



An MSR-Focused REIT

Fourth Quarter 2024 Earnings Call Presentation

January 30, 2025



FORWARD-LOOKING STATEMENTS

This presentation of Two Harbors Investment Corp., or TWO, 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, 2023, and any subsequent Quarterly Reports on Form 10-Q, under the caption “Risk Factors.” Factors that could cause actual results to differ include, but are not limited to: the state of credit markets and general economic conditions; changes in interest rates and the market value of our assets; changes in prepayment rates of mortgages underlying our target assets; the rates of default or decreased recovery on the mortgages underlying our target assets; declines in home prices; our ability to establish, adjust and maintain appropriate hedges for the risks in our portfolio; the availability and cost of our target assets; the availability and cost of financing; changes in the competitive landscape within our industry; our ability to effectively execute and to realize the benefits of strategic transactions and initiatives we have pursued or may in the future pursue; our ability to recognize the benefits of our acquisition of RoundPoint Mortgage Servicing LLC and to manage the risks associated with operating a mortgage loan servicer and originator; our decision to terminate our management agreement with PRCM Advisers LLC and the ongoing litigation related to such termination; our ability to manage various operational risks and costs associated with our business; interruptions in or impairments to our communications and information technology systems; our ability to acquire mortgage servicing rights (MSR) and to maintain our MSR portfolio; our exposure to legal and regulatory claims; legislative and regulatory actions affecting our business; 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 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’s most recent filings with the Securities and Exchange Commission (SEC). All subsequent written and oral forward-looking statements concerning TWO or matters attributable to TWO or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements above.

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

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

Quarterly Financials Overview



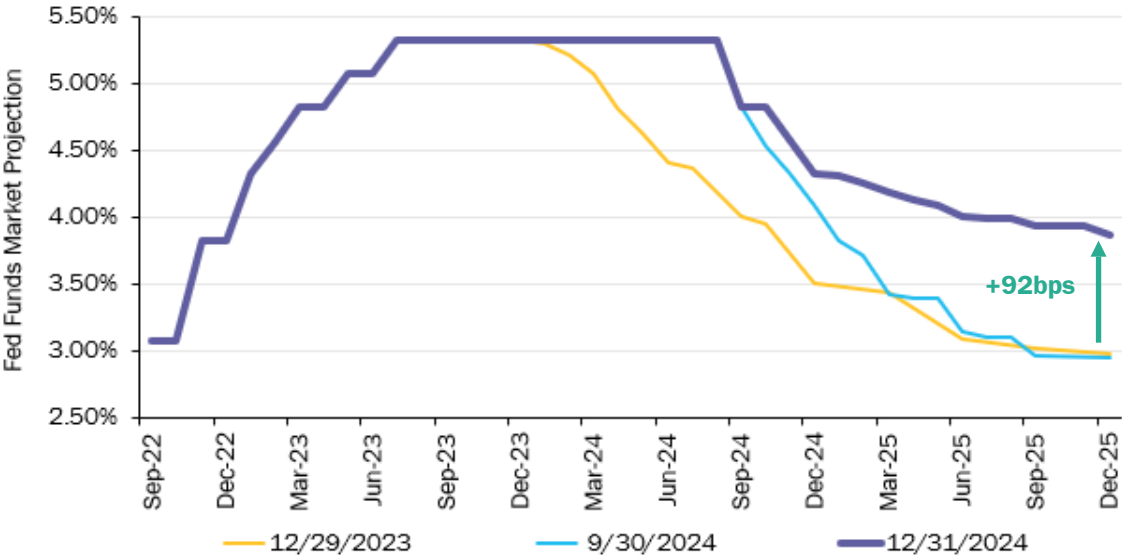
Book Value per Share \$14.47	Common Stock Dividend \$0.45	Economic Return on Book Value ⁽¹⁾ 0.0%
Comprehensive Loss per Share \$(0.03)	Investment Portfolio ⁽²⁾ \$14.8b	Quarter-End Economic Debt-to-Equity ⁽³⁾ 6.5x

Note: Financial data throughout this presentation is as of or for the quarter ended December 31, 2024, unless otherwise noted. Per share metrics utilize basic common shares as the denominator. The End Notes are an integral part of this presentation. See slides 29 through 33 at the back of this presentation for information related to certain financial metrics and defined terms used herein.

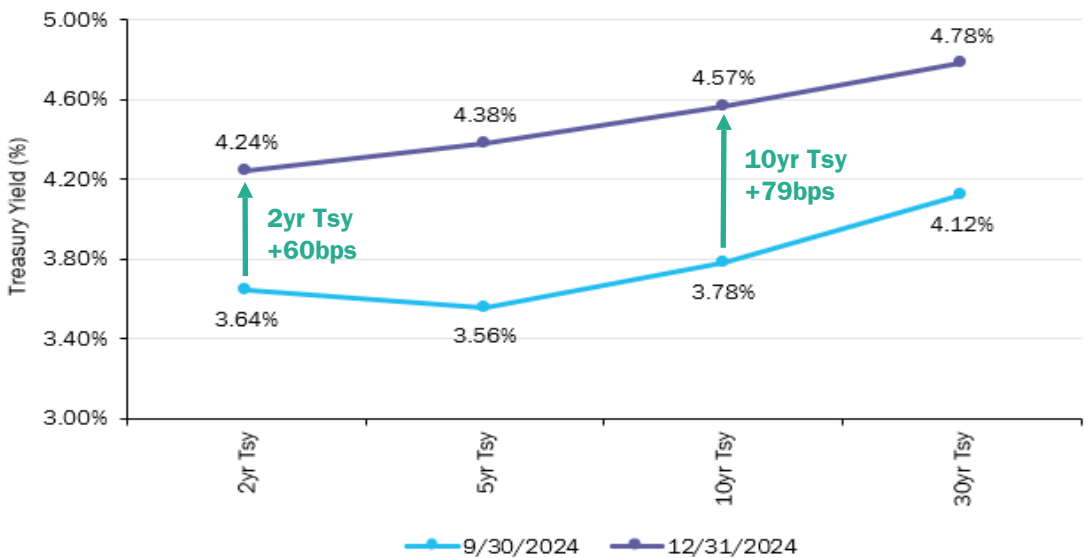
THE FED AND MARKET REMAIN KEENLY FOCUSED ON INFLATION DATA

- The Federal Reserve (Fed) cut the federal funds target rate by 50 basis points in the quarter, bringing the total to 100 basis points of rate cuts in 2024
- Hawkish comments at the Fed’s December meeting tempered rate expectations for 2025, with market expectations for additional cuts going from 4.5 at the beginning of the fourth quarter to 1.5 by quarter-end
- The yield curve bear steepened on the heels of the US presidential election, led by expectations for expansionary fiscal policy and the economic impacts from tariffs

I. FED FUND RATE EXPECTATIONS⁽¹⁾



II. QUARTERLY YIELD CURVE CHANGE⁽²⁾





**TWO + RoundPoint
Benefits**

Cost Efficiencies

Focused on additional operational efficiencies to deliver lower cost-to-service per loan

Additional Income

Subservicing, direct-to-consumer originations, and ancillary products offer new sources of income

Hedges Portfolio

Protects value of TWO's MSR portfolio when interest rates decline and refinances increase

**Servicing Platform
Highlights**

\$212 billion
Serviced UPB

860,759
Loans Serviced

**Direct-to-Consumer Originations
Highlights**

Over \$20.8 million UPB
in Originations Pipeline⁽¹⁾

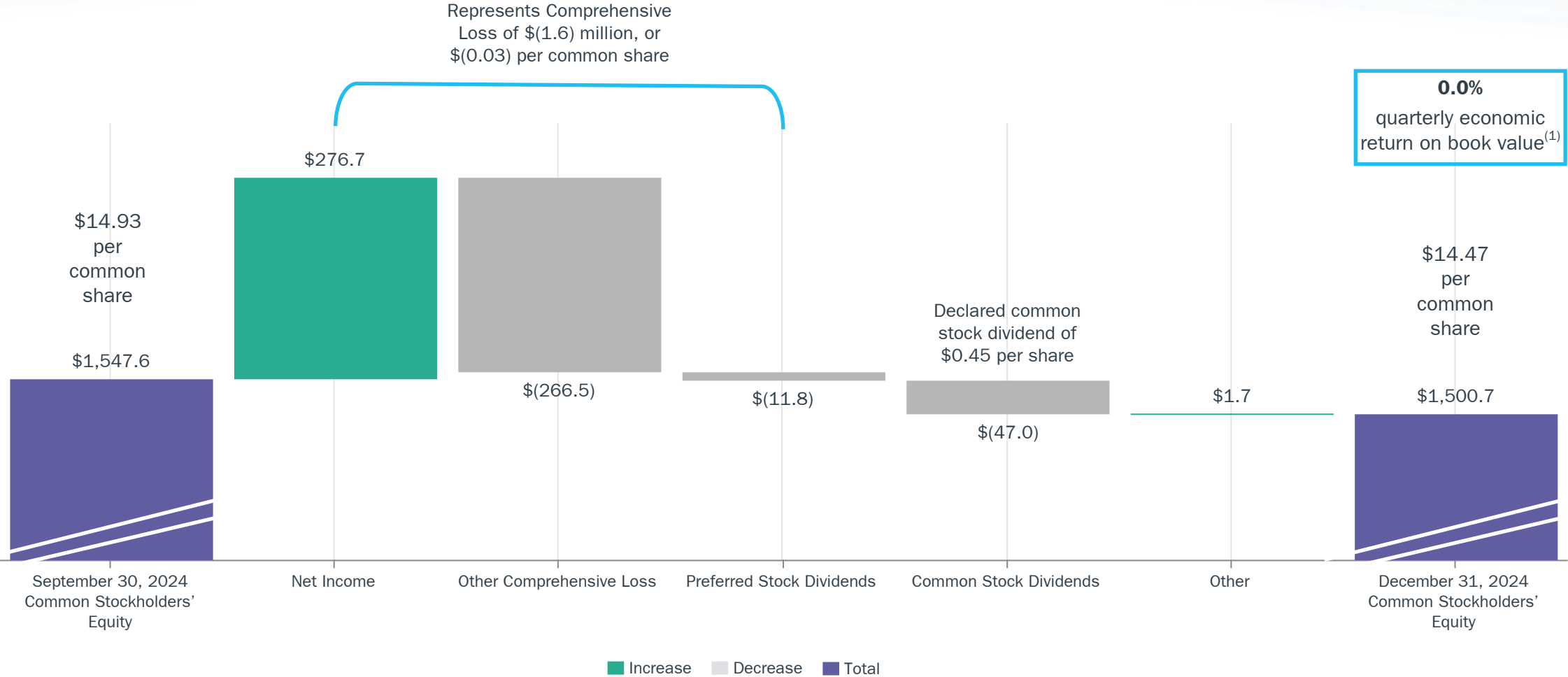
\$42.0 million UPB
Funded First Lien Loans

