



TWO HARBORS INVESTMENT CORP.

# An Agency+MSR Mortgage REIT

Fourth Quarter 2020  
Investor Presentation  
March 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, 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 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.

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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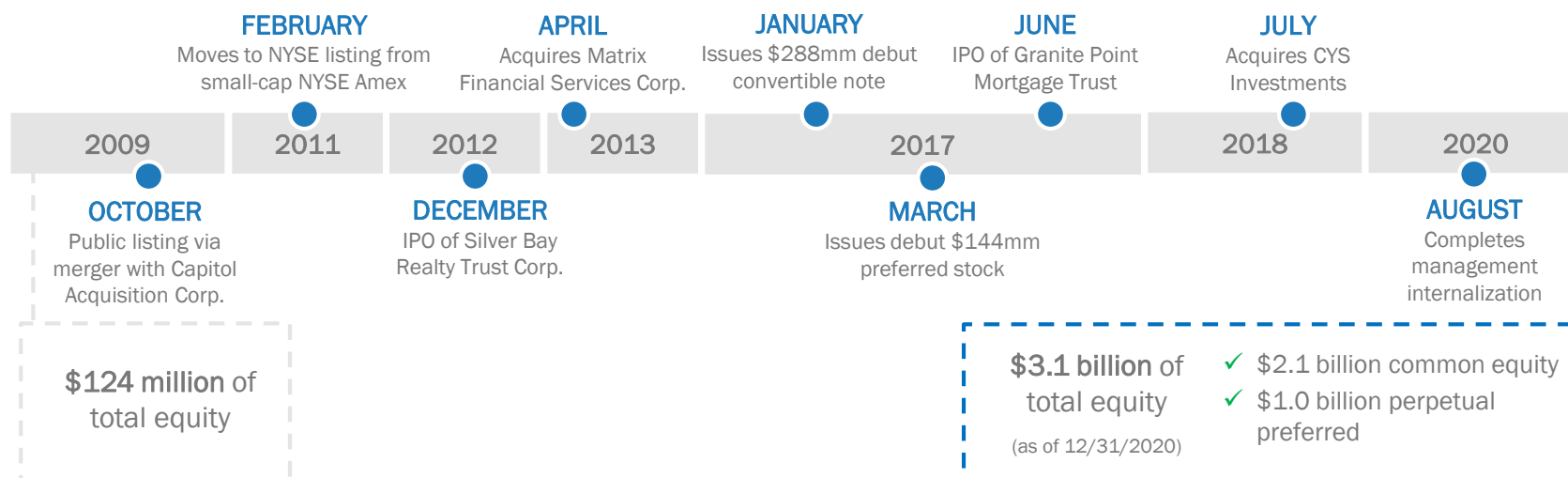
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# Company Overview and History



## Corporate Track Record Spans 10+ Years



## Foundations of Two Harbors' Philosophy

- Unique strategy of pairing Agency RMBS with Agency mortgage servicing rights (MSR)
- Robust and sophisticated risk management practices
- Dedicated to stockholder engagement and transparency
- Committed to highest standards of corporate governance

## Benefits of Internalization

- Substantial cost savings
- Expect enhanced returns on future capital growth
- Enhanced alignment with stockholders
- Potential for attracting new institutional investors
- Continue to be managed by experienced senior management team



# Two Harbors is Among the Largest Mortgage REITs

Top 20 mREITs by Total Assets			Top 20 mREITs by Total Equity		
Name	Assets (\$B)	Focus	Name	Equity (\$B) <sup>(1)</sup>	Focus
Annaly	\$88.5	Agency	Annaly	\$14.0	Agency
AGNC Investment Corp	81.8	Agency	AGNC Investment Corp	11.1	Agency
New Residential	33.3	Non-Agency	New Residential	5.4	Non-Agency
<b>Two Harbors</b>	<b>19.5</b>	<b>Agency</b>	Chimera	3.8	Non-Agency
Chimera	17.5	Non-Agency	<b>Two Harbors</b>	<b>3.1</b>	<b>Agency</b>
PennyMac	11.5	Non-Agency	MFA	2.6	Non-Agency
Redwood Trust	10.4	Non-Agency	PennyMac	2.3	Non-Agency
Capstead	8.4	Agency	New York Mortgage Trust	2.3	Non-Agency
MFA	6.9	Non-Agency	Invesco Mortgage	1.2	Agency
Invesco Mortgage	8.6	Agency	Redwood Trust	1.1	Non-Agency
ARMOUR Residential	5.5	Agency	ARMOUR Residential	0.9	Agency
New York Mortgage Trust	4.6	Non-Agency	Ellington Financial	0.9	Non-Agency
Orchid Island	3.8	Agency	Capstead	0.9	Agency
Western Asset Mortgage	3.5	Non-Agency	Dynex	0.6	Agency
Ellington Financial	3.4	Non-Agency	AG Mortgage	0.4	Non-Agency
Dynex	3.1	Agency	Anworth	0.4	Agency
Anworth	2.4	Agency	Orchid Island	0.4	Agency
Cherry Hill	1.8	Agency	Cherry Hill	0.3	Agency
AG Mortgage	1.4	Non-Agency	Western Asset Mortgage	0.2	Non-Agency
Arlington Investment	1.2	Agency	Arlington Investment	0.2	Agency

