

PennyMac Mortgage Investment Trust

Investor Presentation

March 2019



Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, regarding management's beliefs, estimates, projections and assumptions with respect to, among other things, the Company's financial results, future operations, business plans and investment strategies, as well as industry and market conditions, all of which are subject to change. Words like "believe," "expect," "anticipate," "promise," "plan," and other expressions or words of similar meanings, as well as future or conditional verbs such as "will," "would," "should," "could," or "may" are generally intended to identify forward-looking statements. Actual results and operations for any future period may vary materially from those projected herein, from past results discussed herein, or illustrative examples provided herein.

Factors which could cause actual results to differ materially from historical results or those anticipated include, but are not limited to: changes in our investment objectives or investment or operational strategies, including any new lines of business or new products and services that may subject us to additional risks; volatility in our industry, the debt or equity markets, the general economy or the real estate finance and real estate markets specifically, whether the result of market events or otherwise; events or circumstances which undermine confidence in the financial markets or otherwise have a broad impact on financial markets, such as the sudden instability or collapse of large depository institutions or other significant corporations, terrorist attacks, natural or man-made disasters, or threatened or actual armed conflicts; changes in general business, economic, market, employment and political conditions, or in consumer confidence and spending habits from those expected; declines in real estate or significant changes in U.S. housing prices or activity in the U.S. housing market; the availability of, and level of competition for, attractive risk-adjusted investment opportunities in mortgage loans and mortgage-related assets that satisfy our investment objectives; the inherent difficulty in winning bids to acquire mortgage loans, and our success in doing so; the concentration of credit risks to which we are exposed; the degree and nature of our competition; our dependence on our manager and servicer, potential conflicts of interest with such entities and their affiliates, and the performance of such entities; changes in personnel and lack of availability of qualified personnel at our manager, servicer or their affiliates; the availability, terms and deployment of short-term and long-term capital; the adequacy of our cash reserves and working capital; our ability to maintain the desired relationship between our financing and the interest rates and maturities of our assets; the timing and amount of cash flows, if any, from our investments; unanticipated increases or volatility in financing and other costs, including a rise in interest rates; the performance, financial condition and liquidity of borrowers; the ability of our servicer, which also provides us with fulfillment services, to approve and monitor correspondent sellers and underwrite loans to investor standards; incomplete or inaccurate information or documentation provided by customers or counterparties, or adverse changes in the financial condition of our customers and counterparties; our indemnification and repurchase obligations in connection with mortgage loans we purchase and later sell or securitize; the quality and enforceability of the collateral documentation evidencing our ownership and rights in the assets in which we invest; increased rates of delinquency, default and/or decreased recovery rates on our investments; our ability to foreclose on our investments in a timely manner or at all; increased prepayments of the mortgages and other loans underlying our mortgage-backed securities or relating to our mortgage servicing rights, excess servicing spread and other investments; the degree to which our hedging strategies may or may not protect us from interest rate volatility; the effect of the accuracy of or changes in the estimates we make about uncertainties, contingencies and asset and liability valuations when measuring and reporting upon our financial condition and results of income; our failure to maintain appropriate internal controls over financial reporting; technologies for loans and our ability to mitigate security risks and cyber intrusions; our ability to obtain and/or maintain licenses and other approvals in those jurisdictions where required to conduct our business; our ability to detect misconduct and fraud; our ability to comply with various federal, state and local laws and regulations that govern our business; developments in the secondary markets for our mortgage loan products; legislative and regulatory changes that impact the mortgage loan industry or housing market; changes in regulations or the occurrence of other events that impact the business, operations or prospects of government agencies or government-sponsored entities, or such changes that increase the cost of doing business with such entities; the Dodd-Frank Wall Street Reform and Consumer Protection Act and its implementing regulations and regulatory agencies, and any other legislative and regulatory changes that impact the business, operations or governance of mortgage lenders and/or publicly-traded companies; the Consumer Financial Protection Bureau and its issued and future rules and the enforcement thereof; changes in government support of homeownership; changes in government or government-sponsored home affordability programs; limitations imposed on our business and our ability to satisfy complex rules for us to qualify as a real estate investment trust (REIT) for U.S. federal income tax purposes and qualify for an exclusion from the Investment Company Act of 1940 and the ability of certain of our subsidiaries to qualify as REITs or as taxable REIT subsidiaries for U.S. federal income tax purposes, as applicable, and our ability and the ability of our subsidiaries to operate effectively within the limitations imposed by these rules; changes in governmental regulations, accounting treatment, tax rates and similar matters (including changes to laws governing the taxation of REITs, or the exclusions from registration as an investment company); the effect of public opinion on our reputation; the occurrence of natural disasters or other events or circumstances that could impact our operations; and our organizational structure and certain requirements in our charter documents.