\$32.8 million UPB
Brokered Second Lien Loans

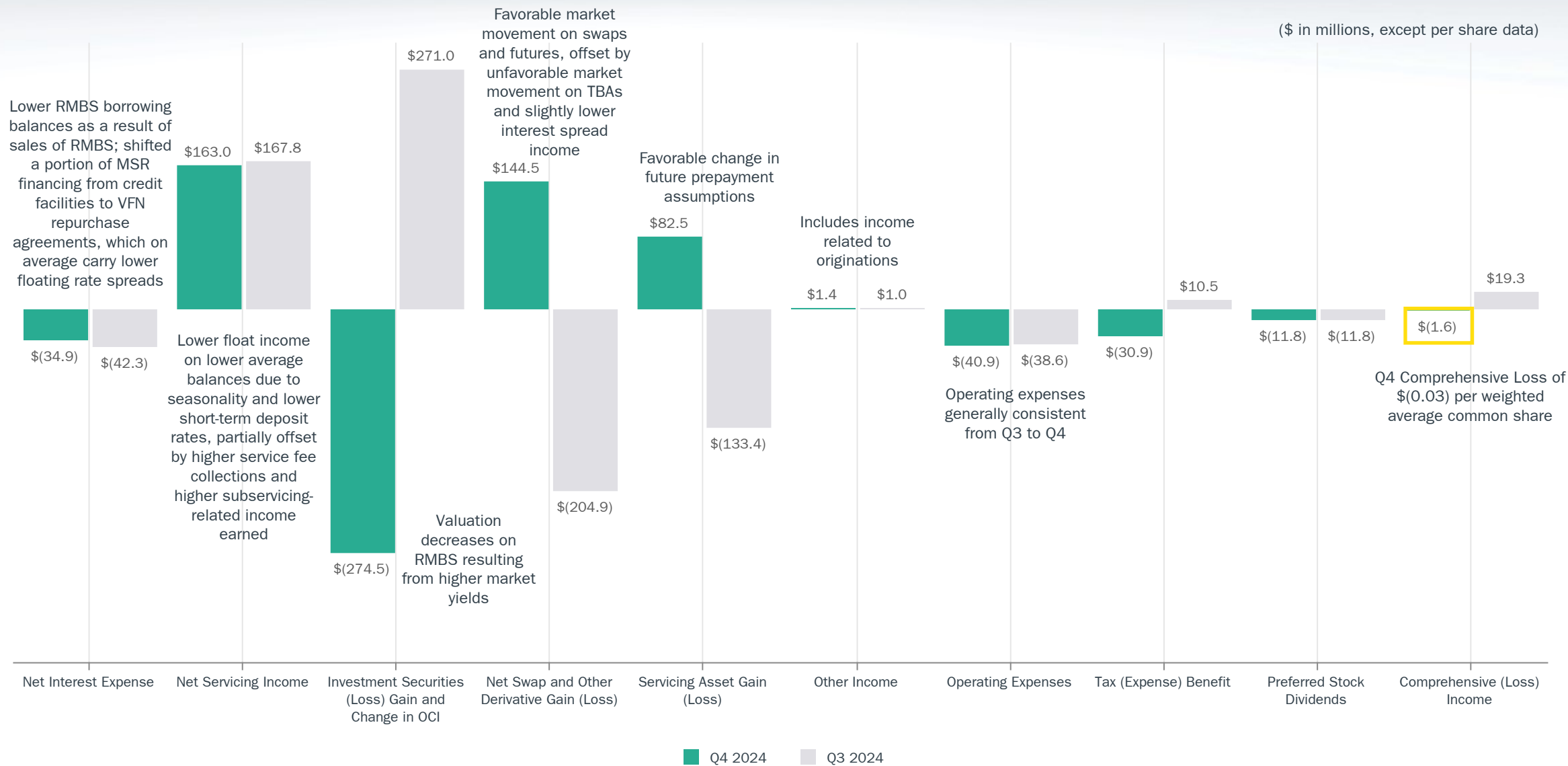
Book Value Summary



(\$ in millions, except per share data)



Comprehensive (Loss) Income Summary



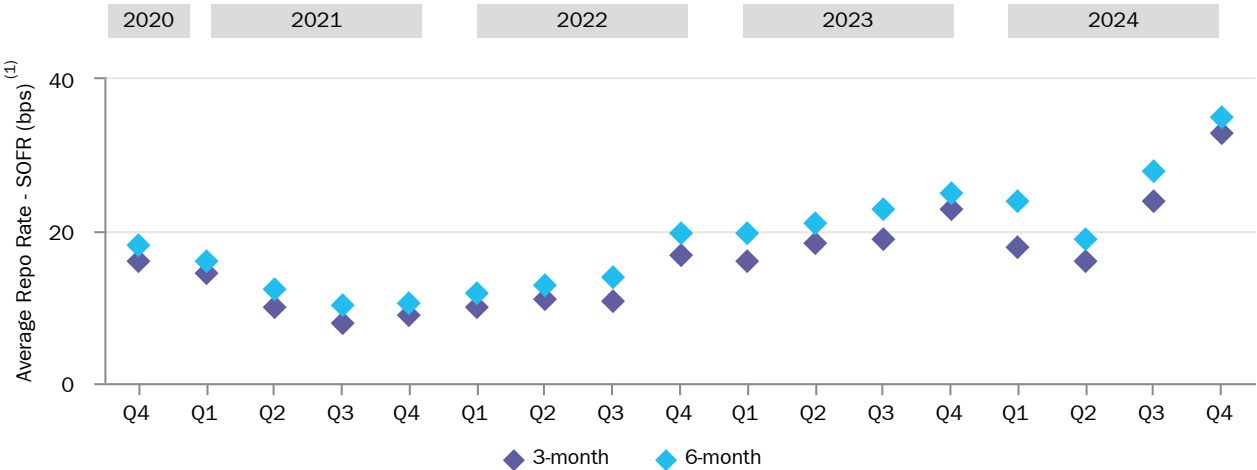


BALANCE SHEET AS OF DECEMBER 31, 2024

Agency RMBS \$7.4 billion	Agency RMBS repurchase agreements \$7.0 billion
MSR \$3.0 billion	MSR financing \$1.8 billion
	Convertible debt \$0.3 billion
	All other liabilities \$1.0 billion
Cash & cash equivalents \$0.5 billion	Preferred equity \$0.6 billion
All other assets \$1.3 billion	Common equity \$1.5 billion

AGENCY RMBS

- \$7.0 billion of outstanding repurchase agreements with 18 counterparties
- Weighted average days to maturity of 49 days



MORTGAGE SERVICING RIGHTS

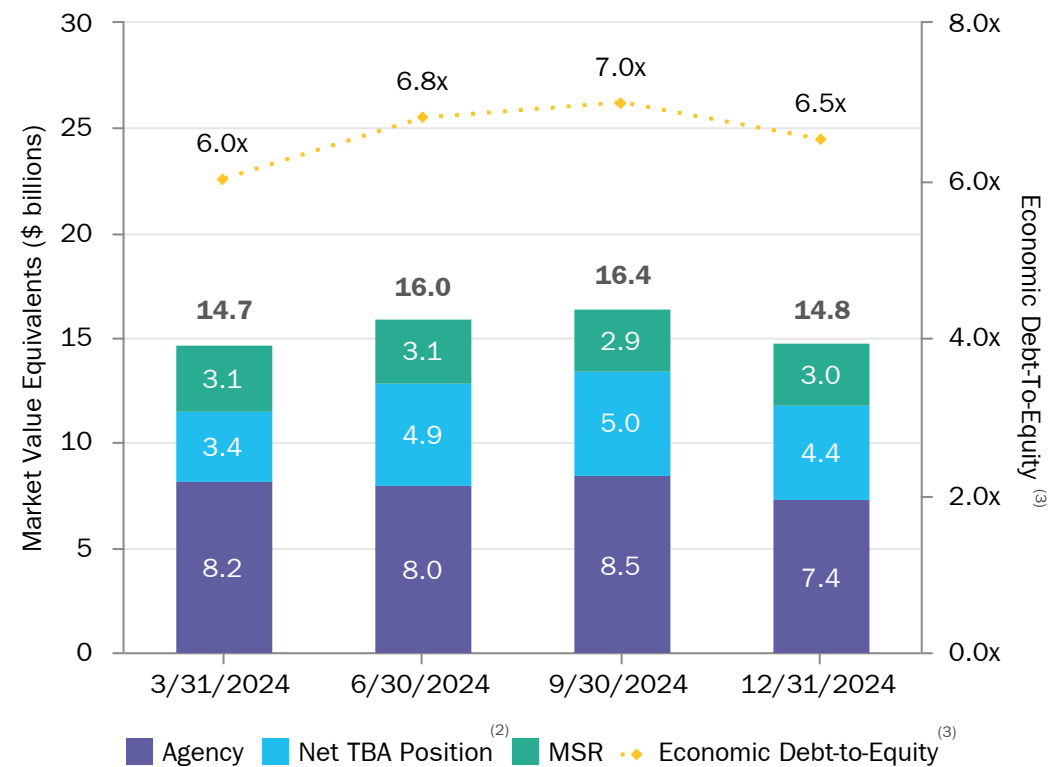
- \$1.7 billion of outstanding borrowings under bilateral MSR asset financing facilities
- \$865 million of unused MSR asset financing capacity; \$70 million committed and \$795 million uncommitted
- \$90 million outstanding borrowings and \$60 million of unused, committed capacity for servicing advance receivables

Portfolio Composition and Risk Positioning

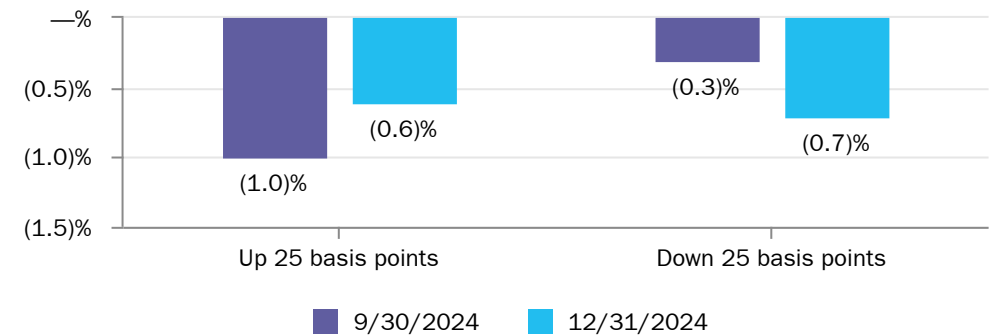


I. PORTFOLIO COMPOSITION⁽¹⁾

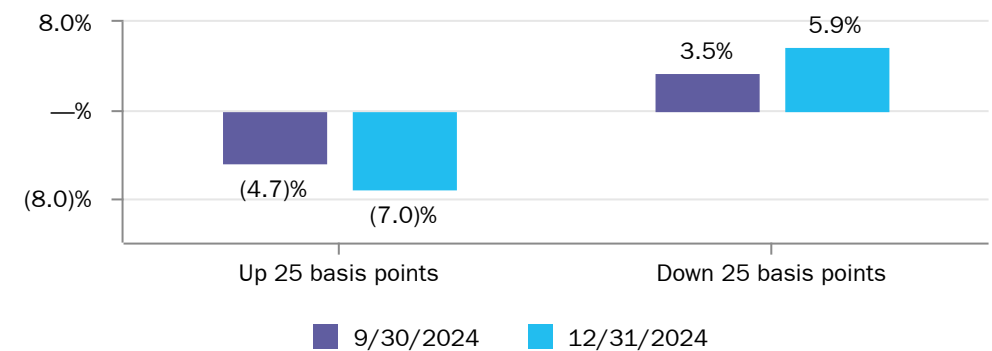
At December 31, 2024, \$14.8 billion portfolio
Includes \$10.4 billion settled positions