Source: Company filings; Financial data as of February 22, 2021.

(1) Represents total shareholders' equity before non-controlling interest.



## *Strong Performance in a Repositioned Portfolio*

### **Fourth Quarter 2020**

- 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

### **Full Year 2020**

- 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

### **First Quarter 2021**

- 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
- Estimated quarter-to-date return on book value<sup>(1)</sup> to be roughly flat through March 5, 2021<sup>(3)</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 book value as of the beginning of the period.

(2) Core Earnings is a non-GAAP measure. Please see Appendix slide 26 for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.

(3) Our estimated quarter-to-date return on book value is preliminary, unaudited and not necessarily indicative of results for the current quarter or any future period. While we believe this estimate is based on reasonable assumptions, our actual results may vary, and such variations may be material.



# Strong Capital and Liquidity 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

- \$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.

# 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



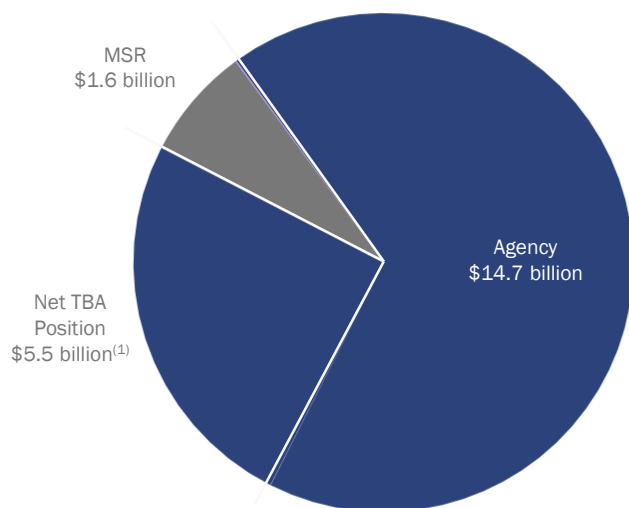
# Fourth Quarter 2020: Activity and Portfolio Composition



## Portfolio Composition

\$21.8 billion portfolio

Includes \$16.3 billion settled positions



## Performance Commentary

- Return on book value of 5.8%<sup>(2)</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) 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.

(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.

