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PennyMac Mortgage Investment Trust  
Form 10-K  
February 26, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2018

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT  
OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 001-34416

PennyMac Mortgage Investment Trust

(Exact name of registrant as specified in its charter)

Maryland 27-0186273  
(State or other jurisdiction of (IRS Employer  
incorporation or organization) Identification No.)

3043 Townsgate Road, Westlake Village, California 91361  
(Address of principal executive offices) (Zip Code)

(818) 224-7442

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(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
8.125% Series A Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 Par Value	New York Stock Exchange
8.00% Series B Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 Par Value	New York Stock Exchange
Common Shares of Beneficial Interest, \$0.01 Par Value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes      No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.    Yes      No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.    Yes      No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).    Yes      No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the

Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes      No

As of June 30, 2018 the aggregate market value of the registrant's common shares of beneficial interest, \$0.01 par value ("common shares"), held by nonaffiliates was \$1,127,888,552 based on the closing price as reported on the New York Stock Exchange on that date.

As of February 25, 2019, there were 67,954,635 common shares of the registrant outstanding.

Documents Incorporated By Reference

Document	Parts Into Which Incorporated
Definitive Proxy Statement for 2019 Annual Meeting of Shareholders	Part III

PENNYMAC MORTGAGE INVESTMENT TRUST

FORM 10-K

December 31, 2018

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## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (“Report”) contains certain forward-looking statements that are subject to various risks and uncertainties. Forward-looking statements are generally identifiable by use of forward-looking terminology such as “may,” “will,” “should,” “potential,” “intend,” “expect,” “seek,” “anticipate,” “estimate,” “approximately,” “believe,” “predict,” “continue,” “plan” or other similar words or expressions.

Forward-looking statements are based on certain assumptions, discuss future expectations, describe future plans and strategies, contain financial and operating projections or state other forward-looking information. Examples of forward-looking statements include the following:

- projections of our revenues, income, earnings per share, capital structure or other financial items;
- descriptions of our plans or objectives for future operations, products or services;
- forecasts of our future economic performance, interest rates, profit margins and our share of future markets; and
- descriptions of assumptions underlying or relating to any of the foregoing expectations regarding the timing of generating any revenues.

Our ability to predict results or the actual effect of future events, actions, plans or strategies is inherently uncertain. Although we believe that the expectations reflected in such forward-looking statements are based on reasonable assumptions, our actual results and performance could differ materially from those set forth in the forward-looking statements. There are a number of factors, many of which are beyond our control that could cause actual results to differ significantly from management’s expectations. Some of these factors are discussed below.

You should not place undue reliance on any forward-looking statement and should consider the following uncertainties and risks, as well as the risks and uncertainties discussed elsewhere in this Report and any subsequent Quarterly Reports on Form 10-Q.

Factors that 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;
- the occurrence of natural disasters or other events or circumstances that could impact our operations;
- 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 and housing markets or otherwise have a broad impact on financial and housing 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 domestic and international 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;

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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;

the performance of mortgage loans underlying mortgage-backed securities (“MBS”) in which we retain credit risk;

our ability to foreclose on our investments in a timely manner or at all;

increased prepayments of the mortgages and other loans underlying our MBS or relating to our mortgage servicing rights (“MSRs”), excess servicing spread (“ESS”) 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 operations;

our failure to maintain appropriate internal control over financial reporting;

Our exposure to risks of loss and disruptions in operations resulting from adverse weather conditions and man-made or natural disasters;

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 such as the Government National Mortgage Association (“Ginnie Mae”), the Federal Housing Administration (the “FHA”) or the Veterans Administration (the “VA”), the U.S. Department of Agriculture (“USDA”), or government-sponsored entities such as the Federal National Mortgage Association (“Fannie Mae”) or the Federal Home Loan Mortgage Corporation (“Freddie Mac”) (Fannie Mae, Freddie Mac and Ginnie Mae are each referred to as an “Agency” and, collectively, as the “Agencies”), or such changes that increase the cost of doing business with such entities;

the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank 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 (“CFPB”) 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 (the “Investment Company Act”) and the ability of certain of our subsidiaries to qualify as REITs or as taxable REIT subsidiaries (“TRSs”) 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);
- our ability to make distributions to our shareholders in the future;
- our failure to deal appropriately with issues that may give rise to reputational risk; and
- our organizational structure and certain requirements in our charter documents.

Other factors that could also cause results to differ from our expectations may not be described in this Report or any other document. Each of these factors could by itself, or together with one or more other factors, adversely affect our business, results of operations and/or financial condition.

Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update any forward-looking statement to reflect the impact of circumstances or events that arise after the date the forward-looking statement was made.



## PART I

### Item 1. Business

The following description of our business should be read in conjunction with the information included elsewhere in this Report. This description contains forward-looking statements that involve risks and uncertainties. Actual results could differ significantly from the projections and results discussed in the forward-looking statements due to the factors described under the caption “Risk Factors” and elsewhere in this Report. References in this Report to “we,” “our,” “us,” “PMT,” or the “Company” refer to PennyMac Mortgage Investment Trust and its consolidated subsidiaries, unless otherwise indicated.

#### Our Company

We are a specialty finance company that invests primarily in residential mortgage loans and mortgage-related assets. We were organized in Maryland and began operations in 2009. We conduct substantially all of our operations, and make substantially all of our investments, through PennyMac Operating Partnership, L.P. (our “Operating Partnership”) and its subsidiaries. A wholly-owned subsidiary of ours is the sole general partner, and we are the sole limited partner, of our Operating Partnership. Certain of the activities conducted or investments made by us that are described below are conducted or made through a wholly-owned subsidiary that is a taxable REIT subsidiary (“TRS”) of our Operating Partnership.

The management of our business and execution of our operations is performed on our behalf by subsidiaries of PennyMac Financial Services, Inc. (“PFSI” or “PennyMac”). PFSI is a specialty financial services firm focused on the production and servicing of U.S. mortgage loans and the management of investments related to the U.S. mortgage market. Specifically:

- We are managed by PNMAC Capital Management, LLC (“PCM” or our “Manager”), a wholly-owned subsidiary of PennyMac and an investment adviser registered with the United States Securities and Exchange Commission (“SEC”) that specializes in, and focuses on, U.S. mortgage assets.
  - Our mortgage loan production and servicing activities (as described below) are performed on our behalf by another wholly-owned PennyMac subsidiary, PennyMac Loan Services, LLC (“PLS” or our “Servicer”).
- Our investment focus is on residential mortgage-backed securities (“MBS”) and mortgage-related assets that we create through our correspondent production activities, including mortgage servicing rights (“MSRs”) and credit risk transfer (“CRT”) investments, including CRT Agreements and CRT securities. We have acquired these investments largely by purchasing, pooling and selling newly originated prime credit quality residential mortgage loans (“correspondent production”), retaining the MSRs relating to such mortgage loans and investing in CRT arrangements associated with certain of such mortgage loans.

Our business includes four segments: correspondent production, credit sensitive strategies, interest rate sensitive strategies and corporate activities.

- The correspondent production segment represents the Company’s operations aimed at serving as an intermediary between mortgage lenders and the capital markets by purchasing, pooling and reselling newly originated prime credit quality mortgage loans either directly or in the form of MBS. Assets resulting from these activities serve as the source for our investments in MSRs and CRT arrangements.
- The credit sensitive strategies segment represents the Company’s investments in CRT Agreements, firm commitment to purchase CRT securities, distressed mortgage loans, real estate acquired in settlement of mortgage loans (“REO”) and non-Agency subordinated bonds and small balance commercial real estate mortgage loans.
- The interest rate sensitive strategies segment represents the Company’s investments in MSRs, excess servicing spread (“ESS”), Agency and senior non-Agency MBS and interest rate hedging activities related to indebtedness.

•The corporate segment includes certain interest income and management fee and other corporate expenses.

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Following is a summary of our segment results for the periods presented:

	For the year ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
<b>Net investment income:</b>					
Correspondent production	\$ 105,606	\$ 131,981	\$ 168,530	\$ 100,400	\$ 62,897
Credit sensitive strategies	110,271	133,400	66,256	108,315	254,922
Interest rate sensitive strategies	133,613	51,777	36,651	39,447	38,269
Corporate	1,577	782	651	603	653
	\$ 351,067	\$ 317,940	\$ 272,088	\$ 248,765	\$ 356,741
<b>Pre-tax income:</b>					
Correspondent production	\$ 16,472	\$ 42,938	\$ 73,842	\$ 36,390	\$ 10,960
Credit sensitive strategies	87,251	102,214	17,288	66,038	206,738
Interest rate sensitive strategies	98,432	22,683	14,041	20,516	23,371
Corporate	(44,167 )	(43,289 )	(43,408 )	(49,640 )	(61,605 )
	\$ 157,988	\$ 124,546	\$ 61,763	\$ 73,304	\$ 179,464
<b>Total assets at year end:</b>					
Correspondent production	\$ 1,698,656	\$ 1,302,245	\$ 1,734,290	\$ 1,298,968	\$ 665,489
Credit sensitive strategies	1,602,776	1,791,447	2,288,886	2,787,064	2,655,500
Interest rate sensitive strategies	4,373,488	2,414,423	2,177,024	1,640,062	1,359,409
Corporate	138,441	96,818	157,302	100,830	216,860
	\$ 7,813,361	\$ 5,604,933	\$ 6,357,502	\$ 5,826,924	\$ 4,897,258

In our correspondent production activities, we purchase Agency-eligible mortgage loans and jumbo mortgage loans. A jumbo mortgage loan is a loan in an amount that exceeds the maximum loan amount for eligible loans under Agency guidelines. We then sell Agency-eligible mortgage loans meeting the guidelines of Fannie Mae and Freddie Mac on a servicing-retained basis whereby we retain the related MSR; government mortgage loans (insured by the FHA or guaranteed by the VA), which we sell on a servicing-released basis to PLS, a Ginnie Mae approved issuer and servicer; and jumbo mortgage loans, which we generally sell on a servicing-retained basis.

Our correspondent production business involves purchases of mortgage loans from approved mortgage originators that meet specific criteria related to management experience, financial strength, risk management controls and mortgage loan quality. As of December 31, 2018, we have 710 approved sellers, primarily independent mortgage originators and small banks located across the United States. During 2018, we were the second largest correspondent aggregator in the United States as ranked by Inside Mortgage Finance.

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Following is a summary of our correspondent production activities:

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Correspondent mortgage loan purchases at fair value:					
Government-insured or guaranteed	\$37,764,019	\$42,087,007	\$42,171,914	\$31,945,396	\$16,523,216
Agency-eligible	30,176,215	23,742,999	23,930,186	14,360,888	11,474,345
Jumbo	67,501	—	10,227	117,714	383,854
Commercial	7,263	69,167	18,112	14,811	—
	\$68,014,998	\$65,899,173	\$66,130,439	\$46,438,809	\$28,381,415
Interest rate lock commitments issued	\$66,723,338	\$65,926,958	\$67,139,108	\$48,138,062	\$27,815,464
Fair value of mortgage loans at year end pending sale to:					
Nonaffiliates	\$1,557,649	\$989,944	\$868,496	\$614,507	\$428,397
PLS	86,308	279,571	804,616	669,288	209,325
	\$1,643,957	\$1,269,515	\$1,673,112	\$1,283,795	\$637,722
Number of approved sellers at year-end	710	613	522	432	344
The sale of mortgage loans to nonaffiliates from our correspondent production activities serves as the source of our investments in MSRs and CRT arrangements, which are summarized below:					

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Sales of mortgage loans acquired for sale:					
To nonaffiliates	\$29,369,656	\$24,314,165	\$23,525,952	\$14,206,816	\$11,703,015
To PennyMac Financial Services, Inc.	37,967,724	42,624,288	42,051,505	31,490,920	16,431,338
	\$67,337,380	\$66,938,453	\$65,577,457	\$45,697,736	\$28,134,353
Net gain on mortgage loans acquired for sale	\$59,185	\$74,516	\$106,442	\$51,016	\$35,647
Investment activities driven by correspondent production:					
Receipt of MSRs as proceeds from sales of mortgage loans	\$356,755	\$290,309	\$275,092	\$154,474	\$121,333
Investments in CRT Agreements					
Deposits of cash securing CRT Agreements	\$596,626	\$152,641	\$306,507	\$147,446	\$—
Change in commitments to fund Deposits securing					
CRT Agreements resulting from sale of mortgage					
loans under CRT Agreements and settlement of					
outstanding commitments	(482,471 )	390,362	92,109	—	—
Total investments in CRT Agreements	\$114,155	\$543,003	\$398,616	\$147,446	\$—

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Increase in face amount of firm commitment  
to

purchase CRT securities                      \$605,052      \$—              \$—              \$—              \$—

We also invest in MBS, ESS on MSRs acquired by PLS and real estate held for investment. We historically invested in distressed mortgage assets (mortgage loans and REO), which are no longer our primary focus for new investments.

Following is a summary of our acquisitions of other mortgage-related investments:

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
MBS	\$1,810,877	\$251,872	\$765,467	\$84,828	\$185,972
ESS	2,688	5,244	6,603	278,282	103,235
Distressed mortgage loans	—	—	—	241,981	554,604
	\$1,813,565	\$257,116	\$772,070	\$605,091	\$843,811

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Our portfolio of mortgage investments was comprised of the following:

	December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
<b>Credit Sensitive Assets</b>					
CRT Agreements (1)	\$ 1,270,488	\$ 687,507	\$ 465,669	\$ 147,593	\$—
Firm commitment to purchase CRT securities	37,994	—	—	—	—
Distressed mortgage loans at fair value					
Performing	28,806	414,785	611,584	877,438	664,266
Nonperforming	88,926	353,648	742,988	1,222,956	1,535,317
	117,732	768,433	1,354,572	2,100,394	2,199,583
REO and real estate held for investment	128,791	207,089	303,393	350,642	303,228
Subordinated interest in mortgage loans held in VIE					
	9,365	9,661	8,925	35,484	35,663
Small balance commercial mortgage loans	8,559	9,898	8,961	14,590	—
	1,534,935	1,682,588	2,141,520	2,648,703	2,538,474
<b>Interest Rate Sensitive Assets</b>					
Agency MBS	2,610,422	989,461	865,061	225,150	195,518
Non-Agency senior MBS	—	—	—	97,323	111,845
MSRs	1,162,369	844,781	656,567	459,741	357,780
ESS	216,110	236,534	288,669	412,425	191,166
Interest rate hedges (2)	25,276	9,303	4,749	2,282	3,016
Mortgage loans held in a VIE, net of asset-backed					
financing and subordinated interest	4,709	3,960	4,346	172,220	325,786
	4,018,886	2,084,039	1,819,392	1,369,141	1,185,111
	\$ 5,553,821	\$ 3,766,627	\$ 3,960,912	\$ 4,017,844	\$ 3,723,585

(1) Investments in CRT Agreements include deposits securing CRT Agreements and CRT derivatives.

(2) Derivative assets, net of derivative liabilities, excluding interest rate lock commitment (“IRLC”), CRT derivatives and repurchase agreements derivatives.

Over time, our targeted asset classes may change as a result of changes in the opportunities that are available in the market, among other factors. We may not invest in certain of the investments described above if we believe those types of investments will not provide us with suitable returns or if we believe other types of our targeted assets provide us with better returns.

#### Investment Policies

Our board of trustees has adopted the policies set forth below for our investments and borrowings. PCM reviews its compliance with our investment policies regularly and reports periodically to our board of trustees regarding such compliance.

❖ No investment shall be made that would cause us to fail to qualify as a REIT for U.S. federal income tax purposes;

❖ No investment shall be made that would cause us to be regulated as an investment company under the Investment Company Act; and

❖ With the exception of real estate and housing, no single industry shall represent greater than 20% of the investments or total risk exposure in our portfolio.



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These investment policies may be changed by a majority of our board of trustees without the approval of, or prior notice to, our shareholders.

We have not adopted a policy that expressly prohibits our trustees, officers, shareholders or affiliates from having a direct or indirect financial interest in any investment to be acquired or disposed of by us or in any transaction to which we are a party or have an interest. We do not have a policy that expressly prohibits any such persons from engaging for their own account in business activities of the types conducted by us. However, our code of business conduct and ethics contains a conflicts of interest policy that prohibits our trustees and officers, as well as employees of PennyMac and its subsidiaries who provide services to us, from engaging in any transaction that involves an actual or apparent conflict of interest with us without the appropriate approval. We also have written policies and procedures for the review and approval of related party transactions, including oversight by designated committees of our board of trustees and PFSI's board of directors.

### Our Financing Activities

We have pursued growth of our investment portfolio by using a combination of equity and borrowings, primarily in the form of borrowings under agreements to repurchase. We use borrowings to finance our investments and not to speculate on changes in interest rates.

#### Equity financing

During 2014, we issued 3.8 million common shares under an ATM Equity Offering Sales Agreement<sup>sm</sup> and received net proceeds totaling \$89.5 million. We used the proceeds of the 2014 offerings to fund a portion of the purchase price of our mortgage-related investments, to fund the continued growth of our correspondent production business and for general business purposes.

During 2015, our board of trustees authorized a common share repurchase program under which, as amended, we may repurchase up to \$300 million of our outstanding common shares. Repurchased common shares are canceled upon settlement of the repurchase transactions and returned to the authorized but unissued share pool. Repurchases under this program are summarized below:

	Year ended December 31,				Cumulative
	2018	2017	2016	2015	total
	(in thousands, except per-share amounts)				
Common shares repurchased	671	5,647	7,368	1,045	14,731
Cost of common shares repurchased	\$10,719	\$91,198	\$98,370	\$16,338	\$216,625
Average cost per share	\$15.96	\$16.15	\$13.35	\$15.65	\$14.71

During 2017, we issued 4.6 million of our 8.125% Series A Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 par value per share ("Series A Preferred Shares") and 7.8 million of our 8.00% Series B Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 par value per share (the "Series B Preferred Shares" and, together with the Series A Preferred Shares, the "Preferred Shares"). We received proceeds of \$299.7 million net of issuance costs from these issuances. From, and including, the date of original issuance to, but not including, March 15, 2024 and June 15, 2024, respectively, the Company pays cumulative dividends on the Series A Preferred Shares at a fixed rate of 8.125% and on the Series B Preferred Shares at a fixed rate of 8.00% per annum based on the \$25.00 per share liquidation preference. Thereafter, dividends are paid at rates indexed to the U.S. Dollar LIBOR rate.

#### Debt financing



During 2013, our wholly-owned subsidiary, PennyMac Corp. (“PMC”), issued in a private offering \$250 million principal amount of 5.375% Exchangeable Senior Notes due 2020 (the “Exchangeable Notes”). The net proceeds were used to fund our business and investment activities, including the acquisition of distressed mortgage loans or other investments; the funding of the continued growth of our correspondent production business, including the purchase of jumbo loans; the repayment of other indebtedness; and general business purposes.

We maintain multiple master repurchase agreements and mortgage loan participation and sale agreements with money center banks to fund newly originated prime mortgage loans purchased from correspondent sellers. The total unpaid principal balance (“UPB”) outstanding under the facilities in existence as of December 31, 2018 was \$1.5 billion.

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During 2016, our wholly-owned subsidiary, PennyMac Holdings, LLC (“PMH”) entered into a master repurchase agreement with PLS, pursuant to which PMH sells to PLS participation certificates representing a beneficial interest in Ginnie Mae ESS under an agreement to repurchase. The purchase price is based upon a percentage of the market value of the ESS. Pursuant to the master repurchase agreement, PMH grants to PLS a security interest in all of its right, title and interest in, to and under the ESS and PLS, in turn, re-pledges such ESS along with its interest in all of its Ginnie Mae MSR under a repurchase agreement to a special purpose entity, which issues variable funding notes and term notes that are secured by such Ginnie Mae assets. The notes are repaid through the cash flows received by the special purpose entity as the lender under its repurchase agreement with PLS, which, in turn, receives cash flows from us under our repurchase agreement secured by the Ginnie Mae ESS. The total UPB outstanding under this facility as of December 31, 2018 was \$131.0 million.

During 2017, through PMC and PMH, we entered into a master repurchase agreement with a wholly-owned special purpose entity, PMT ISSUER TRUST-FMSR (“FMSR Issuer Trust”), which issues variable funding notes and term notes that are secured by participation certificates representing a beneficial interest in Fannie Mae MSR and the related ESS. The notes are repaid through the cash flows received by FMSR Issuer Trust as the lender under the repurchase agreement, pursuant to which PMC grants to the special purpose entity a security interest in all of its right, title and interest in, to and under the MSR and ESS.

During 2018, the Company, through FMSR Issuer Trust, issued an aggregate principal amount of \$450 million in secured term notes (the “2018-FT1 Notes”) to qualified institutional buyers under Rule 144A of the Securities Act of 1933, as amended. The 2018-FT1 Notes bear interest at a rate equal to one-month LIBOR plus 2.35% per annum, payable each month beginning in May 2018, on the 25th day of such month or, if such 25th day is not a business day, the next business day. The 2018-FT1 Notes mature on April 25, 2023 or, if extended pursuant to the terms of the related term note indenture supplement, April 25, 2025 (unless earlier redeemed in accordance with their terms).

The 2018-FT1 Notes rank pari passu with the Series 2017-VF1 Note dated December 20, 2017 (the “FMSR VFN”) pledged to Credit Suisse under an agreement to repurchase. The total UPB outstanding under such agreement to repurchase as of December 31, 2018 was \$5.0 million. The 2018-FT1 Notes and the FMSR VFN are secured by certain participation certificates relating to Fannie Mae MSR and ESS relating to such MSR.

During 2018, the Company, through PMC and PMH, entered into a Loan and Security Agreement with Credit Suisse First Boston Mortgage Capital LLC (“Credit Suisse”), pursuant to which PMC and PMH may finance certain mortgage servicing rights (inclusive of any related excess servicing spread arising therefrom and that may be transferred from PMC to PMH from time to time) relating to mortgage loans pooled into Freddie Mac securities (collectively, the “Freddie MSR”), in an aggregate loan amount not to exceed \$175 million, all of which is committed. The note matures on February 1, 2020.

Our borrowings are made under agreements that include various covenants, including the maintenance of profitability and specified levels of cash, adjusted tangible net worth and overall leverage limits. Our ability to borrow under these facilities is limited by the amount of qualifying assets that we hold and that are eligible to be pledged to secure such borrowings and our ability to fund any applicable margin requirements. We are not otherwise required to maintain any specific debt-to-equity ratio, and we believe the appropriate leverage for the particular assets we finance depends on, among other things, the credit quality and risk of such assets. Our declaration of trust and bylaws do not limit the amount of indebtedness we can incur, and our board of trustees has discretion to deviate from or change our financing strategy at any time.

Subject to maintaining our qualification as a REIT and exclusion from registration under the Investment Company Act, we may hedge the interest rate risk associated with the financing of our portfolio.

Our Manager and Our Servicer

We are externally managed and advised by PCM pursuant to a management agreement. PCM specializes in and focuses on investments in U.S. mortgage assets. PCM has also served as the investment manager to two private investment funds, which were liquidated during 2018.

PCM is responsible for administering our business activities and day-to-day operations, including developing our investment strategies, sourcing and acquiring mortgage loans and mortgage-related assets for our investment portfolio, and developing the appropriate approach to be taken by PLS for each loan as it performs its specialty servicing. Pursuant to the terms of the management agreement, PCM provides us with our senior management team, including our officers and support personnel. PCM is subject to the supervision and oversight of our board of trustees and has the functions and authority specified in the management agreement.

We also have a loan servicing agreement with PLS, pursuant to which PLS provides primary and special servicing for our portfolio of residential mortgage loans and MSR. PLS' mortgage loan servicing activities include collecting principal, interest and escrow account payments, accounting for and remitting collections to investors in the mortgage loans, responding to customer inquiries, and default management activities, including managing loss mitigation, which may include, among other things, collection activities, loan workouts, modifications and refinancings, foreclosures, short sales and sales of REO. Servicing fee rates are based on the delinquency status, activities performed, and other characteristics of the mortgage loans serviced and total servicing compensation is established at levels that our Manager believes are competitive with those charged by other primary servicers and specialty servicers. PLS also provided special servicing to the private investment funds and the entities in which those funds invested. PLS acted as the servicer for mortgage loans with UPB totaling approximately \$299.3 billion, of which \$94.7 billion was subserviced for us as of December 31, 2018.

## Operating and Regulatory Structure

### Taxation – REIT Qualification

We have elected to be treated as a REIT under Sections 856 through 860 of the Internal Revenue Code of 1986 (the "Internal Revenue Code") beginning with our taxable year ended December 31, 2009. Our qualification as a REIT depends upon our ability to meet on a continuing basis, through actual investment and operating results, various complex requirements under the Internal Revenue Code relating to, among other things, the sources of our gross income, the composition and values of our assets, our distribution levels and the diversity of ownership of our common shares. We believe that we are organized in conformity with the requirements for qualification and taxation as a REIT under the Internal Revenue Code, and that our manner of operation enables us to meet the requirements for qualification and taxation as a REIT.

As a REIT, we generally are not subject to U.S. federal income tax on our REIT taxable income we distribute to our shareholders. If we fail to qualify as a REIT in any taxable year and do not qualify for certain statutory relief provisions, we will be subject to U.S. federal income tax at regular corporate rates and may be precluded from qualifying as a REIT for the subsequent four taxable years following the year during which we lost our REIT qualification. Accordingly, our failure to qualify as a REIT could have a material adverse impact on our results of operations and amounts available for distribution to our shareholders.

Even though we have elected to be taxed as a REIT, we are subject to some U.S. federal, state and local taxes on our income or property. A portion of our business is conducted through, and a portion of our income is earned in, our TRS that is subject to corporate income taxation. In general, a TRS of ours may hold assets and engage in activities that we cannot hold or engage in directly and may engage in any real estate or non-real estate related business. A TRS is subject to U.S. federal, state and local corporate income taxes. To maintain our REIT election, at the end of each quarter no more than 20% of the value of a REIT's assets may consist of stock or securities of one or more TRSs.

If our TRS generates net income, our TRS can declare dividends to us, which will be included in our taxable income and necessitate a distribution to our shareholders. Conversely, if we retain earnings at the TRS level, no distribution is required and we can increase shareholders' equity of the consolidated entity. As discussed in Section 1A of this Report entitled Risk Factors, the combination of the requirement to maintain no more than 20% of our assets in the TRS coupled with the effect of TRS dividends on our income tests creates compliance complexities for us in the maintenance of our qualified REIT status.

The dividends paid deduction of a REIT for qualifying dividends to its shareholders is computed using our taxable income as opposed to net income reported on our financial statements. Taxable income generally differs from net income reported on our financial statements because the determination of taxable income is based on tax laws and regulations and not financial accounting principles.

Licensing

We and PLS are required to be licensed to conduct business in certain jurisdictions. PLS is, or is taking steps to become, licensed in those jurisdictions and for those activities where it believes it is cost effective and appropriate to become licensed. Through our wholly owned subsidiaries, we are also licensed, or are taking steps to become licensed, in those jurisdictions and for those activities where we believe it is cost effective and appropriate to become licensed. In jurisdictions in which neither we nor PLS is licensed, we do not conduct activity for which a license is required. Our failure or the failure by PLS to obtain any necessary licenses promptly, comply with applicable licensing laws or satisfy the various requirements or to maintain them over time could materially and adversely impact our business.

## Competition

In our correspondent production activities, we compete with large financial institutions and with other independent residential mortgage loan producers and servicers. We compete on the basis of product offerings, technical knowledge, loan quality, speed of execution, rate and fees.

In acquiring mortgage assets, we compete with specialty finance companies, private funds, other mortgage REITs, thrifts, banks, mortgage bankers, insurance companies, mutual funds, institutional investors, investment banking firms, governmental bodies and other entities, which may also be focused on acquiring mortgage-related assets, and therefore may increase competition for the available supply of mortgage assets suitable for purchase.

Many of our competitors are significantly larger than we are and have stronger financial positions and greater access to capital and other resources than we have and may have other advantages over us. Such advantages include the ability to obtain lower-cost financing, such as deposits, and operational efficiencies arising from their larger size.

Some of our competitors may have higher risk tolerances or different risk assessments and may not be subject to the operating restraints associated with REIT tax compliance or maintenance of an exclusion from the Investment Company Act, any of which could allow them to consider a wider variety of investments and funding strategies and to establish more relationships with sellers of mortgage assets than we can.

Because the availability of pools of mortgage assets may fluctuate, the competition for assets and sources of financing may increase. Increased competition for assets may result in our accepting lower returns for acquisitions of residential mortgage loans and other assets or adversely influence our ability to bid for such assets at levels that allow us to acquire the assets. An increase in the competition for sources of funding could adversely affect the availability and terms of financing, and thereby adversely affect the market price of our common shares.

To address this competition, we have access to PCM's professionals and their industry expertise, which we believe provides us with a competitive advantage and helps us assess investment risks and determine appropriate pricing for certain potential investments. We expect this relationship to enable us to compete more effectively for attractive investment opportunities. Furthermore, we believe that our access to PLS's servicing expertise provides us with a competitive advantage over other companies with a similar focus. However, we can provide no assurance that we will be able to achieve our business goals or expectations due to the competitive and other risks that we face.

## Staffing

We have three employees. All of our officers are employees of PennyMac or its affiliates. We do not pay our officers any cash compensation under the terms of our management agreement.

## Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to those reports filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge at [www.pennymacmortgageinvestmenttrust.com](http://www.pennymacmortgageinvestmenttrust.com) through the investor relations section of our website as soon as reasonably practicable after electronically filing such material with the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding our filings at [www.sec.gov](http://www.sec.gov). The above references to our website and the SEC's website do not constitute incorporation by reference of the information contained on those websites and should not be considered part of this document.

## Item 1A. Risk Factors

In addition to the other information set forth in this Report, you should carefully consider the following factors, which could materially affect our business, liquidity, financial condition, results of operations or ability to make distributions to our shareholders in future periods. The risks described below are not the only risks that we face. Additional risks not presently known to us or that we currently deem immaterial may also materially and adversely affect our business, financial condition or results of operations in future periods.

## Risks Related to Our Management and Relationship with Our Manager and Its Affiliates

We are dependent upon PCM and PLS and their resources and may not find suitable replacements if any of our service agreements with PCM or PLS are terminated.

In accordance with our management agreement, we are externally advised and managed by PCM, which makes all or substantially all of our investment, financing and risk management decisions, and has significant discretion as to the implementation of our operating policies and strategies. Under our loan servicing agreement with PLS, PLS provides primary servicing and special servicing for our portfolios of mortgage loans and MSR, and under our mortgage banking services agreement with PLS, PLS provides fulfillment and disposition-related services in connection with our correspondent production business. The costs of these services increase our operating costs and may reduce our net income, but we rely on PCM and PLS to provide these services under these agreements because we have few employees and limited in-house capability to perform the activities independently.

No assurance can be given that the strategies of PCM, PLS or their affiliates under any of these agreements will be successful, that any of them will conduct complete and accurate due diligence or provide sound advice, or that any of them will act in our best interests with respect to the allocation of their resources to our business. The failure of any of them to do any of the above, conduct the business in accordance with applicable laws and regulations or hold all licenses or registrations necessary to conduct the business as currently operated would materially and adversely affect our ability to continue to execute our business plan.

In addition, the terms of these agreements extend until September 12, 2020, subject to automatic renewal for additional 18-month periods, but any of the agreements may be terminated earlier under certain circumstances or otherwise non-renewed. If any agreement is terminated or non-renewed and not replaced by a new agreement, it would materially and adversely affect our ability to continue to execute our business plan.

If our management agreement or loan servicing agreement is terminated or not renewed, we will have to obtain the services from another service provider. We may not be able to replace these services in a timely manner or on favorable terms, or at all. With respect to our mortgage banking services agreement, the services provided by PLS are inherently unique and not widely available, if at all. This is particularly true because we are not a Ginnie Mae licensed issuer, yet we are able to acquire government mortgage loans from our correspondent sellers that we know will ultimately be purchased from us by PLS. While we generally have exclusive rights to these services from PLS during the term of our mortgage banking services agreement, in the event of a termination we may not be able to replace these services in a timely manner or on favorable terms, or at all, and we ultimately would be required to compete against PLS as it relates to our correspondent business activities.

The management fee structure could cause disincentive and/or create greater investment risk.

Pursuant to our management agreement, PCM is entitled to receive a base management fee that is based on our shareholders' equity (as defined in our management agreement) at the end of each quarter. As a result, significant base management fees would be payable to PCM for a given quarter even if we experience a net loss during that quarter. PCM's right to non-performance-based compensation may not provide sufficient incentive to PCM to devote its time and effort to source and maximize risk-adjusted returns on our investment portfolio, which could, in turn, materially and adversely affect the market price of our shares and/or our ability to make distributions to our shareholders.

Conversely, PCM is also entitled to receive incentive compensation under our management agreement based on our performance in each quarter. In evaluating investments and other management strategies, the opportunity to earn incentive compensation based on our net income may lead PCM to place undue emphasis on higher yielding investments and the maximization of short-term income at the expense of other criteria, such as preservation of capital, maintenance of sufficient liquidity and/or management of market risk, in order to achieve higher incentive compensation. Investments with higher yield potential are generally riskier and more speculative.



The servicing fee structure could create a conflict of interest.

For its services under our loan servicing agreement, PLS is entitled to servicing fees that we believe are competitive with those charged by primary servicers and specialty servicers and include fixed per-loan monthly amounts based on the delinquency, bankruptcy and/or foreclosure status of the serviced loan or the REO, as well as activity fees that generally are fixed dollar amounts. PLS is also entitled to customary ancillary income and certain market-based fees and charges, including boarding and deboarding fees, liquidation and disposition fees, and assumption, modification and origination fees. Because certain of these fees are earned upon reaching a specific milestone, this fee structure may provide PLS with an incentive to foreclose more aggressively or liquidate assets for less than their fair value.

On our behalf, PLS also refinances performing loans and originates new loans to facilitate the disposition of real estate that we acquire through foreclosure. In order to provide PLS with an incentive to produce such loans, PLS is entitled to receive origination fees and other compensation based on market-based pricing and terms that are consistent with the pricing and terms offered by PLS to unaffiliated third parties on a retail basis. This may provide PLS with an incentive to refinance a greater proportion of our loans than it otherwise would and/or to refinance loans on our behalf instead of arranging the refinancings with a third party lender, either of which might give rise to a potential or perceived conflict of interest.

Termination of our management agreement is difficult and costly.