II. INTEREST RATE EXPOSURE⁽⁴⁾



III. MORTGAGE SPREAD EXPOSURE⁽⁵⁾

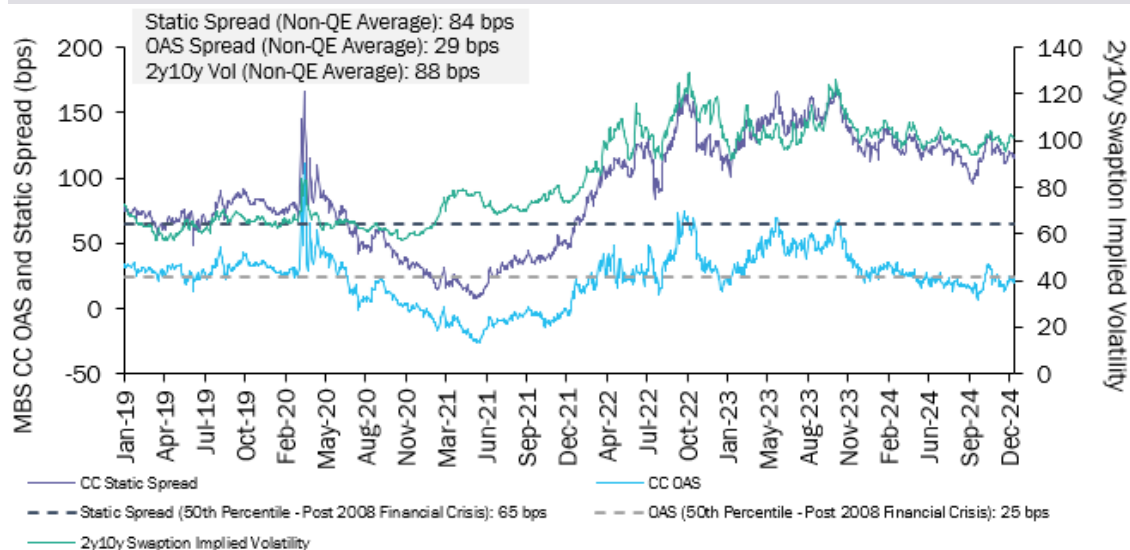


Note: Sensitivity data as of December 31, 2024. The above scenarios are provided for illustration purposes only and are not necessarily indicative of TWO's financial condition and operating results, nor are they necessarily indicative of the financial condition or results of operations that may be expected for any future period or date. See Slide 17 in the Appendix for more information on our risk positioning.

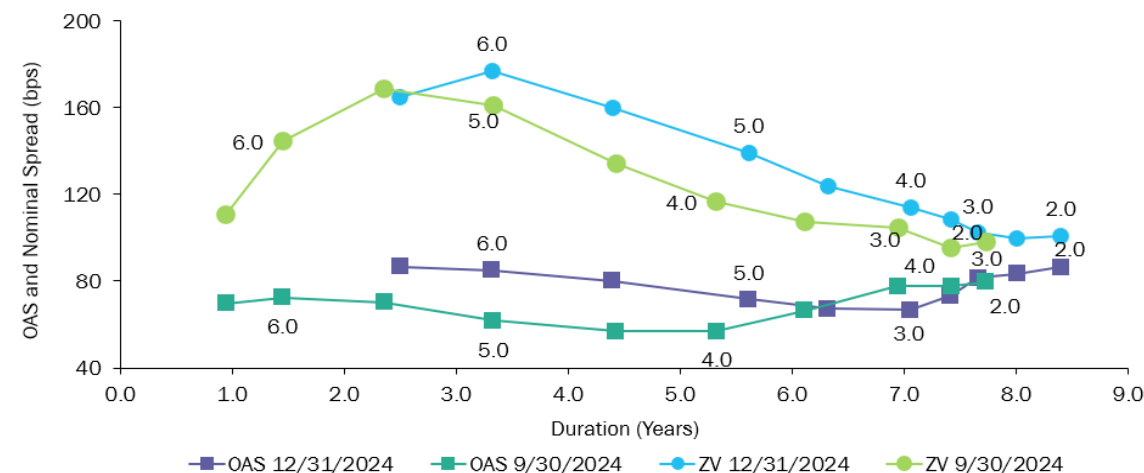
VOLATILE QUARTER FOR MORTGAGE SPREAD PERFORMANCE

- Mortgage performance varied widely month-to-month with spreads widening significantly in October, recovering post-election in November, and widening slightly in December on strengthening economic data and a more hawkish Fed posture
- Implied volatility – 2-year options on 10-year rates – increased from 94 to 101 basis points on an annualized basis, in the middle of its range for 2024
- TBA current coupon shifted from 5.0s to 5.5/6.0s and nominal spreads widened by 12 basis points to +117 to the Treasury curve
- The option-adjusted spread (OAS) for current coupons widened by 11 basis points to +23
- The spread curve for both nominal spreads and OAS steepened as a result of wider spreads on higher coupons

I. NOMINAL RMBS SPREADS REMAIN ATTRACTIVE⁽¹⁾



II. NOMINAL SPREAD CURVE IS STEEP, OAS CURVE FLAT⁽²⁾





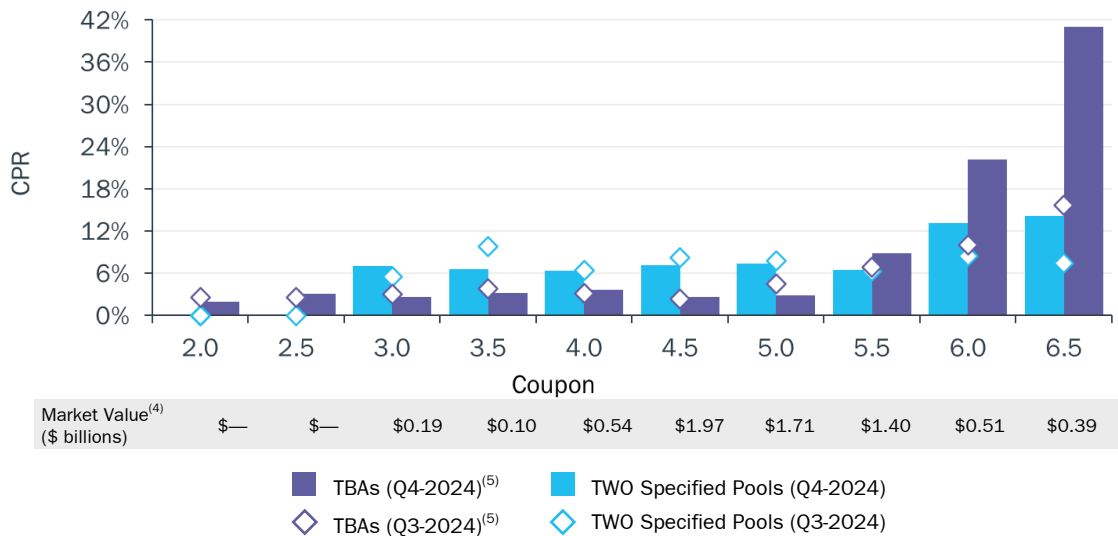
QUARTERLY HIGHLIGHTS

- The bear steepening of the rates curve and uptick in implied volatility led to underperformance of lower coupons, and outperformance of higher coupons
- Higher coupon specified pools were the best performer, outperforming TBAs by at least a quarter point and rate hedges by about a half point
- Shifted about \$4 billion 4.5 and 5.0 TBAs into \$3 billion 5.5 and 6.0 TBAs as our MSR current coupon exposure moved higher
- Speeds for higher coupon TBAs and pools picked up, capturing the decline in rates at the end of the third quarter, whereas 5% coupons and lower were unchanged to slightly slower
- Weighted average specified pool portfolio prepayment speed of 8.1%, compared to 7.6% in the third quarter⁽¹⁾