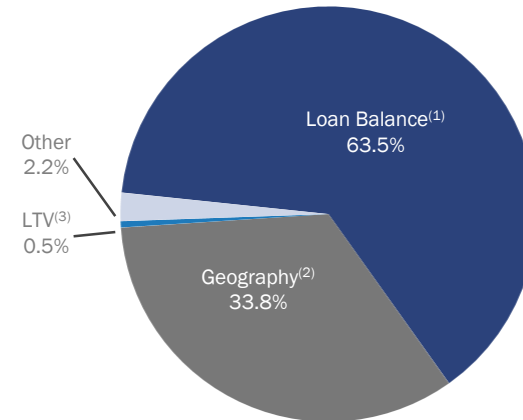


# Fourth Quarter 2020: Specified Pools

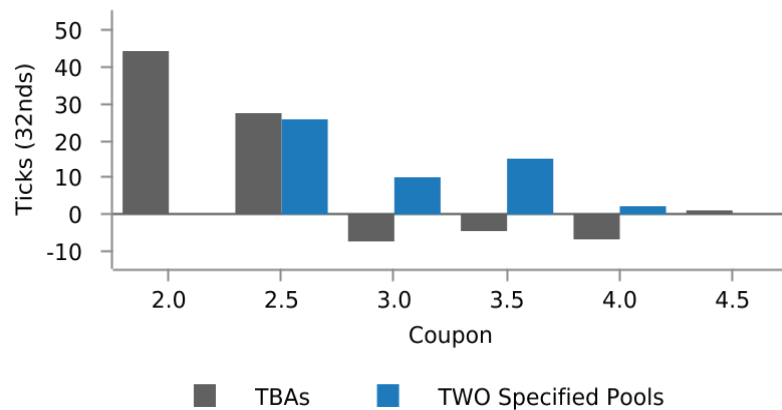
## Specified Pool Performance

- 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

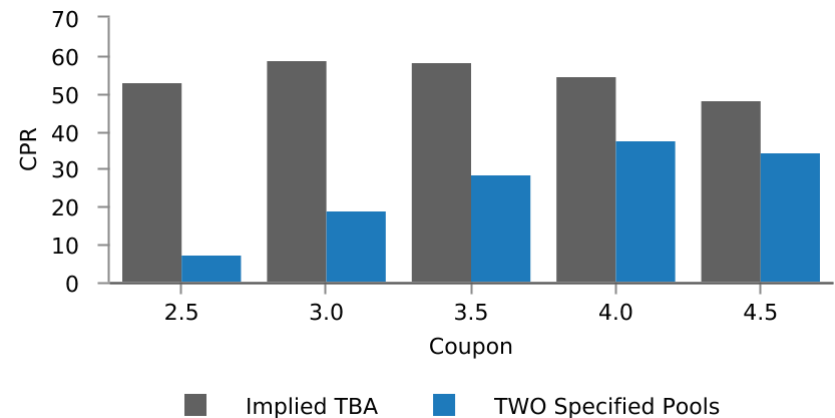
## Specified Pool Portfolio



## 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.



# Fourth Quarter 2020: Mortgage Servicing Rights

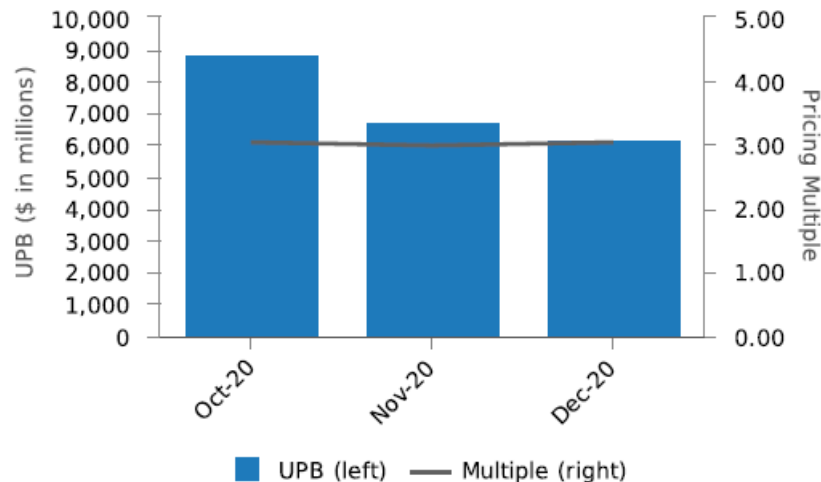
## MSR Portfolio Activity

- 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

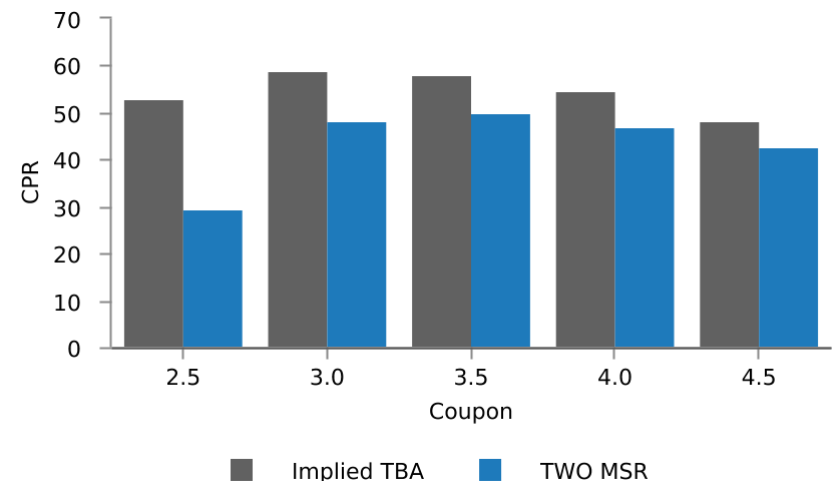
## MSR Portfolio<sup>(1)</sup>

	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%

## Flow Program Lock Activity



## MSR Prepayment Speeds<sup>(3)</sup>



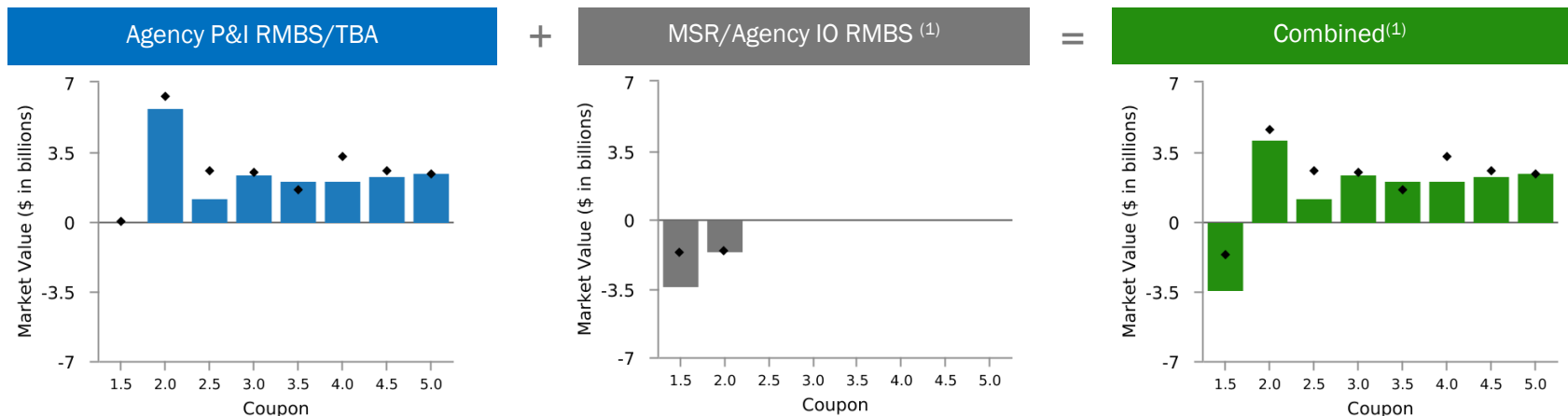
- (1) Based on the loans underlying the MSR reported by subservicers on a month lag, adjusted for current month purchases.  
 (2) FICO represents a mortgage industry accepted credit score of a borrower.  
 (3) J.P. Morgan Beta MBS Pricing and Analytics Package and Two Harbors portfolio, as of December 31, 2020.



# The Agency + MSR Advantage

## Differentiated Investment Strategy

- Portfolio constructed by pairing Agency RMBS with Agency MSR
  - MSR portfolio is sourced through strategic partnerships with a set of highly curated flow sellers and opportunistic bulk purchases
  - Engage a small number of high-quality subservicers to maximize the effectiveness of our in-house oversight and compliance capabilities
- Agency + MSR strategy has a higher return potential with lower mortgage spread risk than a pure-play RMBS portfolio, and the ability to deliver consistent, more stable returns across rate environments
  - MSR is an effective hedge to RMBS rate and spread risk
    - MSR values increase when rates increase and decrease when rates decrease
    - MSR values increase when mortgage spreads increase and decrease when mortgage spreads decrease
  - In summary, MSR has similar risks to a short pool/TBA position



◆ Position as of September 30, 2020

(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. Includes the effect of unsettled MSR.