It is difficult and costly to terminate, without cause, our management agreement. Our management agreement provides that it may be terminated by us without cause under limited circumstances and the payment to PCM of a significant termination fee. The cost to us of terminating our management agreement may adversely affect our desire or ability to terminate our management agreement with PCM without cause. PCM may also terminate our management agreement upon at least 60 days' prior written notice if we default in the performance of any material term of our management agreement and the default continues for a period of 30 days after written notice to us, or where we terminate our loan servicing agreement, our mortgage banking services agreement or certain other of our related party agreements with PCM or PLS without cause (at any time other than at the end of the current term or any automatic renewal term), whereupon in any case we would be required to pay to PCM a significant termination fee. As a result, our desire or ability to terminate any of our related party agreements may be adversely affected to the extent such termination would trigger the right of PCM to terminate the management agreement and our obligation to pay PCM a significant termination fee.

Existing or future entities or accounts managed by PCM may compete with us for, or may participate in, investments, any of which could result in conflicts of interest.

Although our agreements with PCM and PLS provide us with certain exclusivity and other rights and we and PCM have adopted an allocation policy to specifically address some of the conflicts relating to our investment opportunities, there is no assurance that these measures will be adequate to address all of the conflicts that may arise or will address such conflicts in a manner that is favorable to us. Certain of the funds that PCM may advise in the future may have investment objectives that overlap with ours, including funds which have different fee structures, and potential conflicts may arise with respect to decisions regarding how to allocate investment opportunities among those funds and us. We are also limited in our ability to acquire assets that are not qualifying real estate assets and/or real estate related assets, whereas other entities or accounts that PCM may manage in the future may not be so limited. In addition, PCM and the other entities or accounts managed by PCM in the future may participate in some of our investments, which may not be the result of arm's length negotiations and may involve or later result in potential conflicts between our interests in the investments and those of PCM or such other entities.

BlackRock and HC Partners, PFSI's strategic investors, could compete with us or transact business with us, which could result in a conflict of interest.

PFSI's strategic investors, BlackRock and HC Partners, each own significant investments in PFSI. Affiliates of each of BlackRock and HC Partners currently manage investment vehicles and separate accounts that may compete directly or indirectly with us. BlackRock and HC Partners are under no obligation to provide us with any financial or operational assistance, or to present opportunities to us for matters in which they may become involved. We may enter into transactions with BlackRock or HC Partners or with market participants with which BlackRock or HC Partners has business relationships, and such transactions and/or relationships could influence the decisions made by PCM with respect to the purchase or sale of assets and the terms of such purchase or sale. Such activities could have an adverse effect on the value of the positions held by us, or may result in BlackRock and/or HC Partners having interests adverse to ours.

We may encounter conflicts of interest in our Manager's efforts to appropriately allocate its time and services between its own activities and the management of us, and the loss of the services of our Manager's management team could adversely affect us.

Pursuant to our management agreement, PCM is obligated to provide us with the services of its senior management team, and the members of that team are required to devote such time to us as is necessary and appropriate, commensurate with our level of activity. The members of PCM's senior management team may have conflicts in allocating their time and services between the operations of PFSI and our activities, and other entities or accounts that they may manage in the future.

The experience of PFSI's senior managers is valuable to us. PFSI's management team has significant experience in the mortgage loan production, servicing and investment management industries. Neither we nor PFSI maintains life insurance policies relating to our or PFSI's senior managers. The loss of the services of PFSI's senior managers for any reason could adversely affect our business.

Our failure to deal appropriately with various issues that may give rise to reputational risk, including conflicts of interest and legal and regulatory requirements, could cause harm to our business and adversely affect our business, financial condition and results of operations.

Maintaining our reputation is critical to attracting and retaining customers, trading counterparties, investors and employees. If we fail to deal with, or appear to fail to deal with, various issues that may give rise to reputational risk, we could significantly harm our business. Such issues include, but are not limited to, conflicts of interest, legal and regulatory requirements, and any of the other risks discussed in this Item 1A.

As we expand the scope of our businesses, we confront potential conflicts of interest relating to our investment activities that are managed by PCM. The SEC and certain other regulators have increased their scrutiny of potential conflicts of interest, and as we expand the scope of our business, we must continue to monitor and address any conflicts between our interests and those of PFSI. We have implemented procedures and controls to be followed when real or potential conflicts of interest arise, but it is possible that potential or perceived conflicts could give rise to the dissatisfaction of, or litigation by, our investors or regulatory enforcement actions. Appropriately dealing with conflicts of interest is complex and difficult, and our reputation could be damaged if we fail, or appear to fail, to deal appropriately with one or more potential or actual conflicts of interest. Regulatory scrutiny, litigation or reputational risk incurred in connection with conflicts of interest would adversely affect our business in a number of ways and may adversely affect our results of operations. Reputational risk incurred in connection with conflicts of interest could negatively affect our financial condition and business, strain our working relationships with regulators and government agencies, expose us to litigation and regulatory action, impact our ability to attract and retain customers, trading counterparties, investors and employees and adversely affect our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

Reputational risk from negative public opinion is inherent in our business and can result from a number of factors. Negative public opinion can result from our actual or alleged conduct in any number of activities, including lending and debt collection practices, corporate governance, and actions taken by government regulators and community organizations in response to those activities. Negative public opinion can also result from social media and media coverage, whether accurate or not. These factors could tarnish or otherwise strain our working relationships with regulators and government agencies, expose us to litigation and regulatory action, negatively affect our ability to attract and retain customers, trading and financing counterparties and employees and adversely affect our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

PCM and PLS both have limited liability and indemnity rights.

Our agreements with PCM and PLS provide that PCM and PLS will not assume any responsibility other than to provide the services specified in the applicable agreements. Our management agreement further provides that PCM will not be responsible for any action of our board of trustees in following or declining to follow its advice or recommendations. In addition, each of PCM and PLS and their respective affiliates, including each such entity's managers, officers, trustees, directors, employees and members, will be held harmless from, and indemnified by us against, certain liabilities on customary terms. As a result, to the extent we are damaged through certain actions or inactions of PCM or PLS, our recourse is limited and we may not be able to recover our losses.

## Risks Related to Our Business

### Regulatory Risks

We operate in a highly regulated industry and the continually changing federal, state and local laws and regulations could materially and adversely affect our business, financial condition and results of operations.

We are required to comply with a wide array of federal, state and local laws and regulations that regulate, among other things, the manner in which we conduct our loan production and servicing businesses. These regulations directly impact our business and require constant compliance, monitoring and internal and external audits.

Federal, state and local governments have proposed or enacted numerous new laws, regulations and rules related to mortgage loans. Laws, regulations, rules and judicial and administrative decisions relating to mortgage loans include those pertaining to real estate settlement procedures, equal credit opportunity, fair lending, fair credit reporting, truth in lending, fair debt collection practices, service members protections, compliance with net worth and financial statement delivery requirements, compliance with federal and state disclosure and licensing requirements, the establishment of maximum interest rates, finance charges and other charges, qualified mortgages, licensing of loan officers and other personnel, loan officer compensation, secured transactions, property valuations, servicing transfers, payment processing, escrow, communications with consumers, loss mitigation, collection, foreclosure, bankruptcies, repossession and claims-handling procedures, and other trade practices and privacy regulations providing for the use and safeguarding of non-public personal financial information of borrowers. PLS and the service providers it uses, including outside counsel retained to process foreclosures and bankruptcies, must also comply with some of these legal requirements.

Our failure or the failure of PLS to operate effectively and in compliance with these laws, regulations and rules could subject us to lawsuits or governmental actions and damage our reputation, which could materially and adversely affect our business, financial condition and results of operations. In addition, our failure or the failure of PLS to comply with these laws, regulations and rules may result in increased costs of doing business, reduced payments by borrowers, modification of the original terms of mortgage loans, permanent forgiveness of debt, delays in the foreclosure process, increased servicing advances, litigation, reputational damage, enforcement actions, and repurchase and indemnification obligations.

Our service providers and vendors are also required to operate in compliance with applicable laws, regulations and rules. Our failure to adequately manage service providers and vendors in order to mitigate risks of noncompliance with applicable laws may also have these negative results.

The failure of the mortgage lenders from which loans were acquired through our correspondent production activities to comply with any applicable laws, regulations and rules may also result in these adverse consequences. PLS has in place a due diligence program designed to assess areas of risk with respect to these acquired loans, including, without limitation, compliance with underwriting guidelines and applicable laws or regulations. However, PLS may not detect every violation of law by these mortgage lenders. Further, to the extent any third party originators or servicers with whom we do business fail to comply with applicable laws or regulations and any of their mortgage loans or MSRs become part of our assets, it could subject us, as an assignee or purchaser of the related mortgage loans or MSRs, to monetary penalties or other losses. In general, if any of our loans are found to have been originated, acquired or serviced by us or a third party in violation of applicable laws or regulations, we could be subject to lawsuits or governmental actions, or we could be fined or incur losses. While we may have contractual rights to seek indemnity or repurchase from certain of these lenders and third party originators and servicers, if any of them is unable to fulfill its indemnity or repurchase obligations to us to a material extent, our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders could be materially and adversely affected.

The CFPB is active in its monitoring of the residential mortgage origination and servicing sectors. Revised rules and regulations and more stringent enforcement of existing rules and regulations by the CFPB could result in enforcement actions, fines, penalties and the inherent reputational harm that results from such actions.

Under the Dodd-Frank Act, the CFPB is empowered with broad supervision, rulemaking and examination authority to enforce laws involving consumer financial products and services and to ensure, among other things, that consumers receive clear and accurate disclosures regarding financial products and are protected from hidden fees and unfair, deceptive or abusive acts or practices. The CFPB has adopted a number of final regulations under the Dodd-Frank Act regarding truth in lending, "ability to repay," home mortgage loan disclosure, home mortgage loan origination, fair credit reporting, fair debt collection practices, foreclosure protections, and mortgage servicing rules, including provisions regarding loss mitigation, early intervention, periodic statement requirements and lender-placed insurance.

The CFPB also has enforcement authority with respect to the conduct of third-party service providers of financial institutions. The CFPB has made it clear that it expects non-bank entities to maintain an effective process for managing risks associated with third-party vendor relationships, including compliance-related risks. In connection with this vendor risk management process, we are expected to perform due diligence reviews of potential vendors, review vendors' policies and procedures and internal training materials to confirm compliance-related focus, include enforceable consequences in contracts with vendors regarding failure to comply with consumer protection

requirements, and take prompt action, including terminating the relationship, in the event that vendors fail to meet our expectations. The CFPB is also applying scrutiny to compensation payments to third-party providers for marketing services and may issue guidance that narrows the range of acceptable payments to third-party providers as part of marketing services agreements, lead generation agreements and other third-party marketer relationships.

In addition to its supervision and examination authority, the CFPB is authorized to conduct investigations to determine whether any person is engaging in, or has engaged in, conduct that violates federal consumer financial protection laws, and to initiate enforcement actions for such violations, regardless of its direct supervisory authority. Investigations may be conducted jointly with other regulators. In furtherance of its supervision and examination powers, the CFPB has the authority to impose monetary penalties for violations of applicable federal consumer financial laws, require remediation of practices and pursue administrative proceedings or litigation for violations of applicable federal consumer financial laws. The CFPB also has the authority to obtain cease and desist orders (which can include orders for restitution or rescission of contracts, as well as other kinds of affirmative relief) and monetary penalties ranging from \$5,000 per day for ordinary violations of federal consumer financial laws to \$25,000 per day for reckless violations and \$1 million per day for knowing violations.

Rules and regulations promulgated under the Dodd-Frank Act or by the CFPB, uncertainty regarding recent interim and permanent changes in leadership or authority levels within the CFPB, and actions taken or not taken by the CFPB could result in heightened federal and state regulation and oversight of our business activities, materially and adversely affect the manner in which we conduct our business, and increase costs and potential litigation associated with our business activities. Our or PLS' failure to comply with the laws, rules or regulations to which we are subject, whether actual or alleged, would expose us or PLS to fines, penalties or potential litigation liabilities, including costs, settlements and judgments, any of which could have a material adverse effect on our or PLS' business, liquidity, financial condition and results of operations and our ability to make distributions to our shareholders.

We are highly dependent on the Agencies and the Federal Housing Finance Agency ("FHFA"), as the conservator of Fannie Mae and Freddie Mac, and any changes in these entities or their current roles or the leadership at such entities or their regulators could materially and adversely affect our business, liquidity, financial condition and results of operations.

Our ability to generate revenues through mortgage loan sales depends to a significant degree on programs administered by the Agencies and others that facilitate the issuance of MBS in the secondary market. These Agencies play a critical role in the mortgage industry and we have significant business relationships with them. Presently, almost all of the newly originated conforming loans that we acquire from mortgage lenders through our correspondent production activities qualify under existing standards for inclusion in mortgage securities backed by the Agencies. We also derive other material financial benefits from these relationships, including the assumption of credit risk by these Agencies on loans included in such mortgage securities in exchange for our payment of guarantee fees, our retention of such credit risk through structured transactions that lower our guarantee fees, and the ability to avoid certain loan inventory finance costs through streamlined loan funding and sale procedures.

Any changes in laws and regulations affecting the relationship between Fannie Mae and Freddie Mac and their regulators or the U.S. federal government, and any changes in leadership at any of these entities could adversely affect our business and prospects. Although the U.S. Treasury has committed capital to Fannie Mae and Freddie Mac, these actions may not be adequate for their needs. If Fannie Mae and Freddie Mac are adversely affected by events such as ratings downgrades, inability to obtain necessary government funding, lack of success in resolving repurchase demands to lenders, foreclosure problems and delays and problems with mortgage insurers, they could suffer losses and fail to honor their guarantees and other obligations. Any discontinuation of, or significant reduction in, the operation of Fannie Mae or Freddie Mac or any significant adverse change in their capital structure, financial condition, activity levels in the primary or secondary mortgage markets or underwriting criteria could materially and adversely affect our business, liquidity, financial condition, results of operations and our ability to make distributions to our shareholders.

The roles of Fannie Mae and Freddie Mac could be significantly restructured, reduced or eliminated and the nature of the guarantees could be considerably limited relative to historical measurements. Elimination of the traditional roles of Fannie Mae and Freddie Mac, or any changes to the nature or extent of the guarantees provided by Fannie Mae and Freddie Mac or the fees, terms and guidelines that govern our selling and servicing relationships with them, such as increases in the guarantee fees we are required to pay, initiatives that increase the number of repurchase demands and/or the manner in which they are pursued, or possible limits on delivery volumes imposed upon us and other sellers/servicers, could also materially and adversely affect our business, including our ability to sell and securitize loans that we acquire through our correspondent production activities, and the performance, liquidity and market value of our investments. Moreover, any changes to the nature of the GSEs or their guarantee obligations could redefine what constitutes an Agency MBS and could have broad adverse implications for the market and our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Our ability to generate revenues from newly originated loans that we acquire through our correspondent production activities is also highly dependent on the fact that the Agencies have not historically acquired such loans directly from mortgage lenders, but have instead relied on banks and non-bank aggregators such as us to acquire, aggregate and



securitize or otherwise sell such loans to investors in the secondary market. Certain of the Agencies have approved new and smaller lenders that traditionally may not have qualified for such approvals. To the extent that these lenders choose to sell directly to the Agencies rather than through loan aggregators like us, this reduces the number of loans available for purchase, and it could materially and adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders. Similarly, to the extent the Agencies increase the number of purchases and sales for their own accounts, our business and results of operations could be materially and adversely affected.

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We and/or PLS are required to have various Agency approvals and state licenses in order to conduct our business and there is no assurance we and/or PLS will be able to obtain or maintain those Agency approvals or state licenses.

Because we and PLS are not federally chartered depository institutions, neither we nor PLS benefits from exemptions to state mortgage lending, loan servicing or debt collection licensing and regulatory requirements. Accordingly, PLS is licensed, or is taking steps to become licensed, in those jurisdictions, and for those activities, where it is required to be licensed and believes it is cost effective and appropriate to become licensed.

Our failure or the failure by PLS to obtain any necessary licenses, comply with applicable licensing laws or satisfy the various requirements to maintain them over time could restrict our direct business activities, result in litigation or civil and other monetary penalties, or cause us to default under certain of our lending arrangements, any of which could materially and adversely impact our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We and PLS are also required to hold the Agency approvals in order to sell mortgage loans to the Agencies and service such mortgage loans on their behalf. Our failure, or the failure of PLS, to satisfy the various requirements necessary to maintain such Agency approvals over time would also restrict our direct business activities and could adversely impact our business.

In addition, we and PLS are subject to periodic examinations by federal and state regulators, which can result in increases in our administrative costs, and we or PLS may be required to pay substantial penalties imposed by these regulators due to compliance errors, or we or PLS may lose our licenses. Negative publicity or fines and penalties incurred in one jurisdiction may cause investigations or other actions by regulators in other jurisdictions and could adversely impact our business.

Our or our Servicer's inability to meet certain net worth and liquidity requirements imposed by the Agencies could have a material adverse effect on our business, financial condition and results of operation.

We and our servicers are subject to minimum financial eligibility requirements for Agency mortgage sellers/servicers and MBS issuers, as applicable. These eligibility requirements align the minimum financial requirements for mortgage sellers/servicers and MBS issuers to do business with the Agencies. These minimum financial requirements, which are described in Liquidity and Capital Resources, include net worth, capital ratio and/or liquidity criteria in order to set a minimum level of capital needed to adequately absorb potential losses and a minimum amount of liquidity needed to service Agency mortgage loans and MBS and cover the associated financial obligations and risks.

In order to meet these minimum financial requirements, we and our Servicer are required to maintain rather than spend or invest, cash and cash equivalents in amounts that may adversely affect our or its business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders, and this could significantly impede us and our Servicer, as non-bank mortgage lenders, from growing our respective businesses and place us at a competitive disadvantage in relation to federally chartered banks and certain other financial institutions. To the extent that such minimum financial requirements are not met, the Agencies may suspend or terminate Agency approval or certain agreements with us or our Servicer, which could cause us or our Servicer to cross default under financing arrangements and/or have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Mortgage loan modification and refinance programs, future legislative action, and other actions and changes may materially and adversely affect the value of, and the returns on, the assets in which we invest.

The U.S. government, primarily through the Agencies, has established loan modification and refinance programs designed to provide homeowners with assistance in avoiding residential mortgage loan foreclosures. [We can provide no assurance that we will be eligible to use any government programs or, if eligible, that we will be able to utilize

them successfully.] Further, the incentives provided by such programs may increase competition for, and the pricing of, our targeted assets. These programs, future U.S. federal, state and/or local legislative or regulatory actions that result in the modification of outstanding mortgage loans, as well as changes in the requirements necessary to qualify for modifications or refinancing mortgage loans with the Agencies may adversely affect the value of, and the returns on, residential mortgage loans, residential MBS, real estate-related securities and various other asset classes in which we invest.

Compliance with changing regulation of corporate governance and public disclosure has resulted, and will continue to result, in increased compliance costs and pose challenges for our Manager's management team.

Changing federal and state laws, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Act and the rules, regulations and agencies promulgated thereunder, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and SEC regulations, have created uncertainty for public companies and significantly increased the compliance requirements, costs and risks associated with accessing the U.S. public markets. Our manager's management team has and will

continue to devote significant time and financial resources to comply with both existing and evolving standards for public companies; however, this will continue to lead to increased general and administrative expenses and a diversion of management time and attention from revenue generating activities to compliance activities.

We cannot predict whether there will be additional proposed laws or reforms that would affect us, whether or when such changes may be adopted, how such changes may be interpreted and enforced or how such changes may affect us. However, the costs of complying with any additional laws or regulations could have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

#### Market Risks

A prolonged economic slowdown, recession or declining real estate values could materially and adversely affect us.

The risks associated with our investments are more acute during periods of economic slowdown or recession, especially if these periods are accompanied by high unemployment and declining real estate values. A weakening economy, high unemployment and declining real estate values significantly increase the likelihood that borrowers will default on their debt service obligations and that we will incur losses on our investments in the event of a default on a particular investment because the fair value of any collateral we foreclose upon may be insufficient to cover the full amount of such investment or may require a significant amount of time to realize. These factors may also increase the likelihood of re-default rates even after we have completed loan modifications. Any period of increased payment delinquencies, foreclosures or losses could adversely affect the net interest income generated from our portfolio and our ability to make and finance future investments, which would materially and adversely affect our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

Difficult conditions in the mortgage, real estate and financial markets and the economy generally may adversely affect the performance and fair value of our investments.

The success of our business strategies and our results of operations are materially affected by current conditions in the mortgage markets, the financial markets and the economy generally. Continuing concerns over factors including inflation, deflation, unemployment, personal and business income taxes, healthcare, energy costs, domestic political issues, climate change, the availability and cost of credit, the mortgage markets and the real estate markets have contributed to increased volatility and unclear expectations for the economy and markets going forward. The mortgage markets have been and continue to be affected by changes in the lending landscape, defaults, credit losses and significant liquidity concerns. A destabilization of the real estate and mortgage markets or deterioration in these markets may adversely affect the performance and fair value of our investments, reduce our loan production volume, lower our margins, reduce the profitability of servicing mortgages or adversely affect our ability to sell mortgage loans that we acquire, either at a profit or at all. Any of the foregoing could materially and adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Exposure to United Kingdom political developments, including the United Kingdom's vote to leave the European Union, could have a material adverse effect on us.

On June 23, 2016, a referendum was held on the United Kingdom's membership in the European Union, the outcome of which was a vote in favor of leaving the European Union. On March 29, 2017, the United Kingdom provided its official notice to the European Council that it intends to leave the European Union, triggering the two-year transitional period, which is expiring on March 29, 2019. The United Kingdom's vote to leave the European Union creates an uncertain political and economic environment in the United Kingdom and potentially across other European Union member states, which may last for a number of months or years.

The result of the referendum means that the long-term nature of the United Kingdom's relationship with the European Union is unclear and that there is considerable uncertainty as to when any such relationship will be agreed and implemented. In the interim, there is a risk of instability for both the United Kingdom and the European Union, which could adversely affect our results, financial condition, and prospects.

The political and economic instability created by the United Kingdom's vote to leave the European Union has caused and may continue to cause significant volatility in global financial markets and the value of the British Pound Sterling currency or other currencies, including the Euro. Depending on the terms reached regarding any exit from the European Union, it is possible that there may be adverse practical or operational implications on our business.

A disruption in the MBS market could materially and adversely affect our business, financial condition and results of operations.

In our correspondent production activities, we deliver newly originated Agency-eligible mortgage loans that we acquire to Fannie Mae or Freddie Mac to be pooled into Agency MBS securities or transfer government loans that we acquire to PLS, which pools them into Ginnie Mae MBS securities. Disruptions in the general MBS market have occurred in the past. Any significant disruption or period of illiquidity in the general MBS market would directly affect our liquidity because no existing alternative secondary market would likely be able to accommodate on a timely basis the volume of loans that we typically acquire and sell in any given period. Accordingly, if the MBS market experiences a period of illiquidity, we might be prevented from selling the loans that we acquire into the secondary market in a timely manner or at favorable prices or we may be required to repay a portion of the debt securing these assets, which could materially and adversely affect our business, financial condition, results of operations and our ability to make distributions to our shareholders.

We finance our investments with borrowings, which may materially and adversely affect our return on our investments and may reduce cash available for distribution to our shareholders.

We currently leverage and, to the extent available, we intend to continue to leverage our investments through borrowings, the level of which may vary based on the particular characteristics of our investment portfolio and on market conditions. We have financed certain of our investments through repurchase agreements, pursuant to which we sell securities (including securities we retain through our CRT investments) or mortgage loans to lenders (i.e., repurchase agreement counterparties) and receive cash from the lenders. The lenders are obligated to resell the same assets back to us at the end of the term of the transaction. Because the cash we receive from the lender when we initially sell the assets to the lender is less than the fair value of those assets (this difference is referred to as the haircut), if the lender defaults on its obligation to resell the same assets back to us we could incur a loss on the transaction equal to the amount of the haircut reduced by interest accrued on the financing (assuming there was no change in the fair value of the assets). In addition, repurchase agreements generally allow the counterparties, to varying degrees, to determine a new fair value of the collateral to reflect current market conditions. If a counterparty lender determines that the fair value of the collateral has decreased, it may initiate a margin call and require us to either post additional collateral to cover such decrease or repay a portion of the outstanding borrowing. Should this occur, in order to obtain cash to satisfy a margin call, we may be required to liquidate assets at a disadvantageous time, which could cause us to incur further losses. In the event we are unable to satisfy a margin call, our counterparty may sell the collateral, which may result in significant losses to us.

One of the assets in which we invest is CRT, a newer asset class for which financing is and has been limited. We currently finance our CRT investments through repurchase agreements. Unlike MBS and other securities we finance under repurchase agreements, our CRT investment is illiquid in nature and may be subject to greater fluctuations in fair value. Further, the size of our CRT investment makes it a greater likelihood that any margin call could be material in nature, and our inability to satisfy any such margin call or liquidate the underlying collateral may result in significant losses to us.

We also invest in other assets, including MSRs and ESS, for which financing has historically been difficult to obtain. We currently leverage certain of our MSRs and ESS under secured financing arrangements. Our Freddie Mac MSRs are pledged to secure borrowings under a loan and security agreement, while our Fannie Mae MSRs are pledged to a special purpose entity, which issues variable funding notes and term notes that are secured by such Fannie Mae MSRs and repaid through the cash flows received by the special purpose entity as the lender under a repurchase agreement with PMC.

Our Ginnie Mae ESS is sold under a repurchase agreement to PLS as part of a structured finance transaction. PLS, in turn, pledges our Ginnie Mae ESS along with all of its Ginnie Mae MSR's under a repurchase agreement to a special purpose entity, which issues variable funding notes and term notes that are secured by such Ginnie Mae assets. The notes are repaid through the cash flows received by the special purpose entity as the lender under its repurchase agreement with PLS, which, in turn, receives cash flows from us under our repurchase agreement secured by the Ginnie Mae ESS. In each case, similar to our repurchase agreements, the cash that we receive under these secured financing arrangements is less than the fair value of the assets and a decrease in the value of the pledged collateral can result in a margin call. Should a margin call occur, we may be required to liquidate assets at a disadvantageous time, which could cause us to incur further losses. If we are unable to satisfy a margin call, the secured parties may sell the collateral, which may result in significant losses to us.

Each of the secured financing arrangements pursuant to which we finance MSR's and ESS is further subject to the terms of an acknowledgement agreement with Fannie Mae, Freddie Mac or Ginnie Mae, as applicable, pursuant to which our and the secured parties' rights are subordinate in all respects to the rights of the applicable Agency. Accordingly, the exercise by either Fannie Mae, Freddie Mac or Ginnie Mae of its rights under the applicable acknowledgement agreement, including at the direction of the secured parties or as a result of any action or inaction of PLS and whether or not we are in breach of our repurchase agreement with PLS, could result in the extinguishment of our and the secured parties' rights in the related collateral and result in significant losses to us.

We may in the future utilize other sources of borrowings, including term loans, bank credit facilities and structured financing arrangements, among others. The amount of leverage we employ varies depending on the asset class being financed, our available capital, our ability to obtain and access financing arrangements with lenders and the lenders' and rating agencies' estimate of, among other things, the stability of our investment portfolio's cash flow.

Our return on our investments and cash available for distribution to our shareholders may be reduced to the extent that changes in market conditions increase the cost of our financing relative to the income that can be derived from the investments acquired. Our debt service payments also reduce cash flow available for distribution to shareholders. In the event we are unable to meet our debt service obligations, we risk the loss of some or all of our assets to foreclosure or sale to satisfy the obligations.

Our credit and financing agreements contain financial and restrictive covenants that could adversely affect our financial condition and our ability to operate our businesses.

The lenders under our repurchase agreements require us and/or our subsidiaries to comply with various financial covenants, including those relating to tangible net worth, profitability and our ratio of total liabilities to tangible net worth. Our lenders also require us to maintain minimum amounts of cash or cash equivalents sufficient to maintain a specified liquidity position. If we are unable to maintain these liquidity levels, we could be forced to sell additional investments at a loss and our financial condition could deteriorate rapidly.

Our existing credit and financing agreements also impose other financial and non financial covenants and restrictions on us that impact our flexibility to determine our operating policies and investment strategies by limiting our ability to incur certain types of indebtedness; grant liens; engage in consolidations, mergers and asset sales, make restricted payments and investments; and enter into transactions with affiliates. In our credit and financing agreements, we agree to certain covenants and restrictions and we make representations about the assets sold or pledged under these agreements. We also agree to certain events of default (subject to certain materiality thresholds and grace periods), including payment defaults, breaches of financial and other covenants and/or certain representations and warranties, cross-defaults, servicer termination events, ratings downgrades, guarantor defaults, bankruptcy or insolvency proceedings and other events of default and remedies customary for these types of agreements. If we default on our obligations under a credit or financing agreement, fail to comply with certain covenants and restrictions or breach our representations and are unable to cure, the lender may be able to terminate the transaction or its commitments, accelerate any amounts outstanding, require us to post additional collateral or repurchase the assets, and/or cease entering into any other credit transactions with us.

Because our credit and financing agreements typically contain cross default provisions, a default that occurs under any one agreement could allow the lenders under our other agreements to also declare a default, thereby exposing us to a variety of lender remedies, such as those described above, and potential losses arising therefrom. Any losses that we incur on our credit and financing agreements could materially and adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

As the servicer of the assets subject to our repurchase agreements, PLS is also subject to various financial covenants, including those relating to tangible net worth, liquidity, profitability and its ratio of total liabilities to tangible net worth. PLS' failure to comply with any of these covenants would generally result in a servicer termination event or event of default under one or more of our repurchase agreements. Thus, in addition to relying upon PCM to manage our financial covenants, we rely upon PLS to manage its own financial covenants in order to ensure our compliance with our repurchase agreements and our continued access to liquidity and capital. A servicer termination event or event of default resulting from PLS' breach of its financial or other covenants could materially and adversely impact our business, financial condition, liquidity, results of operations and our ability to make distributions to shareholders.

Until non-recourse long-term financing structures become more readily available to us and we utilize them, we rely heavily on short-term repurchase and loan and security agreements with maturities that do not match the assets being



financed and are thus exposed to risks which could result in losses to us.

We have used and, in the future, may use securitization and other non-recourse long-term financing for our investments. In such structures, our lenders typically have only a claim against the assets included in the securitizations rather than a general claim against us as an entity. Such long-term financing has been limited and, in certain instances, unavailable for certain of our investments, including our investments in CRT. Prior to any such future financing, we generally finance our investments with relatively short-term facilities until a sufficient portfolio is accumulated or such financing becomes available. As a result, we are subject to the risks that we would not be able to obtain suitable non-recourse long-term financing or otherwise acquire, during the period that any short-term facilities are available, sufficient eligible assets or securities to maximize the efficiency of a securitization.

We also bear the risk that we would not be able to obtain new short-term facilities or would not be able to renew any short-term facilities after they expire should we need more time to obtain long-term financing or seek and acquire sufficient eligible assets or securities for a future securitization. If we are unable to obtain and renew short-term facilities or to consummate securitizations to finance our investments on a long-term basis, we may be required to seek other forms of potentially less attractive financing or to liquidate assets at an inopportune time or unfavorable price. In addition, conditions in the capital markets may make the issuance of

any securitization less attractive to us even when we do have sufficient eligible assets or securities. While we would intend to retain the unrated equity component of securitizations and, therefore, still have exposure to any investments included in such securitizations, our inability to enter into such securitizations may increase our overall exposure to risks associated with direct ownership of such investments, including the risk of default.

We may not be able to raise the debt or equity capital required to finance our assets and grow our businesses.

The growth of our businesses requires continued access to debt and equity capital that may or may not be available on favorable terms or at the desired times, or at all. In addition, we invest in certain assets, including distressed loans and REO, as well as MSR and ESS, for which financing has historically been difficult to obtain. Our inability to continue to maintain debt financing for distressed loans and REO, or MSR and ESS, could require us to seek equity capital that may be more costly or unavailable to us.

We are also dependent on a limited number of banking institutions that extend us credit on terms that we have determined to be commercially reasonable. These banking institutions are subject to their own regulatory supervision, liquidity and capital requirements, risk management frameworks and risk thresholds and tolerances, any of which may change materially and negatively impact their willingness to extend credit to us specifically or mortgage lenders and servicers generally. Such actions may increase our cost of capital and limit or otherwise eliminate our access to capital, in which case our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders would be materially and adversely affected.

In addition, our ability to finance ESS relating to Ginnie Mae MSR is currently dependent on pass through financing we obtain through our Servicer, which retains the MSR associated with the ESS we acquire. After our initial acquisition of ESS, we then finance the acquired ESS with our Servicer under a repurchase agreement, and our Servicer, in turn, re-pledges the ESS (along with the related MSR it retains) under a master repurchase agreement with a special purpose entity, which issues variable funding notes and term notes that are secured by such Ginnie Mae MSR and ESS and repaid through the cash received by the special purpose entity as the lender under a repurchase agreement with PLS. There can be no assurance this pass through financing will continue to be available to us.

This financing arrangement also subjects us to the credit risk of PLS. To the extent PLS does not apply our payments of principal and interest under the repurchase agreement to the allocable portion of its borrowings under the master repurchase agreement, or to the extent PLS otherwise defaults under the master repurchase agreement, our ESS would be at a risk of total loss. In addition, we provide a guarantee for the amount of borrowings under the master repurchase agreement that are allocable to the pass through financing of our ESS. In the event we are unable to satisfy our obligations under the guaranty following a default by PLS, this could cause us to default under other financing arrangements and/or have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We can provide no assurance that we will have access to any debt or equity capital on favorable terms or at the desired times, or at all. Our inability to raise such capital or obtain financing on favorable terms could materially and adversely impact our business, financial condition, liquidity, results of operations and our ability to make distributions to shareholders.

In addition, we have been authorized to repurchase up to \$300 million of our common shares pursuant to a share repurchase program approved by our board of trustees. As of December 31, 2018, we had \$83.4 million of our common shares remaining under the current board authorization, and we may continue to repurchase shares to the extent we believe it is in the Company's best interest to do so. Increased activity in our share repurchase program will have the effect of reducing our common shares outstanding, market value and shareholders' equity, any or all of which could adversely affect the assessment by our lenders, credit providers or other counterparties regarding our net worth and, therefore, negatively impact our ability to raise new capital.

Future issuances of debt securities, which would rank senior to our common shares, and future issuances of equity securities, which would dilute the holdings of our existing shareholders and may be senior to our common shares, may materially and adversely affect the market price of our common shares.