You should not place undue reliance on any forward-looking statement and should consider all of the uncertainties and risks described above, as well as those more fully discussed in reports and other documents filed by the Company with the Securities and Exchange Commission from time to time. The Company undertakes no obligation to publicly update or revise any forward-looking statements or any other information contained herein, and the statements made in this presentation are current as of the date of this presentation only.

PMT Is a Mortgage REIT with Unique Investment Strategies

Investment focus on U.S. residential mortgage loans and mortgage-related assets

Track record of stable book value, dividends and strong returns to shareholders since IPO in 2009

Capabilities to organically create attractive investments resulting from PMT's loan production

Portfolio transitioned from distressed loans to unique investments in CRT and MSRs sourced from correspondent production⁽⁴⁾

Seasoned executive management team with considerable mortgage industry experience

Strong capital structure and relatively low leverage with access to diverse sources of financing

27.6%

1-year Annualized Return to Shareholders⁽¹⁾

16.7%

3-year Annualized Return to Shareholders⁽¹⁾

10.6%

Total Annualized Return to Shareholders Since IPO in 2009⁽²⁾

\$1.4Bn

Market Capitalization⁽³⁾

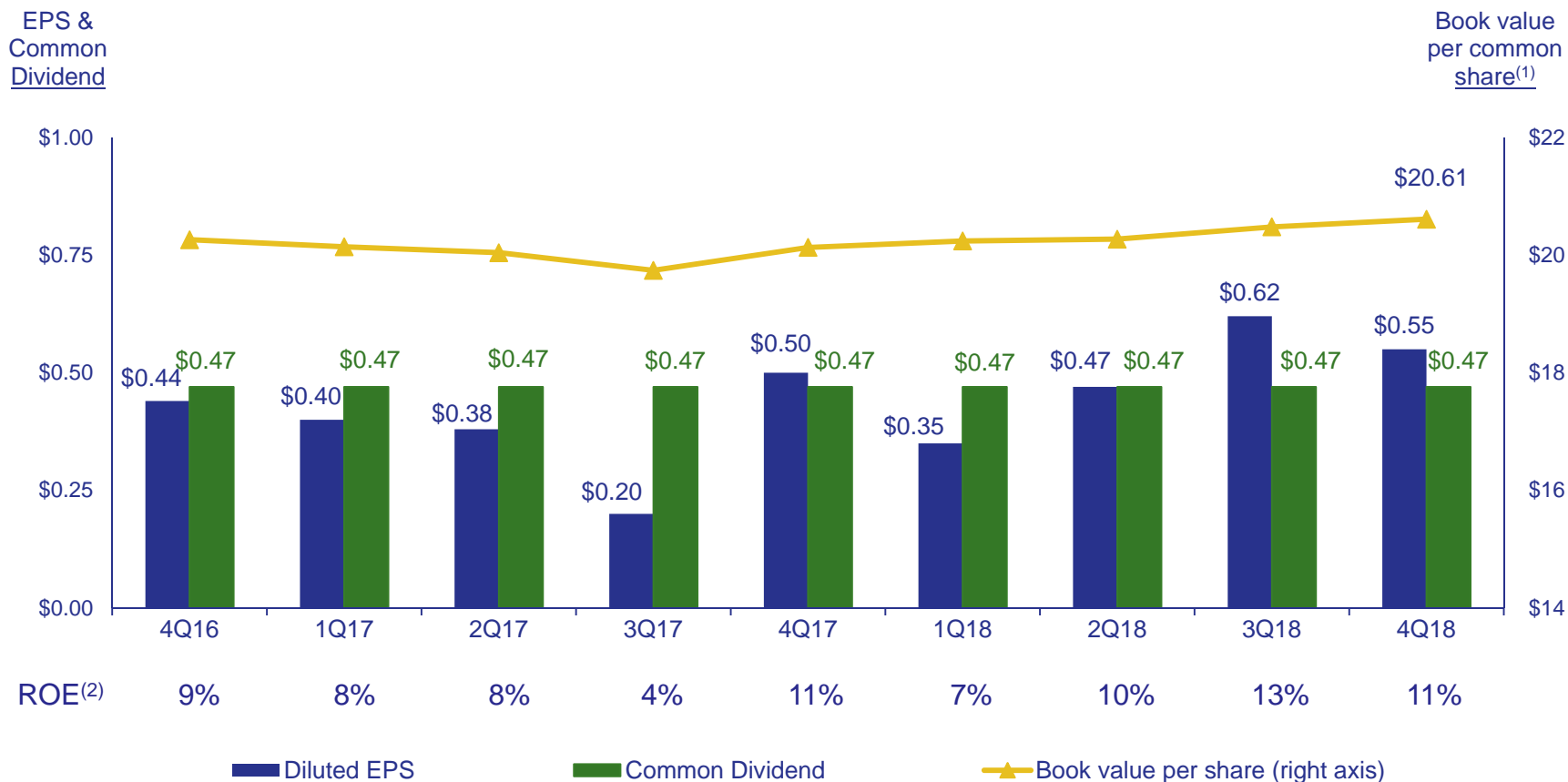
⁽¹⁾ Source: Morningstar, represents dividends and reinvestment of those dividends