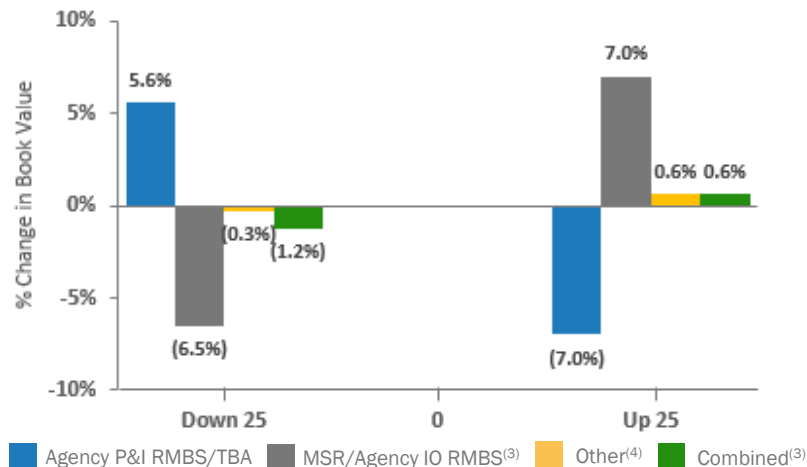


# Agency + MSR Delivers Book Value Stability

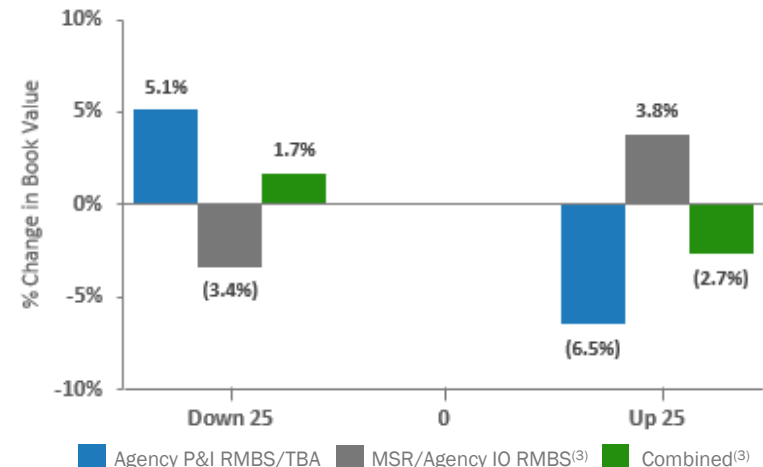
## Exposure to Changes in Both Mortgage Spreads and Rates is Low

- Our MSR portfolio is also expected to be an effective hedge to unexpected interest rate shifts
  - In a scenario where an instantaneous 25bps parallel shift in rates occurs in either direction, the expected change in value of our MSR portfolio largely offsets the impact of Agency assets, maintaining book value changes within +/- 1%
- MSR component of our portfolio strategy reduces mortgage spread risk by as much as 50%
  - In a scenario where an instantaneous 25bps shift wider in mortgage spreads occurs, our MSR portfolio is expected to contribute 3.8% of positive book value growth, partially offsetting the negative impact of Agency assets (6.5%)

Book Value Exposure to Changes in Rates<sup>(1)</sup>



Book Value Exposure to Changes in Spread<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 shifts in interest rates.

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

(3) Includes the effect of unsettled MSR.

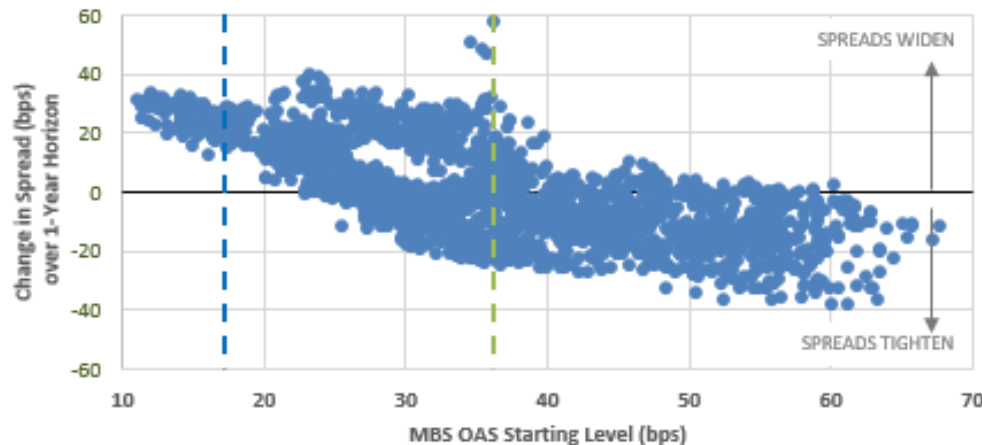
(4) Other includes all other derivative assets and liabilities and borrowings. Other excludes TBAs and Agency derivatives, which are included in the RMBS/TBA category.



