimated REIT taxable loss of \$640.5 million in 2020 largely resulting from the realized losses on the termination of swap positions designated as debt hedges for tax purposes.
- 2020 distribution declarations for tax purposes totaled \$139.2 million<sup>(1)</sup>
  - \$139.2 million consists of distributions to common shares of \$89.9 million (\$0.33 per common share) and distributions to preferred shares of \$75.8 million, less carryover dividend obligation from 2019 REIT taxable income of \$26.5 million
  - Q4 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<sup>(2)</sup>
  - No convertible note conversion rate adjustments or deemed distributions occurred in 2020
- 2020 preferred distributions are characterized as \$26.5 million of ordinary dividends and \$49.3 million of non-dividend distributions (return of capital). The tax characterization of ordinary dividends versus non-dividend distributions is unique to the distribution date and can be found on Form 1099-DIV
- 2020 common distributions are characterized as 100% non-dividend distributions (return of capital)<sup>(3)</sup>

(1) Net of 2019 carryover dividend obligation of \$26.5 million.

(2) 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 not included on the 2020 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.





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