⁽²⁾ Source: Bloomberg. Annualized return from July 29, 2009 through February 25, 2018

⁽³⁾ As of February 25, 2019

⁽⁴⁾ CRT = Credit Risk Transfer; MSRs = Mortgage Servicing Rights

Track Record of Stable Dividends and Book Value



- Repurchased 14.7 million common shares at a cost of \$216 million from 3Q15 through 1Q18
- Issued 7 million common shares, raising approximately \$145 million of new equity in February 2019

⁽¹⁾ At period end

⁽²⁾ Return on average common equity is calculated based on annualized quarterly net income attributable to common shareholders as a percentage of monthly average common equity during the period

PMT's Business Model Is Unique Among Mortgage REITs

Diversified Investment Strategy

- Organically produced investments in credit risk and interest-sensitive assets driven by production activities
- Demonstrated ability to invest in multiple residential mortgage strategies to capitalize on market trends: newly originated loans, CRT, MSRs, ESS⁽¹⁾, RMBS⁽²⁾ and distressed whole loans
- Securitization interests in HELOC⁽³⁾ and prime Non-QM⁽⁴⁾ loans

Access to Mortgage Origination and Servicing Assets

- Exclusive rights to the conventional correspondent production business and resulting assets
- Right of first refusal on other investment opportunities sourced by its manager and service provider, PFSI



Strong Balance Sheet with Significant Sources of Liquidity

- Strong capital structure with modest leverage and diversified sources of funding
- Securitization structure that allows for issuance of term notes on Fannie Mae MSRs to institutional investors

Synergistic Partnership with PFSI

- Access to specialized mortgage capabilities, including origination and servicing operations
- PFSI has expertise across all mortgage functions with over 3,000 employees led by a highly experienced management team
- Enables PMT to aggregate quality investments in residential mortgage products with minimal operational risk
- Established appropriate agreements, controls and oversight to identify and manage potential conflicts

Risk Management and Governance

- Substantial expertise and resources dedicated to risk management
- Sophisticated program to actively manage and hedge interest rate risk
- Governance led by board of trustees which includes seven independent trustees

⁽¹⁾ Excess Servicing Spread

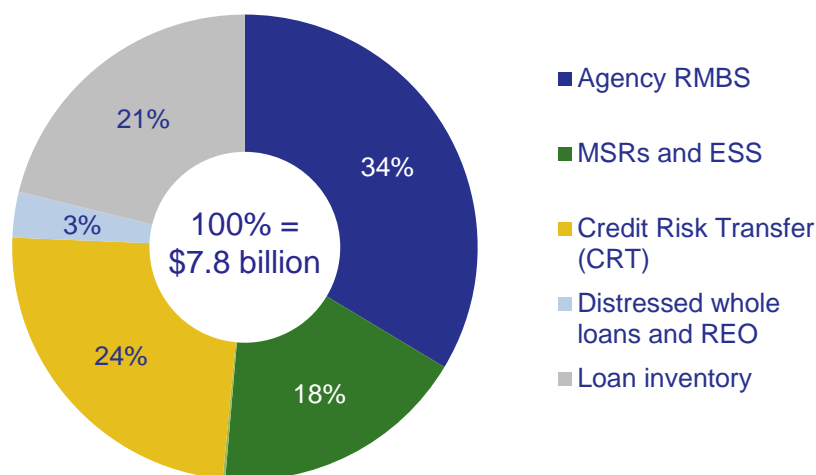
⁽²⁾ Residential Mortgage Backed Securities