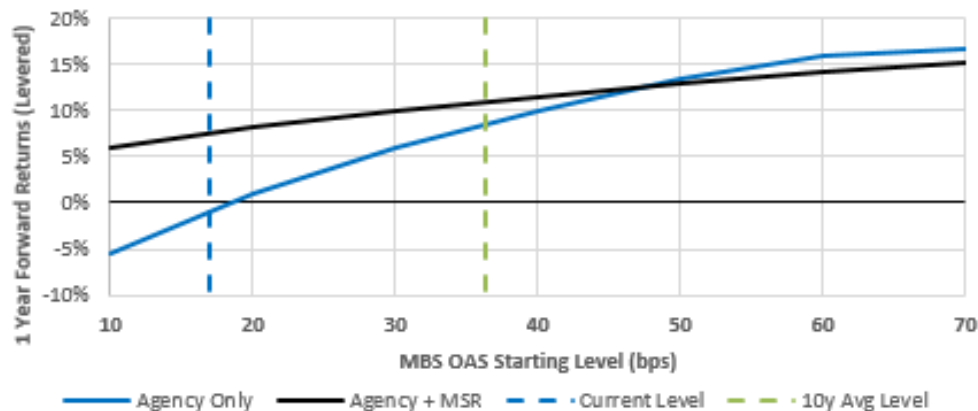
# Stability of Agency + MSR Returns

## 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 over 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.



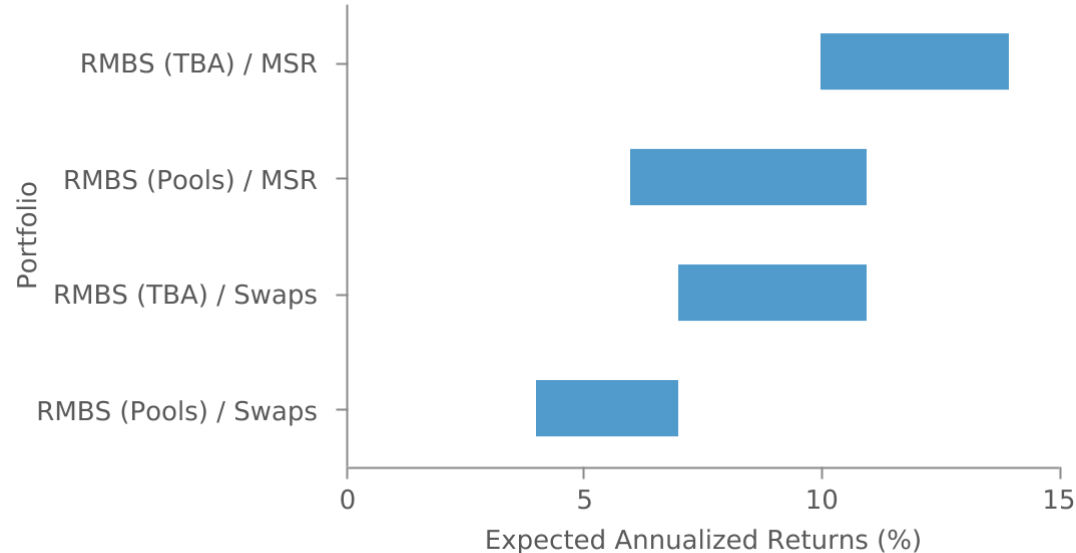
# Agency + MSR Strategy Drives Attractive Returns<sup>(1)</sup>



## OPPORTUNITY SET IN OUR TARGET ASSETS REMAINS ATTRACTIVE

- 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.

(1) As of February 10, 2021.



# Key Investment Highlights

Industry-leading Mortgage REIT	<ul style="list-style-type: none"><li>• Top 5 residential mortgage REIT by total assets and total investable equity</li><li>• \$1.9 billion common equity market capitalization<sup>(1)</sup> and ~\$20 billion investment portfolio</li><li>• <b>Internalized management structure</b> creates sustainable long-term scale advantages</li></ul>
Seasoned Management Team	<ul style="list-style-type: none"><li>• <b>Management team</b> with an average of 20+ years of industry experience</li><li>• <b>Deep bench of managerial talent</b> further fostered by the completion of internalization process</li><li>• <b>Diverse and experienced board</b>, with 7 independent members out of 9 directors</li></ul>
Differentiated Investment Strategy	<ul style="list-style-type: none"><li>• <b>Transparent and differentiated</b> investment approach</li><li>• Strategic pairing of Agency RMBS + MSR results in <b>strong book value stability</b> in the long-term</li><li>• MSR exposure <b>lowers mortgage spread risk</b> for a given amount of nominal portfolio leverage</li></ul>
Attractive Risk-Adjusted Returns	<ul style="list-style-type: none"><li>• Expect continued attractive gross <b>returns in low-to-mid teens</b></li><li>• <b>Low exposure to spreads and rates</b> with Agency RMBS + MSR investment strategy</li><li>• <b>Dividend reflects the total economic returns our portfolio construction is expected to generate</b></li></ul>
Sophisticated Risk Management And Governance	<ul style="list-style-type: none"><li>• Robust infrastructure to support <b>risk management</b> and MSR servicing oversight</li><li>• <b>Strong governance model and controls</b> with in-house legal &amp; compliance teams</li><li>• Internalization of management team strengthened <b>alignment with stockholders</b></li></ul>
Strong Balance Sheet And Liquidity	<ul style="list-style-type: none"><li>• <b>\$3.1 billion total equity</b>, \$1.4 billion unrestricted cash and \$400+ million unused committed capacity<sup>(2)</sup></li><li>• <b>Conservatively leveraged</b> given Agency RMBS + MSR investment focus and limited credit risk</li><li>• Took actions to <b>optimize liability and capital structure</b> during Q1 2021</li></ul>