In order to grow our business, we may rely on additional common and preferred equity issuances, which may rank senior and/or be dilutive to our current shareholders, or on less efficient forms of debt financing that rank senior to our shareholders and require a larger portion of our cash flow from operations, thereby reducing funds available for our operations, future business opportunities, cash distributions to our shareholders and other purposes.

During March 2017, we issued 4.6 million of 8.125% Series A Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 par value per share. During July 2017, we also issued 7.8 million of 8.00% Series B Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest, \$0.01 par value per share. Our outstanding preferred shares have preferences on distribution payments, including liquidating distributions, which could limit our ability to make distributions, including liquidating distributions, to holders of our common shares.

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In 2013, our wholly-owned subsidiary, PMC, issued \$250 million of Exchangeable Notes that are exchangeable under certain circumstances for our common shares. Upon liquidation, holders of our debt securities and other loans would receive a distribution of our available assets before holders of our common shares and holders of the Exchangeable Notes could receive a distribution of PMC's available assets before holders of our common shares.

Subject to applicable law, our board of trustees has the authority, without further shareholder approval, to issue additional debt, common shares and preferred shares on the terms and for the consideration it deems appropriate. We have issued, and/or intend to issue, additional common shares and securities convertible into, or exchangeable or exercisable for, common shares under our equity incentive plan. We have also filed a shelf registration statement, from which we have issued and may in the future issue additional common shares, including, without limitation, through our "at-the-market" equity program.

We also may issue from time to time additional common shares in connection with property, portfolio or business acquisitions and may grant demand or piggyback registration rights in connection with such issuances. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict the effect, if any, of future issuances of our common shares, preferred shares or other equity-based securities or the prospect of such issuances on the market price of our common shares. Issuances of a substantial amount of such securities, or the perception that such issuances might occur, could depress the market price of our common shares.

Thus, holders of our common shares bear the risk that our future issuances of debt or equity securities or other borrowings will reduce the market price of our common shares and dilute their ownership in us.

Interest rate fluctuations could significantly decrease our results of operations and cash flows and the fair value of our investments.

Interest rates are highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control. Interest rate fluctuations present a variety of risks to our operations. Our primary interest rate exposures relate to the yield on our investments, their fair values and the financing cost of our debt, as well as any derivative financial instruments that we utilize for hedging purposes.

Changes in interest rates affect our net interest income, which is the difference between the interest income we earn on our interest earning investments and the interest expense we incur in financing these investments. Interest rate fluctuations resulting in our interest expense exceeding interest income may result in operating losses for us. An increase in prevailing interest rates could adversely affect the volume of newly originated mortgages available for purchase in our correspondent production activities.

Changes in the level of interest rates also may affect our ability to make investments, the fair value of our investments (including our pipeline of mortgage loan commitments) and any related hedging instruments, the value of newly originated loans acquired through our correspondent production segment, and our ability to realize gains from the disposition of assets. Changes in interest rates may also affect borrower default rates and may impact our ability to refinance or modify loans and/or to sell REO. In addition, with respect to the MSR and ESS we own, decreasing interest rates may cause a large number of borrowers to refinance, which may result in the loss of any such mortgage servicing business and associated write-downs of such MSR and ESS. Any such scenario could materially and adversely affect us.

We are subject to market risk and declines in credit quality and changes in credit spreads, which may adversely affect investment income and cause realized and unrealized losses.

We are exposed to the credit markets and subject to the risk that we will incur losses due to adverse changes in credit spreads. Adverse changes to these spreads may occur due to changes in fiscal policy and the economic climate, the liquidity of a market or market segment, insolvency or financial distress of key market makers or participants, or changes in market perceptions of credit worthiness and/or risk tolerance.

We are subject to risks associated with potential declines in our credit quality, credit quality related to specific issuers or specific industries, and a general weakening in the economy, all of which are typically reflected through credit spreads. Credit spread is the additional yield on fixed income securities above the risk-free rate (typically referenced as the yield on U.S. Treasury securities) that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks. Credit spreads vary (i.e. increase or decrease) in response to the market's perception of risk and liquidity in a specific issuer or specific sector and are influenced by the credit ratings, and the reliability of those ratings, published by external rating agencies. A decline in the quality of our investment portfolio as a result of adverse economic conditions or otherwise could cause additional realized and unrealized losses on our investments.

A decline in credit spreads could have an adverse effect on our investment income as we invest cash in new investments that may earn less than the portfolio's average yield. An increase in credit spreads could have an adverse effect on the value of our investment portfolio by decreasing the fair values of the credit sensitive investments in our investment portfolio. Any such scenario could materially and adversely affect us.

Hedging against interest rate exposure may materially and adversely affect our results of operations and cash flows.

We pursue hedging strategies in a manner consistent with the REIT qualification requirements to reduce our exposure to changes in interest rates. Our hedging activity varies in scope based on the level of interest rates, the type of investments held, and changing market conditions. However, while we enter into such transactions seeking to reduce interest rate risk, unanticipated changes in interest rates may result in poorer overall investment performance than if we had not engaged in any such hedging transactions. Interest rate hedging may fail to protect or could adversely affect us because, among other things, it may not fully eliminate interest rate risk, it could expose us to counterparty and default risk that may result in greater losses or the loss of unrealized profits, and it will create additional expense, while any income it generates to offset losses may be limited by federal tax provisions applicable to REITs. Thus, hedging activity, while intended to limit losses, may materially and adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We utilize derivative financial instruments, which could subject us to risk of loss.

We utilize derivative financial instruments for hedging purposes, which may include swaps, options and futures. However, the prices of derivative financial instruments, including futures and options, are highly volatile, as are payments made pursuant to swap agreements. As a result, the cost of utilizing derivatives may reduce our income that would otherwise be available for distribution to shareholders or for other purposes, and the derivative instruments that we utilize may fail to effectively hedge our positions. We are also subject to credit risk with regard to the counterparties involved in the derivative transactions.

The use of derivative instruments is also subject to an increasing number of laws and regulations, including the Dodd-Frank Act and its implementing regulations. These laws and regulations are complex, compliance with them may be costly and time consuming, and our failure to comply with any of these laws and regulations could subject us to lawsuits or government actions and damage our reputation, which could materially and adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

#### General Risks

Initiating new business activities or investment strategies, developing new products or significantly expanding existing business activities or investment strategies may expose us to new risks and will increase our cost of doing business.

Initiating new business activities or investment strategies, developing new products, or PennyMac's recent launch of its home equity line of credit, or significantly expanding existing business activities or investment strategies, such as our entry into non-delegated correspondent production or our acquisition of new mortgage or mortgage-related products, such as non-qualified mortgage loans or home equity lines of credit, are ways to grow our businesses and respond to changing circumstances in our industry; however, they may expose us to new risks and regulatory compliance requirements. We cannot be certain that we will be able to manage these risks and compliance requirements effectively. Furthermore, our efforts may not succeed and any revenues we earn from any new or expanded business initiative or investment strategy may not be sufficient to offset the initial and ongoing costs of that initiative, which would result in a loss with respect to that initiative or strategy.

We may not be able to successfully operate our business or generate sufficient operating cash flows to make or sustain distributions to our shareholders.

There can be no assurance that we will be able to generate sufficient cash to pay our operating expenses and make distributions to our shareholders. The results of our operations and our ability to make or sustain distributions to our shareholders depends on many factors, including the availability of attractive risk-adjusted investment opportunities that satisfy our investment strategies and our success in identifying and consummating them on favorable terms, the level and expected movement of home prices, the level and volatility of interest rates, readily accessible short-term and long-term financing on favorable terms, and conditions in the financial markets, real estate market and the economy, as to which no assurance can be given.

We also face substantial competition in acquiring attractive investments, both in our investment activities and correspondent production activities. While we try to diversify our investments among various types of mortgages and mortgage-related assets, the competition for such assets may compress margins and reduce yields, making it difficult for us to make investments with attractive risk-adjusted returns. There can be no assurance that we will be able to successfully transition out of investments producing lower returns into investments that produce better returns, or that we will not seek investments with greater risk to obtain the same level of

returns. Any or all of these factors could cause the fair value of our investments to decline substantially and have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Competition for mortgage assets may limit the availability of desirable investments and result in reduced risk-adjusted returns.

Our profitability depends, in part, on our ability to continue to acquire our targeted investments at favorable prices. As described in greater detail elsewhere in this Report, we compete in our investment activities with other mortgage REITs, specialty finance companies, private funds, banks, mortgage bankers, insurance companies, mutual funds, institutional investors, investment banking firms, depository institutions, governmental bodies and other entities, many of which focus on acquiring mortgage assets. Many of our competitors also have competitive advantages over us, including size, financial strength, access to capital, cost of funds, federal pre-emption and higher risk tolerance. Competition may result in fewer investments, higher prices, acceptance of greater risk, lower yields and a narrower spread of yields over our financing costs.

We may change our investment strategies and policies without shareholder consent, and this may materially and adversely affect the market value of our common shares and our ability to make distributions to our shareholders.

PCM is authorized by our board of trustees to follow very broad investment policies and, therefore, it has great latitude in determining the types of assets that are proper investments for us, as well as the individual investment decisions. In the future, PCM may make investments with lower rates of return than those anticipated under current market conditions and/or may make investments with greater risks to achieve those anticipated returns. Our board of trustees will periodically review our investment policies and our investment portfolio but will not review or approve each proposed investment by PCM unless it falls outside our investment policies or constitutes a related party transaction.

In addition, in conducting periodic reviews, our board of trustees will rely primarily on information provided to it by PCM. Furthermore, PCM may use complex strategies, and transactions entered into by PCM may be costly, difficult or impossible to unwind by the time they are reviewed by our board of trustees. We also may change our investment strategies and policies and targeted asset classes at any time without the consent of our shareholders, and this could result in our making investments that are different in type from, and possibly riskier than our current investments or the investments currently contemplated. Changes in our investment strategies and policies and targeted asset classes may expose us to new risks or increase our exposure to interest rate risk, counterparty risk, default risk and real estate market fluctuations, and this could materially and adversely affect the market value of our common shares and our ability to make distributions to our shareholders.

Our correspondent production activities could subject us to increased risk of loss.

In our correspondent production activities, we acquire newly originated loans, including jumbo loans, from mortgage lenders and sell or securitize those loans to or through the Agencies or other third party investors. We also sell the resulting securities into the MBS markets. However, there can be no assurance that PLS will continue to be successful in operating this business on our behalf or that we will continue to be able to capitalize on these opportunities on favorable terms or at all. In particular, we have committed, and expect to continue to commit, capital and other resources to this operation; however, PLS may not be able to continue to source sufficient asset acquisition opportunities to justify the expenditure of such capital and other resources. In the event that PLS is unable to continue to source sufficient opportunities for this operation, there can be no assurance that we would be able to acquire such assets on favorable terms or at all, or that such assets, if acquired, would be profitable to us. In addition, we may be unable to finance the acquisition of these assets and/or may be unable to sell the resulting MBS in the secondary mortgage market on favorable terms or at all. We are also subject to the risk that the fair value of the acquired loans may decrease prior to their disposition. The occurrence of any one or more of these risks could adversely impact our



business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

The success and growth of our correspondent production activities will depend, in part, upon PLS' ability to adapt to and implement technological changes.

Our correspondent production activities are currently dependent, in part, upon the ability of PLS to effectively interface with our mortgage lenders and other third parties and to efficiently process loan fundings and closings. The correspondent production process is becoming more dependent upon technological advancement. Maintaining and improving new technology and becoming proficient with it may also require significant capital expenditures by PLS. PLS will have to continue to develop and invest in these technological capabilities to remain competitive and its failure to do so could adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We are not an approved Ginnie Mae issuer and servicer, and an increase in the percentage or amount of government loans we acquire could be detrimental to us.

We are not approved as a Ginnie Mae issuer and servicer. As a result, we are unable to produce or acquire Ginnie Mae MSRs and we earn significantly less income in connection with our acquisition of government loans as opposed to conventional loans. Further, market demand for government loans over conventional loans may increase or PLS may offer pricing to our approved correspondent sellers for government loans that is more competitive in the market than pricing for conventional loans, the result of which may be our acquisition of a greater proportion or amount of government loans. Any significant increase in the percentage or amount of government loans we acquire could adversely impact our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

The industry in which we operate is highly competitive, and is likely to become more competitive, and our inability to compete successfully or decreased margins resulting from increased competition could adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We operate in a highly competitive industry that could become even more competitive as a result of economic, legislative, regulatory and technological changes. Large commercial banks and savings institutions and other independent mortgage lenders and servicers are becoming increasingly competitive in the acquisition of newly originated mortgage loans. Many of these institutions have significantly greater resources and access to capital than we do, which may give them the benefit of a lower cost of funds. Additionally, our existing and potential competitors may decide to modify their business models to compete more directly with our correspondent production business. For example, non-bank loan servicers may try to leverage their servicing operations to develop or expand a correspondent production business. Since the withdrawal of a number of large participants from these markets following the financial crisis in 2008, there have been relatively few large non-bank participants; however, the loosening of regulatory standards could result in a significant investment of capital and attract more non-banks to participate. As more non-bank entities enter these markets and as more commercial banks aggressively compete, our correspondent production activities may generate lower volumes and/or margins.

The risk management efforts of our Manager may not be effective.

We could incur substantial losses and our business operations could be disrupted if our Manager is unable to effectively identify, manage, monitor, and mitigate financial risks, such as credit risk, interest rate risk, prepayment risk, liquidity risk, and other market-related risks, as well as operational and legal risks related to our business, assets, and liabilities. We also are subject to various other laws, regulations and rules that are not industry specific, including health and safety laws, environmental laws and other federal, state and local laws, regulations and rules in the jurisdictions in which we operate. Our Manager's risk management policies, procedures, and techniques may not be sufficient to identify all of the risks to which we are exposed, mitigate the risks we have identified, or identify additional risks to which we may become subject in the future. Expansion of our business activities may also result in our being exposed to risks to which we have not previously been exposed or may increase our exposure to certain types of risks, and our Manager may not effectively identify, manage, monitor, and mitigate these risks as our business activity changes or increases.

We could be harmed by misconduct or fraud that is difficult to detect.

We are exposed to risks relating to misconduct by our employees, employees of PennyMac and its subsidiaries, contractors we use, or other third parties with whom we have relationships. For example, such employees could execute unauthorized transactions, use our assets improperly or without authorization, perform improper activities, use confidential information for improper purposes, or misrecord or otherwise try to hide improper activities from us. This

type of misconduct could also relate to our assets managed by PCM. This type of misconduct can be difficult to detect and if not prevented or detected could result in claims or enforcement actions against us or losses. Accordingly, misconduct by the employees of PennyMac and its subsidiaries, contractors, or others could subject us to losses or regulatory sanctions and seriously harm our reputation. Our controls may not be effective in detecting this type of activity.

If we fail to maintain an effective system of internal controls, we may not be able to accurately determine our financial results or prevent fraud.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. We may in the future discover areas of our internal controls that need improvement. Section 404 of the Sarbanes-Oxley Act requires us to evaluate and report on our internal control over financial reporting and have our independent auditors annually attest to our evaluation, as well as issue their own opinion on our internal control over financial reporting. While we have undertaken substantial work to comply with Section 404, we cannot be certain that we will be successful in maintaining adequate control over our financial reporting and financial processes. Furthermore, as we continue to grow our business, our internal controls will become more complex, and we will require significantly more resources to ensure our internal controls remain effective. If we or our independent auditors discover a material

weakness, the disclosure of that fact, even if quickly remedied, could result in an event of default under one or more of our lending arrangements and/or reduce the market value of our common shares. Additionally, the existence of any material weakness or significant deficiency could require management to devote significant time and incur significant expense to remediate any such material weakness or significant deficiency, and management may not be able to remediate any such material weakness or significant deficiency in a timely manner, or at all. Accordingly, our failure to maintain effective internal control over financial reporting could result in misstatements of our financial results or restatements of our financial statements or otherwise have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Cybersecurity risks, cyber incidents and technology failures may adversely affect our business by causing a disruption to our operations, a compromise or corruption of our confidential information, and/or damage to our business relationships, all of which could negatively impact our financial results.

A cyber incident is considered to be any adverse event that threatens the confidentiality, integrity or availability of our information resources. These incidents may be an intentional attack or an unintentional event and could involve gaining unauthorized access to our information systems for purposes of theft of certain personally identifiable information of consumers, misappropriating assets, stealing confidential information, corrupting data or causing operational disruption. The result of these incidents may include disrupted operations, misstated or unreliable financial data, liability for stolen assets or information, increased cybersecurity protection and insurance costs, litigation and damage to our investor relationships.

As our reliance on rapidly changing technology has increased, so have the risks posed to our information systems, both internal and those provided to us by third-party service providers such as cloud-based computing service providers. System disruptions and failures caused by fire, power loss, telecommunications outages, unauthorized intrusion, computer viruses and disabling devices, natural disasters and other similar events may interrupt or delay our ability to provide services to our customers.

Despite efforts by our Manager to ensure the integrity of its systems; its investment in significant physical and technological security measures, employee training, contractual precautions and business continuity plans; and its implementation of policies and procedures designed to help mitigate cybersecurity risks and cyber intrusions, there can be no assurance that any such cyber intrusions will not occur or, if they do occur, that they will be adequately addressed. We also may not be able to anticipate or implement effective preventive measures against all security breaches, especially because the methods of attack change frequently or are not recognized until launched, and because security attacks can originate from a wide variety of sources, including third parties such as persons involved with organized crime or associated with external service providers. We are also held accountable for the actions and inactions of its third-party vendors regarding cybersecurity and other consumer-related matters.

Any of the foregoing events could result in violations of applicable privacy and other laws, financial loss to us or to our customers, loss of confidence in our security measures, customer dissatisfaction, additional regulatory scrutiny, significant litigation exposure and harm to our reputation, any of which could have a material adverse effect on our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

Terrorist attacks and other acts of violence or war may cause disruptions in our operations and in the financial and housing markets, and could materially and adversely affect the real estate industry generally and our business, financial condition, liquidity and results of operations.

Terrorist attacks and other acts of violence or war may cause disruptions in the U.S. financial and the housing markets, including the real estate capital markets, and negatively impact the U.S. economy in general. Such attacks could also cause disruptions in our operations. Any future terrorist attacks, the anticipation of any such attacks, the consequences of any military or other response by the United States and its allies, and other armed conflicts could cause consumer confidence and spending to decrease or result in increased volatility in the United States and worldwide financial and housing markets and economy. The economic impact of these events could also materially and adversely affect the credit quality of some of our loans and investments and the properties underlying our interests.

We may suffer losses as a result of the adverse impact of any future attacks and these losses may adversely impact our performance and may cause the market value of our common stock to decline or be more volatile. A prolonged economic slowdown, recession or declining real estate values could impair the performance of our investments and harm our financial condition and results of operations, increase our funding costs, limit our access to the capital markets or result in a decision by lenders not to extend credit to us. We cannot predict the severity of the effect that potential future armed conflicts and terrorist attacks would have on us. Losses resulting from these types of events may not be fully insurable.

## Risks Related to Our Investments

Our retention of credit risk underlying mortgage loans we sell to Fannie Mae is inherently uncertain and exposes us to significant risk of loss.

In conjunction with our correspondent business, we have entered into CRT arrangements with Fannie Mae, whereby we sell pools of mortgage loans into Fannie Mae-guaranteed securitizations while retaining a portion of the credit risk and an interest-only (“IO”) ownership interest in such mortgage loans or purchasing Agency securities that absorb losses incurred by such mortgage loans. Our retention of credit risk subjects us to risks associated with delinquency and foreclosure similar to the risks associated with owning the underlying mortgage loans, and exposes us to risk of loss greater than the risks associated with selling the mortgage loans to Fannie Mae without the retention of such credit risk. Further, the risks associated with delinquency and foreclosure may in some instances be greater than the risks associated with owning the underlying mortgage loans because the structure of certain of the CRT Agreements provides that we may be required to realize losses in the event of delinquency or foreclosure even where there is ultimately no loss realized with respect to the underlying loan (e.g., as a result of a borrower’s re-performance). We are also exposed to market risk and, as a result of prevailing market conditions or the economy generally, may be required to recognize losses associated with adverse changes to the fair value of the CRT Agreements. Any loss we incur may be significant and may reduce distributions to our shareholders and materially and adversely affect the market value of our common shares.

CRT Agreements also represent a type of investment that is new to the market and, as such, inherently uncertain and illiquid. There can be no assurance that this investment type will continue to be offered by Fannie Mae or supported by the FHFA or that it will produce the desired returns. Further, our projected returns are highly dependent on certain internal and external models, and it is uncertain whether such models are sufficiently accurate to support our projected returns and/or avoid potentially significant losses.

Certain of our historic investments in CRT Agreements may not be eligible REIT assets and we have therefore held such investments in our TRS, resulting in a significant portion of our income from these investments being subject to U.S. federal and state income taxation in order not to jeopardize our REIT status.

We expect that our future investments in CRT securities will be structured with the intention of satisfying our REIT qualification requirements. Accordingly, in general we expect that we will hold investments in such CRT securities in the REIT based on the advice of our tax advisors. However, with respect to certain of our historic investments in CRT Agreements, the REIT eligibility of the assets subject to the CRT Agreements and the income relating thereto remains uncertain. Accordingly, in general we currently hold such investments in our TRS, although we have on occasion based on the advice of tax advisors held such positions in the REIT and may do so in the future as well, depending on the precise structure of such investments and our level of certainty that such investments are in a form consistent with their characterization as qualifying assets for a REIT. If the Internal Revenue Service (“IRS”) were to take a position adverse to our interpretation, the consequences of such action could materially and adversely affect our business, financial condition, liquidity, results of operations, and our ability to make distributions to our shareholders.

A portion of our investments is in the form of mortgage loans, and the mortgage loans in which we invest and the mortgage loans underlying the MBS in which we invest subject us to costs and losses arising from delinquency and foreclosure, as well as the risks associated with residential real estate and residential real estate-related investments, any of which could result in losses to us.

We have invested in performing and nonperforming residential mortgage loans and, through our correspondent production business, newly originated prime credit quality residential mortgage loans. Residential mortgage loans are typically secured by single-family residential property and are subject to risks and costs associated with delinquency

and foreclosure and the resulting risks of loss.

Our investments in mortgage loans and MBS also subject us to the risks of residential real estate and residential real estate-related investments, including, among others: (i) declines in the value of residential real estate; (ii) risks related to general and local economic conditions; (iii) lack of available mortgage funding for borrowers to refinance or sell their homes; (iv) overbuilding; (v) the general deterioration of the borrower's ability to keep a rehabilitated nonperforming mortgage loan current; (vi) increases in property taxes and operating expenses; (vii) changes in zoning laws; (viii) costs resulting from the clean-up of, and liability to third parties for damages resulting from, environmental problems, such as indoor mold; (ix) casualty or condemnation losses; (x) uninsured damages from floods, earthquakes or other natural disasters; (xi) limitations on and variations in rents; (xii) fluctuations in interest rates; (xiii) fraud by borrowers, originators and/or sellers of mortgage loans; (xiv) undetected deficiencies and/or inaccuracies in underlying mortgage loan documentation and calculations; and (xv) failure of the borrower to adequately maintain the property, particularly during times of financial difficulty. To the extent that assets underlying our investments are concentrated geographically, by property type or in certain other respects, we may be subject to certain of the foregoing risks to a greater extent.

Additionally, we may be required to foreclose on a mortgage loan and such actions may subject us to greater concentration of the risks of the residential real estate markets and risks related to the ownership and management of real property. In the event of a foreclosure, we may assume direct ownership of the underlying real estate. The liquidation proceeds upon sale of such real estate may not be sufficient to recover our investment in the loan, resulting in a loss to us. In addition, the foreclosure process may be lengthy and expensive, and any delays or costs involved in the effectuation of a foreclosure of the loan or a liquidation of the underlying property may further reduce the proceeds and thus increase the loss.

In the event of the bankruptcy of a mortgage loan borrower, the mortgage loan to such borrower will be deemed to be secured only to the extent of the value of the underlying collateral at the time of bankruptcy (as determined by the bankruptcy court), and the lien securing the mortgage loan will be subject to the avoidance powers of the bankruptcy trustee or debtor-in-possession to the extent the lien is unenforceable under state law.

A significant portion of the residential mortgage loans that we hold are or may become nonperforming loans, which increases our risk of loss of our investment.

We historically acquired distressed residential mortgage loans and mortgage-related assets where the borrower had failed to make timely payments of principal and/or interest or where the loan was performing but subsequently could or did become nonperforming, and there are no limits on the percentage of nonperforming assets we may hold. A portion of these loans still have current loan-to-value ratios in excess of 100%, meaning the amount owed on the loan exceeds the value of the underlying real estate. Further, the borrowers on such loans may be in economic distress and/or may have become unemployed, bankrupt or otherwise unable or unwilling to make payments when due. Moreover, as we continue to liquidate our portfolio of distressed mortgage loans and mortgage-related assets and transition into other investment types, the distressed assets remaining in our portfolio often entail characteristics that make disposition or liquidation more challenging, including, among other things, severe document deficiencies or underlying real estate located in states with extended foreclosure timelines. If PLS as our primary and special servicer is not able to adequately address or mitigate the issues concerning these loans, we may incur significant losses. Any loss we incur may be significant and may reduce distributions to our shareholders and materially and adversely affect the market value of our common shares.

Our acquisition of mortgage servicing rights exposes us to significant risks.

MSRs arise from contractual agreements between us and the investors (or their agents) in mortgage securities and mortgage loans that we service on their behalf. We generally acquire MSRs in connection with our sale of mortgage loans to the Agencies where we assume the obligation to service such loans on their behalf. We may also purchase MSRs from third-party sellers. Any MSRs we acquire are initially recorded at fair value on our balance sheet. The determination of the fair value of MSRs requires our management to make numerous estimates and assumptions. Such estimates and assumptions include, without limitation, estimates of future cash flows associated with MSRs based upon assumptions involving interest rates as well as the prepayment rates, delinquencies and foreclosure rates of the underlying serviced mortgage loans. The ultimate realization of the MSRs may be materially different than the values of such MSRs as may be reflected in our consolidated balance sheet as of any particular date. The use of different estimates or assumptions in connection with the valuation of these assets could produce materially different fair values for such assets, which could have a material adverse effect on our business, financial condition, results of operations and cash flows. Accordingly, there may be material uncertainty about the fair value of any MSRs we acquire.

Prepayment speeds significantly affect MSRs. Prepayment speed is the measurement of how quickly borrowers pay down the unpaid principal balance of their loans or how quickly loans are otherwise brought current, modified, liquidated or charged off. We base the price we pay for MSRs and the rate of amortization of those assets on, among other things, our projection of the cash flows from the related pool of mortgage loans. Our expectation of prepayment speeds is a significant assumption underlying those cash flow projections. If prepayment speed expectations increase significantly, the fair value of the MSRs could decline and we may be required to record a non-cash charge, which



would have a negative impact on our financial results. Furthermore, a significant increase in prepayment speeds could materially reduce the ultimate cash flows we receive from MSR's, and we could ultimately receive substantially less than what we paid for such assets. Moreover, delinquency rates have a significant impact on the valuation of any MSR's. An increase in delinquencies generally results in lower revenue because typically we only collect servicing fees from Agencies or mortgage owners for performing loans. Our expectation of delinquencies is also a significant assumption underlying our cash flow projections. If delinquencies are significantly greater than we expect, the estimated fair value of the MSR's could be diminished. When the estimated fair value of MSR's is reduced, we could suffer a loss, which could have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Changes in interest rates are a key driver of the performance of MSR. Historically, the fair value of MSR has increased when interest rates rise and decreased when interest rates decline due to the effect those changes in interest rates have on prepayment estimates. We may pursue, in a manner that is consistent with our qualification as a REIT, various hedging strategies to seek to reduce our exposure to adverse changes in fair value resulting from changes in interest rates. Our hedging activity will vary in scope based on the level and volatility of interest rates, the type of assets held and other changing market conditions. Interest rate hedging may fail to protect or could adversely affect us. To the extent we do not utilize derivative financial instruments to hedge against changes in fair value of MSR or the derivatives we use in our hedging activities do not perform as expected, our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders would be more susceptible to volatility due to changes in the fair value of, or cash flows from, MSR as interest rates change.

Furthermore, MSR and the related servicing activities are subject to numerous federal, state and local laws and regulations and may be subject to various judicial and administrative decisions imposing various requirements and restrictions on our business. Our failure to comply, or the failure of the servicer to comply, with the laws, rules or regulations to which we or they are subject by virtue of ownership of MSR, whether actual or alleged, could expose us to fines, penalties or potential litigation liabilities, including costs, settlements and judgments, any of which could have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Our acquisition of excess servicing spread has exposed us to significant risks.

We have previously acquired from PLS the right to receive certain ESS arising from MSR owned or acquired by PLS. The ESS represents the difference between PLS' contractual servicing fee with the applicable Agency and a base servicing fee that PLS retains as compensation for servicing or subservicing the related mortgage loans pursuant to the applicable servicing contract.

Because the ESS is a component of the related MSR, the risks of owning the ESS are similar to the risks of owning an MSR. We also record our ESS assets at fair value, which is based on many of the same estimates and assumptions used to value our MSR assets, thereby creating the same potential for material differences between the recorded fair value of the ESS and the actual value that is ultimately realized. Also, the performance of our ESS assets are impacted by the same drivers as our MSR assets, namely interest rates, prepayment speeds and delinquency rates. Because of the inherent uncertainty in the estimates and assumptions and the potential for significant change in the impact of the drivers, there may be material uncertainty about the fair value of any ESS we acquire, and this could ultimately have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Further, as a condition to our purchase of the ESS, we were required to subordinate our interests to those of the applicable Agency. To the extent PLS fails to maintain its Agency approvals, such failure could result in PLS' loss of the applicable MSR in its entirety, thereby extinguishing our interest in the related ESS. With respect to our ESS relating to PLS' Ginnie Mae MSR, we sold our interest in such ESS to PLS under a repurchase agreement and PLS, in turn, pledged such ESS along with its interest in all of its Ginnie Mae MSR to a special purpose entity, which issues variable funding notes and term notes that are secured by such Ginnie Mae assets and repaid through the cash flows received by the special purpose entity as the lender under a repurchase agreement with PLS. Accordingly, our interest in the Ginnie Mae ESS is also subordinated to the rights of an indenture trustee on behalf of the note holders to which the special purpose entity issues its variable funding notes and term notes under an indenture, pursuant to which the indenture trustee has a blanket lien on all of PLS' Ginnie Mae MSR (including the ESS we acquired). The indenture trustee, on behalf of the note holders, may liquidate our Ginnie Mae ESS along with the related MSR to the extent there exists an event of default under the indenture, the result of which could have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders. In the event our ESS is liquidated as a result of certain actions or inactions of PLS, we may be entitled to seek indemnity under the applicable spread acquisition agreement; however, this would be an unsecured claim and, as a result, our

loss of the ESS could have a material adverse effect on our business, financial condition, results of operations and our ability to make distributions to our shareholders.

We cannot independently protect our MSR or ESS assets from borrower refinancing and are dependent upon PLS to do so for our benefit.

While PLS has agreed pursuant to the terms of an MSR recapture agreement to transfer cash to us in an amount equal to 30% of the fair value of the MSRs relating to mortgage loans it refinances, we are not independently capable of protecting our MSR asset from borrower refinancing through targeted solicitations to, and origination of, refinance loans for borrowers in our servicing portfolio. Accordingly, unlike traditional mortgage originators and many servicers, we must rely upon PLS to refinance mortgage loans in our servicing portfolio that would otherwise be targeted by other lenders. Historically, PLS has had limited success soliciting loans in our servicing portfolio, and there can be no assurance that PLS will either have or allocate the time and resources required to effectively and efficiently protect our MSR assets. Its failure to do so, or the termination of our MSR recapture agreement, could result in accelerated runoff of our MSR assets, decreasing its fair value and adversely impacting our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Similarly, while PLS has agreed pursuant to the terms of our spread acquisition agreements to transfer to us a portion of the ESS relating to mortgage loans it refinances, we are not independently capable of protecting our ESS asset from borrower refinancing by other lenders through targeted solicitations to, and origination of, refinance loans for borrowers in our portfolio of ESS. Accordingly, we must also rely upon PLS to refinance these mortgage loans that would otherwise be targeted by other lenders. There can be no assurance that PLS will either have or allocate the required time and resources or otherwise be capable of effectively and efficiently soliciting these mortgage loans. Its failure to do so, or the termination of our spread acquisition agreements, could result in accelerated repayment of the mortgage loans underlying our ESS assets, decreasing their value and adversely impacting our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Investments in subordinated loans and subordinated MBS could subject us to increased risk of losses.

Our investments in subordinated loans or subordinated MBS could subject us to increased risk of losses. In the event a borrower defaults on a subordinated loan and lacks sufficient assets to satisfy such loan, we may lose all or a significant part of our investment. In the event a borrower becomes subject to bankruptcy proceedings, we will not have any recourse to the assets, if any, of the borrower that are not pledged to secure our loan. If a borrower defaults on our subordinated loan or on its senior debt (i.e., a first-lien loan), or in the event of a borrower bankruptcy, our subordinated loan will be satisfied only after all senior debt is paid in full. As a result, we may not recover all or even a significant part of our investment, which could result in losses.

In general, losses on an asset securing a mortgage loan included in a securitization will be borne first by the equity holder of the property, then by a cash reserve fund or letter of credit provided by the borrower, if any, and then by the “first loss” subordinated security holder and then by the “second loss” subordinated security holder. In the event of default and the exhaustion of any equity support, reserve fund, letter of credit and any classes of securities junior to those in which we invest, we may not recover all or even a significant part of our investment, which could result in losses.

In addition, if the underlying mortgage portfolio has been serviced ineffectively by the loan servicer or overvalued by the originator, or if the fair values of the assets subsequently decline and, as a result, less collateral is available to satisfy interest and principal payments due on the related MBS, the securities in which we invest may suffer significant losses. The prices of these types of lower credit quality investments are generally more sensitive to adverse actual or perceived economic downturns or individual issuer developments than more highly rated investments. An economic downturn or a projection of an economic downturn, for example, could cause a decline in the price of lower credit quality investments because the ability of obligors to make principal and interest payments or to refinance may be impaired.

The failure of PLS or any other servicer to effectively service our portfolio of MSRs and mortgage loans would materially and adversely affect us.