⁽³⁾ Home Equity Line of Credit

⁽⁴⁾ Non-qualified mortgage

Unique Mortgage-Related Investments Delivering Strong Performance

PMT's Mortgage Assets⁽¹⁾



Return on Equity Contribution by Strategy

Strategy	2017	2018
Credit Sensitive	13.7%	12.3%
Interest Rate Sensitive	3.8%	13.7%
Correspondent Production	52.2%	17.7%
Net income attributable to common shareholders⁽²⁾ (\$ millions)	\$102.5	\$127.9
Annualized return on common equity⁽²⁾	7.8%	10.1%

- High-quality balance sheet comprised of residential mortgage investments focused on CRT and interest rate sensitive strategies including: MSRs, MBS, ESS and hedge instruments
- PMT's market position as the 4th largest conventional conforming mortgage producer in the U.S.⁽³⁾ drives organic investment growth in CRT and MSRs
- Portfolio is delivering strong returns as CRT and MSR positions have grown while the distressed loan portfolio has diminished through liquidation and resolutions
- Opportunity to invest in HELOC and prime Non-QM securitization interests via partnership with PFSI

⁽¹⁾ As of December 31, 2018, except for \$605 million included in Credit Risk Transfer above presented on a pro forma basis reflecting the settlement of firm commitments to purchase CRT securities

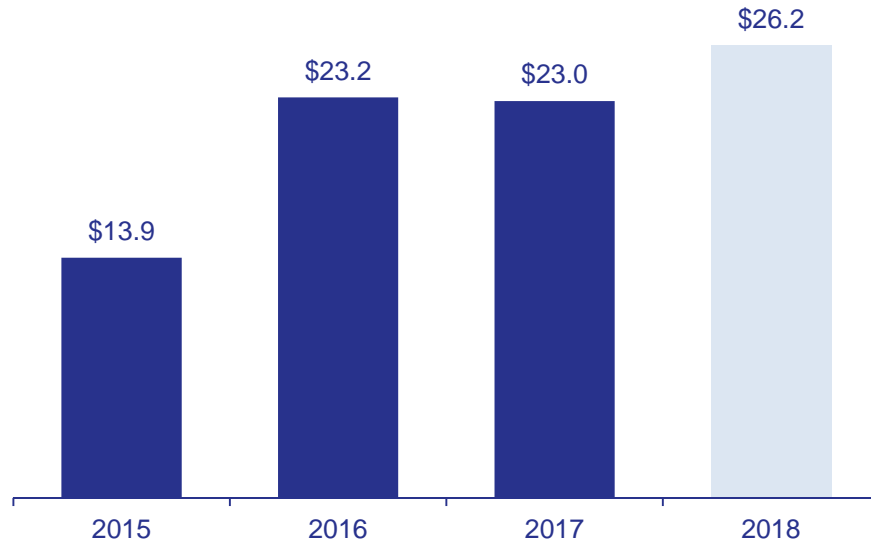
⁽²⁾ Includes results of the Corporate segment and the tax benefit (provision) in addition to the Credit Sensitive Strategies, Interest Rate Sensitive Strategies and Correspondent Production segments.