I. RMBS QUARTERLY PERFORMANCE



II. SPECIFIED POOL PREPAYMENT SPEEDS

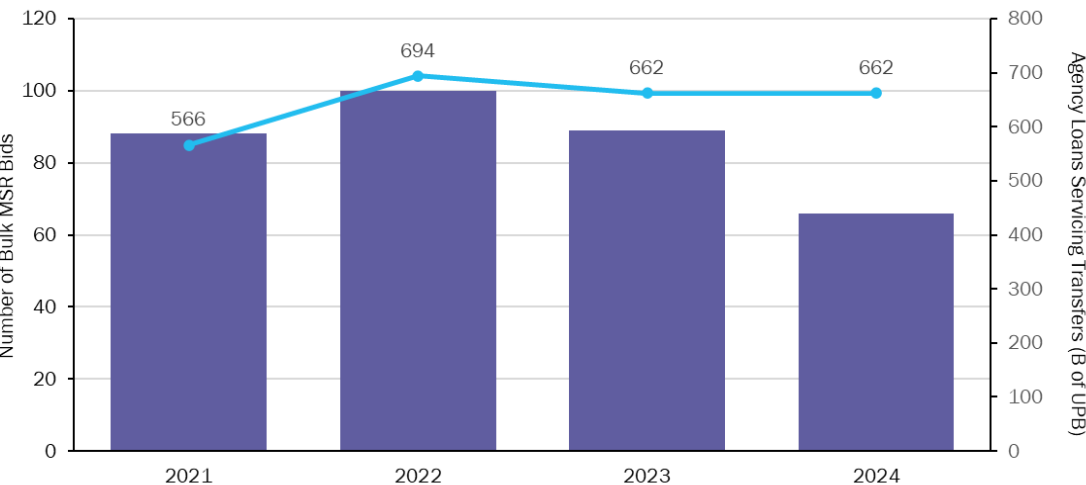




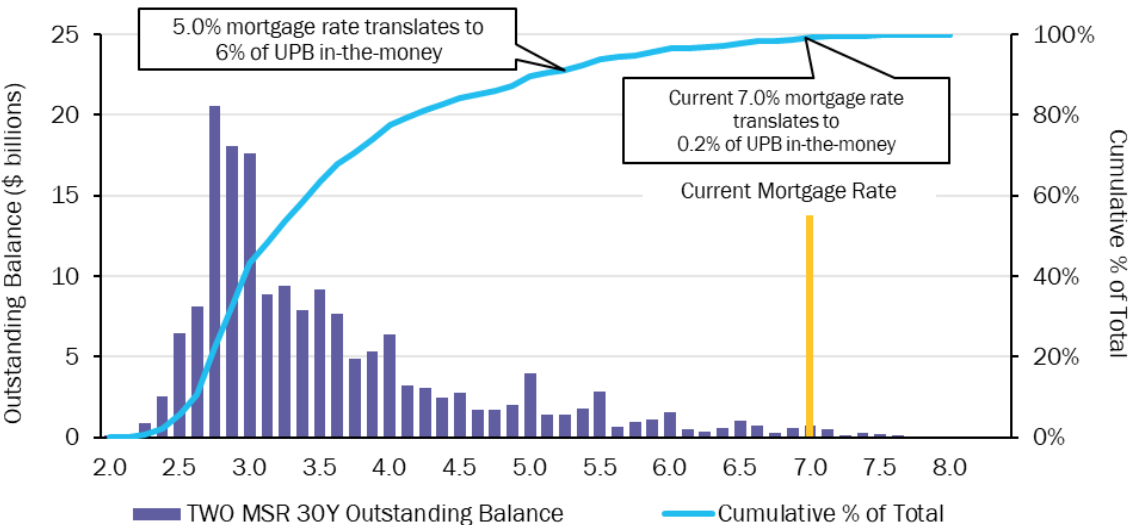
MSR SPREADS STABLE AND WELL SUPPORTED

- Several large scale bids and acquisitions lifted 2024 transfers to \$662 billion UPB
- Bulk bid opportunities dropped by 25% year-over-year
- Demand for MSR continues to come from bank and non-bank portfolios
- Expect ample opportunities to add MSR at attractive spreads, even as transfer volume continues to normalize to pre-COVID levels
- With rates around 7%, only 0.2% of the UPB of TWO's MSR portfolio has 50 basis points or more of a rate incentive to refinance

I. BULK MSR BIDS⁽¹⁾



II. COMPOSITION OF MARKET VS. CURRENT RATES⁽²⁾





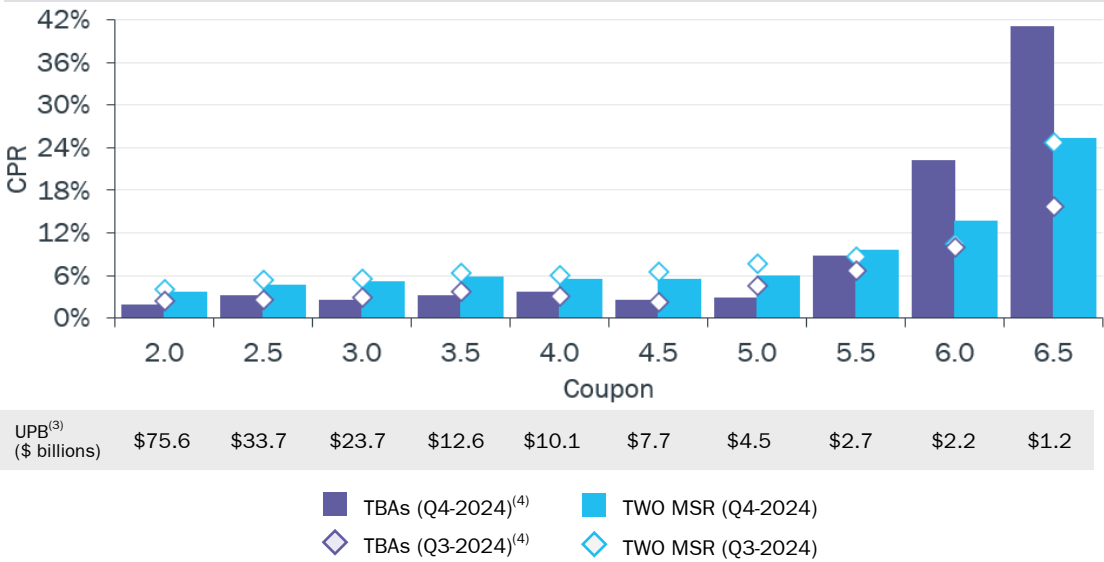
QUARTERLY HIGHLIGHTS

- Quarterly prepayment speeds decreased slightly quarter-over-quarter to 4.9% CPR from 5.32% in Q3, due to slower seasonal factors
- Price multiple increased slightly to 5.9x from 5.6x, reflecting the decline in rates
- 60+ day delinquencies remain low at 0.8%
- Settled \$2.5 billion UPB through bulk and flow acquisitions and recapture

I. MSR PORTFOLIO CHARACTERISTICS⁽¹⁾

	12/31/2024	9/30/2024
Fair value (\$ millions)	\$ 2,994	\$ 2,884
Price multiple	5.9x	5.6x
UPB (\$ millions)	\$ 201,669	\$ 203,338
Gross coupon rate	3.46%	3.43%
Current loan size (\$ thousands)	\$ 332	\$ 334
Original FICO ⁽²⁾	759	760
Original Loan-to-Value (LTV)	72%	71%
60+ day delinquencies	0.8%	0.8%
Net servicing fee (bps)	25.3	25.3
Loan age (months)	52	50
3-month CPR	4.9%	5.3%

II. 30-YEAR MSR PREPAYMENT SPEEDS





Why TWO?

- **Market Presence:** Our scale, expertise and ability to leverage our own servicer allows us to find attractive incremental investments in hedged MSR.
- **Investment Strategy:** Our portfolio is focused on hedged MSR. Ongoing enhancements at RoundPoint uniquely position us to shape our return profile beyond just owning traditional Agency RMBS.
- **Market Environment:** Our MSR is almost 400 basis points out of the money, keeping prepayment risk low and generating stable cashflows over a wide range of market scenarios.
- **Financing and Liquidity:** We have a strong balance sheet and diversified financing for both MSR and Agency RMBS.

ATTRACTIVE RETURN OPPORTUNITIES FOR UNIQUELY POSITIONED PORTFOLIO

	PORTFOLIO MARKET VALUE (\$ millions)	INVESTED CAPITAL ALLOCATED ⁽¹⁾	STATIC RETURN ESTIMATE ⁽²⁾		
As of December 31, 2024					
SERVICING					
MSR	2,994				
RMBS ⁽³⁾	3,765				
Total	6,759	61%	11%	-	14%
SECURITIES					
RMBS ⁽³⁾	7,542				
Other Securities	576				
Total	8,118	39%	14%	-	15%
	INVESTED CAPITAL (\$ millions)		STATIC TWO HARBORS RETURN ESTIMATE ⁽⁴⁾		
Total Portfolio Before Corporate and Tax Expenses					
			12.3%	-	14.6%
Corporate and Tax Expenses ⁽⁵⁾			(2.5)%	-	(2.5)%
Total Return to Invested Capital					
			9.8%	-	12.1%
INVESTED CAPITAL					
Convertible Notes	262		6.2%		
Preferred Equity ⁽⁶⁾	622		8.9%		
Common Equity	1,501		10.8%	-	14.4%
PROSPECTIVE QUARTERLY STATIC RETURN PER BASIC COMMON SHARE ⁽⁷⁾ :			\$0.39 - \$0.52		

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



Appendix



Effective Coupon Positioning

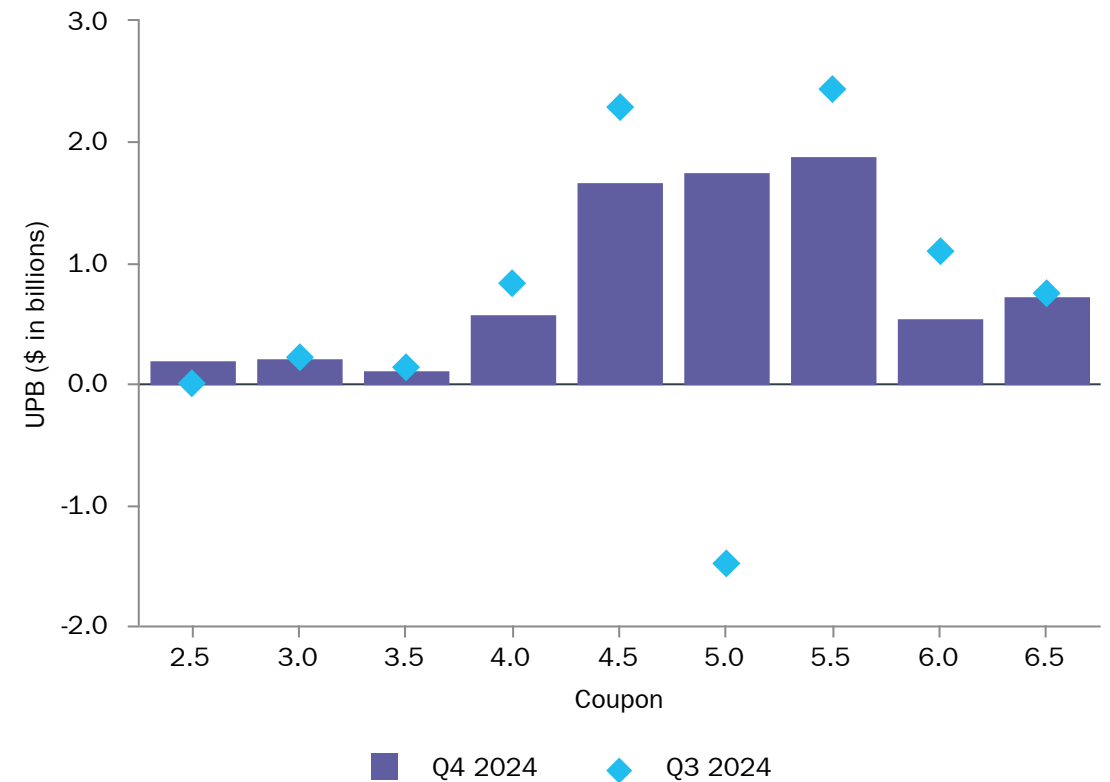


I. EFFECTIVE COUPON POSITIONING

Coupon (%)	TBA Market Price ⁽¹⁾	TBA Notional (\$m)	Specified Pools Par Value (\$m) ⁽²⁾	MSR/ Agency IO UPB (\$m) ⁽³⁾	Combined (\$m)	ZV to SOFR Spreads for Specified Pools ⁽⁴⁾
2.5%	\$ 81.32	\$ 200	\$ —	\$ —	\$ 200	—
3.0%	\$ 84.82	—	220	—	220	118
3.5%	\$ 88.35	17	109	—	126	120
4.0%	\$ 91.30	—	586	—	586	118
4.5%	\$ 93.98	(400)	2,077	—	1,677	121
5.0%	\$ 96.44	—	1,759	—	1,759	134
5.5%	\$ 98.62	2,151	1,411	(1,674)	1,888	149
6.0%	\$ 100.45	2,166	500	(2,114)	552	166
6.5%	\$ 102.10	364	377	—	741	162
Total		\$ 4,498	\$ 7,039	\$ (3,788)	\$ 7,749	135