Pursuant to our loan servicing agreement, PLS provides us with primary and special servicing. PLS’ loan servicing activities include collecting principal, interest and escrow account payments, if any, with respect to mortgage loans, as well as managing loss mitigation, which may include, among other things, collection activities, loan workouts, modifications, foreclosures, short sales and sales of REO. The ability of PLS or any other servicer or subservicer to effectively service our portfolio of mortgage loans is critical to our success, particularly given our large investment in MSRs and our strategy of maximizing the fair value of the distressed mortgage loans that we acquire through proprietary loan modification programs, special servicing and other initiatives focused on keeping borrowers in their homes; or in the case of nonperforming loans, effecting property resolutions in a timely, orderly and economically efficient manner. The failure of PLS or any other servicer or subservicer to effectively service our portfolio of MSRs and mortgage loans would adversely impact our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

Our inability to promptly foreclose upon defaulted mortgage loans could increase our cost of doing business and/or diminish our expected return on investments.

Our ability to promptly foreclose upon defaulted mortgage loans and liquidate the underlying real property plays a critical role in our valuation of the assets in which we invest and our expected return on those investments. There are a variety of factors that may inhibit our ability, through PLS, to foreclose upon a mortgage loan and liquidate the real property within the time frames we model as part of our valuation process or within the statutes of limitation under applicable state law. These factors include, without limitation: extended foreclosure timelines in states that require judicial foreclosure, including states where we hold high concentrations of mortgage loans; significant collateral documentation deficiencies; federal, state or local laws that are borrower friendly, including legislative action or initiatives designed to provide homeowners with assistance in avoiding residential mortgage loan foreclosures and that serve to delay the foreclosure process; continuing obligations under the Home Affordable Modification Plan (“HAMP”) and similar programs that require specific procedures to be followed to explore the refinancing of a mortgage loan prior to the commencement of a foreclosure proceeding; and declines in real estate values and sustained high levels of unemployment that increase the number of foreclosures and place additional pressure on the judicial and administrative systems.

A decline in the fair value of the real estate underlying our mortgage loans or that we acquire, whether through foreclosure or otherwise, may result in reduced risk-adjusted returns or losses.

The fair value of the real estate that we own or that underlies mortgage loans that we own is subject to market conditions. Changes in the real estate market may adversely affect the fair value of the collateral and thereby lower the cash to be received from its liquidation. In addition, adverse changes in the real estate market increase the probability of default, as the incentive of the borrower to retain and protect its interest in the property declines.

We have also implemented an REO rental program, whereby we are the lessor of real estate, generally REO acquired in settlement of distressed loans, to the extent we determine that renting the property would produce a better return on investment than liquidation. There can be no assurance that this investment strategy will prove to be either profitable or more successful than liquidation. Further, our ongoing investment in the real estate will be subject to the market risk described above, as well as other risks associated with the rental business, including, without limitation, extended periods of vacancy, unfavorable landlord-tenant laws, and contractual disputes with our property managers. Any or all of these risks could subject us to loss, materially and adversely affect the fair value of our real estate investments and reduce or eliminate the returns we might have otherwise realized upon liquidation of the real estate.

We are subject to certain risks associated with investing in real estate and real estate related assets, including risks of loss from adverse weather conditions and man-made or natural disasters, which may cause disruptions in our operations and could materially and adversely affect the real estate industry generally and our business, financial condition, liquidity and results of operations.

Weather conditions and man-made or natural disasters such as hurricanes, tornadoes, earthquakes, floods, droughts, fires and other environmental conditions can damage properties that we own or that collateralize loans we own or service. In addition, the properties where we conduct business could be adversely impacted. Future adverse weather conditions and man-made or natural disasters could also adversely impact the demand for, and value of, our assets, as well as the cost to service or manage such assets, directly impact the value of our assets through damage, destruction or loss, and thereafter materially impact the availability or cost of insurance to protect against these events. Although we believe our owned real estate and the properties collateralizing our loan assets or underlying our MSR assets are adequately covered by appropriate insurance, we cannot predict at this time if we or our borrowers will be able to obtain such coverage at a reasonable cost in the future, or if we will be able to continue to pass along all of the costs of insurance. In addition, there is a risk that one or more of the insurers of property on which we held an interest may not be able to fulfill their obligations with respect to claims payments due to a deterioration in its financial condition or may even cancel policies due to the increasing costs of providing insurance coverage in certain geographic areas.

Certain types of losses, generally of a catastrophic nature, that result from events described above such as earthquakes, floods, hurricanes, tornados, terrorism or acts of war may also be uninsurable or not economically insurable. Inflation, changes in building codes and ordinances, environmental considerations and other factors, including terrorism or acts of war, also might make the insurance proceeds insufficient to repair or replace a property if it is damaged or destroyed. Under these circumstances, the insurance proceeds received might not be adequate to restore our economic position with respect to the affected real property. Any uninsured loss could result in the loss of cash flow from, and the asset value of, the affected property.

Catastrophic events may disrupt our business.

Our corporate headquarters are located in Westlake Village, California and we have additional locations around the greater Los Angeles metropolitan area and elsewhere in the State of California. In 2018, many areas of California, including the immediate area around our corporate headquarters, experienced extensive damage and property loss due to a series of very large wildfires. California and the other jurisdictions in which we operate are also prone to other types of natural disasters. In the event of a major earthquake, hurricane, or catastrophic event such as fire, flood, power loss, telecommunications failure, cyber-attack, war, or terrorist attack, we may be unable to continue our

operations and may endure significant business interruptions, reputational harm, delays in servicing our customers and working with our partners, interruptions in the availability of our technology and systems, breaches of data security, and loss of critical data, all of which could have an adverse effect on our future operating results.

Many of our investments are unrated or, where any credit ratings are assigned to our investments, they will be subject to ongoing evaluations and revisions and we can provide no assurance that those ratings will not be downgraded.

Many of our current investments are not, and many of our future investments will not be, rated by any rating agency. Therefore, PCM's assessment of the fair value and pricing of our investments may be difficult and the accuracy of such assessment is inherently uncertain. However, certain of our investments may be rated. If rating agencies assign a lower-than expected rating or reduce or withdraw, or indicate that they may reduce or withdraw, their ratings of our investments in the future, the fair value of these

investments could significantly decline, which would materially and adversely affect the fair value of our investment portfolio and could result in losses upon disposition or the failure of borrowers to satisfy their debt service obligations to us.

We may be materially and adversely affected by risks affecting borrowers or the asset or property types in which our investments may be concentrated at any given time, as well as from unfavorable changes in the related geographic regions.

Our assets are not subject to any geographic, diversification or concentration limitations except that we will be concentrated in mortgage-related investments. Accordingly, our investment portfolio may be concentrated by geography, asset, property type and/or borrower, increasing the risk of loss to us if the particular concentration in our portfolio is subject to greater risks or is undergoing adverse developments. In addition, adverse conditions in the areas where the properties securing or otherwise underlying our investments are located (including business layoffs or downsizing, industry slowdowns, changing demographics and other factors) and local real estate conditions (such as oversupply or reduced demand) may have an adverse effect on the value of our investments. A material decline in the demand for real estate in these areas may materially and adversely affect us. Concentration or a lack of diversification can increase the correlation of non-performance and foreclosure risks among our investments.

Many of our investments are illiquid and we may not be able to adjust our portfolio in response to changes in economic and other conditions.

Our investments in distressed mortgage loans, MSR, ESS, CRT Agreements, securities and mortgage loans held in a consolidated variable interest entity may be illiquid. As a result, it may be difficult or impossible to obtain or validate third-party pricing on the investments we purchase. Illiquid investments typically experience greater price volatility, as a ready market does not exist, and can be more difficult to value. The contractual restrictions on transfer or the illiquidity of our investments may make it difficult for us to sell such investments if the need or desire arises which could impair our ability to satisfy margin calls or certain REIT tests. In addition, if we are required to liquidate all or a portion of our portfolio quickly, we may realize significantly less than the recorded value, or may not be able to obtain any liquidation proceeds at all, thus exposing us to a material or total loss.

Fair values of many of our investments are estimates and the realization of reduced values from our recorded estimates may materially and adversely affect periodic reported results and credit availability, which may reduce earnings and, in turn, cash available for distribution to our shareholders.

The fair values of some of our investments are not readily determinable. We measure the fair value of these investments monthly, but the fair value at which our assets are recorded may differ from the values we ultimately realize. Ultimate realization of the fair value of an asset depends to a great extent on economic and other conditions that change during the time period over which the investment is held and are beyond the control of PCM, us or our board of trustees. Further, fair value is only an estimate based on good faith judgment of the price at which an investment can be sold since transacted prices of investments can only be determined by negotiation between a willing buyer and seller. In certain cases, PCM's estimation of the fair value of our investments includes inputs provided by third-party dealers and pricing services, and valuations of certain securities or other assets in which we invest are often difficult to obtain and are subject to judgments that may vary among market participants. Changes in the estimated fair values of those assets are directly charged or credited to earnings for the period. If we were to liquidate a particular asset, the realized value may be more than or less than the amount at which such asset was recorded. Accordingly, in either event, the value of our common shares could be materially and adversely affected by our determinations regarding the fair value of our investments, and such valuations may fluctuate over short periods of time.

PCM utilizes analytical models and data in connection with the valuation of our investments, and any incorrect, misleading or incomplete information used in connection therewith would subject us to potential risks.



Given the illiquidity and complexity of our investments and strategies, PCM must rely heavily on models and data, including analytical models (both proprietary models developed by PCM and those supplied by third parties) and information and data supplied by third parties. Models and data are used to value investments or potential investments and also in connection with hedging our investments. In the event models and data prove to be incorrect, misleading or incomplete, any decisions made in reliance thereon expose us to potential risks. For example, by relying on incorrect models and data, especially valuation models, PCM may be induced to buy certain investments at prices that are too high, to sell certain other investments at prices that are too low or to miss favorable opportunities altogether. Similarly, any hedging based on faulty models and data may prove to be unsuccessful.

Liability relating to environmental matters may impact the fair value of properties that we may acquire or the properties underlying our investments.

Under various U.S. federal, state and local laws, an owner or operator of real property may become liable for the costs of removal of certain hazardous substances released on its property. These laws often impose liability without regard to whether the owner or operator was responsible for, or aware of, the release of such hazardous substances. The presence of hazardous substances

may also adversely affect an owner's ability to sell real estate, borrow using the real estate as collateral or make debt payments to us. In addition, if we take title to a property, the presence of hazardous substances may adversely affect our ability to sell the property, and we may become liable to a governmental entity or to third parties for various fines, damages or remediation costs. Any of these liabilities or events may materially and adversely affect the fair value of the relevant asset and/or our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

We depend on the accuracy and completeness of information about borrowers and counterparties and any misrepresented information could adversely affect our business, financial condition and results of operations.

In connection with our correspondent production activities, we may rely on information furnished by or on behalf of borrowers and counterparties, including financial statements and other financial information. We also may rely on representations of borrowers and counterparties as to the accuracy and completeness of that information and, with respect to audited financial statements, on reports of independent auditors. If any of this information is intentionally or negligently misrepresented and such misrepresentation is not detected prior to loan funding, the fair value of the loan may be significantly lower than expected. Our controls and processes may not have detected or may not detect all misrepresented information in our loan acquisitions or from our business clients. Any such misrepresented information could materially and adversely affect our business, financial condition, results of operations and our ability to make distributions to our shareholders.

We are subject to counterparty risk and may be unable to seek indemnity or require our counterparties to repurchase mortgage loans if they breach representations and warranties, which could cause us to suffer losses.

When we purchase mortgage assets, our counterparty typically makes customary representations and warranties to us about such assets. Our residential mortgage loan purchase agreements may entitle us to seek indemnity or demand repurchase or substitution of the loans in the event our counterparty breaches a representation or warranty given to us. However, there can be no assurance that our mortgage loan purchase agreements will contain appropriate representations and warranties, that we will be able to enforce our contractual right to demand repurchase or substitution, or that our counterparty will remain solvent or otherwise be willing and able to honor its obligations under our mortgage loan purchase agreements. Our inability to obtain indemnity or require repurchase of a significant number of loans could materially and adversely affect our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

We may be required to repurchase mortgage loans or indemnify investors if we breach representations and warranties, which could materially and adversely affect our earnings.

When we sell loans, we are required to make customary representations and warranties about such loans to the loan purchaser. As part of our correspondent production activities, PLS re-underwrites a percentage of the loans that we acquire, and we rely upon PLS to ensure quality underwriting by our correspondent sellers, accurate third-party appraisals, and strict compliance with the representations and warranties that we require from our correspondent sellers and that are required from us by our investors.

Our residential mortgage loan sale agreements may require us to repurchase or substitute loans or indemnify the purchaser against future losses in the event we breach a representation or warranty given to the loan purchaser or in the event of an early payment default on a mortgage loan. The remedies available to the Agencies, other purchasers and insurers of mortgage loans may be broader than those available to us against the originator or correspondent lender, and if a purchaser or insurer enforces its remedies against us, we may not be able to enforce the remedies we have against the sellers. The repurchased loans typically can only be financed at a steep discount to their repurchase price, if at all. Repurchased loans are also typically sold at a discount to the unpaid principal balance, which in some cases can be significant. Significant repurchase activity could materially and adversely affect our business, financial condition, liquidity, results of operations and our ability to make distributions to our shareholders.

We are required to make servicing advances that can be subject to delays in recovery or may not be recoverable in certain circumstances, which could adversely affect our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

During any period in which a borrower is not making payments, we are required under most of our servicing agreements in respect of our MSRs to advance our own funds to pass through scheduled principal and interest payments to security holders of the MBS into which the loans are sold, pay property taxes and insurance premiums, legal expenses and other protective advances. We also advance funds under these agreements to maintain, repair and market real estate properties on behalf of investors. As home values change, we may have to reconsider certain of the assumptions underlying our decisions to make advances and, in certain situations, our contractual obligations may require us to make advances for which we may not be reimbursed. In addition, if a mortgage loan serviced by us is in default or becomes delinquent, the repayment to us of the advance may be delayed until the mortgage loan is repaid or refinanced or a liquidation occurs. A delay in our ability to collect advances may adversely affect our liquidity, and our

inability to be reimbursed for advances could have a material adverse effect on our business, financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

#### Risks Related to Our Organization and Structure

Certain provisions of Maryland law, our staggered board of trustees and certain provisions in our declaration of trust could each inhibit a change in our control.

Certain provisions of the Maryland General Corporation Law (the “MGCL”) applicable to a Maryland real estate investment trust may have the effect of inhibiting a third party from making a proposal to acquire us or of impeding a change in our control under circumstances that otherwise could provide the holders of our common shares with the opportunity to realize a premium over the then prevailing market price of such common shares.

In addition, our board of trustees is divided into three classes of trustees. Trustees of each class will be elected for three-year terms upon the expiration of their current terms, and each year one class of trustees will be elected by our shareholders. The staggered terms of our trustees may reduce the possibility of a tender offer or an attempt at a change in control, even though a tender offer or change in control might be in the best interests of our shareholders.

Further, our declaration of trust authorizes us to issue additional authorized but unissued common shares and preferred shares. Our board of trustees may, without shareholder approval, increase the aggregate number of our authorized common shares or the number of shares of any class or series that we have authority to issue and classify or reclassify any unissued common shares or preferred shares and may set the preferences, rights and other terms of the classified or reclassified shares. As a result, our board may establish a class or series of common shares or preferred shares or take other actions that could delay or prevent a transaction or a change in our control that might involve a premium price for our common shares or otherwise be in the best interests of our shareholders.

Our rights and the rights of our shareholders to take action against our trustees and officers are limited, which could limit shareholder recourse in the event of actions not in the best interest of our shareholders.

Our declaration of trust limits the liability of our present and former trustees and officers to us and our shareholders for money damages to the maximum extent permitted under Maryland law. Under current Maryland law, our present and former trustees and officers will not have any liability to us or our shareholders for money damages other than liability resulting from either (a) actual receipt of an improper benefit or profit in money, property or services or (b) active and deliberate dishonesty by the trustee or officer that was established by a final judgment and is material to the cause of action.

Our declaration of trust authorizes us to indemnify our present and former trustees and officers for actions taken by them in those capacities to the maximum extent permitted by Maryland law. Our bylaws require us to indemnify each present and former trustee or officer, to the maximum extent permitted by Maryland law, in the defense of any proceeding to which he or she is made, or threatened to be made, a party by reason of his or her service to us. In addition, we may be obligated to pay or reimburse the expenses incurred by our present and former trustees and officers without requiring a preliminary determination of their ultimate entitlement to indemnification. As a result, we and our shareholders may have more limited rights against our present and former trustees and officers than might otherwise exist absent the current provisions in our declaration of trust and bylaws or that might exist with other companies, which could limit shareholder recourse in the event of actions not in the best interest of our shareholders.

Our declaration of trust contains provisions that make removal of our trustees difficult, which could make it difficult for our shareholders to effect changes to our management.

Our declaration of trust provides that, subject to the rights of holders of any series of preferred shares, a trustee may be removed only for “cause” (as defined in our declaration of trust), and then only by the affirmative vote of at least

two-thirds of the votes entitled to be cast generally in the election of trustees. Vacancies generally may be filled only by a majority of the remaining trustees in office, even if less than a quorum, for the full term of the class of trustees in which the vacancy occurred. These requirements make it more difficult to change our management by removing and replacing trustees and may prevent a change in our control that is in the best interests of our shareholders.

Our bylaws include an exclusive forum provision that could limit our shareholders' ability to obtain a judicial forum viewed by the shareholders as more favorable for disputes with us or our trustees or officers.

Our bylaws provide that the Circuit Court for Baltimore City, Maryland, or, if that Court does not have jurisdiction, the United States District Court for the District of Maryland, Baltimore Division, is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a claim of breach of fiduciary duty; any action asserting a claim against us arising pursuant to any provision of the Maryland REIT Law; or any action asserting a claim against us that is governed by the internal affairs doctrine. This exclusive forum provision may limit a shareholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our trustees or officers, which may discourage such lawsuits against us and our trustees and officers. Alternatively, if a court were to find the choice of forum provision contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

Failure to maintain exemptions or exclusions from registration under the Investment Company Act of 1940 could materially and adversely affect us.

Because we are organized as a holding company that conducts business primarily through our Operating Partnership and its wholly-owned subsidiaries, our status under the Investment Company Act of 1940, or the Investment Company Act, is dependent upon the status of our Operating Partnership which, as a holding company, in turn, will have its status determined by the status of its subsidiaries. If our Operating Partnership or one or more of its subsidiaries fail to maintain their exceptions or exclusions from the Investment Company Act and we do not have available to us another basis on which we may avoid registration, we may have to register under the Investment Company Act. This could subject us to substantial regulation with respect to our capital structure (including our ability to use leverage), management, operations, transactions with affiliated persons (as defined in the Investment Company Act), portfolio composition, including restrictions with respect to diversification and industry concentration, and other matters. It could also cause the breach of covenants we or our subsidiaries have made under certain of our financing arrangements, which could result in an event of default, acceleration of debt and/or termination.

There can be no assurance that the laws and regulations governing the Investment Company Act status of REITs, including guidance and interpretations from the Division of Investment Management of the SEC regarding the exceptions and exclusions therefrom, will not change in a manner that adversely affects our operations. If the SEC takes action that could result in our or our subsidiaries' failure to maintain an exception or exclusion from the Investment Company Act, we could, among other things, be required to (a) restructure our operations to avoid being required to register as an investment company, (b) effect sales of our assets in a manner that, or at a time when, we would not otherwise choose to do so or (c) register as an investment company (which, among other things, would require us to comply with the leverage constraints applicable to investment companies), any of which could negatively affect the value of our common shares, the sustainability of our business model, our financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

Further, a loss of our Investment Company Act exceptions or exclusions would allow PCM to terminate our management agreement with us, and our loan servicing agreement with PLS is subject to early termination in the event our management agreement is terminated for any reason. If either of these agreements is terminated, we will have to obtain the services on our own, and we may not be able to replace these services in a timely manner or on favorable terms, or at all. This would have a material adverse effect on our ability to continue to execute our business strategy and would likely negatively affect our financial condition, liquidity, results of operations and ability to make distributions to our shareholders.

The failure of PennyMac Corp. to avail itself of an appropriate exemption from registration as an investment company under the Investment Company Act could have a material and adverse effect on our business.

We intend to operate so that we and each of our subsidiaries are not required to register as investment companies under the Investment Company Act. We believe that our subsidiary, PennyMac Corp. (“PMC”), to the extent it does not qualify under Section 3(c)(5)(C) of the Investment Company Act, would qualify for the exemption provided in Section 3(c)(6) of the Investment Company Act because it has been, and is expected to continue to be, primarily engaged, directly or through majority-owned subsidiaries, in (1) the business of purchasing or otherwise acquiring mortgages or other liens on and interests in real estate (from which not less than 25% of its gross income during its last fiscal year was and will continue to be derived), together with (2) an additional business or businesses other than investing, reinvesting, owning, holding, or trading in securities, namely the business of servicing mortgages. Although we expect not less than 25% of PMC’s gross income to be derived from originating, purchasing, or acquiring mortgages or liens on and interests in real estate, there can be no assurances that the composition of PMC’s gross income will remain the same over time.

To date, the SEC staff has provided limited guidance with respect to the applicability of Section 3(c)(6), and PMC has not sought a no-action letter from the SEC staff respecting its position. If PMC is ultimately unable to rely on the Section 3(c)(6) exemption due to a failure to meet the 25% of gross income test or to the extent that the SEC staff provides negative guidance regarding the applicability or scope of the exemption, we may be required to either (a) register as an investment company, or (b) substantially restructure our business, change our investment strategy and/or the manner in which we conduct our operations in order to qualify for another Investment Company Act exemption and avoid being required to register as an investment company, either of which could materially and adversely affect our business, financial condition, liquidity, results of operations, and ability to make distributions to our shareholders.

In the case of a restructuring, PMC could temporarily rely on Rule 3a-2 for its exemption from registration. Rule 3a-2 provides a safe harbor exemption, not to exceed one year, for companies that have a bona fide intent to be engaged in an excepted activity but temporarily fail to meet the requirements for an exemption. In such case, PMC would likely be required to restructure its business by acquiring and/or disposing of assets in order to meet an exemption under Section 3(c)(5)(C), depending on the composition of its assets at the time. The SEC staff's position on Section 3(c)(5)(C) generally requires that an issuer maintain at least 55% of its assets in mortgages and other liens on and interests in real estate (qualifying assets) and at least 80% of its assets in qualifying assets plus real estate-related assets. PMC would be more limited in its ability to hold MSRMs or would be required to acquire and hold more mortgage loans and real estate to adjust the composition of its assets to meet the 55% and 80% tests.

If PMC is required to register as an investment company, we would be required to comply with a variety of substantive requirements under the Investment Company Act that impose, among other things: limitations on capital structure; restrictions on specified investments; prohibitions on transactions with affiliates; compliance with reporting, record keeping, voting and proxy disclosure; and, other rules and regulations that would significantly increase our operating expenses. Further, if PMC was or is required to register as an investment company, PMC would be in breach of various representations and warranties contained in its credit and other agreements resulting in a default as to certain of our contracts and obligations. This could also subject us to civil or criminal actions or regulatory proceedings, or result in a court appointed receiver to take control of us and liquidate our business, any or all of which could have a material adverse effect on our business, financial condition, liquidity, results of operations, and ability to make distributions to our shareholders.

Rapid changes in the fair values of our investments may make it more difficult for us to maintain our REIT qualification or exclusion from the Investment Company Act.

If the fair value or income potential of our residential mortgage loans and other real estate-related assets declines as a result of increased interest rates, prepayment rates or other factors, we may need to increase certain real estate investments and income and/or liquidate our non-qualifying assets in order to maintain our REIT qualification or exclusion from the Investment Company Act. If the decline in real estate asset values and/or income occurs quickly, this may be especially difficult to accomplish, particularly given the illiquid nature of our investments. We may have to make investment decisions, including the liquidation of investments at a disadvantageous time or on unfavorable terms, that we otherwise would not make absent our REIT and Investment Company Act considerations, and such liquidations could have a material adverse effect on our business, financial condition, liquidity, results of operations, and ability to make distributions to our shareholders.

#### Risks Related to Taxation



Our failure to qualify as a REIT would result in higher taxes and reduced cash available for distribution to our shareholders.

We are organized and operate in a manner so as to qualify as a REIT for U.S. federal income tax purposes. Our qualification as a REIT depends on our satisfaction of certain asset, income, organizational, distribution, shareholder ownership and other requirements on a continuing basis. If we were to lose our REIT status in any taxable year, corporate-level income taxes, including applicable state and local taxes, would apply to all of our taxable income at federal and state tax rates, and distributions to our shareholders would not be deductible by us in computing our taxable income. Any such corporate tax liability could be substantial and would reduce the amount of cash available for distribution to our shareholders, which in turn would have an adverse impact on the value of our common shares. Unless we were entitled to relief under certain Internal Revenue Code provisions, we also would be disqualified from taxation as a REIT for the four taxable years following the year during which we ceased to qualify as a REIT.

Even if we qualify as a REIT, we face tax liabilities that reduce our cash flow, and a significant portion of our income may be earned through TRSs that are subject to U.S. federal income taxation.

Even if we qualify for taxation as a REIT, we may be subject to certain U.S. federal, state and local taxes on our income and assets, including taxes on any undistributed income, tax on income from some activities conducted as a result of a foreclosure, and state or local income, property and transfer taxes, such as mortgage recording taxes. Any of these taxes would decrease cash available for distribution to our shareholders.

We also engage in business activities that are required to be conducted in a TRS. In order to meet the REIT qualification requirements, or to avert the imposition of a 100% tax that applies to certain gains derived by a REIT from dealer property or inventory, we hold a significant portion of our assets through, and derive a significant portion of our taxable income and gains in, a TRS, subject to the limitation that securities in TRSs may not represent more than 20% of our assets in order for us to remain qualified as a REIT. All taxable income and gains derived from the assets held from time to time in our TRS are subject to regular corporate income taxation.

The percentage of our assets represented by a TRS and the amount of our income that we can receive in the form of TRS dividends are subject to statutory limitations that could jeopardize our REIT status.

Currently, no more than 20% of the value of a REIT's assets may consist of stock or securities of one or more TRSs at the end of each quarter. We may potentially have to modify our activities or the capital structure of those TRSs in order to comply with the new limitation and maintain our qualification as a REIT. While we intend to manage our affairs so as to satisfy this requirement, there can be no assurance that we will be able to do so in all market circumstances and even if we are able to do so, compliance with this rule may reduce our flexibility in operating our business. Although a TRS is subject to U.S. federal, state and local income tax on its taxable income, we may from time to time need to make distributions of such after-tax income in order to keep the value of our TRS below 20% of our total assets. However, for purposes of one of the tests we must satisfy to qualify as a REIT, at least 75% of our gross income must in each taxable year generally be from real estate assets. While we monitor our compliance with both this income test and the limitation on the percentage of our assets represented by TRS securities, the two may at times be in conflict with one another. That is, it is possible that we may wish to distribute a dividend from a TRS in order to reduce the value of our TRS below 20% of the required percentage of our assets, but be unable to do so without violating the requirement that 75% of our gross income in the taxable year be derived from real estate assets. There can be no assurance that we will be able to comply with either or both of these tests in all market conditions. Our inability to comply with both of these tests could have a material adverse effect on our business, financial condition, liquidity, results of operations, qualification as a REIT and ability to make distributions to our shareholders.

Ordinary dividends payable by REITs do not generally qualify for the reduced tax rates applicable to certain corporate dividends.

The Internal Revenue Code provides for a 20% maximum federal income tax rate for dividends paid by regular United States corporations to eligible domestic shareholders that are individuals, trusts or estates. Dividends paid by REITs are generally not eligible for these reduced rates. H.R. 1, commonly known as the 2017 Tax Cuts and Job Act (the "Tax Act"), which was enacted on December 22, 2017, generally may allow domestic shareholders to deduct from their taxable income one-fifth of the REIT ordinary dividends payable to them for taxable years beginning after December 31, 2017 and before January 1, 2026. To qualify for this deduction, the shareholder receiving such dividend must hold the dividend-paying REIT shares for at least 46 days (taking into account certain special holding period rules) of the 91-day period beginning 45 days before the shares become ex-dividend, and cannot be under an obligation to make related payments with respect to a position in substantially similar or related property. However, even if a domestic shareholder qualifies for this deduction, the effective rate for such REIT dividends still remains higher than rates for regular corporate dividends paid to high-taxed individuals. The more favorable rates applicable to regular corporate dividends could cause investors who are individuals, trusts and estates to perceive investments in REITs to be relatively less attractive as a federal income tax matter than investments in the stocks of non-REIT corporations that

pay dividends, which could materially and adversely affect the value of the stock of REITs, including our common shares.

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We have not established a minimum distribution payment level and no assurance can be given that we will be able to make distributions to our shareholders in the future at current levels or at all.

We are generally required to distribute to our shareholders at least 90% of our taxable income each year for us to qualify as a REIT under the Internal Revenue Code, which requirement we currently intend to satisfy. To the extent we satisfy the 90% distribution requirement but distribute less than 100% of our taxable income, we will be subject to U.S. federal corporate income tax on our undistributed taxable income. We have not established a minimum distribution payment level, and our ability to make distributions to our shareholders may be materially and adversely affected by the risk factors discussed in this Report and any subsequent Quarterly Reports on Form 10-Q. Although we have made, and anticipate continuing to make, quarterly distributions to our shareholders, our board of trustees has the sole discretion to determine the timing, form and amount of any future distributions to our shareholders, and such determination will depend upon, among other factors, our historical and projected results of operations, financial condition, cash flows and liquidity, maintenance of our REIT qualification and other tax considerations, capital expenditure and other expense obligations, debt covenants, contractual prohibitions or other limitations and applicable law and such other matters as our board of trustees may deem relevant from time to time. Among the factors that could impair our ability to continue to make distributions to our shareholders are:

- our inability to invest the net proceeds from our equity offerings;
- our inability to make attractive risk-adjusted returns on our current and future investments;
- non-cash earnings or unanticipated expenses that reduce our cash flow;
- defaults in our investment portfolio or decreases in its value;
- reduced cash flows caused by delays in repayment or liquidation of our investments; and
- the fact that anticipated operating expense levels may not prove accurate, as actual results may vary from estimates.

As a result, no assurance can be given that we will be able to continue to make distributions to our shareholders in the future or that the level of any future distributions will achieve a market yield or increase or even be maintained over time, any of which could materially and adversely affect the market price of our common shares.

The REIT distribution requirements could materially and adversely affect our ability to execute our business strategies.

We intend to continue to make distributions to our shareholders to comply with the requirements of the Internal Revenue Code and to avoid paying corporate income tax on undistributed income. However, differences in timing between the recognition of taxable income and the actual receipt of cash could require us to sell assets, borrow funds on a short-term or long-term basis, or issue equity to meet the distribution requirements of the Internal Revenue Code. We may find it difficult or impossible to meet distribution requirements in certain circumstances. Due to the nature of the assets in which we invest and may invest and to our accounting elections for such assets, we may be required to recognize taxable income from those assets in advance of our receipt of cash flow on or proceeds from disposition of such assets.

In addition, pursuant to the Tax Act, we generally will be required to recognize certain amounts in income no later than the time such amounts are reflected on our financial statements filed with the SEC. The application of this rule may require the accrual of income with respect to mortgage loans, MBS, and other types of debt securities or interests in debt securities held by us, such as original issue discount or market discount, earlier than would be the case under other provisions of the Internal Revenue Code, although the precise application of this rule to our business is unclear at this time in various respects.

As a result, to the extent such income is not realized within a TRS, the requirement to distribute a substantial portion of our net taxable income could cause us to: (i) sell assets in adverse market conditions, (ii) borrow on unfavorable terms, (iii) distribute amounts that would otherwise be invested in future acquisitions, capital expenditures or repayment of debt or (iv) make a taxable distribution of our shares as part of a distribution in which shareholders may elect to receive shares or (subject to a limit measured as a percentage of the total distribution) cash, in order to comply

with REIT requirements.

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We may be required to report taxable income early in our holding period for certain investments in excess of the economic income we ultimately realize from them.

We acquire and/or expect to acquire in the secondary market debt instruments that we may significantly modify for less than their face amount, MBS issued with original issue discount, MBS acquired at a market discount, or debt instruments or MBS that are delinquent as to mandatory principal and interest payments. In each case, we may be required to report income regardless of whether corresponding cash payments are received or are ultimately collectible. If we eventually collect less than we had previously reported as income, there may be a bad debt deduction available to us at that time or we may record a capital loss in a disposition of such asset, but our ability to benefit from that bad debt deduction would depend on our having taxable income or capital gains, respectively, in that later taxable year. This possible “income early, losses later” phenomenon could materially and adversely affect us and our shareholders if it were persistent and in significant amounts.

The share ownership limits applicable to us that are imposed by the Internal Revenue Code for REITs and our declaration of trust may restrict our business combination opportunities.

In order for us to maintain our qualification as a REIT under the Internal Revenue Code, not more than 50% in value of our outstanding shares may be owned, directly or indirectly, by five or fewer individuals (as defined in the Internal Revenue Code to include certain entities) at any time during the last half of each taxable year following our first year. Our declaration of trust, with certain exceptions, authorizes our board of trustees to take the actions that are necessary and desirable to preserve our qualification as a REIT. Under our declaration of trust, no person may own more than 9.8% by vote or value, whichever is more restrictive, of our outstanding common shares or more than 9.8% by vote or value, whichever is more restrictive, of our outstanding shares of beneficial interest. Our board may grant an exemption to the share ownership limits in its sole discretion, subject to certain conditions and the receipt of certain representations and undertakings. These share ownership limits are based upon direct or indirect ownership by “individuals,” which term includes certain entities.

Ownership limitations are common in the organizational documents of REITs and are intended, among other purposes, to provide added assurance of compliance with the tax law requirements and to minimize administrative burdens. However, our share ownership limits might also delay or prevent a transaction or a change in our control that might involve a premium price for our common shares or otherwise be in the best interests of our shareholders.

Complying with the REIT requirements can be difficult and may cause us to forego otherwise attractive opportunities or liquidate otherwise attractive investments.

To qualify as a REIT for U.S. federal income tax purposes, we must continually satisfy tests concerning, among other things, the sources of our income, the nature and diversification of our assets, the amounts we distribute to our shareholders and the ownership of our shares. We may be required to make distributions to our shareholders at disadvantageous times or when we do not have funds readily available for distribution. Thus, compliance with the REIT requirements may hinder our ability to make certain attractive investments or require us to liquidate from our portfolio otherwise attractive investments. If we are compelled to liquidate our investments, we may be unable to comply with these requirements, ultimately jeopardizing our qualification as a REIT, or we may be subject to a 100% tax on any resultant gain if we sell assets that are treated as dealer property or inventory. These actions could have the effect of reducing our income and amounts available for distribution to our shareholders.