⁽³⁾ Source: *Inside Mortgage Finance* through December 31, 2018

PMT Is a Leading Producer of Conventional Conforming Mortgages

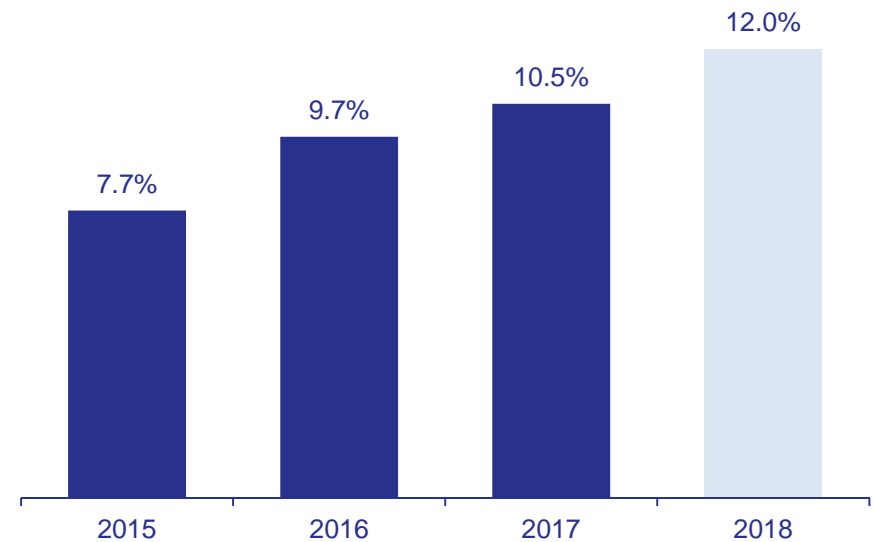
PMT's Conventional Correspondent Production

(\$ in billions)



- In 4Q18, we were the fourth largest producer of conventional conforming mortgages in the U.S.⁽¹⁾

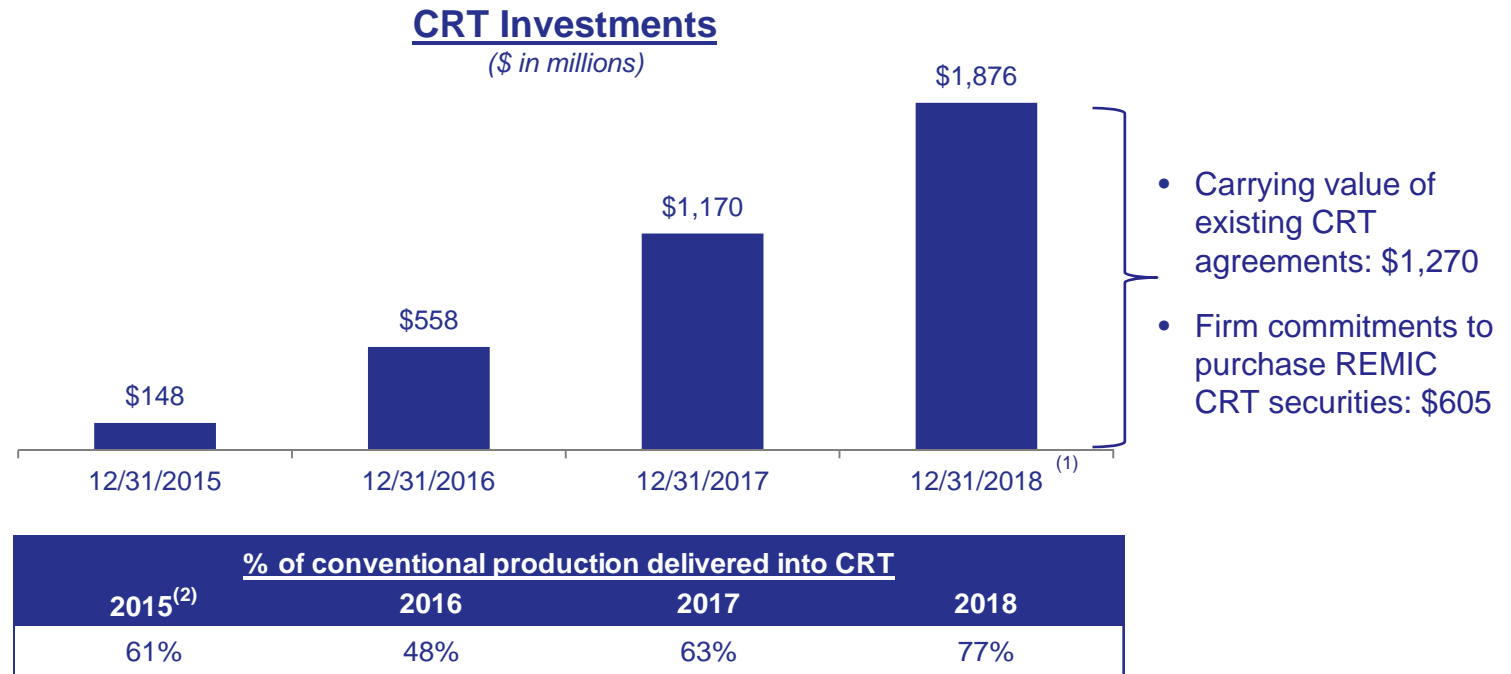
Correspondent Production Market Share⁽¹⁾