II. QUARTER-OVER-QUARTER CHANGE IN POSITIONING

Combined TBA, Specified Pool and MSR positioning by coupon



Risk Positioning



Book Value Exposure to Changes in Rates						
			% Change in Common Book Value			
2-Year Rate (basis points)	10-Year Rate (basis points)		Agency P&I RMBS/TBA	MSR/Agency IO RMBS ⁽¹⁾	Other ⁽²⁾	Combined
-25	0	Bull Steepener ⁽³⁾	2.6 %	2.1 %	(3.4)%	1.3 %
0	-25	Bull Flatteners ⁽⁴⁾	6.6 %	(4.2)%	(4.3)%	(1.9)%
-50	-50	Parallel Shift ⁽⁵⁾	17.9 %	(4.6)%	(15.7)%	(2.4)%
-25	-25	Parallel Shift ⁽⁵⁾	9.2 %	(2.1)%	(7.8)%	(0.7)%
0	0	Base	— %	— %	— %	— %
+25	+25	Parallel Shift ⁽⁵⁾	(9.8)%	1.5 %	7.7 %	(0.6)%
+50	+50	Parallel Shift ⁽⁵⁾	(20.0)%	2.7 %	15.2 %	(2.1)%
+25	0	Bear Flatteners ⁽³⁾	(2.4)%	(2.3)%	3.3 %	(1.4)%
0	+25	Bear Steepener ⁽⁴⁾	(7.4)%	3.8 %	4.3 %	0.7 %

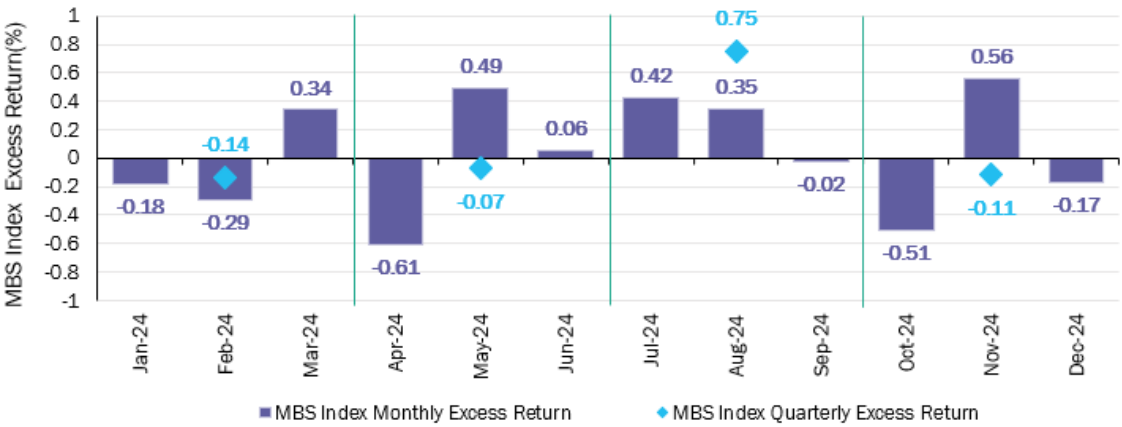
Book Value Exposure to Current Coupon Spread ⁽⁶⁾			
		% Change in Common Book Value	
Parallel Shift in Spreads (basis points)		Agency P&I RMBS/TBA	MSR/Agency IO RMBS ⁽¹⁾
-25		8.4 %	(2.5)%
0		— %	— %
+25		(9.0)%	2.0 %

Note: Sensitivity data as of December 31, 2024. The above scenarios are provided for illustration purposes only and are not necessarily indicative of TWO's 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.

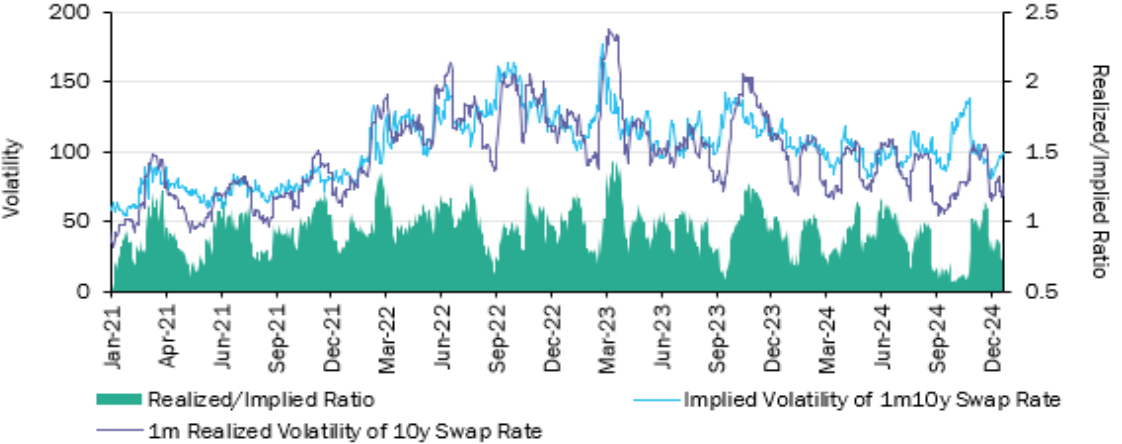
Markets Overview



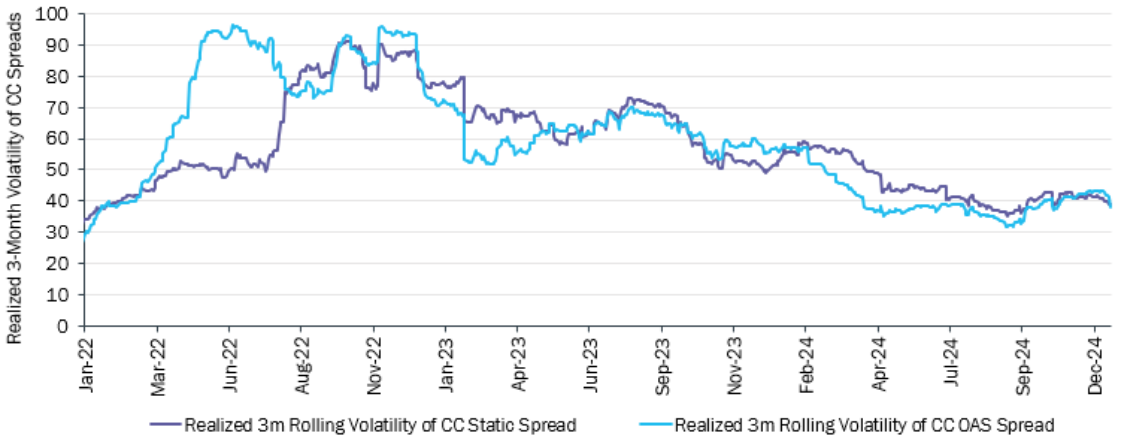
I. QUARTERLY MORTGAGE PERFORMANCE⁽¹⁾



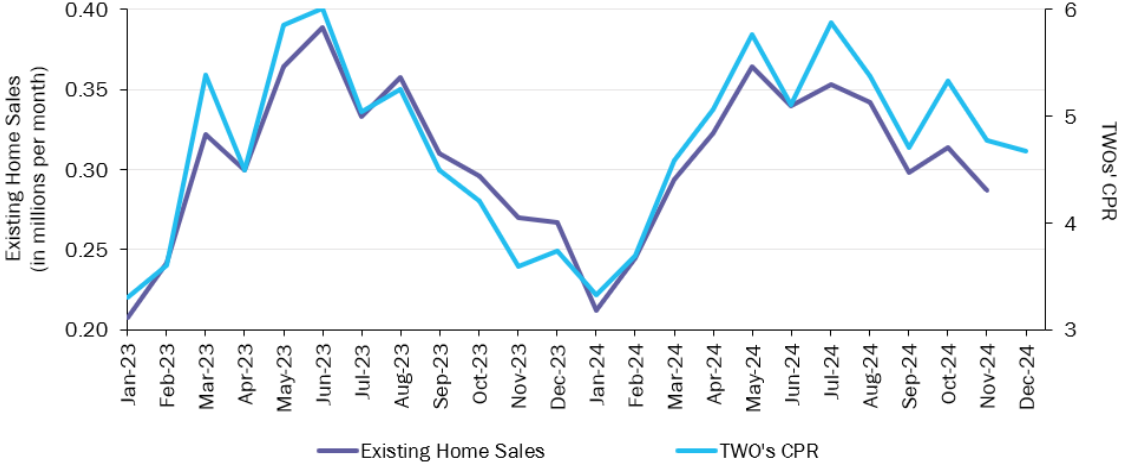
II. ACTUAL VS. IMPLIED VOLATILITY⁽²⁾



III. MORTGAGE SPREAD VOLATILITY⁽³⁾



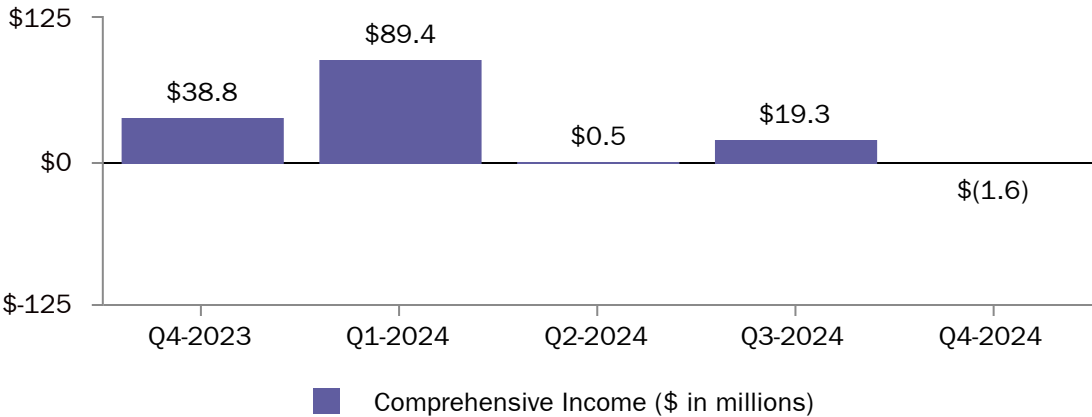
IV. TWO MSR SPEEDS AND EXISTING HOME SALES⁽⁴⁾