Complying with the REIT requirements may limit our ability to hedge effectively.

The REIT provisions of the Internal Revenue Code may limit our ability to hedge our assets, liabilities and operations. Under current law, any income from a hedging transaction we enter into either (i) to manage risk of interest rate changes with respect to borrowings made or to be made to acquire or carry real estate assets, (ii) to manage risk of currency fluctuations with respect to items of income that qualify for purposes of the REIT 75% or 95% gross income

tests or assets that generate such income, or (iii) to hedge another instrument that hedges risks described in clause (i) or (ii) for a period following the extinguishment of the liability or the disposition of the asset that was previously hedged by the instrument, and, in each case, such instrument is properly identified under applicable Treasury regulations, will not be treated as qualifying income for purposes of the REIT gross income tests. As a result of these rules, we may have to limit our use of hedging techniques that might otherwise be advantageous, which could result in greater risks associated with interest rate or other changes than we would otherwise be subject to.

The tax on prohibited transactions limits our ability to engage in transactions, including certain methods of securitizing mortgage loans that would be treated as sales for U.S. federal income tax purposes.

A REIT's net income from prohibited transactions is subject to a 100% tax. In general, prohibited transactions are sales or other dispositions of property, other than foreclosure property, but including mortgage loans, held primarily for sale to customers in the ordinary course of business. We would be subject to this tax if we were to sell loans that we held primarily for sale to customers in a securitization transaction effected through the REIT. Therefore, in order to avoid the prohibited transactions tax, we engage in such sales of loans through the TRS. We may hold a substantial amount of assets in one or more TRSs that are subject to corporate income tax on its earnings, which may reduce the cash flow generated by us and our subsidiaries in the aggregate, and our ability to make distributions to our shareholders.

The taxable mortgage pool ("TMP") rules may increase the taxes that we or our shareholders may incur, and may limit the manner in which we effect future securitizations.

Certain of our securitizations that involve the issuance of indebtedness rather than sales may likely be considered to result in the creation of TMPs for U.S. federal income tax purposes. A TMP is always classified as a corporation for U.S. federal income tax purposes. However, as long as a REIT owns 100% of a TMP, such classification generally does not result in the imposition of corporate income tax, because the TMP is a "qualified REIT subsidiary."

In the case of such wholly-REIT owned TMPs, certain categories of our shareholders, such as foreign shareholders otherwise eligible for treaty benefits, shareholders with net operating losses, and tax exempt shareholders that are subject to unrelated business income tax, could be subject to increased taxes on a portion of their dividend income received from us that is attributable to the TMP or "excess inclusion income." In addition, to the extent that our shares are owned in record name by tax exempt "disqualified organizations," such as certain government-related entities that are not subject to tax on unrelated business income, we may incur a corporate level tax on our allocable portion of excess inclusion income from such a wholly-REIT owned TMP. In that case and to the extent feasible, we may reduce the amount of our distributions to any disqualified organization whose share ownership gave rise to the tax, or we may bear such tax as a general corporate expense. To the extent that our shares owned by disqualified organizations are held in record name by a broker/dealer or other nominee, the broker/dealer or other nominee would be liable for the corporate level tax on the portion of our excess inclusion income allocable to the shares held by the broker/dealer or other nominee on behalf of disqualified organizations. While we intend to attempt to minimize the portion of our distributions that is subject to these rules, the law is unclear concerning computation of excess inclusion income, and its amount could be significant.

In the case of any TMP that would be taxable as a domestic corporation if it were not wholly-REIT owned, we would be precluded from selling equity interests in these securitizations to outside investors, or selling any debt securities issued in connection with these securitizations that might be considered to be equity interests for tax purposes. This marketing limitation may prevent us from selling more junior or non-investment grade debt securities in such securitizations and maximizing our proceeds realized in those offerings.

New legislation or administrative or judicial action, in each instance potentially with retroactive effect, could make it more difficult or impossible for us to qualify as a REIT.

The rules dealing with federal income taxation, including the present U.S. federal income tax treatment of REITs, may be modified, possibly with retroactive effect, by legislative, judicial or administrative action at any time, which could affect the U.S. federal income tax treatment of an investment in our common shares. Changes to the tax laws, including the U.S. federal tax rules that affect REITs, are constantly under review by persons involved in the legislative process, the IRS and the U.S. Treasury, which results in statutory changes as well as frequent revisions to Treasury Regulations and interpretations. Revisions in U.S. federal tax laws and interpretations thereof could materially and adversely affect us and our shareholders.





The Tax Act includes significant changes to the Internal Revenue Code, some of which will impact REITs, as well as REIT investors. Among those changes are a significant permanent reduction in the generally applicable corporate tax rate, changes in the taxation of individuals and other non-corporate taxpayers that generally but not universally reduce their taxes on a temporary basis subject to “sunset” provisions, the elimination or modification of various currently allowed deductions (including additional limitations on the deductibility of net operating losses, business interest and substantial limitation of the deduction for personal state and local taxes imposed on individuals), and preferential taxation of income (including REIT dividends) derived by non-corporate taxpayers from “pass-through” entities. It is possible that future technical corrections legislation, regulations and interpretive guidance in areas such as net interest expense deduction and revenue recognition might result in negative impacts on us or our shareholders. There may also be a substantial delay before such legislation is enacted and/or regulations are promulgated, increasing the uncertainty as to the ultimate effect of the Tax Act on us and our shareholders. Furthermore, limitations on the deduction of net operating losses may in the future cause us to make distributions that will be taxable to our shareholders to the extent of our current or accumulated earnings and profits in order to comply with the annual REIT distribution requirements. We could also be materially and adversely impacted indirectly by provisions in the Tax Act that affect the broader mortgage industry, such as the lower debt limit for mortgage interest deductions. To the extent that the Tax Act has an overall negative impact on our industry, such legislation could have a material adverse effect on our attractiveness as a REIT and our ability to make distributions to our shareholders.

We cannot predict how future changes in the tax laws might affect us or our shareholders. New legislation, Treasury regulations, administrative interpretations or court decisions could cause us to change our investments and commitments or significantly and negatively affect our ability to qualify as a REIT or the federal income tax consequences of such qualification.

We also may enter into certain transactions where the REIT eligibility of the assets subject to such transactions is uncertain. In circumstances where the application of these rules and regulations affecting our investments is not clear, we may have to interpret them and their application to us. If the IRS were to take a position adverse to our interpretation, the consequences of such action could materially and adversely affect our business, financial condition, liquidity, results of operations, and our ability to make distributions to our shareholders.

An IRS administrative pronouncement with respect to investments by REITs in distressed debt secured by both real and personal property, if interpreted adversely to us, could cause us to pay penalty taxes or potentially to lose our REIT status.

Most of the distressed mortgage loans that we have acquired were acquired by us at a discount from their outstanding principal amount, because our pricing was generally based on the value of the underlying real estate that secures those mortgage loans.

Treasury Regulation Section 1.856-5(c) (the “interest apportionment regulation”) provides rules for determining what portion of the interest income from mortgage loans that are secured by both real and personal property is treated as “interest on obligations secured by mortgages on real property or on interests in real property.” Under the interest apportionment regulation, if a mortgage covers both real property and other property, a REIT is required to apportion its annual interest income to the real property security based on a fraction, the numerator of which is the value of the real property securing the loan, determined when the REIT commits to acquire the loan, and the denominator of which is the highest “principal amount” of the loan during the year. The IRS issued Revenue Procedure 2011-16, which contains an example regarding the application of the interest apportionment regulation. The example interprets the “principal amount” of the loan to be the face amount of the loan, despite the Internal Revenue Code requiring taxpayers to treat any market discount, that is the difference between the purchase price of the loan and its face amount, for all purposes (other than certain withholding and information reporting purposes) as interest rather than principal.

The interest apportionment regulation applies only if the debt in question is secured both by real property and personal property. We believe that all of the mortgage loans that we acquire at a discount under the circumstances

contemplated by Revenue Procedure 2011-16 are secured only by real property and no other property value is taken into account in our underwriting and pricing. Accordingly, we believe that the interest apportionment regulation does not apply to our portfolio.

Nevertheless, if the IRS were to assert successfully that our mortgage loans were secured by property other than real estate, that the interest apportionment regulation applied for purposes of our REIT testing, and that the position taken in Revenue Procedure 2011-16 should be applied to our portfolio, then depending upon the value of the real property securing our loans and their face amount, and the sources of our gross income generally, we might not be able to meet the 75% REIT gross income test, and possibly the asset tests applicable to REITs. If we did not meet this test, we could potentially either lose our REIT status or be required to pay a tax penalty to the IRS.

With respect to the 75% REIT asset test, Revenue Procedure 2011-16 provides a safe harbor under which the IRS will not challenge a REIT's treatment of a loan as being a real estate asset in an amount equal to the lesser of (1) the fair market value of the real property securing the loan determined as of the date the REIT committed to acquire the loan or (2) the fair market value of the loan on the date of the relevant quarterly REIT asset testing date. This safe harbor, if it applied to us, would help us comply with the REIT asset tests following the acquisition of distressed debt if the value of the real property securing the loan were to subsequently decline. However, if the value of the real property securing the loan were to increase, the safe harbor rule of Revenue Procedure 2011-16, read literally, could have the peculiar effect of causing the corresponding increase in the value of the loan to not be treated as a real estate asset. We do not believe, however, that this was the intended result in situations in which the value of a loan has increased because the value of the real property securing the loan has increased, or that this safe harbor rule applies to debt that is secured solely by real property. However, for taxable years beginning after December 31, 2015, Internal Revenue Code Section 856(c)(9) was added and clarifies Revenue Procedure 2011-16. Subparagraph (B) of Section 856(c)(9) allows a REIT to treat personal property that is secured by a mortgage on both real property and personal property as a real estate asset, and the interest income as derived from a mortgage secured by real property, if the fair value of the personal property does not exceed fifteen percent 15% of the total fair value of all property secured by the mortgage. Nevertheless, if the IRS took the position that the safe harbor rule applied in these scenarios, then we might not be able to meet the various quarterly REIT asset tests if the value of the real estate securing our loans increased, and thus the value of our loans increased by a corresponding amount. If we did not meet one or more of these tests, then we could potentially either lose our REIT status or be required to pay a tax penalty to the IRS.

#### Item 1B. Unresolved Staff Comments

None.

#### Item 2. Properties

We do not own or lease any property. Our operations are carried out on our behalf at the principal executive offices of PennyMac, at 3043 Townsgate Road, Westlake Village, California, 91361.

#### Item 3. Legal Proceedings

From time to time, we may be involved in various legal actions, claims and proceedings arising in the ordinary course of business. As of December 31, 2018, we were not involved in any material legal actions, claims or proceedings.

#### Item 4. Mine Safety Disclosures

Not applicable.



## PART II

## Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common shares are listed on the New York Stock Exchange (Symbol: PMT). As of February 20, 2019, our common shares were held by 25,066 beneficial holders.

We intend to pay quarterly dividends and to distribute to our shareholders at least 90% of our taxable income in each year (subject to certain adjustments). This is one requirement to qualify for the tax benefits accorded to a REIT under the Internal Revenue Code. We have not established a minimum dividend payment level and our ability to pay dividends may be adversely affected for the reasons described in Item 1A of this Report in the section entitled Risk Factors. All distributions are made at the discretion of our board of trustees and depend on our earnings, our financial condition, maintenance of our REIT status and such other factors as our board of trustees may deem relevant from time to time.

## Unregistered Sales of Equity Securities and Use of Proceeds

There were no sales of unregistered equity securities during the year ended December 31, 2018.

The following table provides information about our common share repurchases during the quarter ended December 31, 2018:

Period	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs (1)	Amount
				available for future share repurchases under the plans or programs (1) (in thousands)
October 1, 2018 – October 31, 2018	—	\$ —	—	\$ 83,375
November 1, 2018 – November 30, 2018	—	\$ —	—	\$ 83,375
December 1, 2018 – December 31, 2018	—	\$ —	—	\$ 83,375
	—	\$ —	—	

(1)

During 2015, our board of trustees authorized a common share repurchase program. Under the program, as amended, we may repurchase up to \$300 million of our outstanding common shares. Under the program, we have discretion to determine the dollar amount of common shares to be repurchased and the timing of any repurchases in compliance with applicable law and regulation. The program does not have an expiration date. Amounts presented reflect balances as of the end of the applicable period.

#### Equity Compensation Plan Information

We have adopted an equity incentive plan which provides for the issuance of equity based awards, including share options, restricted shares, restricted share units, unrestricted common share awards, LTIP units (a special class of partnership interests in our Operating Partnership) and other awards based on our shares that may be awarded by us to our officers and trustees, and the members, officers, trustees, directors and employees of PFSI and its subsidiaries or other entities that provide services to us and the employees of such other entities. The equity incentive plan is administered by our compensation committee, pursuant to authority delegated by our board of trustees, which has the authority to make awards to the eligible participants referenced above, and to determine what form the awards will take, and the terms and conditions of the awards. Our equity incentive plan allows for grants of equity-based awards up to an aggregate of 8% of our issued and outstanding common shares on a diluted basis at the time of the award. However, the total number of shares available for issuance under the plan cannot exceed 40 million.

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The following table provides information as of December 31, 2018 concerning our common shares authorized for issuance under our equity incentive plan:

	(a)	(b)	(c)
Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans excluding securities reflected in column(a)
Equity compensation plans approved by security holders (1)	596,899	\$ —	4,326,968
Equity compensation plans not approved by security holders (2)	—	—	—
<b>Total</b>	<b>596,899</b>	<b>—</b>	<b>4,326,968</b>

(1) Represents our 2009 Equity Incentive Plan.

(2) We do not have any equity plans that have not been approved by our shareholders.



## Item 6. Selected Financial Data

The following financial data should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8, "Financial Statements and Supplementary Data." The table below presents, as of and for the dates indicated, selected historical financial information for us. The condensed consolidated statements of income data for the years ended December 31, 2018, 2017, and 2016 and the condensed consolidated balance sheets data at December 31, 2018, and 2017 have been derived from our audited financial statements included elsewhere in this Report. The condensed consolidated statements of income data for the years ended December 31, 2015 and 2014 and the condensed consolidated balance sheets data at December 31, 2016, 2015, and 2014 have been derived from our Company's audited consolidated financial statements that are not included in this Report.

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(dollars in thousands, except per common share data)				
<b>Condensed Consolidated Statements of Income:</b>					
<b>Net investment income:</b>					
Net mortgage loan servicing fees	\$ 120,587	\$ 69,240	\$ 54,789	\$ 49,319	\$ 37,893
Net gain on investments	81,926	96,384	7,175	53,985	201,809
Net gain on mortgage loans acquired for sale	59,185	74,516	106,442	51,016	35,647
Net interest income	47,601	43,805	72,354	76,637	86,759
Other	41,768	33,995	31,328	17,808	(5,367 )
	351,067	317,940	272,088	248,765	356,741
<b>Expenses:</b>					
Expenses payable to PennyMac Financial Services, Inc.	147,860	146,007	157,737	129,224	136,276
Other	45,219	47,387	52,588	46,237	41,001
	193,079	193,394	210,325	175,461	177,277
Income before provision for income taxes	157,988	124,546	61,763	73,304	179,464
Provision for (benefit from) income taxes	5,190	6,797	(14,047 )	(16,796 )	(15,080 )
Net income	\$ 152,798	\$ 117,749	\$ 75,810	\$ 90,100	\$ 194,544
<b>Pre-tax income (loss) by segment:</b>					
Correspondent production	\$ 16,472	\$ 42,938	\$ 73,842	\$ 36,390	\$ 10,960
Credit sensitive strategies	87,251	102,214	17,288	66,038	206,738
Interest rate sensitive strategies	98,432	22,683	14,041	20,516	23,371
Corporate	(44,167 )	(43,289 )	(43,408 )	(49,640 )	(61,605 )
	\$ 157,988	\$ 124,546	\$ 61,763	\$ 73,304	\$ 179,464
Return on average common shareholders' equity	10.2	% 7.8	% 5.4	% 5.9	% 12.6
<b>Condensed Consolidated Balance Sheets:</b>					
<b>Investments:</b>					
Short-term	\$ 74,850	\$ 18,398	\$ 122,088	\$ 41,865	\$ 139,900
Mortgage-backed securities at fair value	2,610,422	989,461	865,061	322,473	307,363
Mortgage loans acquired for sale at fair value	1,643,957	1,269,515	1,673,112	1,283,795	637,722
Mortgage loans at fair value	408,305	1,089,473	1,721,741	2,555,788	2,726,952
Excess servicing spread purchased from PFSI	216,110	236,534	288,669	412,425	191,166

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Firm commitment to purchase CRT securities	37,994	—	—	—	—
Credit risk transfer agreement deposits and derivatives	1,270,488	687,507	465,669	147,593	—
Real estate	128,791	207,089	303,393	350,642	303,228
Mortgage servicing rights	1,162,369	844,781	656,567	459,741	357,780
	7,553,286	5,342,758	6,096,300	5,574,322	4,664,111
Other assets	260,075	262,175	261,202	252,602	233,147
Total assets	\$7,813,361	\$5,604,933	\$6,357,502	\$5,826,924	\$4,897,258
Short-term debt	\$5,081,691	\$3,269,462	\$4,017,232	\$3,323,534	\$2,634,471
Long-term debt	1,011,433	661,715	821,893	867,005	524,777
	6,093,124	3,931,177	4,839,125	4,190,539	3,159,248
Other liabilities	154,105	129,171	167,263	140,272	159,838
Total liabilities	6,247,229	4,060,348	5,006,388	4,330,811	3,319,086
Shareholders' equity	1,566,132	1,544,585	1,351,114	1,496,113	1,578,172
Total liabilities and shareholders' equity	\$7,813,361	\$5,604,933	\$6,357,502	\$5,826,924	\$4,897,258
Per Common Share Data:					
Earnings:					
Basic	\$2.09	\$1.53	\$1.09	\$1.19	\$2.62
Diluted	\$1.99	\$1.48	\$1.08	\$1.16	\$2.47
Cash dividends:					
Declared	\$1.88	\$1.88	\$1.88	\$2.16	\$2.40
Paid	\$1.88	\$1.88	\$1.88	\$2.30	\$2.38
Year-end:					
Share price	\$18.62	\$16.07	\$16.37	\$15.26	\$21.09
Book value	\$20.61	\$20.13	\$20.26	\$20.28	\$21.18

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

We are a specialty finance company that invests primarily in residential mortgage loans and mortgage-related assets. Our objective is to provide attractive risk-adjusted returns to our investors over the long-term, primarily through dividends and secondarily through capital appreciation. Our investment focus is on mortgage-related assets that we create through our correspondent production activities, including mortgage servicing rights ("MSRs"), credit risk transfer agreements ("CRT Agreements") and credit risk transfer securities that absorb credit losses on certain of the mortgage loans we sell. We also invest in mortgage-backed securities ("MBS"), and hold excess servicing spread ("ESS") on MSRs acquired by PennyMac Loan Services, LLC ("PLS"). We have also historically invested in distressed mortgage assets (mortgage loans and real estate acquired in settlement of mortgage loans) as well as other credit sensitive assets, including loans that finance multifamily and other commercial real estate, which are no longer our primary focus for new investments.

We are externally managed by PNMAC Capital Management, LLC ("PCM"), an investment adviser that specializes in and focuses on U.S. mortgage assets. Our mortgage loan portfolio is serviced by PLS.

During the year ended December 31, 2018, we purchased newly originated prime credit quality residential mortgage loans with fair values totaling \$68.0 billion, as compared to \$66.7 billion for the same period in 2017, in furtherance of our correspondent production business. To the extent that we purchase mortgage loans that are insured by the U.S. Department of Housing and Urban Development ("HUD") through the Federal Housing Administration (the "FHA"), or insured or guaranteed by the Veterans Administration (the "VA") or U.S. Department of Agriculture ("USDA"), we and PLS have agreed that PLS will fulfill and purchase such mortgage loans, as PLS is a Ginnie Mae-approved issuer and we are not. This arrangement has enabled us to compete with other correspondent aggregators that purchase both government and conventional mortgage loans. We receive a sourcing fee from PLS ranging from two to three and one-half basis points, generally based on the average number of calendar days that mortgage loans are held by us prior to purchase by PLS, on the unpaid principal balance ("UPB") of each mortgage loan that we sell to PLS under such arrangement, and earn interest income on the mortgage loan for the period we hold it before the sale to PLS. During the year ended December 31, 2018, we received sourcing fees totaling \$10.9 million, relating to \$36.4 billion in UPB of mortgage loans that we sold to PLS. During the year ended December 31, 2018, we received MSRs arising from our loan sales activities with fair values at initial recognition totaling \$356.8 million and held MSRs with a fair value totaling \$1.2 billion at December 31, 2018.

We believe that CRT Agreements and CRT securities are long-term investments that can produce attractive risk-adjusted returns through our own mortgage production while aligning with Fannie Mae's strategic goal to attract private capital investment in its credit risk. We believe there is significant potential for investment in front-end credit risk transfer ("CRT") and MSRs that result from our correspondent production activities as we reinvest capital returned from the liquidation of distressed mortgage loans. During the year ended December 31, 2018, we made investments in CRT Agreements totaling \$596.6 million, and held CRT-related investments (composed of deposits securing CRT Agreements, derivative assets and firm commitment to purchase CRT securities) totaling \$1.3 billion at December 31, 2018.

During the year ended December 31, 2018, we fulfilled our commitments to sell mortgage loans into CRT Agreements and we began selling mortgage loans under agreements that included our firm commitment to purchase CRT securities that absorb credit losses on such mortgage loans. We have recognized \$38.0 million at fair value related to the firm commitments to purchase the CRT securities during the year ended December 31, 2018.

We also participate in other mortgage-related activities, including:

• **Mortgage-backed or mortgage-related securities.** During 2018, we purchased \$1.8 billion of mortgage-backed or mortgage-related securities. We held MBS with fair values totaling \$2.6 billion at December 31, 2018.

• **ESS relating to MSRs held by PFSI.** During the year ended December 31, 2018, we did not purchase any ESS from PFSI. However, pursuant to a recapture agreement with PLS we received ESS with a fair value totaling \$2.7 million.

We held ESS with a fair value totaling \$216.1 million at December 31, 2018.

Retention of certain securities created in securitization transactions. To the extent that we transfer correspondent production loans into private label securitizations, retention of a portion of the securities created in the securitization transaction. Our private label securitization is accounted for as a financing arrangement. Sales of securities included in the securitization are treated as issuances of debt. We held \$14.1 million of such securities (which we account for as mortgage loans at fair value, net of the related asset-backed financing), as of December 31, 2018.

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We have invested in distressed mortgage loans through direct acquisitions of mortgage loan portfolios from institutions such as banks and mortgage companies. We seek to maximize the fair value of the distressed mortgage loans that we acquired using means that are appropriate for the particular loan, including both proprietary and nonproprietary loan modification programs, special servicing and other initiatives focused on avoiding foreclosure, when possible. When we are unable to effect a cure for a mortgage loan delinquency, our objective is timely acquisition and/or liquidation of the property securing the mortgage loan through the use, in part, of short sales and deed-in-lieu-of-foreclosure programs. We may elect to hold certain real estate acquired in settlement of loans (“REO”) as income-producing properties for extended periods as a means of maximizing our returns on such properties.

We seek to maximize our returns on distressed mortgage assets through individual loan and property resolutions, as well as bulk sales. During the year ended December 31, 2018, we reduced our investments in distressed mortgage loans and REO by \$727.9 million, or 78%. We received proceeds from liquidations, payoffs, paydowns and sales from our portfolio of distressed mortgage loans and REO totaling \$721.9 million, including sales totaling \$563.4 million in fair value of distressed mortgage loans. At December 31, 2018, we held \$203.4 million of distressed mortgage assets (comprised of distressed mortgage loans and REO).

We believe that we qualify to be taxed as a REIT and as such will not be subject to federal income tax on that portion of our income that is distributed to shareholders as long as we meet applicable REIT asset, income and share ownership tests. If we fail to qualify as a REIT, and do not qualify for certain statutory relief provisions, our profits will be subject to income taxes and we may be precluded from qualifying as a REIT for the four tax years following the year we lose our REIT qualification. A portion of our activities, including our correspondent production business, is conducted in our taxable REIT subsidiary (“TRS”), which is subject to corporate federal and state income taxes. Accordingly, we have made a provision for income taxes with respect to the operations of our TRS. We expect that the effective rate for the provision for income taxes may be volatile in future periods. Our goal is to manage the business to take full advantage of the tax benefits afforded to us as a REIT.

#### Critical Accounting Policies

Preparation of financial statements in compliance with accounting principles generally accepted in the United States (“GAAP”) requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and revenues and expenses during the reporting period. Certain of these estimates significantly influence the portrayal of our financial condition and results, and they require our Manager to make difficult, subjective or complex judgments. Our critical accounting policies primarily relate to our fair value estimates.

#### Fair value

Our consolidated balance sheet is substantially comprised of assets that are measured at or based on their fair values. Measurement at fair value may be on a recurring or nonrecurring basis depending on the accounting principles applicable to the specific asset or liability and whether our Manager has elected to carry them at fair value. We group financial statement items measured at or based on fair value in three levels based on the markets in which the assets are traded and the observability of the inputs used to determine fair value.

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The fair value level assigned to an asset or liability is identified based on the lowest level of inputs that are significant to determining the respective asset or liability's fair value. These levels are:

Level Description	At December 31, 2018				
	Carrying value	of assets measured (1) (in thousands)		% of total assets equity	
Level 1: Prices determined using quoted prices in active markets for identical assets or liabilities.	\$80,165	1	%	5	%
Level 2: Prices determined using other significant observable inputs. Observable inputs are inputs that other market participants would use in pricing an asset or liability and are developed based on market data obtained from sources independent of the Manager.	4,543,499	58	%	290	%
Level 3: Prices determined using significant unobservable inputs. Unobservable inputs reflect our Manager's judgments about the factors that market participants use in pricing an asset or liability, and are based on the best information available in the circumstances.	1,788,020	23	%	114	%
Total assets measured at or based on fair value	\$6,411,684	82	%	409	%
Total assets	\$7,813,361				
Total shareholders' equity	\$1,566,132				

(1) Includes assets measured on both a recurring and nonrecurring basis based on the accounting principles applicable to the specific asset and whether we have elected to carry the item at its fair value. For assets carried at lower of amortized cost or fair value, carrying value represents the assets' amortized cost reduced by any applicable valuation allowance; for assets carried at fair value, carrying value is represented by such assets' fair value.

At December 31, 2018, \$6.3 billion, or 81%, of our total assets were carried at fair value on a recurring basis and \$85.7 million, or 1% (consisting of REO), were carried based on its fair value on a non-recurring basis when fair value indicates evidence of impairment. Of these assets, \$1.8 billion or 23% of total assets are measured using "Level 3" fair value inputs – significant inputs that are difficult to observe due to illiquidity of the markets in which the assets are traded. Changes in inputs to measurement of these financial statement items can have a significant effect on the amounts reported for these items including their reported balances and their effects on our net income.

As a result of the difficulty in observing certain significant valuation inputs affecting "Level 3" fair value assets and liabilities, our Manager is required to make judgments regarding these items' fair values. Different persons in possession of the same facts may reasonably arrive at different conclusions as to the inputs to be applied in estimating the fair value of these fair value assets and liabilities and their fair values. Such differences may result in significantly different fair value measurements. Likewise, due to the general illiquidity of some of these fair value assets and liabilities, subsequent transactions may be at values significantly different from those reported.

Because the fair value of "Level 3" fair value assets and liabilities is difficult to estimate, our Manager's valuation process is conducted by specialized staff and receives significant executive management oversight. Our Manager has assigned the responsibility for estimating the fair values of our "Level 3" fair value assets and liabilities, except for

interest rate lock commitments (“IRLCs”), to PFSI’s Financial Analysis and Valuation group (the “FAV group”). With respect to those valuations, PFSI’s FAV group reports to PFSI’s valuation committee, which oversees the valuations. During 2018, PFSI’s valuation committee included the Company’s executive chairman, chief executive, chief financial, chief risk and deputy chief financial officers.

The fair value of our IRLCs is developed by our Manager’s Capital Markets Risk Management staff and is reviewed by our Manager’s Capital Markets Operations group in the exercise of their internal control activities.

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Following is a discussion relating to our Manager's approach to measuring the assets and liabilities that are most affected by "Level 3" fair value estimates.

### Mortgage Loans

We carry mortgage loans at their fair values. We recognize changes in the fair value of mortgage loans in current period income as a component of either Net gain on mortgage loans acquired for sale or Net gain (loss) on investments. Our Manager estimates fair value of mortgage loans based on whether the mortgage loans are saleable into active markets with observable pricing.

Our Manager categorizes mortgage loans that are saleable into active markets as "Level 2" fair value assets. Such mortgage loans include substantially all of our mortgage loans acquired for sale and our mortgage loans held in a VIE. Our Manager estimates such loans' fair values using their quoted market price or market price equivalent. Our Manager categorizes mortgage loans that are not saleable into active markets as "Level 3" fair value assets. Such mortgage loans include substantially all of our investments in distressed mortgage loans and certain of the mortgage loans acquired for sale which we subsequently repurchased pursuant to representations and warranties or that our Manager identified as non-saleable to the Agencies.

Our Manager estimates the fair value of our "Level 3" fair value mortgage loans using a discounted cash flow valuation model. Inputs to the model include current interest rates, loan amount, payment status and property type, and forecasts of future interest rates, home prices, prepayment speeds, defaults and loss severities.

A shift in the market for "Level 3" fair value mortgage loans or a change in our Manager's assessment of an input to the valuation of such fair value mortgage loans can have a significant effect on the fair value of our mortgage loans at fair value and in our income for the period. Our Manager believes that the fair value of distressed mortgage loans is most sensitive to changes in underlying property values. Following is a summary of the effect on fair value of changes to the property value inputs used by our Manager to make its fair value estimates as of December 31, 2018:

Change in input	Effect on fair value (in thousands)
5%	\$ 3,726
10%	\$ 7,167
15%	\$ 10,374
(5%)	\$ (4,001 )
(10%)	\$ (8,321 )
(15%)	\$ (12,951 )

### Excess Servicing Spread

We acquire the right to receive the ESS cash flows relating to certain MSRs over the life of the underlying mortgage loans. We carry our investment in ESS at fair value. We record changes in the fair value of ESS in Net gain (loss) on



investments.

Because ESS is a claim to a portion of the cash flows from MSR, its valuation process is similar to that of MSR discussed below. Our Manager uses the same discounted cash flow approach to measuring the ESS as it uses to value the related MSR except that certain inputs relating to the cost to service the mortgage loans underlying the MSR and certain ancillary income are not included as these cash flows do not accrue to the holder of the ESS.

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A shift in the market for ESS or a change in our Manager’s assessment of an input to the valuation of ESS can have a significant effect on the fair value of ESS and in our income for the period. We believe that the most significant “Level 3” fair value inputs to the valuation of ESS are the pricing spread (discount rate) and prepayment speed. Following is a summary of the effect on fair value of various changes to these inputs on our fair value estimates as of December 31, 2018:

Change in input	Effect on fair value of a change in input	
	Pricing spread (in thousands)	Prepayment speed
5%	\$(1,461)	\$ (4,607 )
10%	\$(2,904)	\$ (9,040 )
20%	\$(5,735)	\$ (17,418 )
(5%)	\$1,481	\$ 4,792
(10%)	\$2,980	\$ 9,779
(20%)	\$6,040	\$ 20,385

### Derivative Assets

#### Interest Rate Lock Commitments

Our net gain on mortgage loans acquired for sale includes our estimates of gains or losses we expect to realize upon the sale of mortgage loans we have committed to purchase but have not yet purchased or sold. Therefore, we recognize a substantial portion of our net gain on mortgage loans acquired for sale at fair value before we purchase the mortgage loan. In the course of our correspondent production activities, we make contractual commitments to correspondent sellers to purchase mortgage loans at specified terms. We call these commitments IRLCs. We recognize the fair value of IRLCs at the time we make the commitment to the correspondent seller and adjust the fair value of such IRLCs during the time the commitment is outstanding.

We carry IRLCs as either derivative assets or derivative liabilities on our consolidated balance sheet. The fair value of IRLCs is transferred to the fair value of mortgage loans acquired for sale at fair value when the mortgage loan is funded.

An active, observable market for IRLCs does not exist. Therefore, our Manager measures the fair value of IRLCs using methods and inputs it believes that market participants use in pricing IRLCs. Our Manager estimates the fair value of an IRLC based on quoted Agency MBS prices, its estimates of the fair value of the MSR we expect to receive in the sale of the mortgage loans and the probability that the mortgage loan will be purchased as a percentage of the commitment we have made (the “pull-through rate”).

Pull-through rates and MSR fair values are based on our Manager’s estimates as these inputs are difficult to observe in the mortgage marketplace. Changes in our Manager’s estimate of the probability that a mortgage loan will fund and changes in mortgage market interest rates are recognized as IRLCs move through the purchase process and may result in significant changes in the estimates of the fair value of the IRLCs. Such changes are reflected in the change in fair value of IRLCs which is a component of our Net gain on mortgage loans acquired for sale and may be included in Net mortgage loan servicing fees — from nonaffiliates when the Manager includes the IRLCs in its MSR hedging activities in the period of the change. The financial effects of changes in the pull-through rates and MSR fair values generally move in different directions. Increasing interest rates have a positive effect on the fair value of the MSR component of IRLC fair value but increase the pull-through rate for the principal and interest payment portion of the mortgage loans

that decrease in fair value.

A shift in the market for IRLCs or a change in our Manager's assessment of an input to the valuation of IRLCs can have a significant effect on the amount of gain on sale of mortgage loans acquired for sale for the period. Our Manager believes that the fair value of IRLCs is most sensitive to changes in pull-through rate inputs. Following is a quantitative summary of the effect of changes in pull-through inputs on the fair value of IRLCs at December 31, 2018:

Change in input	Effect on (1) fair value (in thousands)
5%	\$ 372
10%	\$ 687
20%	\$ 1,253
(5%)	\$ (682 )
(10%)	\$ (1,367 )
(20%)	\$ (2,738 )

(1) Pull-through rate adjustments for individual loans are limited to adjustments that will increase the individual loan's pull-through rate to 100%.