- Approximately 50% of total correspondent production was conventional conforming loans in 4Q18

⁽¹⁾ Source: Inside Mortgage Finance

GSE CRT Investments Growing and Credit Performance Remains Strong



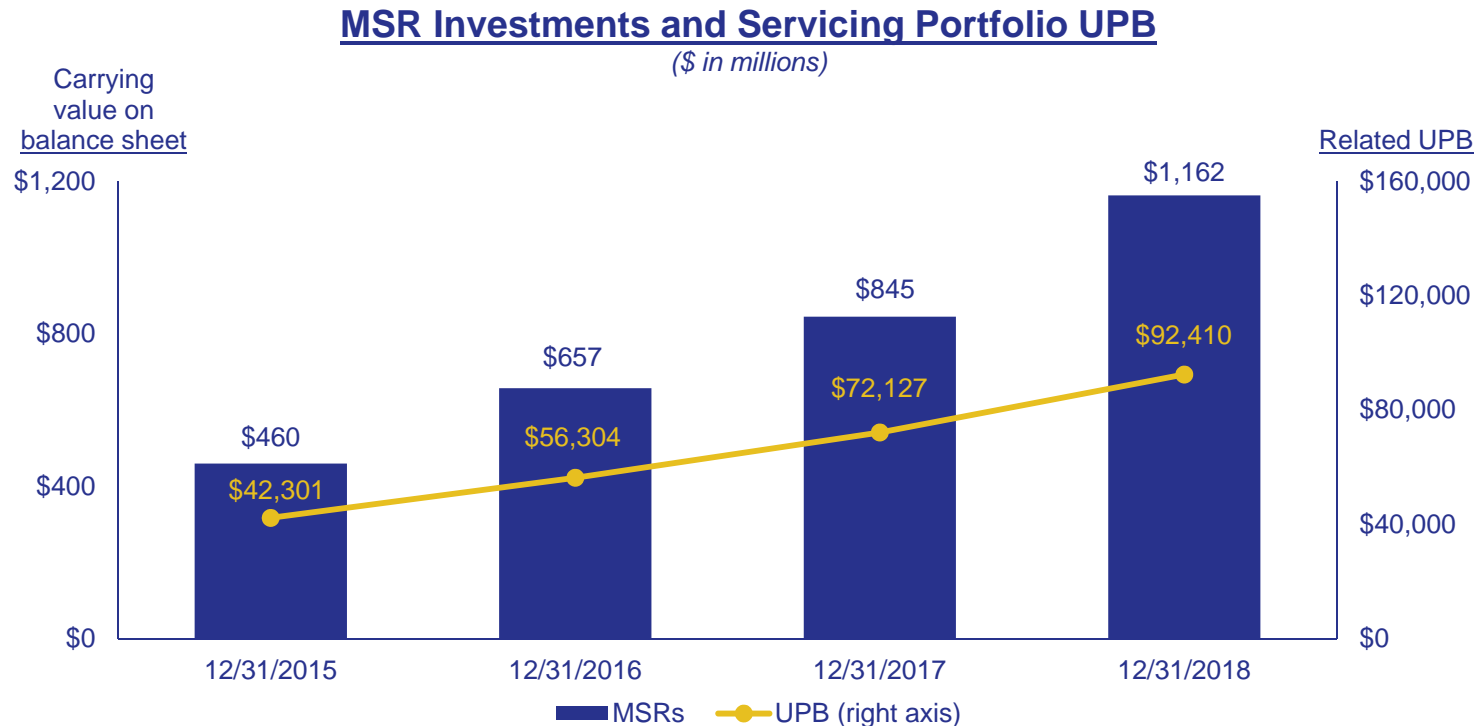
- CRT investments totaled \$1.9 billion at December 31, 2018
 - Outstanding UPB of mortgage loans subject to CRT investments totaled \$46.3 billion at December 31, 2018
- Beginning in June 2018, we launched our new CRT REMIC structure, which allows for a greater percentage of our production to be eligible for investment in CRT
 - CRT investments created from 2015 through May 2018 were delivered into a different CRT structure
- Lifetime losses of \$3.6 million; reflects portfolio seasoning and in line with expectations