(1) As of February 19, 2020

(2) As of December 31, 2020



## Appendix



TWO HARBORS  
Investment Corp.

# Management Team



**Bill Greenberg**

## Chief Executive Officer and President

- Over 25 years of experience managing portfolios of structured finance assets
- 8 year tenure with Two Harbors
- Appointed CEO in June 2020
- Served as Co-CIO of Two Harbors since January 2020, and prior to that, served as Co-Deputy CIO from June 2018
- Prior to joining Two Harbors in 2012, was a Managing Director at UBS AG, holding a variety of senior positions, including managing the mortgage repurchase liability risk related to over \$100 billion of RMBS and whole loans issued and/or sold by UBS
- B.S. in physics from the Massachusetts Institute of Technology, and M.S. and Ph.D. degrees in theoretical nuclear physics from the University of Washington



**Matt Koeppen**

## Chief Investment Officer

- Over 20 years of experience managing portfolios of structured finance assets
- 10 year tenure with Two Harbors
- Served as CIO of Two Harbors since June 2020, with primary responsibility for the investment and hedging strategy of the Company's portfolio of conventional MSR and securities; previously served as Co-CIO from January 2020 and as Co-Deputy CIO from June 2018
- Prior to joining Two Harbors in 2010, held several key positions with Black River Asset Management, which was a division of Cargill, Inc.
- B.A. degree in financial management from the University of St. Thomas



**Mary Risky**

## Chief Financial Officer

- Over 30 years of experience in financial management roles for public financial services companies
- 9 year tenure with Two Harbors
- Appointed CFO of Two Harbors in February 2019, after serving as Chief Accounting Officer since 2016
- Previously served as Corporate Controller since 2013 and as Director, Loan Accounting upon joining Two Harbors
- Prior to joining Two Harbors in 2011, held leadership roles at GMAC ResCap, a global diversified real estate company
- B.B.A. in Accounting from the University of North Dakota





## MSR Program Overview



TWO HARBORS  
Investment Corp.

# MSR Risk Management and Operations Expertise



## Acquisition Strategy

- Focus on ongoing flow relationships with ~20 strategic MSR sellers
  - Demonstrated track record in producing/servicing high quality assets
- Develop and grow quality subservicing relationships
- Opportunistic bulk MSR acquisitions are considered on a case-by-case basis; deals are structured to achieve an acceptable risk/reward balance

## Subservicing Approach

- Engage a limited number of high quality subservicers to maximize oversight capacity and incentivize best practices
  - Strong/above average ratings by Fitch, Moody's, and S&P
- Build meaningful, scalable relationships
- Reduce concentration risk with reasonable portfolio allocation among subservicers
- Redundancy in subservicing capabilities
- In-house servicing oversight team with substantial mortgage servicing operations expertise