Credit Risk Transfer Agreements

We have entered into CRT Agreements with Fannie Mae, pursuant to which we sell pools of mortgage loans into Fannie Mae-guaranteed securitizations while retaining recourse obligations as part of the retention of an interest-only ownership interest in such mortgage loans. We carry the derivative asset relating to this transaction at fair value and recognize changes in the derivative's fair value in Net gain (loss) on investments in the consolidated statements of income.

A shift in the market for CRT Agreements or a change in our Manager's assessment of an input to the valuation of CRT Agreements can have a significant effect on the fair value of CRT Agreements and in our income for the period. We believe that the most significant "Level 3" fair value input to the valuation of CRT Agreements is the pricing spread (discount rate).

Following is a summary of the effect on fair value of various changes to the pricing spread input used to estimate the fair value of our CRT Agreements as of December 31, 2018:

Effect on fair value of a change in pricing spread input	Effect on fair value (in thousands)
Change in input (in basis points)	
25	\$ (13,918 )
50	\$ (27,605 )
100	\$ (54,295 )
(25)	\$ 14,171
(50)	\$ 28,563
(100)	\$ 58,115

Firm commitment to purchase CRT securities

Similar to the CRT Agreements above, we have entered into an agreement with Fannie Mae to purchase CRT securities related to mortgage loan pools we sell into Fannie Mae securitizations.

We categorize our firm commitment to purchase CRT securities as a "Level 3" fair value asset. The fair value of the firm commitment is estimated using a discounted cash flow approach to estimate the fair value of the CRT securities to be purchased related to the loans subject to the commitment. Key inputs used in the estimation of fair value of the firm commitment are the discount rate and the voluntary and involuntary prepayment speeds of the reference mortgage loans. The firm commitment to purchase CRT securities is recognized initially as a component of Net gain on mortgage loans acquired for sale. Subsequent changes in fair value are recorded in Net gain (loss) on investments.

A shift in the market for CRT securities or a change in our Manager's assessment of an input to the valuation of the firm commitment to purchase CRT securities can have a significant effect on the fair value of the firm commitment to purchase CRT securities. We believe the most significant input to the valuation of the firm commitment to purchase CRT securities is the pricing spread (discount rate).

Following is a quantitative summary of the effect on fair value of various changes to the pricing spread input used to estimate the fair value of firm commitment to purchase CRT securities as of December 31, 2018:

Effect on fair value of a change in pricing spread input
Change in input (in basis points)

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	Effect on fair value (in thousands)
25	\$ (7,162 )
50	\$ (14,200 )
100	\$ (27,915 )
(25)	\$ 7,289
(50)	\$ 14,707
(100)	\$ 29,943

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## Real Estate Acquired in Settlement of Loans

We measure REO based on its fair value on a nonrecurring basis and carry REO at the lower of cost or fair value. Our Manager determines the fair value of REO by using a current estimate of fair value from a broker's price opinion, a full appraisal or the price given in a current contract of sale of the property. We record changes in fair value and gains and losses on sale of REO in the consolidated statement of income under the caption Results of real estate acquired in settlement of loans.

## Mortgage Servicing Rights

MSRs represent the value of a contract that obligates us to service the mortgage loans on behalf of the owner of the loan in exchange for servicing fees and the right to collect certain ancillary income from the borrower. We carry all of our investments in MSRs at fair value and recognize changes in fair value in current period income. Changes in fair value of MSRs are recognized as a component of Net mortgage loan servicing fees—from nonaffiliates.

A shift in the market for MSRs or a change in our Manager's assessment of an input to the valuation of MSRs can have a significant effect on the fair value of MSRs and in our income for the period. Our Manager believes the most significant "Level 3" fair value inputs to the valuation of MSRs are the pricing spread (discount rate), prepayment speed and annual per-loan cost of servicing. Following is a summary of the effect on fair value of various changes to these key inputs that our Manager uses in making its fair value estimates as of December 31, 2018:

Change in input	Effect on fair value of a change in input value		
	Pricing spread (in thousands)	Prepayment speed	Servicing cost
5%	\$(13,872)	\$ (21,661 )	\$(8,298 )
10%	\$(27,428)	\$ (42,458 )	\$(16,597)
20%	\$(53,626)	\$ (81,660 )	\$(33,194)
(5%)	\$14,200	\$ 22,580	\$8,298
(10%)	\$28,738	\$ 46,140	\$16,597
(20%)	\$58,872	\$ 96,469	\$33,194

The preceding asset analyses hold constant all of the inputs other than the input that is being changed to show an estimate of the effect on fair value of a change in a specific input. We expect that in a market shock event, multiple inputs would be affected and the effects of these changes may compound or counteract each other. Therefore the preceding analyses are not projections of the effects of a shock event or a change in our Manager's estimate of an input and should not be relied upon as earnings projections.

## Critical Accounting Policies Not Tied to Fair Value

## Liability for Representations and Warranties

We record a provision for losses relating to our representations and warranties as part of our mortgage loan sale transactions. The method we use to estimate the liability for representations and warranties is a function of the representations and warranties made to the buyers of our mortgage loans and considers a combination of factors, including, but not limited to, estimated future default and mortgage loan defect rates, the potential severity of loss in

the event of default and the probability of reimbursement by the correspondent seller who sold the mortgage loan to us. We establish a liability at the time we sell the mortgage loans to the investors and periodically update our liability estimate.

The level of the liability for representations and warranties is difficult to estimate and requires considerable judgment. The level of mortgage loan repurchase losses is dependent on economic factors, investor behavior, and other external conditions that may change over the lives of the underlying mortgage loans. Our estimate of the liability for representations and warranties is developed by our Manager's credit administration staff. The liability estimate is reviewed and approved by our Manager's senior management credit committee which includes its chief executive, chief risk, chief credit, chief mortgage operations, and chief mortgage banking officers.

As economic fundamentals change, as investor and Agency evaluations of their loss mitigation strategies (including claims under representations and warranties) change and as the mortgage market and general economic conditions affect our correspondent sellers, the level of repurchase activity and ensuing losses will change. As a result of these changes, we adjust the estimate of our liability for representations and warranties. Such adjustments may be material to our financial condition and income and, when made, are included in Net gain on mortgage loans acquired for sale-from nonaffiliates.

## Consolidation—Variable Interest Entities

We enter into various types of on- and off-balance sheet transactions with special purpose entities (“SPEs”), which are trusts that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions. In a securitization transaction, we transfer mortgage loans on our balance sheet to an SPE, which then issues various forms of interests in those assets to investors. In a securitization transaction, we typically receive cash and/or beneficial interests in an SPE in exchange for the assets we transfer.

SPEs are generally considered variable interest entities (“VIEs”). A VIE is an entity having either a total equity investment that is insufficient to finance its activities without additional subordinated financial support or whose equity investors lack the ability to control the entity’s activities. Variable interests are investments or other interests that will absorb portions of a VIE’s expected losses or receive portions of the VIE’s expected residual returns. Expected residual returns represent the expected positive variability in the fair value of a VIE’s net assets.

When an SPE is a VIE, holders of variable interests in that entity must evaluate whether they are the VIE’s primary beneficiary. The primary beneficiary of a VIE is the party that has both the power to direct the activities that most significantly impact the VIE and a variable interest that could potentially be significant to the VIE. The primary beneficiary of a VIE must consolidate the assets and liabilities of the VIE onto its consolidated balance sheet. Therefore, our evaluation of a securitization as a VIE and our status as the VIE’s primary beneficiary can have a significant effect on our balance sheet.

We evaluate the securitization trust into which assets are transferred to determine whether the entity is a VIE. To determine whether a variable interest we hold could potentially be significant to the VIE, we consider both qualitative and quantitative factors regarding the nature, size and form of our involvement with the VIE. We assess whether we are the primary beneficiary of a VIE on an ongoing basis.

For our financial reporting purposes, the underlying assets owned by the securitization VIEs that we presently consolidate are shown under Mortgage loans at fair value, Derivative assets and Deposits securing credit risk transfer agreements on our consolidated balance sheets:

•The VIE that holds assets relating to our CRT Agreements, shown as constituent assets and liabilities – the Deposit securing credit risk transfer agreements and the Derivative assets which represent our Recourse Obligation, Interest-only (“IO”) ownership interest, and Interest-only security payable at fair value. We include the income we receive from the IO ownership interests and changes in fair value of the Derivative Assets and Interest-only security payable at fair value in Net gain (loss) on investments in the consolidated income statements.

•The VIE that holds mortgage loans we have securitized are also shown as their constituent assets and liabilities—Mortgage loans at fair value, and the securities issued to third parties by the consolidated VIE are classified as secured borrowings and are shown as Asset-backed financing of a variable interest entity at fair value on our consolidated balance sheets. We include the interest earned on the loans held by the VIE in Interest income and interest attributable to the asset-backed securities issued by the VIE in Interest expense in our consolidated income statements. Gains and losses relating to mortgage loans held in a consolidated VIE and the associated asset-backed financing are included in Net gain on investments.

## Income Taxes

We have elected to be taxed as a REIT and believe we comply with the provisions of the Internal Revenue Code applicable to REITs. Accordingly, we believe that we will not be subject to federal income tax on that portion of our REIT taxable income that is distributed to shareholders as long as we meet the requirements of certain asset, income and share ownership tests. If we fail to qualify as a REIT, and do not qualify for certain statutory relief provisions, we will be subject to income taxes and may be precluded from qualifying as a REIT for the four tax years following the year of loss of our REIT qualification.



Our TRS is subject to federal and state income taxes. We provide for income taxes using the asset and liability method. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. We measure deferred tax assets and liabilities using enacted rates expected to apply to taxable income in the years in which we expect those temporary differences to be recovered or settled.

We recognize the effect on deferred taxes of a change in tax rates in income in the period in which the change occurs. We establish a valuation allowance if, in our judgment, realization of deferred tax assets is not more likely than not.

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We recognize tax benefits relating to tax positions we take only if it is more likely than not that the position will be sustained upon examination by the appropriate taxing authority. We recognize a tax position that meets this standard as the largest amount that in our judgment exceeds 50 percent likelihood of being realized upon settlement. We will classify any penalties and interest as a component of income tax expense.

### Accounting Developments

Refer to Note 3 – Significant Accounting Policies – Recently Issued Accounting Pronouncement to our consolidated financial statements for a discussion of recent accounting developments and the expected effect of these developments on us.

### Non-Cash Income

A substantial portion of our net investment income includes non-cash items, including fair value adjustments, recognition of the fair value of assets created and liabilities incurred in mortgage loan sale transactions, and the capitalization and amortization of certain assets and liabilities. Because we have elected, or are required by generally accepted accounting principles, to record our financial assets (comprised of MBS, mortgage loans and ESS), our firm commitment to purchase CRT securities, our derivatives, our MSR's, our asset-backed financing, interest-only security payable and derivative liabilities at fair value, a substantial portion of the income or loss we record with respect to such assets and liabilities results from non-cash changes in fair value.

The amounts of non-cash income (loss) items included in net investment income are as follows:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Net mortgage loan servicing fees—MSR valuation adjustments	\$60,772	\$(10,249 )	\$(5,938 )
Net gain on mortgage loans acquired for sale:			
Receipt of MSR's in mortgage loan sale transactions	356,755	290,309	275,092
Fair value of commitment to purchase credit risk transfer securities	30,595	—	—
Provision for losses relating to representations and warranties provided in mortgage loan sales:			
Pursuant to mortgage loans sales	(2,531 )	(3,147 )	(3,254 )
Reduction in liability due to change in estimate	3,707	9,679	7,564
Change in fair value during the year of financial instruments held at year end:			
IRLCs	7,356	855	(869 )
Mortgage loans acquired for sale	(9,685 )	5,879	(1,846 )
Hedging derivatives	16,162	(15,957 )	19,347
	402,359	287,618	296,034
Net gain (loss) on investments:			
Mortgage-backed securities	(11,262 )	5,498	(13,168 )
Mortgage loans:			
Distressed	(11,514 )	(5,711 )	(8,342 )
Held in a variable interest entity	(8,499 )	4,266	(1,748 )
ESS	11,084	(14,530 )	(17,394 )
CRT Agreements	6,015	71,997	11,202

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Firm commitment to purchase CRT securities	7,399	—	—
Interest-only security payable at fair value	(19,332 )	(11,033 )	(4,114 )
Asset-backed financing of a VIE	9,610	(3,426 )	3,238
	(16,499 )	47,061	(30,326 )
Net interest income—Capitalization of interest			
pursuant to mortgage loan modifications	7,439	30,795	84,820
	\$454,071	\$355,225	\$344,590
Net investment income	\$351,067	\$317,940	\$272,088
Non-cash items as a percentage of net investment income	129	% 112	% 127 %

We received cash relating to our investments as follows:

- We receive cash related to MSRs in the form of mortgage loan servicing fees
- We receive proceeds on the sale of mortgage loans acquired for sale that include both cash and our estimate of the fair value of MSRs and a firm commitment to purchase CRT securities, and we recognize a liability for potential losses

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relating to representations and warranties created in the mortgage loan sales transactions. We pay cash relating to our provision for representations and warranties when we repurchase mortgage loans or settle loss claims from investors. We receive cash relating to our investments in MBS through monthly principal and interest payments from the issuer of such securities.

Cash is generated with respect to CRT Agreements through a portion of both the interest payments collected on mortgage loans in the CRT Agreements' reference pools and the deposits securing the agreements that are released as principal on such mortgage loans is repaid.

Cash flows relating to hedging instruments are generally produced when the instruments mature or when we effectively cancel the transactions through an offsetting trade.

Cash is generated when mortgage loan investments are paid down, paid off or sold, when payments of principal and interest occur on such mortgage loans or when the property securing the mortgage loan has been sold. The following table illustrates the proceeds received during the period from dispositions and paydowns of distressed mortgage loan and REO investments, net gain in fair value that we accumulated over the period during which we owned such investments liquidated during the period, and additional net gain realized upon liquidation of such assets:

	Year ended December 31, 2018			2017			2016		
	Proceeds (1) (in thousands)	Accumulated gains (losses)	Net gain on liquidation (2)	Proceeds (1)	Accumulated gains (losses)	Net gain on liquidation (2)	Proceeds (1)	Accumulated gains (losses)	Net gain on liquidation (2)
Mortgage loans	\$37,441	\$ 3,936	\$ 742	\$101,253	\$ 11,010	\$ 3,254	\$142,301	\$ 17,805	\$ 4,739
REO	99,195	(17,143 )	6,188	171,293	(19,125 )	11,203	234,629	(7,631 )	17,075
	136,636	(13,207 )	6,930	272,546	(8,115 )	14,457	376,930	10,174	21,814
Distressed mortgage  loan sales									
(3)	563,403	59,010	(4,425 )	415,157	50,949	1,790	483,813	86,720	92
	\$700,039	\$ 45,803	\$ 2,505	\$687,703	\$ 42,834	\$ 16,247	\$860,743	\$ 96,894	\$ 21,906

(1) Represents valuation gains and losses recognized during the period we held the respective asset, including expected gains or losses upon sale of assets subject to contract of sale, but excludes the gain or loss recorded upon sale or repayment of the respective asset.

(2) Represents the gain or loss recognized upon sale or repayment of the respective asset.

(3) Excludes \$14.8 million in proceeds received during the year ended December 31, 2017, from the sale of seasoned loans originally acquired in our correspondent production business.

Accumulated gains include the amount of accumulated valuation gains and losses recognized throughout the holding period and, in the case of REO, include estimated direct transaction costs to be incurred in the sale of the property. The amounts included in accumulated gains and gains on liquidation do not include the cost of managing the liquidated assets which may be substantial depending on the collection status of the mortgage loan at acquisition and on our success in working with the borrower to resolve the distress in the mortgage loan. The primary expenses incurred at a loan level in managing our portfolio of distressed assets are servicing and activity fees. From the time of

acquisition of the distressed assets through their deboarding dates, we incurred servicing and activity fees of \$33.3 million, \$31.8 million and \$37.3 million for assets liquidated during the years ended December 31, 2018, 2017 and 2016, respectively. Accordingly, the preceding amounts do not represent periodic earnings on a cash basis and the amount of gain will have accumulated over varying periods depending on the holding periods for individual assets.

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## Results of Operations

The following is a summary of our key performance measures:

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except per common share amounts)		
Net investment income	\$351,067	\$317,940	\$272,088
Expenses	(193,079 )	(193,394 )	(210,325 )
Pre-tax income	157,988	124,546	61,763
(Provision for) benefit from income taxes	(5,190 )	(6,797 )	14,047
Net income	152,798	117,749	75,810
Dividends on preferred shares	24,938	15,267	—
Net income attributable to common shareholders	\$127,860	\$102,482	\$75,810
Pre-tax income (loss) by segment:			
Correspondent production	\$16,472	\$42,938	\$73,842
Credit sensitive strategies	87,251	102,214	17,288
Interest rate sensitive strategies	98,432	22,683	14,041
Corporate	(44,167 )	(43,289 )	(43,408 )
	\$157,988	\$124,546	\$61,763
Return on average common shareholder's equity	10.2	% 7.8	% 5.4
Earnings per common share:			
Basic	\$2.09	\$1.53	\$1.09
Diluted	\$1.99	\$1.48	\$1.08
Dividends per common share declared & paid	\$1.88	\$1.88	\$1.88
Per common share closing prices:			
During the year:			
High	\$21.29	\$18.45	\$17.21
Low	\$15.57	\$14.97	\$11.21
At year end	\$18.62	\$16.07	\$16.37
At year end:			
Total assets	\$7,813,361	\$5,604,933	\$6,357,502
Book value per common share	\$20.61	\$20.13	\$20.26

Our net income increased during the year ended December 31, 2018, as compared to the same period in 2017, primarily due to an increase in pretax income in our interest rate sensitive strategies segment of \$75.7 million. During the year ended December 31, 2018, our interest rate sensitive strategies segment recognized net investment income totaling \$133.6 million, an increase of \$81.8 million from \$51.8 million during the same period in 2017, primarily due to increased net servicing income, reflecting the growth in our servicing portfolio supplemented by the beneficial effect of the increasing fair value, net of hedging results, of our servicing assets, resulting from the generally increasing interest rates in 2018 as opposed to 2017.

In our correspondent production activities, our net investment income decreased by \$26.4 million during the year ended December 31, 2018, as compared to the same period in 2017, from \$132.0 million to \$105.6 million. Our net gain on mortgage loans acquired for sale decreased due to tightening gain on sale margins, resulting from a smaller mortgage market size. However, we maintained our mortgage loan production volume in a smaller mortgage market

in part due to the continued growth of our correspondent seller network.

Credit sensitive strategies segment pretax income decreased by \$15.0 million during the year ended December 31, 2018, as compared to the same period in 2017 from \$102.2 million to \$87.3 million due to decreased gains on CRT Agreements and increased losses on distressed mortgage loans.

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Our net income increased during the year ended December 31, 2017, as compared to the same period in 2016, primarily due to an increase in pretax income in our credit sensitive strategies segment of \$84.9 million. During the year ended December 31, 2017, our credit sensitive strategies segment recognized net investment income totaling \$133.4 million, an increase of \$67.1 million from \$66.3 million during the year ended December 31, 2016, primarily due to gains from our investments in CRT Agreements which reflects both growth in our investment in CRT Agreements and a tightening of credit spreads (credit spreads represent the yield premium demanded by investors for securities similar to CRT Agreements as compared to a U.S. Treasury security).

In our correspondent production activities, our net investment income decreased by \$36.5 million during the year ended December 31, 2017, as compared to the year ended December 31, 2016, from \$168.5 million to \$132.0 million. Our net gain on mortgage loans acquired for sale decreased due to tightening gain on sale margins, resulting from a smaller mortgage market size. However, we maintained our mortgage loan production volume in a smaller mortgage market through the continued growth of our correspondent seller network.

### Net Investment Income

Our net investment income is summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Net mortgage loan servicing fees	\$120,587	\$69,240	\$54,789
Net gain on mortgage loans held for sale	59,185	74,516	106,442
Net mortgage loan origination fees	43,321	40,184	41,993
Net gain on investments	81,926	96,384	7,175
Net interest income	47,601	43,805	72,354
Results of real estate acquired in settlement of loans	(8,786 )	(14,955 )	(19,118 )
Other	7,233	8,766	8,453
	\$351,067	\$317,940	\$272,088

Our net investment income reflects the effects of rising interest rates on our net mortgage loan servicing fees and our net gains on mortgage loans held for sale, as well as the effect of the growth of our investments in MBS and CRT Agreements.

### Net Mortgage Loan Servicing Fees

Our correspondent production activity is the primary source of our mortgage loan servicing portfolio. When we sell mortgage loans, we generally enter into a contract to service those loans and we recognize the fair value of such contracts as MSRs. Under these contracts, we are required to perform mortgage loan servicing functions in exchange for fees and the right to other compensation.

The servicing functions, which are performed on our behalf by PLS, typically include, among other responsibilities, collecting and remitting mortgage loan payments; responding to borrower inquiries; accounting for the mortgage loan; holding and remitting custodial (impound) funds for payment of property taxes and insurance premiums; counseling delinquent mortgagors; and supervising foreclosures and property dispositions.



Net mortgage loan servicing fees are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
From non-affiliates:			
Servicing fees (1)	\$204,663	\$164,776	\$125,961
Ancillary and other fees	8,062	6,523	5,872
Effect of MSR:			
Amortization and realization of cashflows	(119,552 )	(91,386 )	(74,961 )
Market changes affecting fair value	60,772	(10,249 )	(5,938 )
	(58,780 )	(101,635 )	(80,899 )
Gain on sale	—	660	11
(Losses) gains on hedging derivatives	(35,550 )	(2,512 )	2,271
	(94,330 )	(103,487 )	(78,617 )
	118,395	67,812	53,216
From PFSI—MSR recapture income	2,192	1,428	1,573
Net mortgage loan servicing fees	\$120,587	\$69,240	\$54,789
Average servicing portfolio UPB	\$80,500,212	\$63,836,843	\$49,626,758

(1) Includes contractually specified servicing fees, net of guarantee fees.

Net mortgage loan servicing fees increased during the year ended December 31, 2018 as compared to 2017 by \$51.3 million. The increase in net mortgage loan servicing fees during the year ended December 31, 2018, as compared to the year ended December 31, 2017, was primarily attributable to a 26% increase in the average size of our servicing portfolio measured in UPB during 2018, as compared to 2017, supplemented by the beneficial effect of an increase in fair value of our MSR as a result of increasing interest rates during 2018 compared to 2017.

Net mortgage loan servicing fees increased during the year ended December 31, 2017 as compared to 2016 by \$14.5 million. The increase in net mortgage loan servicing fees during the year ended December 31, 2017, as compared to the year ended December 31, 2016, was primarily attributable to a 29% increase in the average size of our servicing portfolio measured in UPB during 2017, as compared to 2016, partially offset by an increase in amortization and changes in fair value of the MSR resulting from the realization of cash flows and a provision for impairment as a result of the effect of a fluctuation in interest rates throughout 2017.

## Net Gain on Mortgage Loans Acquired for Sale

Our net gain on mortgage loans acquired for sale is summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
From non-affiliates:			
Cash loss:			
Mortgage loans	\$(363,271 )	\$(209,898 )	\$(229,743 )
Hedging activities	9,172	(15,288 )	30,927
	(354,099 )	(225,186 )	(198,816 )
Non-cash gain:			
Receipt of MSR in mortgage loan sale transactions	356,755	290,309	275,092
Provision for losses relating to representations and warranties provided in mortgage loan sales:			
Pursuant to mortgage loan sales	(2,531 )	(3,147 )	(3,254 )
Reduction in liability due to change in estimate	3,707	9,679	7,564
	1,176	6,532	4,310
Recognition of fair value of commitment to purchase credit risk transfer security relating to loans sold	30,595	—	—
Change in fair value during the year of financial instruments held at year end:			
IRLCs	7,356	855	(869 )
Mortgage loans	(9,685 )	5,879	(1,846 )
Hedging derivatives	16,162	(15,957 )	19,347
	13,833	(9,223 )	16,632
Total from non—affiliates	48,260	62,432	97,218
From PFSI—cash gain	10,925	12,084	9,224
	\$59,185	\$74,516	\$106,442
Interest rate lock commitments issued:			
Loans acquired for sale to nonaffiliates	\$29,341,579	\$24,855,512	\$25,447,021
Loans acquired for sale to PFSI	37,381,759	41,071,446	41,692,087
	\$66,723,338	\$65,926,958	\$67,139,108

The changes in net gain on mortgage loans acquired for sale during the year ended December 31, 2018, as compared to the same period in 2017, reflects the fair value of our commitment to invest in the credit risk of our mortgage loan production. We included \$30.6 million in gain on sale of mortgage loans acquired for sale related to our investment in the credit risk on the mortgage loans we sold during the year ended December 31, 2018. The fair value we recognized associated with this commitment was offset by the negative effect on mortgage loan profitability caused by generally rising interest rates in the mortgage market, which has a negative effect on demand for mortgage lending and which has not yet been matched by reduced production capacity in the mortgage marketplace.

The decrease in gain on mortgage loans acquired for sale during the year ended December 31, 2017, as compared to the year ended December 31, 2016, was due to tightening of gain on sale margins, which resulted from increased

competition in the mortgage market resulting from decreased mortgage loan demand. We maintained our production volume, in part, through the continued growth of our correspondent seller network.

Our net gain on mortgage loans acquired for sale includes both cash and non-cash elements. We receive proceeds on sale that include cash and our estimates of the fair value of both the MSR's we received and our firm commitment to purchase CRT securities relating to our mortgage loan production. We also recognize a liability for potential losses relating to representations and warranties created in the mortgage loan sales transactions.

Provision for Losses on Representations and Warranties

We provide for our estimate of the future losses that we may be required to incur as a result of our breach of representations and warranties. Our agreements with the purchasers include representations and warranties related to the mortgage loans we sell. The representations and warranties require adherence to purchaser and insurer origination and underwriting guidelines, including but not limited to the validity of the lien securing the mortgage loan, property eligibility, borrower credit, income and asset requirements, and compliance with applicable federal, state and local law.

In the event of a breach of our representations and warranties, we may be required to either repurchase the mortgage loans with the identified defects or indemnify the investor or insurer. In such cases, we bear any subsequent credit loss on the mortgage loans. Our credit loss may be reduced by any recourse we have to correspondent sellers that, in turn, had sold such mortgage loans to us and breached similar or other representations and warranties. In such event, we have the right to seek a recovery of related repurchase losses from that correspondent seller.

The method we use to estimate the liability for representations and warranties is a function of estimated future defaults, mortgage loan repurchase rates, the potential severity of loss in the event of default and the probability of reimbursement by the correspondent mortgage loan seller. We establish a liability at the time mortgage loans are sold and review our liability estimate on a periodic basis.

Following is a summary of the indemnification and repurchase activity and mortgage loans subject to representations and warranties:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Indemnification activity:</b>			
Mortgage loans indemnified at beginning of year	\$5,926	\$4,856	\$5,566
New indemnifications	1,937	2,069	645
Less: Indemnified mortgage loans repaid or refinanced	788	999	1,355
Mortgage loans indemnified at end of year	\$7,075	\$5,926	\$4,856
Mortgage loans with deposits received from correspondent sellers			
collateralizing prospective indemnification losses at end of year	\$781	\$1,145	\$645
<b>Repurchase activity:</b>			
Mortgage loans repurchased	\$12,208	\$11,596	\$11,380
<b>Less:</b>			
Mortgage loans repurchased by correspondent sellers	8,455	7,669	8,808
Mortgage loans repaid by borrowers	2,713	4,133	2,734
Net mortgage loans repurchased (repurchased by			
correspondent sellers or repaid by borrowers)	\$1,040	\$(206)	\$(162)
Net (recovery credited) losses charged to liability for			
representations and warranties	\$(12)	\$140	\$511
<b>At end of year:</b>			
Mortgage loans subject to representations and warranties	\$90,427,100	\$71,416,333	\$56,114,162
Liability for representations and warranties	\$7,514	\$8,678	\$15,350

The losses we have recorded to date have been moderated by our ability to recover most of the losses inherent in the repurchased mortgage loans from the correspondent sellers. As the outstanding balance of mortgage loans we purchase and sell subject to representations and warranties increases, as the mortgage loans sold season, and as our correspondent sellers' ability and willingness to repurchase mortgage loans and our investors' and guarantors' loss mitigation strategies change, we expect that the level of repurchase activity and associated losses may increase.

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The amount of the liability for representations and warranties is difficult to estimate and requires considerable judgment. The level of mortgage loan repurchase losses is dependent on economic factors, investor loss mitigation strategies, our ability to recover any losses inherent in the repurchased mortgage loan from the correspondent seller and other external conditions that may change over the lives of the underlying mortgage loans. We may be required to incur losses related to such representations and warranties for several periods after the mortgage loans are sold or liquidated.

We record adjustments to our recorded liability for losses on representations and warranties as economic fundamentals change, as investor and Agency evaluations of their loss mitigation strategies (including claims under representations and warranties) change and as economic conditions affect our correspondent sellers' ability or willingness to fulfill their recourse obligations to us. Such adjustments may be material to our financial position and income in future periods.

Adjustments to our liability for representations and warranties are included as a component of our Net gains on mortgage loans acquired for sale at fair value. We recorded a \$3.7 million reduction in liabilities for representations and warranties during the year ended December 31, 2018 due to the effects of certain mortgage loans reaching specified performance histories identified by the Agencies as sufficient to limit repurchase claims relating to such mortgage loans.

### Mortgage Loan Origination Fees

Mortgage loan origination fees represent fees we charge correspondent sellers relating to our purchase of mortgage loans from those sellers. The increase in fees during 2018, as compared to 2017, reflects an increase in our purchase of loans with delivery fees. During 2017, as compared to 2016, the change is reflective of the changes in the volume of mortgage loans we purchased during 2017 as compared to 2016.

### Net Gain (Loss) on Investments

Net gain (loss) on investments is summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
From non-affiliates:			
Mortgage-backed securities	\$(11,262)	\$5,498	\$(13,168)
Mortgage loans at fair value:			
Distressed	(15,197)	(684 )	(3,504 )
Held in a VIE	(8,499 )	4,266	(1,748 )
CRT Agreements	92,943	123,728	32,500
Firm commitment to purchase CRT securities	7,399	—	—
Asset-backed financings of a VIE at fair value	9,610	(3,426 )	3,238
Hedging derivatives	(4,152 )	(18,468 )	7,251
	70,842	110,914	24,569
From PFSI—ESS	11,084	(14,530 )	(17,394)
	\$81,926	\$96,384	\$7,175

The decrease in net gain on investments during 2018 as compared to 2017, was caused primarily by decreased gains from our CRT Agreements during 2018, as compared to 2017. The decrease in gains from CRT Agreements reflects

continued reductions in the credit spreads included in discount rates used in valuation of CRT Agreements during 2018. However, the decreases in credit spreads were not as significant during 2018 as compared to 2017.

The increase in net gain on investments during 2017, as compared to 2016, was caused primarily by increased gains from our CRT Agreements during 2017, as compared to 2016. The increase in gains from CRT Agreements reflects both an increased investment in the agreements and reduced credit spreads.

#### Mortgage-Backed Securities

During 2018, we recognized net valuation losses on MBS of \$11.3 million, as compared to gains of \$5.5 million during 2017. The losses we recorded during 2018 reflect the effects of rising interest rates during 2018 on a larger average portfolio balance of MBS as compared to 2017.

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During 2017, we recognized net valuation gains on MBS of \$5.5 million, as compared to losses of \$13.2 million during 2016. The gains we recorded during 2017 reflect the effects of more stable mortgage interest rates during 2017 on a larger average portfolio balance of MBS as compared to 2016, when interest rates rose significantly at the end of the year.

### Mortgage Loans at Fair Value – Distressed

Net (losses) gains on our investment in distressed mortgage loans at fair value are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
<b>Valuation changes:</b>			
Performing loans	\$2,331	\$30,721	\$(20,443 )
Nonperforming loans	(13,845 )	(36,432 )	12,101
	(11,514 )	(5,711 )	(8,342 )
Gain on payoffs	677	3,101	4,229
(Loss) gain on sale	(4,360 )	1,926	609
	\$(15,197 )	\$(684 )	\$(3,504 )
Average portfolio balance at fair value	\$473,458	\$1,152,930	\$1,731,638
Interest and fees capitalized	\$7,439	\$30,795	\$84,820
<b>Number of mortgage loans relating to gain recognized</b>			
on payoffs	142	325	462
<b>UPB of mortgage loans relating to gain recognized</b>			
on payoffs	\$38,396	\$104,337	\$139,481
<b>Number of mortgage loans relating to gain/(loss) recognized</b>			
on sales	2,528	1,767	2,102
<b>UPB of mortgage loans relating to gain/(loss) recognized</b>			
on sales	\$733,167	\$546,089	\$580,648

Because we have elected to record our mortgage loans at fair value, a substantial portion of the income we record with respect to such mortgage loans results from changes in fair value. Valuation changes amounted to losses of \$11.5 million in the year ended December 31, 2018, as compared to losses of \$5.7 million for the year ended December 31, 2017 and losses of \$8.3 million for the year ended December 31, 2016. We recognize estimated gain (loss) relating to mortgage loans subject to pending sales contracts in the valuation changes. Gains and losses on sales represent settlement adjustments realized at the date of sale.

We recognized valuation losses on both performing and nonperforming mortgage loans during the year ended December 31, 2018 due to the negative effect of observed increased yield requirements for comparable or related assets and to reduced cash flow expectations from our nonperforming loans during the year ended December 31, 2018.

During the three year period ended December 31, 2018, we continued to reduce our investment in distressed mortgage assets. During this period we received proceeds from liquidations, payoffs, paydowns and sales from our portfolio of mortgage loans and REO as shown below:



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	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Mortgage loans at fair value	\$600,844	\$516,410	\$626,114
Real estate acquired in settlement of loans	99,195	171,293	234,629
	\$700,039	\$687,703	\$860,743

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Implementing long-term, sustainable loan modification is one means by which we endeavor to increase the fair value of the distressed mortgage loans which we have typically purchased at discounts to their UPB. Loan modifications typically include capitalization of delinquent interest on such mortgage loans.

The valuation changes on performing mortgage loans reflect the effects of capitalization of delinquent interest on loans we modify. When we capitalize interest in a loan modification, we increase the carrying value of the mortgage loan. The interest income we recognize is offset by a valuation loss of corresponding magnitude. Changes in other inputs may result in further valuation changes to the mortgage loan, and subsequent performance of a modified mortgage loan will be reflected in its future fair value.