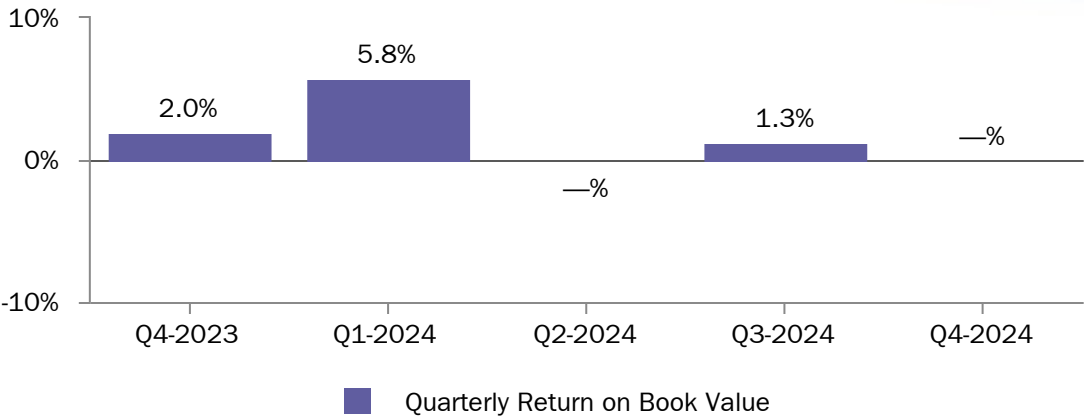
Financial Performance



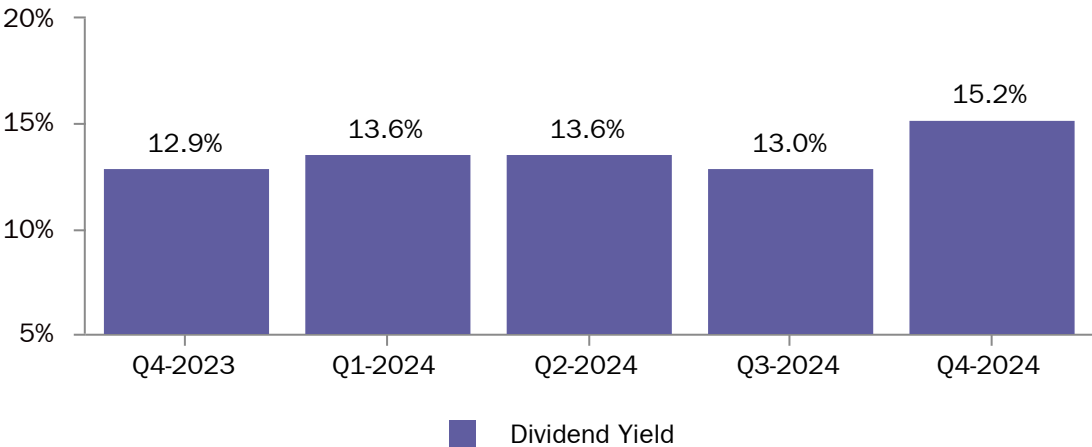
I. COMPREHENSIVE INCOME (LOSS)



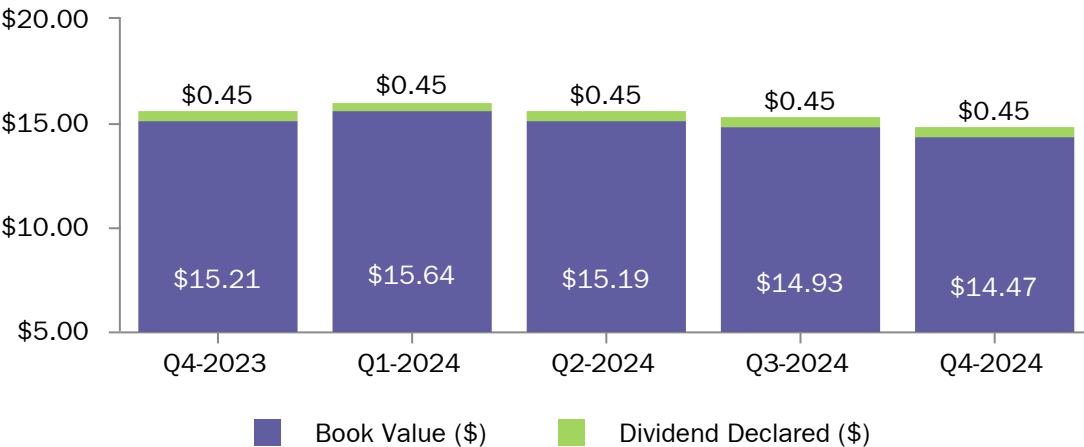
II. QUARTERLY ECONOMIC RETURN ON BOOK VALUE⁽¹⁾



III. DIVIDEND YIELD⁽²⁾



IV. BOOK VALUE AND DIVIDEND PER COMMON SHARE⁽²⁾



Q4-2024 Portfolio Yields and Financing Costs



(\$ thousands)				
Portfolio Asset Type	Measure	Average Amortized Cost	Income ⁽¹⁾	Average Yield
Available-for-sale securities	GAAP	\$ 7,818,127	\$ 92,644	4.74%
<i>Adjustments to include other portfolio items:</i>				
Mortgage servicing rights ⁽²⁾⁽³⁾	Non-GAAP	1,824,679	52,878	11.59%
Agency derivatives ⁽²⁾⁽⁴⁾	Non-GAAP	14,801	97	2.62%
TBAs ⁽²⁾⁽⁵⁾	Non-GAAP	4,779,214	47,987	4.02%
Total portfolio	Non-GAAP	<u>\$ 14,436,821</u>	<u>\$ 193,606</u>	<u>5.36%</u>

Financing Collateral Type	Measure	Average Outstanding Balance	Expense ⁽⁶⁾	Average Cost
Borrowings collateralized by available-for-sale securities	GAAP	\$ 7,468,264	\$ 95,892	5.14%
<i>Adjustments to include other financing items:</i>				
Borrowings collateralized by mortgage servicing rights and advances	GAAP	1,830,453	38,143	8.34%
Borrowings collateralized by Agency derivatives ⁽⁴⁾	GAAP	5,033	69	5.48%
Convertible senior notes ⁽⁷⁾	GAAP	260,091	4,506	6.93%
Interest rate swaps ⁽²⁾⁽⁸⁾	Non-GAAP		(12,158)	(0.34)%
U.S. Treasury futures ⁽²⁾⁽⁹⁾	Non-GAAP		(6,133)	(0.17)%
TBAs ⁽²⁾⁽⁵⁾	Non-GAAP	4,779,214	43,792	3.67%
Total financing	Non-GAAP	<u>\$ 14,343,055</u>	<u>\$ 164,111</u>	<u>4.58%</u>
Net Spread	Measure			Average Yield, less Cost
Net spread on AFS securities	GAAP			(0.40%)
Net spread on total portfolio	Non-GAAP			0.78%

GAAP to EAD Reconciliation



Reconciliation of GAAP to non-GAAP Information (\$ thousands, except for per common share data)	Three Months Ended December 31, 2024	Three Months Ended September 30, 2024
Comprehensive (loss) income attributable to common stockholders	\$ (1,620)	\$ 19,352
Adjustment for other comprehensive loss (income) attributable to common stockholders:		
Unrealized loss (gain) on available-for-sale securities	266,565	(269,621)
Net income (loss) attributable to common stockholders	\$ 264,945	\$ (250,269)
Adjustments to exclude reported realized and unrealized (gains) losses:		
Realized loss (gain) on securities	7,001	(312)
Unrealized loss (gain) on securities	725	(795)
Provision (reversal of provision) for credit losses	283	(276)
Realized and unrealized (gain) loss on mortgage servicing rights	(82,520)	133,349
Realized (gain) loss on termination or expiration of interest rate swaps and swaptions	(66,033)	86,310
Unrealized (gain) loss on interest rate swaps and swaptions	(121,421)	103,012
Realized and unrealized loss on other derivative instruments	55,241	32,821
Other realized and unrealized gains	(46)	—
Other adjustments:		
MSR amortization ⁽¹⁾	(80,476)	(83,619)
TBA dollar roll income (losses) ⁽²⁾	4,195	(1,156)
U.S. Treasury futures income ⁽³⁾	6,133	5,247
Change in servicing reserves	610	(501)
Non-cash equity compensation expense	1,610	1,610
Certain operating expenses ⁽⁴⁾	39	101
Net provision for (benefit from) income taxes on non-EAD	30,895	(12,336)
Earnings available for distribution to common stockholders	\$ 21,181	\$ 13,186
Weighted average basic common shares	103,656,321	103,635,455
Earnings available for distribution to common stockholders per weighted average basic common share	\$ 0.20	\$ 0.13

Note: Earnings Available for Distribution, or EAD, is a non-GAAP measure that we define as comprehensive (loss) income attributable to common stockholders, excluding realized and unrealized gains and losses on the aggregate investment portfolio, gains and losses on repurchases of preferred stock, provision for (reversal of) credit losses, reserve expense for representation and warranty obligations on MSR, non-cash compensation expense related to restricted common stock, and certain operating expenses. As defined, EAD includes net interest income, accrual and settlement of interest on derivatives, dollar roll income on TBAs, U.S. Treasury futures income, servicing income, net of estimated amortization on MSR and certain cash related operating expenses. EAD provides supplemental information to assist investors in analyzing the company's results of operations and helps facilitate comparisons to industry peers. EAD is one of several measures our board of directors considers to determine the amount of dividends to declare on our common stock and should not be considered an indication of our taxable income or as a proxy for the amount of dividends we may declare.