Note: See slides 19, 20 and 28 - 31 for financial performance and additional details regarding CRT investments

⁽¹⁾ Presented on a pro forma basis reflecting the settlement of the commitments to fund deposits securing CRT agreements related to our fourth CRT investment, and for December 31, 2018, firm commitments to purchase CRT securities

⁽²⁾ PMT began delivering conventional loans into CRT investments in the third quarter of 2015

MSR Investment Growth



- MSR investments increased to \$1.2 billion driven by strong production activity
- PMT’s MSR portfolio increased to \$92.4 billion in UPB, up from \$42.3 billion at December 31, 2015
- Strong alignment of interests by owning both the servicing and credit risk on PMT’s mortgage production

PMT's Strategies for Long-Term Growth

Focused on core strategies of organic investments in CRT and MSRs

- Position as leading producer of conventional conforming loans drives organic investment growth
- Expect to deploy approximately \$600 million in equity in MSR & CRT during 2019
 - Capital deployment into CRT investments estimated to range from \$350 million to \$450 million
 - Capital deployment into MSR estimated to range from \$175 million to \$250 million
 - Levels of capital deployment primarily dependent on conventional conforming production volume

Expanding organic investment strategies

- Leveraging PMT's partnership with PennyMac Financial to invest in Home Equity Line of Credit (HELOC) and prime non-QM securitization interests
 - PennyMac Financial launched a HELOC product, offering its servicing portfolio customers the opportunity to tap into the equity in their homes
 - Also launched an innovative prime non-QM loan product in January in our correspondent channel, offering a technology-based solution to streamline the underwriting process

Recent equity raise to be deployed in these attractive strategies throughout 2019

Run-Rate Return Potential from PMT's Investment Strategies

	Annualized Return on Equity (ROE)	Equity Allocated (%) ⁽¹⁾
Credit sensitive strategies:		
GSE credit risk transfer ⁽²⁾	25.5%	36%
Distressed loan investments	-12.0%	5%
Other credit sensitive strategies	7.0%	1%
Net credit sensitive strategies	20.4%	42%
Interest rate sensitive strategies:		
MSRs (incl. recapture)	11.8%	29%
ESS (incl. recapture)	11.3%	5%
Agency MBS	24.7%	7%
Non-Agency senior MBS (incl. jumbo)	20.4%	0%
Interest rate hedges	-	-
Net interest rate sensitive strategies	11.3%	42%
Correspondent production	9.2%	7%
Cash, short term investments, and other	0.4%	10%
Management fees & corporate expenses ⁽³⁾	-3.1%	0%
Net Corporate⁽³⁾	-3.0%	
Provision for income tax expense ⁽³⁾	-0.6%	0%
Net income	10.2%	100%
Dividends on preferred stock	8.3%	18%
Net income attributable to common shareholders	10.6%	82%
Diluted earnings per common share	\$ 0.51	

Note: This slide presents estimates for illustrative purposes only, using PMT's base case assumptions (e.g., for credit performance, prepayment speeds, financing economics) and does not contemplate significant changes or shocks to current market conditions. Actual results may differ materially. Please refer to slide 2 for important disclosures regarding forward-looking statements.

- New investments in CRT and MSRs are accretive to and drive PMT's overall return on equity potential
 - CRT and MSR growth driven by PMT's correspondent production
 - Growth in MBS to hedge the interest rate sensitivity of a growing MSR asset
- Correspondent production return potential reflects the continuation of a highly competitive market environment
- Reduced impact of distressed loan portfolio due to significant sales in 2018

⁽¹⁾ Management's internal allocation of equity. Equity allocated to MSR, ESS and distressed loan investments reflects an allocation of exchangeable senior notes and associated expenses

⁽²⁾ Projected CRT income includes fair value recognition upon loan delivery under CRT agreements

⁽³⁾ ROE calculated as a percentage of total equity

PennyMac Investor Relations

www.pennymacmortgageinvestmenttrust.com

Phone: (818) 224-7028

Email: investorrelations@pnmac.com