Following is a summary of interest capitalized in mortgage loan modifications:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Amount capitalized	\$7,439	\$30,795	\$84,820
UPB of mortgage loans before interest capitalization	\$149,023	\$309,703	\$372,626

Our disposition strategy for mortgage loans at fair value includes identification of the most financially beneficial resolution for each loan. Such resolutions may include modification or sale of the mortgage loan or acquisition of the property securing the distressed mortgage loan. During recent periods, loan sales have been our primary method of disposition. During 2018, 2017 and 2016, we received proceeds from the sale of mortgage loans at fair value totaling \$563.4 million, \$415.2 million and \$483.8 million, respectively. We believe that while future resolution activity will include mortgage loan sales, a significant portion of our remaining portfolio of distressed mortgage loans will require resolution through ongoing collection activities and borrower performance.

Absent sale of mortgage loans, and unlike liquidation of a defaulted mortgage loan, we expect that recovery of our investment in a performing modified mortgage loan will take place generally over a period of several years, during which we earn and collect interest income on such mortgage loan. Our current expectation is that we will receive cash on modified mortgage loans through monthly borrower payments, payoffs or acquisition of the property securing the mortgage loans and liquidation of the property in the event the borrower subsequently defaults.

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CRT Arrangements

The activity in and balances relating to our CRT Agreements and firm commitment to purchase CRT securities are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>CRT Agreements</b>			
UPB of mortgage loans sold under CRT Agreements	\$5,546,977	\$14,529,548	\$11,190,933
Deposits of cash securing CRT Agreements	\$596,626	\$152,641	\$306,507
(Decrease) increase in commitments to fund Deposits securing credit risk transfer agreements resulting from sale of mortgage loans	(482,471 )	390,362	92,109
Total new investments in CRT Agreements	\$114,155	\$543,003	\$398,616
Interest earned on Deposits securing CRT Agreements	\$15,441	\$4,291	\$930
<b>Gains recognized on CRT Agreements included in:</b>			
<b>Net gain (loss) on investments:</b>			
Realized	\$86,928	\$51,731	\$21,298
Resulting from valuation changes	25,347	83,030	15,316
	112,275	134,761	36,614
<b>Change in fair value of Interest-only security payable at fair value</b>			
	(19,332 )	(11,033 )	(4,114 )
	\$92,943	\$123,728	\$32,500
Payments made to settle losses	\$2,133	\$1,396	\$90
<b>At year end:</b>			
UPB of mortgage loans subject to Recourse Obligations	\$29,934,003	\$26,845,392	
Carrying value of investments in CRT Agreements (1)	\$1,270,488	\$687,507	
CRT Interest-only security payable at fair value	\$36,011	\$7,070	
Commitments to fund Deposits securing CRT Agreements	\$—	\$482,471	
Commitment to purchase credit risk transfer security (UPB)	\$605,052	\$—	
<b>Fair value of firm commitment to purchase credit risk transfer security</b>			
	\$37,994	\$—	
<b>Credit Risk Transfer Security</b>			
<b>UPB of mortgage loans sold subject to Firm commitment</b>			
to purchase credit risk transfer security	\$16,392,300	\$—	\$—

(1) Carrying value of investments in CRT Agreements includes Deposits securing CRT Agreements and CRT derivatives.

The decrease in gains recognized on CRT Agreements is due to the reduced valuation gains recognized during 2018 resulting from smaller decreases in credit spreads during 2018 as compared to 2017. The decreased valuation gains

were partially offset by growth in the realized gain on CRT Agreements resulting from growth in our CRT portfolio.

#### ESS Purchased from PFSI

We recognized fair value gains relating to our investment in ESS totaling \$11.1 million during 2018, as compared to fair value losses totaling \$14.5 million during 2017. Valuation gains relating to our investment in ESS reflects the effects of increasing interest rates on expected future cash flows accruing to this asset. Increasing interest rates discourage refinancing which slows the rate of repayment of the mortgage loans underlying ESS.

We recognized fair value losses relating to our investment in ESS totaling \$14.5 million during 2017, as compared to fair value losses totaling \$17.4 million during 2016. Losses recognized during 2017 reflect the effects of volatile interest rates and a flattening yield curve during 2017, partially offset by a decreasing investment in ESS. Our average investment in ESS decreased from \$317.9 million during 2016 to \$264.9 million during 2017.

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Net Interest Income

Net interest income is summarized below:

	For the year ended December 31, 2018					Interest yield/cost %
	Interest income/expense			Average balance		
	Coupon	Discount/ fees (1)	Total			
(dollars in thousands)						
<b>Assets:</b>						
Short-term investments	\$852	\$—	\$852	\$37,939	2.25	%
Mortgage-backed securities	60,280	(4,793 )	55,487	1,669,373	3.33	%
Mortgage loans acquired for sale at fair value	75,610	—	75,610	1,577,395	4.81	%
<b>Mortgage loans:</b>						
Distressed	14,027	7,639	21,666	473,458	4.59	%
Held by variable interest entity	11,713	100	11,813	301,398	3.93	%
	25,740	7,739	33,479	774,856	4.33	%
ESS from PFSI	15,138	—	15,138	231,448	6.56	%
Deposits securing CRT Agreements	15,441	—	15,441	751,593	2.06	%
	193,061	2,946	196,007	5,042,604	3.90	%
Placement fees relating to custodial funds	26,065	—	26,065			
Other	700	—	700			
	219,826	2,946	222,772	\$5,042,604	4.43	%
<b>Liabilities:</b>						
Assets sold under agreements to repurchase (2)	126,675	(11,292 )	115,383	\$3,901,772	2.97	%
<b>Mortgage loan participation purchase and sale</b>						
agreements	2,205	217	2,422	64,512	3.76	%
Exchangeable Notes	13,437	1,164	14,601	250,000	5.86	%
Notes payable	14,027	596	14,623	300,035	4.89	%
Asset-backed financings of a VIE at fair value	10,244	577	10,821	288,244	3.76	%
<b>Assets sold to PFSI under agreement to</b>						
repurchase	7,462	—	7,462	138,155	5.42	%
	174,050	(8,738 )	165,312	4,942,718	3.35	%
<b>Interest shortfall on repayments of mortgage loans serviced</b>						
for Agency securitizations	7,324	—	7,324			
Interest on mortgage loan impound deposits	2,535	—	2,535			
	183,909	(8,738 )	175,171	\$4,942,718	3.55	%
Net interest income	\$35,917	\$11,684	\$47,601			
Net interest margin					0.94	%
Net interest spread					0.88	%

(1) Amounts in this column represent capitalization of interest on delinquent mortgage loans, amortization of premiums and accrual of unearned discounts for assets and amortization of debt issuance costs and premiums for

liabilities.

(2) In 2017, the Company entered into a master repurchase agreement that provides the Company with incentives to finance mortgage loans approved for satisfying certain consumer relief characteristics as provided in the agreement. During the year ended December 31, 2018, the Company included \$19.7 million of such incentives as a reduction in Interest expense. The master repurchase agreement is subject to a rolling six-month term through August 21, 2019, unless terminated earlier at the option of the lender. The Company expects that it will cease to accrue the incentives under the repurchase agreement beginning in the second quarter of 2019, while there can be no assurance in that regard. We expect that the loss of such incentive income will be partially offset by an improvement in pricing margins.

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For the year ended December 31, 2017

Interest income/expense

	Discount/ Coupon fees (1)		Total	Average balance	Interest yield/cost %	
	(dollars in thousands)					
<b>Assets:</b>						
Short-term investments	\$576	\$—	\$576	\$34,804	1.66	%
Mortgage-backed securities	34,805	(5,367 )	29,438	1,026,850	2.87	%
Mortgage loans acquired for sale at fair value	53,164	—	53,164	1,366,017	3.90	%
<b>Mortgage loans:</b>						
Distressed	33,106	30,507	63,613	1,152,930	5.53	%
Held by variable interest entity	12,981	1,444	14,425	344,942	4.19	%
	46,087	31,951	78,038	1,497,872	5.22	%
ESS from PFSI	16,951	—	16,951	264,858	6.42	%
Deposits securing CRT Agreements	4,291	—	4,291	501,778	0.86	%
	155,874	26,584	182,458	4,692,179	3.89	%
Placement fees relating to custodial funds	12,517	—	12,517			
Other	201	—	201			
	168,592	26,584	195,176	\$4,692,179	4.17	%
<b>Liabilities:</b>						
Assets sold under agreements to repurchase (2)	86,067	7,513	93,580	\$3,487,150	2.69	%
<b>Mortgage loan participation purchase and sale</b>						
agreements	1,468	125	1,593	61,807	2.58	%
Exchangeable Notes	13,438	1,097	14,535	250,000	5.83	%
Notes payable	8,429	4,205	12,634	145,638	8.70	%
Asset-backed financings of a VIE at fair value	11,403	1,781	13,184	331,409	3.99	%
<b>Assets sold to PFSI under agreement to</b>						
repurchase	8,084	(46 )	8,038	149,319	5.40	%
	128,889	14,675	143,564	4,425,323	3.25	%
<b>Interest shortfall on repayments of mortgage loans serviced</b>						
for Agency securitizations	5,928	—	5,928			
Interest on mortgage loan impound deposits	1,879	—	1,879			
	136,696	14,675	151,371	\$4,425,323	3.43	%
Net interest income	\$31,896	\$11,909	\$43,805			
Net interest margin					0.93	%
Net interest spread					0.74	%

(1) Amounts in this column represent capitalization of interest on delinquent mortgage loans, amortization of premiums and accrual of unearned discounts for assets and amortization of debt issuance costs and premiums for liabilities.

(2) In 2017, the Company entered into a master repurchase agreement that provides the Company with incentives to finance mortgage loans approved for satisfying certain consumer relief characteristics as provided in the agreement. During the year ended December 31, 2017, the Company included \$3.1 million of such incentives as

reductions to Interest expense. The master repurchase agreement is subject to a rolling six-month term through August 21, 2019, unless terminated earlier at the option of the lender. The Company expects that it will cease to accrue the incentives under the repurchase agreement beginning in the second quarter of 2019, while there can be no assurance in that regard. We expect that the loss of such incentive income will be partially offset by an improvement in pricing margins.



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For the year ended December 31, 2016

Interest income/expense

	Discount/ Coupon fees (1) (dollars in thousands)		Total	Average balance	Interest yield/cost %	
<b>Assets:</b>						
Short-term investments	\$923	\$—	\$923	\$35,194	2.62	%
Mortgage-backed securities	17,054	(2,391 )	14,663	514,847	2.85	%
Mortgage loans acquired for sale at fair value	54,750	—	54,750	1,443,587	3.79	%
<b>Mortgage loans:</b>						
Distressed	53,916	53,128	107,044	1,731,638	6.18	%
Held by variable interest entity	15,748	1,294	17,042	422,122	4.04	%
	69,664	54,422	124,086	2,153,760	5.76	%
ESS from PFSI	22,601	—	22,601	317,945	7.11	%
Deposits securing CRT Agreements	930	—	930	311,351	0.30	%
	165,922	52,031	217,953	4,776,684	4.55	%
Placement fees relating to custodial funds	4,058	—	4,058			
Other	111	—	111			
	170,091	52,031	222,122	\$4,776,684	4.65	%
<b>Liabilities:</b>						
Assets sold under agreements to repurchase	84,009	8,829	92,838	\$3,382,528	2.74	%
<b>Mortgage loan participation purchase and sale</b>						
agreements	1,246	130	1,376	70,391	1.95	%
Federal Home Loan Bank advances	122	—	122	24,376	0.50	%
Exchangeable Notes	13,438	1,035	14,473	250,000	5.79	%
Notes payable	9,726	3,166	12,892	202,293	6.37	%
Asset-backed financings of a VIE at fair value	11,422	669	12,091	338,582	3.57	%
Borrowing from PFSI	6,509	1,321	7,830	150,000	5.22	%
	126,472	15,150	141,622	4,418,170	3.21	%
<b>Interest shortfall on repayments of mortgage loans serviced</b>						
for Agency securitizations	6,812	—	6,812			
Interest on mortgage loan impound deposits	1,334	—	1,334			
	134,618	15,150	149,768	\$4,418,170	3.39	%
Net interest income	\$35,473	\$36,881	\$72,354			
Net interest margin					1.51	%
Net interest spread					1.26	%

(1) Amounts in this column represent capitalization of interest on delinquent mortgage loans, amortization of premiums and accrual of unearned discounts for assets and amortization of debt issuance costs and premiums for liabilities.

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The effects of changes in the yields and costs and composition of our investments on our interest income are summarized below:

	Year ended December 31, 2018 vs. Year ended December 31, 2017 Increase (decrease)			Year ended December 31, 2017 vs. Year ended December 31, 2016 Increase (decrease)		
	due to changes in			due to changes in		
	Rate	Volume	Total change	Rate	Volume	Total change
	(in thousands)					
<b>Assets:</b>						
Short-term investments	\$220	\$56	\$276	\$(337 )	\$(10 )	\$(347 )
Mortgage-backed securities	5,289	20,760	26,049	138	14,637	14,775
Mortgage loans acquired for sale at fair value	13,456	8,990	22,446	1,500	(3,086 )	(1,586 )
<b>Mortgage loans:</b>						
Distressed	(9,417 )	(32,530)	(41,947)	(10,383)	(33,048)	(43,431)
Held by variable interest entity	(867 )	(1,745 )	(2,612 )	628	(3,245 )	(2,617 )
	(10,284)	(34,275)	(44,559)	(9,755 )	(36,293)	(46,048)
ESS from PFSI	365	(2,178 )	(1,813 )	(2,079 )	(3,571 )	(5,650 )
Deposits securing CRT Agreements	8,229	2,921	11,150	2,533	828	3,361
	17,275	(3,726 )	13,549	(8,000 )	(27,495)	(35,495)
<b>Placement fees relating to custodial funds</b>						
	—	13,548	13,548	—	8,459	8,459
Other	—	499	499	—	90	90
	17,275	10,321	27,596	(8,000 )	(18,946)	(26,946)
<b>Liabilities:</b>						
<b>Assets sold under agreements to repurchase</b>						
	10,066	11,737	21,803	(1,932 )	2,674	742
<b>Mortgage loan participation purchase and sale agreement</b>						
	756	73	829	400	(183 )	217
Exchangeable Notes	66	—	66	62	—	62
Notes payable	(7,252 )	9,241	1,989	3,929	(4,187 )	(258 )
<b>Asset-backed financing of a VIE at fair value</b>						
	(713 )	(1,650 )	(2,363 )	1,358	(265 )	1,093
<b>Assets sold to PFSI under agreement to repurchase</b>						
	27	(603 )	(576 )	246	(38 )	208
Federal Home Loan Bank advances	—	—	—	—	(122 )	(122 )
	2,950	18,798	21,748	4,063	(2,121 )	1,942
Interest shortfall on repayments of	—	1,396	1,396	—	(884 )	(884 )

mortgage loans serviced for

Agency securitizations

Interest on mortgage loan impound						
deposits	—	656	656	—	545	545
	2,950	20,850	23,800	4,063	(2,460 )	1,603
Net interest income	\$ 14,325	\$(10,529)	\$ 3,796	\$(12,063)	\$(16,486)	\$(28,549)

During the year ended December 31, 2018, we earned net interest income of \$47.6 million, as compared to \$43.8 million for the year ended December 31, 2017 and \$72.4 million for the year ended December 31, 2016. The increase in net interest income in 2018 as compared to 2017 was due to growth in our average investments in mortgage-backed securities and mortgage loans acquired for sale, supplemented by the benefit to our financing costs of incentives we received for financing mortgage loans satisfying certain consumer debt relief characteristics and reduced costs relating to our MSR financing. These increases were partially offset by the effect of liquidation of most of our portfolio of distressed mortgage loans, which are high yielding assets, as well as increased advance rates against our financed assets. The decrease in net interest income in 2017 as compared to 2016 was due to increased financing of non-interest earning assets, along with a decrease in the average balance of distressed mortgage loans at fair value. The effect of the reduction in the average balance of distressed mortgage loans at fair value was partially offset by increased investment in MBS.

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During the year ended December 31, 2018, we recognized interest income on distressed mortgage loans and mortgage loans held by VIEs totaling \$33.5 million, including \$7.4 million of interest capitalized pursuant to loan modifications, which compares to \$78.0 million, including \$30.8 million of interest capitalized pursuant to loan modifications in the year ended December 31, 2017. The increase in interest income was due to growth in our portfolio of MBS and average inventory of mortgage loans held for sale, partially offset by the effect of substantial liquidation of our portfolio of distressed mortgage loans which are high yielding assets.

At December 31, 2018, approximately 76% of the fair value of our distressed mortgage loan portfolio was nonperforming, as compared to 46% at December 31, 2017. The increase in this percentage reflects the significant sales of our portfolio of performing distressed mortgage loans during 2018. We do not accrue interest on nonperforming mortgage loans and generally do not recognize revenues during the period we hold REO. We calculate the yield on our mortgage loan portfolio based on the portfolio's average fair value, which most closely reflects our investment in the mortgage loans. Accordingly, the yield we realize is substantially higher than would be recorded based on the mortgage loans' UPBs as the fair values of our distressed mortgage loans are generally at substantial discounts to their UPB.

Nonperforming mortgage loans and REO generally take longer than performing mortgage loans to generate cash flow due to the time required to work with borrowers to resolve payment issues through our modification programs, and to acquire and liquidate the property securing the mortgage loans. The value and returns we realize from these assets are determined by our ability to assist borrowers in curing defaults, or when curing of borrower defaults is not a viable solution, by our ability to effectively manage the liquidation process. At December 31, 2018, we held \$88.9 million in fair value of nonperforming mortgage loans and \$85.7 million in carrying value of REO, as compared to \$353.6 million in fair value of nonperforming mortgage loans and \$162.9 million in carrying value of REO at December 31, 2017.

During the year ended December 31, 2018, we incurred interest expense totaling \$175.2 million, as compared to \$151.4 million during the year ended December 31, 2017. Our interest cost on interest bearing liabilities was 3.35% for the year ended December 31, 2018 and 3.25% for the year ended December 31, 2017. The increase in interest expense primarily reflects the effects of increased market interest rates during 2018 compared to 2017 and increases in the advance rates we achieved on financed assets. These increases were partially offset by the benefits we realized from the financing incentives included in the master repurchase agreement discussed above.

During the year ended December 31, 2017, we incurred interest expense totaling \$151.4 million, as compared to \$149.8 million during the year ended December 31, 2016. Our interest cost on interest bearing liabilities was 3.25% for the year ended December 31, 2017 and 3.21% for the year ended December 31, 2016. The increase in interest expense primarily reflects higher borrowing costs associated with financing investments in MSRs and ESS and higher weighted average borrowings related to the financing of those assets in the year ended December 31, 2017, as compared to the year ended December 31, 2016.

### Results of Real Estate Acquired in Settlement of Loans

Results of REO includes the gains or losses we record upon sale of the properties as well as valuation adjustments we record during the period we hold those properties. During the year ended December 31, 2018, we recorded net losses of \$8.8 million, as compared to \$15.0 million for 2017, in Results of real estate acquired in settlement of loans.

Results of REO are summarized below:

Year ended December 31,		
2018	2017	2016

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	(dollars in thousands)		
Proceeds from sales of REO	\$99,194	\$166,921	\$234,684
Results of real estate acquired in settlement of loans:			
Valuation adjustments, net	(17,323 )	(27,505 )	(36,193 )
Gain on sale, net	8,537	12,550	17,075
	\$(8,786 )	\$(14,955 )	\$(19,118 )
Number of properties sold	570	1,158	1,497
Average carrying value of REO	\$118,461	\$211,841	\$306,930
At year end:			
Carrying value	\$85,681	\$162,865	\$274,069
Number of properties	295	589	1,090

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Losses from REOs during 2018 decreased from 2017 levels due to reduced levels of REO activity during 2018 as compared to 2017.

### Expenses

Our expenses are summarized below:

	Year ended December 31,		
	2018	2017	2016
(in thousands)			
<b>Earned by PennyMac Financial Services, Inc.:</b>			
Mortgage loan fulfillment fees	\$81,350	\$80,359	\$86,465
Mortgage loan servicing fees	42,045	43,064	50,615
Management fees	24,465	22,584	20,657
Mortgage loan collection and liquidation	7,852	6,063	13,436
Compensation	6,781	6,322	7,000
Mortgage loan origination	6,562	7,521	7,108
Professional services	6,380	6,905	6,819
Real estate held for investment	6,251	6,376	3,213
Other	11,393	14,200	15,012
	<b>\$193,079</b>	<b>\$193,394</b>	<b>\$210,325</b>

Expenses decreased \$0.3 million during 2018, as compared to 2017, primarily due to the decreased size of our distressed asset portfolio offset by increased management fees due to an increase in shareholders' equity and increased incentive-based fees.

Expenses decreased \$16.9 million, or 8%, during 2017, as compared to 2016, primarily due to decreased expenses relating to our portfolio of distressed mortgage loans and reduced mortgage loan fulfillment fees, partially offset by increased expenses related to real estate held for investment and increased management fees due to an increase in shareholders' equity.

### Mortgage Loan Fulfillment Fees

Mortgage loan fulfillment fees represent fees we pay to PLS for the services it performs on our behalf in connection with our acquisition, packaging and sale of mortgage loans. The fee is calculated as a percentage of the UPB of the mortgage loans purchased. Mortgage loan fulfillment fees and related fulfillment volume are summarized below:

	Year ended December 31,		
	2018	2017	2016
(dollars in thousands)			
Fulfillment fee expense	\$81,350	\$80,359	\$86,465
UPB of mortgage loans fulfilled by PLS	\$26,194,303	\$22,971,119	\$23,188,386
Average fulfillment fee rate (in basis points)	31	35	37

The increase in mortgage loan fulfillment fees of \$1.0 million during 2018, as compared to 2017, is primarily due to an increase in the volume of mortgage loans fulfilled for us by PFSI, partially offset by a decrease in the average fulfillment fee rate charged by PFSI due to discretionary reductions made by PFSI to facilitate successful loan acquisitions by us.

The decrease in mortgage loan fulfillment fees of \$6.1 million during 2017, as compared to 2016, is primarily due to a decrease in the average fulfillment fee rate charged by PFSI due to contractual reductions in the fulfillment fee following an amendment to the mortgage banking services agreement with PFSI in September 2016.

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Mortgage Loan Servicing Fees

Mortgage loan servicing fees payable to PLS are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Mortgage loan servicing fees			
Mortgage loans acquired for sale at fair value:			
Base	\$347	\$305	\$330
Activity-based	690	649	733
	1,037	954	1,063
Mortgage loans at fair value:			
Distressed mortgage loans:			
Base	2,771	6,650	11,078
Activity-based	4,784	8,960	18,521
	7,555	15,610	29,599
Mortgage loans held in VIE - Base	40	129	83
MSRs:			
Base	32,814	25,862	19,378
Activity-based	599	509	492
	33,413	26,371	19,870
	\$42,045	\$43,064	\$50,615
Average investment in:			
Mortgage loans acquired for sale at fair value	\$1,577,395	\$1,366,017	\$1,443,587
Mortgage loans at fair value:			
Distressed mortgage loans	\$473,458	\$1,152,930	\$1,731,638
Mortgage loans held in a VIE	\$301,398	\$344,942	\$422,122
Average mortgage loan servicing portfolio UPB	\$80,500,212	\$63,836,843	\$49,626,758

Mortgage loan servicing fees decreased by \$1.0 million during the year ended December 31, 2018, as compared to 2017. We incur mortgage loan servicing fees primarily in support of our MSR portfolio and investment in mortgage loans at fair value. The decrease in mortgage loan servicing fees was primarily due to reductions in the distressed mortgage loan portfolio resulting from continuing loan sales and liquidations throughout 2018. This decrease was partially offset by the increase in servicing fees resulting from the ongoing growth of our MSR portfolio. Servicing fee rates relating to distressed mortgage loans are significantly higher than those relating to MSRs due to the higher cost of servicing such loans. Therefore, reductions in the balance of distressed mortgage loans had a more significant effect on mortgage loan servicing fees than the additions of new MSRs.

Management Fees

The components of our management fee payable to PCM are summarized below:

	Year ended December 31,		
	2018	2017	2016



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	(in thousands)		
Base	\$23,033	\$22,280	\$20,657
Performance incentive	1,432	304	—
	\$24,465	\$22,584	\$20,657
Average shareholders' equity amounts used to calculate			
management fee expense	\$1,535,590	\$1,484,446	\$1,377,361

Management fees increased by \$1.9 million during 2018, as compared to 2017, primarily due to the increase in the 2018 performance incentives as well as the increase in our shareholders' equity, which is the basis for the calculation of our base management fee. Management fees increased by \$1.9 million during 2017, as compared to 2016, primarily due to the increase in our shareholders' equity, as a result of the issuance of preferred shares during 2017.

## Compensation

Compensation expense increased \$0.5 million during 2018, as compared to 2017, primarily due to an increase in share-based compensation expense, reflecting changes in performance expectations relating to the performance-based restricted share unit awards outstanding during 2018.

## Mortgage loan collection and liquidation

Mortgage loan collection and liquidation expenses increased \$1.8 million during 2018 as compared to 2017 and decreased \$7.4 million during 2017 as compared to 2016 due to our continuing collection and liquidation efforts relating to our portfolio of nonperforming mortgage loans.

## Other Expenses

Other expenses are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Common overhead allocation from PFSI	\$4,640	\$5,306	\$7,898
Safekeeping	1,805	2,918	2,675
Bank service charges	1,522	2,150	842
Technology	1,408	1,479	1,448
Insurance	1,193	1,150	1,326
Other	825	1,197	823
	\$11,393	\$14,200	\$15,012

## Income Taxes

We have elected to treat PMC as a taxable REIT subsidiary (“TRS”). Income from a TRS is only included as a component of REIT taxable income to the extent that the TRS makes distributions of income to us. Before 2017, the TRS had made no such distributions to us. In 2017, the TRS made a \$20 million distribution to us that resulted in REIT taxable income to us. A TRS is subject to corporate federal and state income tax. Accordingly, a provision for income taxes for PMC is included in the accompanying consolidated statements of operations.

Our effective tax rate was 3.3% for the year ended December 31, 2018 and 5.5% for the year ended December 31, 2017. The relative values between the tax expense or benefit at the taxable REIT subsidiary and our consolidated pretax income drive the fluctuation in the effective tax rate. The primary difference between our effective tax rate and the statutory tax rate is due to nontaxable REIT income resulting from the dividends paid deduction. The effective tax rate for the year ended December 31, 2017 was also significantly impacted by recording the impact of the Tax Cuts and Jobs Act (the “Tax Act”). Among other provisions, the Tax Act reduces the federal corporate tax rate to 21% from the previous maximum rate of 35%, effective January 1, 2018. GAAP requires that the impact of tax legislation be recognized in the period in which such legislation is enacted. We re-measured our TRS’ deferred tax assets and liabilities and recorded a tax benefit of \$13.0 million to our income tax expense in the quarter and year ended December 31, 2017.

In general, cash dividends declared by us will be considered ordinary income to shareholders for income tax purposes. Some portion of the dividends may be characterized as capital gain distributions or as return of capital. For tax years beginning after December 31, 2017, the Tax Act (subject to certain limitations) provides a 20% deduction from taxable income for ordinary REIT dividends.



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Below is a reconciliation of GAAP year to date net income to taxable income (loss) and the allocation of taxable income (loss) between the TRS and the REIT:

	GAAP net income (in thousands)	GAAP/tax differences	Taxable income (loss)		
			Total taxable income (loss)	Subsidiaries	REIT
Year ended December 31, 2018					
Net investment income (expense)					
Net mortgage loan servicing fees	\$120,587	\$308,587	\$429,174	\$429,174	\$—
Net gain (loss) on mortgage loans acquired for sale	59,185	(388,386 )	(329,201)	(329,201 )	—
Loan origination fees	43,321	—	43,321	43,321	—
Net gain (loss) on investments	81,926	(15,773 )	66,153	90,390	(24,237 )
Net interest income (expense)	47,601	(6,955 )	40,646	(64,392 )	105,038
Results of real estate acquired in settlement of loans	(8,786 )	(5,343 )	(14,129 )	(14,129 )	—
Other	7,233	—	7,232	6,068	1,164
Net investment income (loss)	351,067	(107,870 )	243,196	161,231	81,965
Expenses	193,079	(1,567 )	191,512	166,620	24,892
REIT dividend deduction	—	57,048	57,048	—	57,048
Total expenses and dividend deduction	193,079	55,481	248,560	166,620	81,940
Income (loss) before provision for income taxes	157,988	(163,351 )	(5,364 )	(5,389 )	25
Provision for (benefit from) income taxes	5,190	(5,165 )	25	—	25
Net income (loss)	\$152,798	\$(158,186 )	\$(5,389 )	\$(5,389 )	\$—

## Balance Sheet Analysis

Following is a summary of key balance sheet items as of the dates presented:

	December	
	December 31, 2018	2017
	(in thousands)	
<b>Assets</b>		
Cash	\$59,845	\$77,647
<b>Investments:</b>		
Short-term	74,850	18,398
Mortgage-backed securities	2,610,422	989,461
Mortgage loans acquired for sale at fair value	1,643,957	1,269,515
Mortgage loans at fair value	408,305	1,089,473
ESS	216,110	236,534
Derivative assets	167,165	113,881
Firm commitment to purchase CRT securities	37,994	—
Real estate	128,791	207,089
MSRs	1,162,369	844,781
Deposits securing CRT Agreements	1,146,501	588,867
	7,596,464	5,357,999
Other	157,052	169,287
Total assets	\$7,813,361	\$5,604,933
<b>Liabilities</b>		
<b>Borrowings:</b>		
Short-term debt	\$5,081,691	\$3,369,502
Long-term debt	1,011,433	561,675
	6,093,124	3,931,177
Other	154,105	129,171
Total liabilities	6,247,229	4,060,348
Shareholders' equity	1,566,132	1,544,585
Total liabilities and shareholders' equity	\$7,813,361	\$5,604,933

Total assets increased by approximately \$2.2 billion, or 39%, during the period from December 31, 2017 through December 31, 2018, primarily due to a \$1.6 billion increase in MBS, a \$557.6 million increase in deposits securing CRT Agreements, a \$374.4 million increase in mortgage loans acquired for sale at fair value, a \$317.6 million increase in MSRs and a \$38.7 million increase in cash and short-term investments. These increases were partially offset by a \$681.2 million decrease in mortgage loans at fair value, a \$78.3 million decrease in real estate and a \$20.4 million decrease in ESS.

## Asset Acquisitions

Our asset acquisitions are summarized below.

## Correspondent Production

Following is a summary of our correspondent production acquisitions at fair value:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Correspondent mortgage loan purchases:			
Government-insured or guaranteed-for sale to PLS	\$37,718,502	\$42,087,007	\$42,171,914
Agency-eligible	30,221,732	23,742,999	23,930,186
Jumbo	67,501	—	10,227
Commercial mortgage loans	7,263	69,167	18,112
	\$68,014,998	\$65,899,173	\$66,130,439

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During 2018, we purchased for sale \$68.0 billion in fair value of correspondent production loans as compared to \$65.9 billion in fair value of correspondent production loans during 2017 and \$66.1 billion during 2016. The increase in correspondent acquisitions from 2017 to 2018 is primarily due to the production we generated from continued growth in our correspondent production seller network combined with our ability to offer competitive execution in our purchases of mortgage loans, partially offset by the decreased size of the mortgage market during 2018 as compared to 2017. The decrease in correspondent acquisitions from 2016 to 2017 is primarily due to the decreased size of the mortgage market during 2017 as compared to 2016, partially offset by production we generated from continued growth in our correspondent production seller network.

Our ability to continue the expansion of our correspondent production business is subject to, among other factors, our ability to source additional mortgage loan volume, our ability to obtain additional inventory financing and our ability to fund the portion of the mortgage loans not financed, either through cash flows from business activities or the raising of additional equity capital. There can be no assurance that we will be successful in increasing our borrowing capacity or in obtaining the additional equity capital necessary or that we will be able to identify additional sources of mortgage loans.

#### Other Investment Activities

Following is a summary of our acquisitions of mortgage-related investments held in our interest rate sensitive strategies and credit-sensitive strategies segments:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Interest rate sensitive assets:</b>			
MBS	\$1,810,877	\$251,872	\$765,467
MSRs received in mortgage loan sales and purchased	356,755	290,388	277,831
ESS received pursuant to a recapture agreement	2,688	5,244	6,603
	2,170,320	547,504	1,049,901
<b>Credit sensitive assets:</b>			
<b>Deposits and commitments to fund deposits relating to CRT</b>			
Agreements	114,155	543,003	398,616
Firm commitment to purchase credit risk transfer securities			
Fair value	37,994	—	—
UPB	605,052	—	—
	757,201	543,003	398,616
	\$2,927,521	\$1,090,507	\$1,448,517

Our acquisitions during the three years ended December 31, 2018 were financed through the use of a combination of proceeds from borrowings, liquidations of existing investments and proceeds from equity issuances. We continue to identify additional means of increasing our investment portfolio through cash flow from our business activities, existing investments, borrowings, and transactions that minimize current cash outlays. However, we expect that, over time, our ability to continue our investment portfolio growth will depend on our ability to raise additional equity capital.

#### Investment Portfolio Composition

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Mortgage-Backed Securities

Following is a summary of our MBS holdings:

	December 31, 2018					December 31, 2017				
	Fair value (dollars in thousands)	Principal	Average Life (in years)	Coupon	Market yield	Fair value	Principal	Average Life (in years)	Coupon	Market yield
<b>Agency:</b>										
Fannie Mae	\$2,075,337	\$2,050,769	7.5	3.8 %	3.5 %	\$796,853	\$774,473	7.0	3.5 %	3.0 %
Freddie Mac	535,085	530,734	8.3	3.7 %	3.5 %	192,608	187,127	7.7	3.5 %	3.0 %
	\$2,610,422	\$2,581,503				\$989,461	\$961,600			



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Mortgage Loans at Fair Value – Distressed

Following is a summary of the distribution of our portfolio of distressed mortgage loans at fair value:

	December 31, 2018						December 31, 2017					
	Performing loans			Nonperforming loans			Performing loans			Nonperforming loans		
Current loan-to-value (1)	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate
Less than 80%	\$8,851	31 %	3.37%	\$36,472	41 %	5.06%	\$139,408	33 %	3.80%	\$136,994	39 %	5.08%
80% - 99.99%	7,026	24 %	2.63%	21,630	24 %	5.41%	107,121	26 %	3.12%	94,538	27 %	4.90%
100% - 119.99%	4,464	16 %	2.40%	16,781	19 %	4.69%	74,182	18 %	2.86%	58,330	16 %	4.45%
120% or greater	8,465	29 %	2.13%	14,043	16 %	3.29%	94,074	23 %	2.35%	63,786	18 %	4.01%
	\$28,806	100%	2.58%	\$88,926	100%	4.54%	\$414,785	100%	3.04%	\$353,648	100%	4.62%

(1) Current loan-to-value is calculated based on the unpaid principal balance of the mortgage loan and our estimate of the value of the mortgaged property.