Agency RMBS Portfolio



	Par Value (\$ millions)	Market Value (\$ millions)	Weighted Average CPR ⁽¹⁾	% Prepay Protected ⁽²⁾	Amortized Cost Basis (\$ millions)	Gross Weighted Average Coupon	Weighted Average Age (Months)
30-Year Fixed							
3.0%	\$ 220	\$ 188	4.9 %	85.7 %	\$ 196	3.7 %	38
3.5%	109	97	3.1 %	84.3 %	98	4.1 %	51
4.0%	586	538	9.4 %	100.0 %	577	4.6 %	55
4.5%	2,077	1,972	7.5 %	100.0 %	2,124	5.1 %	52
5.0%	1,759	1,714	6.9 %	100.0 %	1,792	5.8 %	33
5.5%	1,411	1,402	6.7 %	99.8 %	1,422	6.4 %	25
6.0%	500	505	13.0 %	91.5 %	509	6.9 %	25
≥ 6.5%	377	389	9.7 %	100.0 %	389	7.5 %	12
	7,039	6,805	7.7 %	98.7 %	7,107	5.7 %	37
Other P&I⁽³⁾							
	561	541	0.1 %	— %	558	5.4 %	15
IOs and IIOs⁽⁴⁾							
	598	31	10.0 %	— %	42	5.7 %	190
Total Agency RMBS	\$ 8,198	\$ 7,377		91.1 %	\$ 7,707		

(\$ millions)	Notional Amount	Bond Equivalent Value ⁽⁵⁾	Through-the-Box Speeds ⁽⁶⁾
TBA Positions			
≤ 2.5%	\$ 200	\$ 163	2.5 %
3.0%	—	—	2.6 %
3.5%	17	15	3.2 %
4.0%	—	—	3.6 %
4.5%	(400)	(376)	2.6 %
5.0%	—	—	2.8 %
5.5%	2,151	2,121	8.8 %
6.0%	2,166	2,175	22.2 %
≥ 6.5%	364	371	41.0 %
Net TBA Position	\$ 4,498	\$ 4,469	

Mortgage Servicing Rights Portfolio⁽¹⁾



	Number of Loans	Unpaid Principal Balance (\$ millions)	Gross Coupon Rate	Current Loan Size (\$ thousands)	Loan Age (months)	Original FICO ⁽²⁾	Original LTV	60+ Day Delinquencies	3-Month CPR	Net Servicing Fee (bps)
30-Year Fixed										
≤ 3.25%	290,943	\$ 89,430	2.8%	\$ 364	47	768	71%	0.5%	3.7%	25.1
3.25% - 3.75%	139,660	35,290	3.4%	321	59	753	74%	1.0%	4.8%	25.2
3.75% - 4.25%	100,224	20,301	3.9%	267	81	752	76%	1.2%	5.6%	25.5
4.25% - 4.75%	56,071	10,102	4.4%	259	80	739	77%	2.0%	5.9%	25.3
4.75% - 5.25%	39,434	9,206	5.0%	353	49	746	79%	1.9%	5.5%	25.2
> 5.25%	53,606	16,588	6.0%	409	26	750	80%	2.0%	9.0%	26.8
	679,938	180,917	3.6%	342	53	759	74%	1.0%	4.8%	25.3
15-Year Fixed										
≤ 2.25%	22,006	5,270	2.0%	284	44	777	59%	0.2%	3.7%	25.0
2.25% - 2.75%	36,840	7,072	2.4%	238	47	772	59%	0.3%	4.9%	25.0
2.75% - 3.25%	31,403	3,793	2.9%	176	71	765	61%	0.3%	7.4%	25.3
3.25% - 3.75%	17,399	1,526	3.4%	137	85	755	64%	0.4%	9.2%	25.4
3.75% - 4.25%	8,149	620	3.9%	131	80	741	65%	0.7%	8.2%	25.3
> 4.25%	5,848	689	4.9%	227	41	741	66%	1.3%	10.7%	27.0
	121,645	18,970	2.6%	226	55	769	60%	0.3%	5.8%	25.2
Total ARMs	1,508	430	4.4%	374	55	762	72%	1.4%	14.6%	25.4
Total Portfolio	803,091	\$ 200,317	3.5%	\$ 331	53	760	72%	0.9%	4.9%	25.3

Mortgage Servicing Rights UPB Roll-forward



<i>\$ millions</i>	Q4-2024	Q3-2024	Q2-2024	Q1-2024	Q4-2023
UPB at beginning of period	\$ 202,052	\$ 209,390	\$ 213,597	\$ 215,647	\$ 218,662
Bulk purchases of mortgage servicing rights	2,063	2,573	—	2,906	—
Flow purchases of mortgage servicing rights	376	715	328	211	829
Originations/recapture of mortgage servicing rights	43	17	—	—	—
Sales of mortgage servicing rights	3	(6,248)	—	(1,430)	(62)
Scheduled payments	(1,647)	(1,641)	(1,639)	(1,646)	(1,640)
Prepaid	(2,545)	(2,779)	(2,873)	(2,111)	(2,127)
Other changes	(28)	25	(23)	20	(15)
UPB at end of period	<u>\$ 200,317</u>	<u>\$ 202,052</u>	<u>\$ 209,390</u>	<u>\$ 213,597</u>	<u>\$ 215,647</u>

Financing



\$ millions						
Outstanding Borrowings and Maturities ⁽¹⁾	Repurchase Agreements	Revolving Credit Facilities	Warehouse Facilities	Convertible Notes	Total Borrowings	Percent (%)
Within 30 days	\$ 2,377.8	\$ —	\$ —	\$ —	\$ 2,377.8	26.2 %
30 to 59 days	2,316.3	—	—	—	2,316.3	25.5 %
60 to 89 days	1,305.1	—	2.0	—	1,307.1	14.4 %
90 to 119 days	759.2	—	—	—	759.2	8.3 %
120 to 364 days	366.7	—	—	—	366.7	4.0 %
One to three years	680.0	1,020.2	—	260.2	1,960.4	21.6 %
	\$ 7,805.1	\$ 1,020.2	\$ 2.0	\$ 260.2	\$ 9,087.5	100.0 %
Collateral Pledged for Borrowings	Repurchase Agreements ⁽²⁾	Revolving Credit Facilities ⁽²⁾	Warehouse Facilities	Convertible Notes	Total Collateral Pledged	Percent (%)
Available-for-sale securities, at fair value	\$ 7,097.6	\$ —	\$ —	n/a	\$ 7,097.6	67.9 %
Mortgage servicing rights, at fair value	1,355.6	1,633.5	—	n/a	2,989.1	28.6 %
Mortgage loans held-for-sale, at fair value	—	—	2.0	n/a	2.0	— %
Restricted cash	218.4	—	0.3	n/a	218.7	2.1 %
Due from counterparties	25.3	—	—	n/a	25.3	0.2 %
Derivative assets, at fair value	5.0	—	—	n/a	5.0	0.1 %
Other assets (includes servicing advances)	—	118.7	—	n/a	118.7	1.1 %
	\$ 8,701.9	\$ 1,752.2	\$ 2.3	n/a	\$ 10,456.4	100.0 %

Futures



Type & Maturity	Notional Amount (\$M)	Carrying Value (\$M) ⁽¹⁾	Weighted Average Months to Expiration
U.S. Treasury futures			
2 year	\$ (2,027.8)	\$ —	3.0
5 year	(713.8)	—	3.0
10 year	(907.6)	—	2.6
20 year	318.3	—	2.6
Eris SOFR swap futures - 10 year	(80.0)	—	122.6
SOFR futures - < 1 year	(562.5)	—	5.5
Total futures	\$ (3,973.4)	\$ —	5.2

Interest Rate Swaps⁽¹⁾



Maturities	Notional Amount (\$M) ⁽²⁾	Average Fixed Pay Rate ⁽³⁾	Average Receive Rate ⁽³⁾	Average Maturity (Years) ⁽³⁾
Payers				
≤ 1 year	\$ 2,647.6	4.730 %	4.490 %	0.2
> 1 and ≤ 3 years	4,506.0	3.929 %	4.490 %	1.5
> 3 and ≤ 5 years	3,073.4	3.579 %	4.490 %	3.5
> 5 and ≤ 7 years	1,885.3	3.781 %	4.490 %	6.9
> 7 and ≤ 10 years	1,122.0	3.822 %	4.490 %	9.9
> 10 years	648.4	3.843 %	4.490 %	14.6
	<u>\$ 13,882.7</u>	4.042 %	4.490 %	3.5

Maturities	Notional Amount (\$M) ⁽⁴⁾	Average Pay Rate ⁽⁵⁾	Average Fixed Receive Rate ⁽⁵⁾	Average Maturity (Years) ⁽⁵⁾
Receivers				
≤ 1 year	\$ 786.6	4.490 %	4.025 %	0.2
> 1 and ≤ 3 years	929.8	4.490 %	3.328 %	2.8
> 3 and ≤ 5 years	352.4	4.490 %	3.099 %	4.7
> 5 and ≤ 7 years	99.6	4.490 %	3.097 %	6.7
> 7 and ≤ 10 years	—	— %	— %	—
> 10 years	543.3	4.490 %	3.384 %	20.1
	<u>\$ 2,711.7</u>	4.490 %	3.565 %	6.6

Full Year 2024 Distribution Summary

- Generated REIT taxable income, before dividend distributions and net operating loss deductions of \$171.7 million
- No net operating loss carryover utilized during 2024
- 2024 distributions for tax purposes totaled \$233.7 million
 - Consisted of distributions to common shares of \$186.3 million and distributions to preferred shares of \$47.4 million
 - Q4 2023 common stock distribution payable to shareholders on January 29, 2024 with a record date of January 12, 2024 is treated as a 2024 distribution for tax purposes
 - Q4 2024 common stock distribution payable to shareholders on January 29, 2025 with a record date of January 3, 2025 is treated as a 2025 distribution for tax purposes
 - No convertible note deemed distributions occurred in 2024
- 2024 preferred distributions are characterized for tax purposes as 100% taxable ordinary dividends
- 2024 common distributions are characterized for tax purposes as 66.7% taxable ordinary dividends and 33.3% nontaxable distributions (i.e., return of capital)
- Of the preferred and common taxable ordinary dividends, 56.5% are characterized as qualified dividends⁽¹⁾

(1) The U.S. federal income tax treatment of holding TWO 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 stock. TWO 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.

PAGE 3 - Quarterly Financials Overview

1. Economic return on book value is defined as the increase (decrease) in common book value from the beginning to the end of the given period, plus dividends declared to common stockholders in the period, divided by common book value as of the beginning of the period.
2. Includes \$10.4 billion in settled positions and \$4.4 billion net TBA position, which represents the bond equivalent value of the company's TBA position. Bond equivalent value is defined as notional amount multiplied by market price. TBA contracts accounted for as derivative instruments in accordance with GAAP. For additional detail on the portfolio, see slides 11 and 13, and Appendix slides 22 and 23.
3. Economic debt-to-equity is defined as total borrowings to fund Agency and non-Agency investment securities, MSR and related servicing advances and mortgage loans held-for-sale, plus the implied debt on net TBA cost basis and net payable (receivable) for unsettled RMBS, divided by total equity.

PAGE 4 - Markets Overview

1. Source: Bloomberg, as of the dates noted.
2. Source: Bloomberg, as of the dates noted.

PAGE 5 - RoundPoint Operations Update

1. Data for loans in originations pipeline as of January 24, 2025.

PAGE 6 - Book Value Summary

1. Economic return on book value is defined as the increase (decrease) in common book value from the beginning to the end of the given period, plus dividends declared to common stockholders in the period, divided by common book value as of the beginning of the period.

PAGE 8 - Financing Profile

1. Source: Bloomberg. Represents the average spread between repurchase rates and the Secured Overnight Financing Rate (SOFR) over trailing three-month and six-month periods between Q4 2020 and Q4 2024 (as of December 31, 2024).