## Strong Compliance and Governance Model

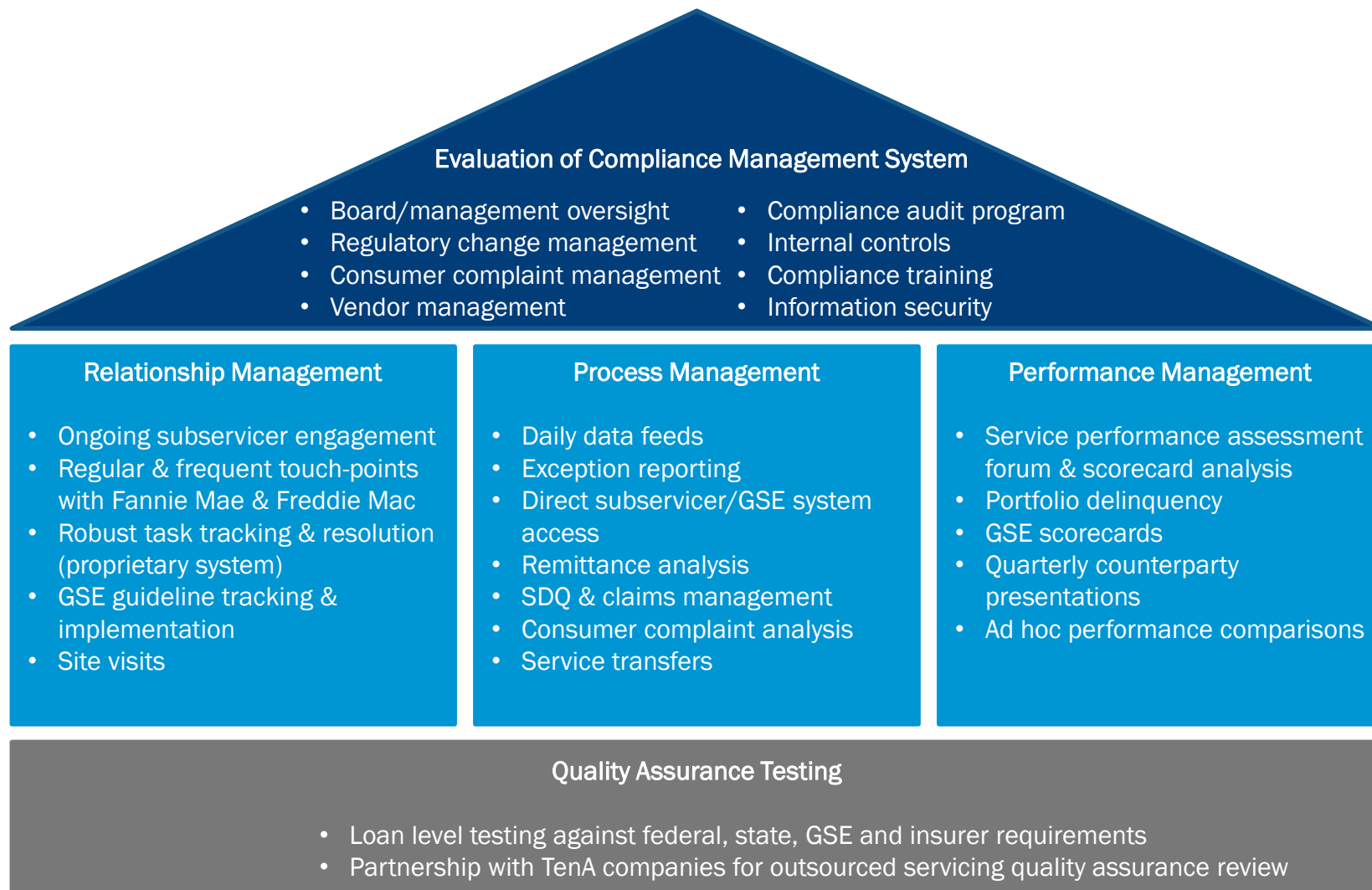
- Active senior leadership involvement; includes counterparty risk oversight committee and risk management function
- Our Mortgage Compliance Group is a team of 6 industry professionals, including 2 regulatory attorneys and seasoned compliance professionals with 17 to 30+ years of industry experience
- Legal team navigates complex state and federal regulatory landscape and ensures strong policies, procedures training, governance, reporting and disclosure practices

## Robust Corporate Infrastructure

- Residential Servicing and Operations team is made up of 31 industry professionals; senior members of team average 16 years of relevant experience
- Scalable platform in order to manage counterparty exposures
- Regularly review subservicer processes and performance and engage with them to ensure best-in-class practices, policies and procedures
- Sound borrower treatment and consumer protection standards reduce GSE counterparty risk exposure
- Combination of a variable fee structure with significant oversight mitigates credit risk and ensures subservicer compliance with the GSE guidelines and applicable law



# Oversight Model





## Fourth Quarter 2020 Earnings



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# 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 26 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
Benefit from 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 26 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>
<b>Annualized portfolio yield<sup>(2)</sup></b>	<b>2.42 %</b>	<b>2.26 %</b>	<b>2.23 %</b>
<b>Annualized cost of funds<sup>(3)</sup></b>	<b>0.64 %</b>	<b>0.50 %</b>	<b>0.50 %</b>
<b>Annualized net spread for aggregate portfolio</b>	<b>1.78 %</b>	<b>1.76 %</b>	<b>1.73 %</b>

- 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.

# 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:		
Comprehensive income attributable to common stockholders	\$ 219,180	\$ 113,481
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
<b>Core Earnings per weighted average basic common share</b>	<b>\$ 0.28</b>	<b>\$ 0.30</b>

(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.





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