PAGE 9 - Portfolio Composition and Risk Positioning

1. For additional detail on the portfolio, see slides 11 and 13, and Appendix slides 22 and 23.
2. 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. TBA contracts accounted for as derivative instruments in accordance with GAAP.
3. Economic debt-to-equity is defined as total borrowings to fund Agency and non-Agency investment securities, MSR and related servicing advances and mortgage loans held-for-sale, plus the implied debt on net TBA cost basis and net payable (receivable) for unsettled RMBS, divided by total equity.
4. Interest rate exposure represents estimated change in common book value for theoretical parallel shift in interest rates.
5. Spread exposure represents estimated change in common book value for theoretical parallel shifts in spreads.

PAGE 10 - Agency RMBS Investment Landscape

1. Source: J.P. Morgan DataQuery. Data is model-based and represents universal mortgage-backed securities (UMBS) generic TBA spreads as of the dates noted. In 2023, J.P. Morgan updated their model affecting only 2023 data.
2. Spreads produced using prepayment speeds generated with The Yield Book® Software using internally calibrated prepayment dials. Data as of December 31, 2024. ZV Spread stands for zero volatility spread.

End Notes (continued)



PAGE 11 - Agency RMBS Portfolio

1. Specified pools include securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores, as well as securities without such protection, including large bank-serviced and others.
2. Represents UMBS generic TBA performance during the quarter.
3. Specified pool performance excludes (1) certain coupons in which we were not invested for the full duration of the quarter and (2) certain coupons with de minimis balances.
4. Specified pool market value by coupon as of December 31, 2024.
5. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

PAGE 12 - MSR Investment Landscape

1. Source: RiskSpan and TWO's internal estimates as of December 31, 2024.
2. Source: RiskSpan. 30-year fixed-rate UMBS UPB as of December 31, 2024 Factor Date; Freddie Mac's Primary Mortgage Market Survey (PMMS) as of December 31, 2024.

PAGE 13 - MSR Portfolio

1. MSR portfolio based on the prior month-end's principal balance of the loans underlying the company's MSR, increased for current month purchases. Portfolio metrics, other than fair value and UPB, represent averages weighted by UPB.
2. FICO represents a mortgage industry accepted credit score of a borrower.
3. MSR portfolio based on the prior month-end's principal balance of the loans underlying the company's MSR, increased for current month purchases and excluding unsettled MSR on loans for which the company is the named servicer as well as MSR on loans recently settled for which transfer to the company is not yet complete.
4. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

PAGE 14 - Return Potential and Outlook

1. Capital allocated represents management's internal allocation. Certain financing balances and associated interest expenses are allocated between investments based on management's assessment of leverage ratios and required capital or liquidity to support the investment.
2. Market return estimates reflect static assumptions using quarter-end spreads and market data.
3. Includes Agency pools and TBA positions. 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. TBA contracts accounted for as derivative instruments in accordance with GAAP.
4. Estimated return on invested capital reflects static return assumptions using quarter-end portfolio valuations.
5. Total expenses includes operating expenses and tax expenses within the company's taxable REIT subsidiaries.
6. Preferred equity coupon represents the 5-year yield along the forward curve to account for floating rate resets.
7. Prospective quarterly static return estimate per basic common share reflects portfolio performance expectations given current market conditions and represents the comprehensive income attributable to common stockholders (net of dividends on preferred stock).

End Notes (continued)



PAGE 16 - Effective Coupon Positioning

1. Represents UMBS TBA market prices as of December 31, 2024.
2. Specified pools include securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores, as well as securities without such protection, including large bank-serviced and others.
3. MSR/Agency IO represents an internally calculated exposure of a synthetic TBA position and the current coupon equivalents of our MSR, including the effect of unsettled MSR, and Agency IO RMBS.
4. Spreads generated with The Yield Book® Software using internally calibrated dials.

PAGE 17 - Risk Positioning

1. MSR/Agency IO RMBS includes the effect of unsettled MSR.
2. Other includes all other derivative assets and liabilities and borrowings. Other excludes TBAs, which are included in the Agency P&I RMBS/TBA category.
3. Bull Steepener/Bear Flatteners is a shift in short-term rates that represents estimated change in common book value for theoretical non-parallel shifts in the yield curve. Analysis uses a +/- 25 basis point shift in 2-year rates while holding long-term rates constant.
4. Bull Flatteners/Bear Steepener is a shift in long-term rates that represents estimated change in common book value for theoretical non-parallel shifts in the yield curve. Analysis uses a +/- 25 basis point shift in 10-year rates while holding short-term rates constant.
5. Parallel shift represents estimated change in common book value for theoretical parallel shift in interest rates.
6. Book value exposure to current coupon spread represents estimated change in common book value for theoretical parallel shifts in spreads.

PAGE 18 - Markets Overview

1. Source: Bloomberg, US MBS Index Monthly Treasury Excess Return data as of dates noted.
2. Source: Bloomberg, as of dates noted.
3. Source: J.P. Morgan DataQuery.
4. Source: National Association of Realtors via Bloomberg and RiskSpan as of December 31, 2024.

PAGE 19 - Financial Performance

1. Economic return on book value is defined as the increase (decrease) in common book value from the beginning to the end of the given period, plus dividends declared to common stockholders in the period, divided by the common 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.

End Notes (continued)



PAGE 20 - Q4-2024 Portfolio Yields and Financing Costs

1. Includes interest income, net of premium amortization/discount accretion, on Agency and non-Agency investment securities, servicing income, net of estimated amortization and servicing expenses, on MSR, and the implied asset yield portion of dollar roll income on TBAs. Amortization on MSR refers to the portion of change in fair value of MSR primarily attributed to the realization of expected cash flows (runoff) of the portfolio, which is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
2. As reported elsewhere in the company's filings with the Securities and Exchange Commission, MSR, Agency derivatives, TBA, interest rate swap agreements and U.S. Treasury futures are reported at fair value in the company's consolidated financial statements in accordance with GAAP, and the GAAP presentation and disclosure requirements for these items do not define or include the concepts of yield or cost of financing, amortized cost, or outstanding borrowings.
3. Amortized cost on MSR for a given period equals the net present value of the remaining future cash flows (obtained by applying original prepayment assumptions to the actual unpaid principal balance at the start of the period) using a discount rate equal to the original pricing yield. Original pricing yield is the discount rate which makes the net present value of the cash flows projected at purchase equal to the purchase price. MSR amortized cost is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value.
4. Represents inverse interest-only Agency RMBS which are accounted for as derivative instruments in accordance with GAAP.
5. Both the implied asset yield and implied financing benefit/cost of dollar roll income on TBAs are calculated using the average cost basis of TBAs as the denominator. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements. TBAs are accounted for as derivative instruments in accordance with GAAP.
6. Includes interest expense and amortization of deferred debt issuance costs on borrowings under repurchase agreements (excluding those collateralized by U.S. Treasuries), revolving credit facilities, term notes payable and convertible senior notes, interest spread income/expense and amortization of upfront payments made or received upon entering into interest rate swap agreements, and the implied financing benefit/cost portion of dollar roll income on TBAs. TBA dollar roll income is the non-GAAP economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
7. Unsecured convertible senior notes.
8. The cost of financing on interest rate swaps held to mitigate interest rate risk associated with the company's outstanding borrowings is calculated using average borrowings balance as the denominator.
9. The cost of financing on U.S. Treasury futures held to mitigate interest rate risk associated with the company's outstanding borrowings is calculated using average borrowings balance as the denominator. U.S. Treasury futures income is the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements.

PAGE 21 - GAAP to EAD Reconciliation

1. MSR amortization refers to the portion of change in fair value of MSR primarily attributed to the realization of expected cash flows (runoff) of the portfolio, which is deemed a non-GAAP measure due to the company's decision to account for MSR at fair value.
2. TBA dollar roll income is the economic equivalent to holding and financing Agency RMBS using short-term repurchase agreements.
3. U.S. Treasury futures income is the economic equivalent to holding and financing a relevant cheapest-to-deliver U.S. Treasury note or bond using short-term repurchase agreements.
4. Certain operating expenses predominantly consists of expenses incurred in connection with the company's ongoing litigation with PRCM Advisers LLC.

End Notes (continued)



PAGE 22 - Agency RMBS Portfolio

1. Weighted average actual one-month CPR released at the beginning of the following month based on RMBS held as of the preceding month-end.
2. Determination of the percentage of prepay protected 30-year fixed Agency RMBS includes securities with implicit or explicit prepayment protection, including lower loan balances (securities collateralized by loans less than or equal to \$300K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations, loans secured by investor-owned properties, and lower FICO scores.
3. Other P&I includes 15-year fixed, Hybrid ARMs, CMO and DUS pools.
4. IOs and IIOs represent market value of \$9.0 million of Agency derivatives and \$22.0 million of interest-only Agency RMBS. Agency derivatives are inverse interest-only Agency RMBS, which are accounted for as derivative instruments in accordance with GAAP.
5. Bond equivalent value is defined as the notional amount multiplied by market price. TBA contracts accounted for as derivative instruments in accordance with GAAP.
6. Three-month prepayment speeds of delivered TBA contracts; average of J.P. Morgan, Bank of America, and Citi data.

PAGE 23 - Mortgage Servicing Rights Portfolio

1. MSR portfolio excludes residential mortgage loans for which the company is the named servicing administrator. Portfolio metrics, other than fair value and UPB, represent averages weighted by UPB.
2. FICO represents a mortgage industry-accepted credit score of a borrower.

PAGE 25 - Financing

1. As of December 31, 2024, outstanding borrowings had a weighted average of 5.1 months to maturity.
2. Repurchase agreements and revolving credit facilities secured by MSR and/or other assets may be over-collateralized due to operational considerations.

PAGE 26 - Futures

1. Exchange-traded derivative instruments (futures and options on futures) require the posting of an “initial margin” amount determined by the clearing exchange, which is generally intended to be set at a level sufficient to protect the exchange from the derivative instrument’s maximum estimated single-day price movement. The company also exchanges “variation margin” based upon daily changes in fair value, as measured by the exchange. The exchange of variation margin is considered a settlement of the derivative instrument, as opposed to pledged collateral. Accordingly, the receipt or payment of variation margin is accounted for as a direct reduction to the carrying value of the exchange-traded derivative asset or liability.

PAGE 27 - Interest Rate Swaps

1. The company did not hold any interest rate swaptions at December 31, 2024.
2. Includes \$2.4 billion notional amount of forward starting interest rate swaps.
3. Weighted averages exclude forward starting interest rate swaps. As of December 31, 2024, forward starting interest rate swap payers had a weighted average fixed pay rate of 3.8% and weighted average maturities of 5.5 years.
4. Includes \$719.8 million notional amount of forward starting interest rate swaps.
5. Weighted averages exclude forward starting interest rate swaps. As of December 31, 2024, forward starting interest rate swap receivers had a weighted average fixed receive rate of 4.0% and weighted average maturities of 2.6 years.