Geographic distribution	December 31, 2018						December 31, 2017					
	Performing loans			Nonperforming loans			Performing loans			Nonperforming loans		
	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate
New York	\$8,273	29 %	2.27%	\$32,819	37 %	5.21%	\$69,401	17 %	2.61%	\$104,667	30 %	5.25%
Florida	3,417	12 %	1.98%	10,446	12 %	4.77%	20,273	5 %	2.71%	40,518	11 %	4.76%
California	3,995	14 %	3.08%	7,190	8 %	4.17%	92,435	22 %	3.06%	44,856	13 %	3.91%
New Jersey	4,235	15 %	2.31%	4,055	5 %	3.71%	38,689	9 %	2.55%	33,857	10 %	4.36%
Hawaii	—	0 %	—	6,605	7 %	5.41%	3,191	1 %	3.28%	13,547	4 %	5.92%
Massachusetts	855	3 %	2.52%	5,667	6 %	4.57%	19,355	5 %	2.75%	23,039	6 %	4.20%
Maryland	1,549	5 %	2.53%	2,791	3 %	3.81%	21,424	5 %	2.99%	10,159	3 %	4.06%
Other	6,482	22 %	3.69%	19,353	22 %	3.61%	150,017	36 %	3.61%	83,005	23 %	4.15%
	\$28,806	100%	2.58%	\$88,926	100%	4.54%	\$414,785	100%	3.04%	\$353,648	100%	4.62%

Payment status	December 31, 2018						December 31, 2017					
	Performing loans			Nonperforming loans			Performing loans			Nonperforming loans		
	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate	Fair value	% total	Average note rate

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(dollars in thousands)

Current	\$18,931	66 %	2.68%	\$—	0 %	—	\$267,507	65 %	2.99%	\$—	0 %	—
30 days delinquent	7,213	25 %	2.50%	—	0 %	—	105,101	25 %	3.22%	—	0 %	—
60 days delinquent	2,662	9 %	2.24%	—	0 %	—	42,177	10 %	2.91%	—	0 %	—
90 days or more delinquent	—	0 %	—	37,288	42 %	4.22%	—	0 %	—	166,749	47 %	3.97%
In foreclosure	—	0 %	—	51,638	58 %	4.81%	—	0 %	—	186,899	53 %	5.24%
	\$28,806	100%	2.58%	\$88,926	100%	4.54%	\$414,785	100%	3.04%	\$353,648	100%	4.62%

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Credit Risk Transfer Transactions

Following is a summary of the composition of the mortgage loans underlying our investment in CRT Agreements and our firm commitment to purchase CRT securities.

CRT Agreements

Following is a summary of our CRT Agreements:

	December 31, 2018	December 31, 2017
	(in thousands)	
Carrying value of CRT Agreements:		
Derivative assets	\$ 123,987	\$ 98,640
Deposits securing CRT agreements	1,146,501	588,867
Interest-only security payable at fair value	(36,011 )	(7,070 )
	\$ 1,234,477	\$ 680,437
UPB of mortgage loans subject to credit guarantee obligations	\$ 29,934,003	\$ 26,845,392
Collection status (in UPB):		
Current	\$ 29,633,133	\$ 26,540,953
30—89 days delinquent	\$ 228,296	\$ 179,144
90—180 days delinquent	\$ 39,826	\$ 101,114
180 or more days delinquent	\$ 4,208	\$ 5,146
Foreclosure	\$ 5,180	\$ 5,463
Bankruptcy	\$ 23,360	\$ 13,572

Following is a summary of the composition of the mortgage loans underlying our investment in CRT Agreements as of December 31, 2018:

	Year of origination				
	2018	2017	2016	2015	Total
	(in millions)				
UPB:					
Outstanding	\$ 3,945	\$ 13,795	\$ 9,184	\$ 3,010	\$ 29,934
Originally delivered	\$ 4,118	\$ 15,307	\$ 11,515	\$ 4,928	\$ 35,868
Cumulative defaults	\$ —	\$ 7	\$ 15	\$ 14	\$ 36
Cumulative losses	\$ —	\$ 0.7	\$ 1.5	\$ 1.4	\$ 3.6
Original debt-to income ratio					
	(in millions)				
<25%	\$ 404	\$ 1,669	\$ 1,265	\$ 377	\$ 3,715
25 - 30%	420	1,668	1,261	399	3,748
30 - 35%	570	2,261	1,639	542	5,012
35 - 40%	680	2,735	1,855	656	5,926

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40 - 45%	866	3,417	2,413	869	7,565
>45%	1,005	2,045	751	167	3,968
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934
Weighted average	37.7 %	36.2 %	35.1 %	35.3 %	36.0 %

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Origination FICO score	Year of origination				Total
	2018	2017	2016	2015	
	(in millions)				
600 - 649	\$58	\$106	\$72	\$42	\$278
650 - 699	719	1,854	1,084	521	4,178
700 - 749	1,344	4,613	2,978	984	9,919
750 or greater	1,817	7,203	5,049	1,462	15,531
N/A	7	19	1	1	28
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934
Weighted average	740	747	750	743	746

Origination LTV	Year of origination				Total
	2018	2017	2016	2015	
	(in millions)				
<80 %	\$1,357	\$4,194	\$3,599	\$1,093	\$10,243
80-85 %	1,047	3,805	2,359	761	7,972
85-90 %	216	752	541	163	1,672
90-95 %	441	1,777	1,057	391	3,666
95-100 %	884	3,267	1,628	602	6,381
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934
Weighted average	82.5 %	83.1 %	81.3 %	82.1 %	82.4 %

Current LTV (1)	Year of origination				Total
	2018	2017	2016	2015	
	(in millions)				
<80 %	\$2,383	\$9,126	\$7,948	\$2,766	\$22,223
80-85 %	419	2,012	866	169	3,466
85-90 %	605	1,918	297	60	2,880
90-95 %	467	656	61	11	1,195
95-100 %	65	72	9	3	149
>100%	6	11	3	1	21
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934
Weighted average	78.0 %	75.2 %	68.4 %	65.4 %	72.5 %

(1)Based on current UPB compared to estimated fair value of the property securing the mortgage loan.

Geographic distribution	Year of Origination				Total
	December 31, 2018	December 31, 2017	December 31, 2016	December 31, 2015	
	(in millions)				
CA	\$555	\$ 1,868	\$ 2,201	\$ 606	\$5,230
TX	267	973	1,021	448	2,709
FL	331	1,156	758	223	2,468
VA	194	716	712	310	1,932
MD	215	745	556	173	1,689
Other	2,383	8,337	3,936	1,250	15,906
	\$3,945	\$ 13,795	\$ 9,184	\$ 3,010	\$29,934



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Regional geographic concentration (1)	Year of origination				Total
	2018	2017	2016	2015	
	(in millions)				
Midwest	\$306	\$1,266	\$769	\$228	\$2,569
Northeast	332	1,503	983	386	3,204
Southeast	1,254	4,421	2,668	913	9,256
Southwest	839	2,778	1,675	633	5,925
West	1,214	3,827	3,089	850	8,980
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934

(1)Midwest consists of IL, IN, IA, MI, MN, NE, ND, OH, SD, WI; Northeast consists of CT, DE, ME, MA, NH, NJ, NY, PA, PR, RI, VT, VI; Southeast consists of AL, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA, WV; Southwest consists of AZ, AR, CO, KS, LA, MO, NM, OK, TX, UT; West consists of AK, CA, GU, HI, ID, MT, NV, OR, WA and WY.

Collection status	Year of origination				Total
	2018	2017	2016	2015	
	(in millions)				
Delinquency					
Current - 89 Days	\$3,940	\$13,770	\$9,159	\$2,992	\$29,861
90 - 179 Days	3	15	14	9	41
180+ Days	—	1	2	1	4
Foreclosure	—	2	2	1	5
Bankruptcy	2	7	7	7	23
	\$3,945	\$13,795	\$9,184	\$3,010	\$29,934

Firm commitment to purchase CRT securities

Following is a summary of our firm commitment to purchase CRT securities:

	Year ended December 31, 2018 (in thousands)
UPB of mortgage loans sold	\$ 16,392,300
Increase in expected face amount of firm commitment to purchase CRT securities backed by mortgage loans sold	\$ 605,052
Fair value of firm commitment recognized in Gain on sale of mortgage loans	\$ 30,595
Gains recognized on firm commitment included in Net gain (loss) on investments	\$ 7,399
	December 31, 2018

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	(in thousands)
Firm commitment to purchase CRT securities	\$ 605,052
Fair value of firm commitment	\$ 37,994
UPB of mortgage loans sold subject to firm commitment to purchase CRT securities related to such loans	\$ 16,392,300
Collection status (in UPB):	
Current	\$ 16,329,044
30—89 days delinquent	\$ 61,035
90—180 days delinquent	\$ 2,221
180 or more days delinquent	\$ —
Foreclosure	\$ —
Bankruptcy	\$ 1,258

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Following is a summary of the composition of the mortgage loans underlying our firm commitment to purchase CRT securities. All such mortgage loans were originated during the year ended December 31, 2018:

Original Debt-to income ratio	December 31, 2018 (in millions)	
<25%	\$ 1,559	
25 - 30%	1,580	
30 - 35%	2,258	
35 - 40%	2,882	
40 - 45%	3,751	
>45%	4,362	
	\$ 16,392	
Weighted average	38.2	%

Origination FICO score	December 31, 2018 (in millions)
600 - 649	\$ 216
650 - 699	2,369
700 - 749	5,278
750 or greater	8,509
N/A	20
	\$ 16,392
Weighted average	\$ 746

Origination LTV	December 31, 2018 (in millions)	
<80	\$ 5,035	
80-85	4,133	
85-90	849	
90-95	1,971	
95-100	4,404	
	\$ 16,392	
Weighted average	83.5	%

Current LTV (1)	December 31, 2018 (in millions)
<80	\$ 8,074
80-85	1,762
85-90	1,892
90-95	3,394
95-100	1,235
>100%	35

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	\$ 16,392	
Weighted average	81.8	%

(1) Based on current UPB compared to estimated fair value of the property securing the mortgage loan.

	December 31,
Geographic distribution	2018
	(in millions)
CA	\$ 2,428
FL	1,466
TX	919
AZ	873
WA	809
Other	9,897
	\$ 16,392

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Regional geographic concentration (1)	December 31, 2018 (in millions)
Midwest	\$ 1,312
Northeast	1,351
Southeast	5,288
Southwest	3,413
West	5,028
	\$ 16,392

(1)Midwest consists of IL, IN, IA, MI, MN, NE, ND, OH, SD, WI; Northeast consists of CT, DE, ME, MA, NH, NJ, NY, PA, PR, RI, VT, VI; Southeast consists of AL, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA, WV; Southwest consists of AZ, AR, CO, KS, LA, MO, NM, OK, TX, UT; West consists of AK, CA, GU, HI, ID, MT, NV, OR, WA and WY.

Collection status	December 31, 2018 (in millions)
Delinquency	
Current	\$ 16,328
30 Days Delinquent	55
60 Days Delinquent	6
90 Days Delinquent	2
Bankruptcy	1
	\$ 16,392

#### Real Estate Acquired in Settlement of Loans

Following is a summary of our REO by property type:

Property type	December 31, 2018			December 31, 2017		
	Carrying value	% of total		Carrying value	% of total	
	(dollars in thousands)					
1 - 4 dwelling units	\$71,318	83 %		\$131,576	81 %	
Condominium/Townhome/Co-op	9,060	11 %		16,771	10 %	
Planned unit development	5,303	6 %		14,311	9 %	
5+ dwelling units	—	0 %		207	0 %	
	\$85,681	100 %		\$162,865	100 %	

Geographic distribution	December 31, 2018			December 31, 2017		
	Carrying value	% of total		Carrying value	% of total	
	(dollars in thousands)					
New York	\$20,068	23 %		\$34,107	21 %	
New Jersey	17,060	20 %		42,795	26 %	
California	11,829	14 %		17,777	11 %	

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Florida	7,770	9	%	15,740	10	%
Massachusetts	5,789	7	%	6,838	4	%
Illinois	4,631	5	%	8,539	5	%
Other	18,534	22	%	37,069	23	%
	\$85,681	100	%	\$162,865	100	%

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## Cash Flows

Our cash flows for the years ended December 31, 2018, 2017, and 2016 are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Operating activities	\$(573,752 )	\$223,125	\$(621,543)
Investing activities	(1,424,292)	681,681	193,952
Financing activities	1,980,242	(861,635)	403,959
Net cash flows	\$(17,802 )	\$43,171	\$(23,632 )

Our cash flows resulted in a net decrease in cash of \$17.8 million during 2018, as discussed below.

## Operating activities

Cash used in operating activities totaled \$573.8 million during 2018, as compared to cash provided by operating activities of \$223.1 million and cash used in operating activities of \$621.5 million during 2017 and 2016, respectively. Cash flows from operating activities primarily reflect cash flows from mortgage loans acquired for sale as shown below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Operating cash flows from:			
Mortgage loans acquired for sale	\$(689,826)	\$192,849	\$(567,780)
Other	116,074	30,276	(53,763 )
	\$(573,752)	\$223,125	\$(621,543)

Cash flows from mortgage loans acquired for sale primarily reflect changes in the level of inventory from the beginning to the end of the periods presented.

## Investing activities

Net cash used in our investing activities was \$1.4 billion during 2018, as compared to cash provided by investing activities of \$681.7 million during 2017. The decrease in cash flows from investing activities reflects our new investments in CRT Agreements and MBS, which exceeded proceeds from sales and repayments of other investments. We used cash to purchase MBS of \$1.8 billion and made deposits of cash collateral securing CRT Agreements transactions totaling \$596.6 million during the year ended December 31, 2018. We realized cash inflows from repayments of MBS, sales and repayments of mortgage loans, repayment of ESS, sales of REO and distributions from CRT Agreements totaling \$1.1 billion.

Net cash provided by our investing activities was \$681.7 million during 2017, as compared to cash provided by investing activities of \$194.0 million during 2016. The increase in cash flows from investing activities reflects proceeds from sales and repayments on our investments, which exceeded our new investments in CRT Agreements

and MBS. During 2016, we made significant additions to our portfolio of MBS. Such additions were not as significant during 2017. We realized cash inflows from repayments of MBS, sales and repayments of mortgage loans, repayment of ESS, sales of REO and distributions from CRT Agreements totaling \$1.0 billion. We used cash to purchase MBS of \$251.9 million and made deposits of cash collateral securing CRT Agreements transactions totaling \$152.6 million during the year ended December 31, 2017.

Net cash provided by our investing activities was \$194.0 million for the year ended December 31, 2016. This source of cash reflects sales and repayments on our investments, which exceeded our investments primarily consisting of CRT Agreements and MBS during 2016. We realized cash inflows from repayments of MBS, sales and repayments of mortgage loans, repayment of ESS, sales of REO and distributions from CRT Agreements totaling \$1.3 billion. We used cash to purchase MBS of \$765.5 million and made deposits of cash collateral securing CRT Agreements transactions totaling \$306.5 million.

#### Financing activities

Net cash provided by financing activities was \$2.0 billion during 2018, as compared to cash used in financing activities totaling \$861.6 million during 2017. The cash provided by financing activities during 2018 as compared to 2017 reflects financing obtained to secure the purchase of MBS, deposits made to secure CRT Agreements and growth in our inventory of mortgage loans held for sale.

Net cash provided by financing activities was \$404.0 million for the year ended December 31, 2016. We increased borrowings primarily for the purpose of financing growth in our inventory of mortgage loans acquired for sale.

As discussed below in Liquidity and Capital Resources, our Manager continues to evaluate and pursue additional sources of financing to provide us with future investing capacity. We do not raise equity or enter into borrowings for the purpose of financing the payment of dividends. We believe that our cash flows from the liquidation of our investments, which include accumulated gains recorded during the periods we hold those investments, along with our cash earnings, are adequate to fund our operating expenses and dividend payment requirements. However, we manage our liquidity in the aggregate and are reinvesting our cash flows in new investments as well as using such cash to fund our dividend requirements.

### Liquidity and Capital Resources

Our liquidity reflects our ability to meet our current obligations (including the purchase of loans from correspondent sellers, our operating expenses and, when applicable, retirement of, and margin calls relating to, our debt and derivatives positions), make investments as our Manager identifies them, pursue our share repurchase program and make distributions to our shareholders. We generally need to distribute at least 90% of our taxable income each year (subject to certain adjustments) to our shareholders to qualify as a REIT under the Internal Revenue Code. This distribution requirement limits our ability to retain earnings and thereby replenish or increase capital to support our activities.

We expect our primary sources of liquidity to be cash flows from our investment portfolio, including cash earnings on our investments, cash flows from business activities, liquidation proceeds from distressed assets, and proceeds from borrowings and/or additional equity offerings. When we finance a particular asset, the amount borrowed is less than the asset's fair value and we must provide the cash in the amount of such difference. Our ability to continue making investments is dependent on our ability to invest the cash representing such difference.

Our current debt financing strategy is to finance our assets where we believe such borrowing is prudent, appropriate and available. We have made collateralized borrowings in the form of sales of assets under agreements to repurchase, mortgage loan participation purchase and sale agreements and notes payable. More recently, we have secured term financing for our MSR's which has allowed us to more closely match the term of our borrowings to the expected lives of the assets securing those borrowings.

Because a significant portion of our current debt facilities consists of short-term borrowings, we expect to renew these facilities in advance of maturity in order to ensure our ongoing liquidity and access to capital or otherwise allow ourselves sufficient time to replace any necessary financing.

As of December 31, 2018 and December 31, 2017, we financed our investments in MBS, mortgage loans acquired for sale at fair value, mortgage loans at fair value, mortgage loans at fair value held by a VIE, MSR's, ESS, REO and CRT Agreement assets with sales under agreements to repurchase, mortgage loan participation purchase and sale agreements, notes payable, asset sold to PFSI under agreement to repurchase and asset-backed financing. Our leverage ratio, defined as all borrowings divided by shareholders' equity at the date presented, was 3.89 and 2.55 at December 31, 2018 and December 31, 2017, respectively.

Our repurchase agreements represent the sales of assets together with agreements for us to buy back the assets at a later date. Following is a summary of the activities in our repurchase agreements financing:

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Assets sold under agreements to repurchase	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Average balance outstanding	\$3,901,772	\$3,332,084	\$3,382,528
Maximum daily balance outstanding	\$6,665,118	\$4,242,600	\$5,573,021
Ending balance	\$4,777,027	\$3,180,886	\$3,784,001

The difference between the maximum and average daily amounts outstanding is primarily due to timing of loan purchases and sales in our correspondent acquisition business. The total facility size of our assets sold under agreements to repurchase was approximately \$8.4 billion at December 31, 2018.

As discussed above, all of our repurchase agreements, and mortgage loan participation purchase and sale agreements have short-term maturities:

• The transactions relating to mortgage loans and REO under agreements to repurchase generally provide for terms of approximately one year.

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•The transactions relating to mortgage loans under mortgage loan participation purchase and sale agreements provide for terms of approximately one year.

•The transactions relating to assets under notes payable provide for terms of two to five years.

Our debt financing agreements require us and certain of our subsidiaries to comply with various financial covenants. As of the filing of this Report, these financial covenants include the following:

•profitability at the Company for at least one (1) of the previous two consecutive fiscal quarters, and at the Company and our Operating Partnership over the prior three (3) calendar quarters;

•a minimum of \$40 million in unrestricted cash and cash equivalents among the Company and/or our subsidiaries; a minimum of \$40 million in unrestricted cash and cash equivalents among our Operating Partnership and its consolidated subsidiaries; a minimum of \$25 million in unrestricted cash and cash equivalents between PMC and PMH; and a minimum of \$10 million in unrestricted cash and cash equivalents at each of PMC and PMH;

•a minimum tangible net worth for the Company of \$860 million; a minimum tangible net worth for our Operating Partnership of \$860 million; a minimum tangible net worth for PMH of \$250 million; and a minimum tangible net worth for PMC of \$150 million;

•a maximum ratio of total liabilities to tangible net worth of less than 10:1 for PMC and PMH and 5:1 for the Company and our Operating Partnership; and

•at least two warehouse or repurchase facilities that finance amounts and assets similar to those being financed under our existing debt financing agreements.

Although these financial covenants limit the amount of indebtedness we may incur and impact our liquidity through minimum cash reserve requirements, we believe that these covenants currently provide us with sufficient flexibility to successfully operate our business and obtain the financing necessary to achieve that purpose.

PLS is also subject to various financial covenants, both as a borrower under its own financing arrangements and as our servicer under certain of our debt financing agreements. The most significant of these financial covenants currently include the following:

•positive net income for at least one (1) of the previous two consecutive fiscal quarters, measured quarterly and as of the end of each fiscal quarter;

•a minimum in unrestricted cash and cash equivalents of \$40 million;

•a minimum tangible net worth of \$500 million; and

•a maximum ratio of total liabilities to tangible net worth of 10:1.

In addition to the financial covenants imposed upon us and PLS under our debt financing agreements, we and/or PLS, as applicable, are also subject to liquidity and net worth requirements established by FHFA for Agency sellers/servicers and Ginnie Mae for single-family issuers. FHFA and Ginnie Mae have established minimum liquidity and net worth requirements for approved non-depository single-family sellers/servicers in the case of FHFA, and for approved single-family issuers in the case of Ginnie Mae, as summarized below:

•A minimum net worth of a base of \$2.5 million plus 25 basis points of UPB for total 1-4 unit residential mortgage loans serviced.

•A tangible net worth/total assets ratio greater than or equal to 6%.

•Liquidity equal to or exceeding 3.5 basis points multiplied by the aggregate UPB of all mortgages secured by 1-4 unit residential properties serviced for Freddie Mac, Fannie Mae and Ginnie Mae (“Agency Mortgage Servicing”) plus 200 basis points multiplied by the sum of nonperforming (90 or more days delinquent) Agency Mortgage Servicing that exceed 6% of Agency Mortgage Servicing.

•In the case of PLS, liquidity equal to the greater of \$1.0 million or 0.10% (10 basis points) of its outstanding Ginnie Mae single-family securities, which must be met with cash and cash equivalents.

•In the case of PLS, net worth equal to \$2.5 million plus 0.35% (35 basis points) of its outstanding Ginnie Mae single-family obligations.

We and/or PLS, as applicable, are obligated to maintain these financial covenants pursuant to our MSR financing agreements.



Our debt financing agreements also contain margin call provisions that, upon notice from the applicable lender at its option, require us to transfer cash or, in some instances, additional assets in an amount sufficient to eliminate any margin deficit. A margin deficit will generally result from any decline in the market value (as determined by the applicable lender) of the assets subject to the related financing agreement, although in some instances we may agree with the lender upon certain thresholds (in dollar amounts or percentages based on the market value of the assets) that must be exceeded before a margin deficit will arise. Upon notice from the applicable lender, we will generally be required to satisfy the margin call on the day of such notice or within one business day thereafter, depending on the timing of the notice.

Our Manager continues to explore a variety of additional means of financing our growth, including debt financing through bank warehouse lines of credit, repurchase agreements, term financing, securitization transactions and additional equity offerings. However, there can be no assurance as to how much additional financing capacity such efforts will produce, what form the financing will take or that such efforts will be successful.

#### Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

##### Off-Balance Sheet Arrangements

As of December 31, 2018, we have not entered into any off-balance sheet arrangements.

##### Contractual Obligations

As of December 31, 2018, we had contractual obligations aggregating \$8.6 billion comprised of borrowings, interest expense on long term debt from our Exchangeable Notes and asset-backed financing of a VIE, and commitments to purchase mortgage loans from correspondent sellers. Payment obligations under these agreements, including expected interest payments on long-term debt, are summarized below:

	Payments due by period				More than
	Total	Less than 1 year	1 - 3 years	3 - 5 years	
Contractual obligations	(in thousands)				5 years
Commitments to purchase mortgage loans from					
correspondent sellers	\$1,688,516	\$1,688,516	\$—	\$—	\$—
Firm commitment to purchase CRT securities	605,052	605,052	—	—	—
Short term debt	5,082,237	5,082,237	—	—	—
Long term debt	1,014,318	—	255,000	450,000	309,318
Interest expense on long term debt (1)	259,218	45,632	70,375	47,655	95,556
Total	\$8,649,341	\$7,421,437	\$325,375	\$497,655	\$404,874

(1) Interest expense on long term debt includes interest for the Asset-backed financing of a VIE, the Exchangeable Notes and the Term Notes.



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All debt financing arrangements that matured between December 31, 2018 and the date of this Report have been renewed, extended or replaced.

The amount at risk (the fair value of the assets pledged plus the related margin deposit, less the amount advanced by the counterparty and accrued interest) relating to our assets sold under agreements to repurchase is summarized by counterparty below as of December 31, 2018:

Counterparty	Amount at risk (in thousands)
Credit Suisse First Boston Mortgage Capital LLC	\$473,012
JPMorgan Chase & Co.	284,309
Bank of America, N.A.	98,900
Citibank, N.A.	50,845
Deutsche Bank	29,797
BNP Paribas Corporate & Institutional Banking	23,566
Daiwa Capital Markets America Inc.	19,831
Mizuho Securities	12,312
Morgan Stanley Bank, N.A.	5,925
Wells Fargo, N.A.	4,760
Royal Bank of Canada	3,423
	\$ 1,006,680

**Management Agreement.** We are externally managed and advised by our Manager pursuant to a management agreement, which was amended and restated effective September 12, 2016. Our management agreement requires our Manager to oversee our business affairs in conformity with the investment policies that are approved and monitored by our board of trustees. Our Manager is responsible for our day-to-day management and will perform such services and activities related to our assets and operations as may be appropriate.

Pursuant to our management agreement, our Manager collects a base management fee and may collect a performance incentive fee, both payable quarterly and in arrears. The management agreement, as amended, expires on September 12, 2020 subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the servicing agreement.

The base management fee is calculated at a defined annualized percentage of “shareholders’ equity.” Our “shareholders’ equity” is defined as the sum of the net proceeds from any issuances of our equity securities since our inception (weighted for the time outstanding during the measurement period); plus our retained earnings at the end of the quarter; less any amount that we pay for repurchases of our common shares (weighted for the time held during the measurement period); and excluding one-time events pursuant to changes in GAAP and certain other non-cash charges after discussions between our Manager and our independent trustees and approval by a majority of our independent trustees.

Pursuant to the terms of our amended and restated management agreement, the base management fee is equal to the sum of (i) 1.5% per year of average shareholders’ equity up to \$2 billion, (ii) 1.375% per year of average shareholders’ equity in excess of \$2 billion and up to \$5 billion, and (iii) 1.25% per year of average shareholders’ equity in excess of \$5 billion.

The performance incentive fee is calculated at a defined annualized percentage of the amount by which “net income,” on a rolling four-quarter basis and before deducting the incentive fee, exceeds certain levels of annualized return on our “equity.” For the purpose of determining the amount of the performance incentive fee, “net income” is defined as net income attributable to common shares or loss computed in accordance with GAAP and adjusted to exclude one-time events pursuant to changes in GAAP and certain other non-cash charges determined after discussions between PCM and our independent trustees and approval by a majority of our independent trustees. For this purpose, “equity” is the weighted average of the issue price per common share of all of our public offerings of common shares, multiplied by the weighted average number of common shares outstanding (including restricted share units issued under our equity incentive plans) in the four-quarter period.

The performance incentive fee is calculated quarterly and is equal to: (a) 10% of the amount by which net income attributable to common shares of beneficial interest for the quarter exceeds (i) an 8% return on equity plus the high watermark, up to (ii) a 12% return on equity; plus (b) 15% of the amount by which net income for the quarter exceeds (i) a 12% return on equity plus the high watermark, up to (ii) a 16% return on equity; plus (c) 20% of the amount by which net income for the quarter exceeds a 16% return on equity plus the high watermark.

The “high watermark” is the quarterly adjustment that reflects the amount by which the net income (stated as a percentage of return on equity) in that quarter exceeds or falls short of the lesser of 8% and the Fannie Mae MBS yield (the target yield) for such quarter. The “high watermark” starts at zero and is adjusted quarterly. If the net income is lower than the target yield, the high watermark is increased by the difference. If the net income is higher than the target yield, the high watermark is reduced by the difference. Each time a performance incentive fee is earned, the high watermark returns to zero. As a result, the threshold amounts required for PCM to earn a performance incentive fee are adjusted cumulatively based on the performance of our net income over (or under) the target yield, until the net income in excess of the target yield exceeds the then-current cumulative high watermark amount, and a performance incentive fee is earned.

Under the management agreement, PCM is entitled to reimbursement of its organizational and operating expenses, including third-party expenses, incurred on our behalf, it being understood that PCM and its affiliates shall allocate a portion of their personnel’s time to provide certain legal, tax and investor relations services for our direct benefit. With respect to the allocation of PCM’s and its affiliates’ personnel, from and after September 12, 2016, PCM shall be reimbursed \$120,000 per fiscal quarter, such amount to be reviewed annually and to not preclude reimbursement for any other services performed by PCM or its affiliates.

We are required to pay PCM and its affiliates a pro rata portion of rent, telephone, utilities, office furniture, equipment, machinery and other office, internal and overhead expenses of PCM and its affiliates required for our and our subsidiaries’ operations. These expenses will be allocated based on the ratio of our and our subsidiaries’ proportion of gross assets compared to all remaining gross assets managed by PCM as calculated at each fiscal quarter end.

PCM may also be entitled to a termination fee under certain circumstances. Specifically, the termination fee is payable for (1) our termination of our management agreement without cause, (2) PCM’s termination of our management agreement upon a default by us in the performance of any material term of the agreement that has continued uncured for a period of 30 days after receipt of written notice thereof or (3) PCM’s termination of the agreement after the termination by us without cause (excluding a non-renewal) of our MBS agreement, our MSR recapture agreement or our servicing agreement (each as described and/or defined below). The termination fee is equal to three times the sum of (a) the average annual base management fee and (b) the average annual (or, if the period is less than 24 months, annualized) performance incentive fee earned by our Manager during the 24-month period immediately preceding the date of termination.

We may terminate the management agreement without the payment of any termination fee under certain circumstances, including, among other circumstances, uncured material breaches by our Manager of the management agreement, upon a change in control of our Manager (defined to include a 50% change in the shareholding of our Manager in a single transaction or related series of transactions).

Our management agreement also provides that, prior to the undertaking by PCM or its affiliates of any new investment opportunity or any other business opportunity requiring a source of capital with respect to which PCM or its affiliates will earn a management, advisory, consulting or similar fee, PCM shall present to us such new opportunity and the material terms on which PCM proposes to provide services to us before pursuing such opportunity with third parties.

**Servicing Agreement.** We have entered into a loan servicing agreement with PLS, pursuant to which PLS provides servicing for our portfolio of residential mortgage loans and subservicing for our portfolio of MSR. Such servicing and subservicing provided by PLS include collecting principal, interest and escrow account payments, if any, with respect to mortgage loans, as well as managing loss mitigation, which may include, among other things, collection activities, loan workouts, modifications, foreclosures and short sales. PLS also engages in certain loan origination activities that include refinancing mortgage loans and financings that facilitate sales of real estate owned properties, or REOs. The servicing agreement expires on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the agreement.

The base servicing fee rates for distressed whole mortgage loans are charged based on a monthly per-loan dollar amount, with the actual dollar amount for each loan based on the delinquency, bankruptcy and/or foreclosure status of such loan or whether the underlying mortgage property has become REO. The base servicing fee rates for distressed whole mortgage loans range from \$30 per month for current loans up to \$85 per month for loans where the borrower has declared bankruptcy. The base servicing fee rate for REO is \$75 per month. To the extent that we rent our REO under our REO rental program, we pay PLS an REO rental fee of \$30 per month per REO, an REO property lease renewal fee of \$100 per lease renewal, and a property management fee in an amount equal to PLS' cost if property management services and/or any related software costs are outsourced to a third-party property management firm or 9% of gross rental income if PLS provides property management services directly. PLS is also entitled to retain any tenant paid application fees and late rent fees and seek reimbursement for certain third-party vendor fees.



PLS is also entitled to certain activity-based fees for distressed whole mortgage loans that are charged based on the achievement of certain events. These fees range from \$750 for a streamline modification to \$1,750 for a full modification or liquidation and \$500 for a deed-in-lieu of foreclosure. PLS is not entitled to earn more than one liquidation fee, re-performance fee or modification fee per loan in any 18-month period.

The base servicing fee rates for non-distressed mortgage loans subserviced by PLS on our behalf are also calculated through a monthly per-loan dollar amount, with the actual dollar amount for each loan based on whether the mortgage loan is a fixed-rate or adjustable-rate loan. The base servicing fee rates for mortgage loans subserviced on our behalf are \$7.50 per month for fixed-rate mortgage loans and \$8.50 per month for adjustable-rate mortgage loans. To the extent that these mortgage loans become delinquent, PLS is entitled to an additional servicing fee per mortgage loan falling within a range of \$10 to \$55 per month and based on the delinquency, bankruptcy and foreclosure status of the loan or \$75 per month if the underlying mortgaged property becomes REO. PLS is also entitled to customary ancillary income and certain market-based fees and charges, including boarding and deboarding fees, liquidation and disposition fees, and assumption, modification and origination fees.

In addition, because we have limited employees and infrastructure, PLS is required to provide a range of services and activities significantly greater in scope than the services provided in connection with a customary servicing arrangement. For these services, PLS receives a supplemental servicing fee of \$25 per month for each distressed whole loan. PLS is entitled to reimbursement for all customary, good faith reasonable and necessary out-of-pocket expenses incurred by PLS in the performance of its servicing obligations.

Except as otherwise provided in our MSR recapture agreement, when PLS effects a refinancing of a loan on our behalf and not through a third-party lender and the resulting loan is readily saleable, or PLS originates a loan to facilitate the disposition of the real estate acquired by us in settlement of a loan, PLS is entitled to receive from us market-based fees and compensation consistent with pricing and terms PLS offers unaffiliated third parties on a retail basis.

We currently participate in HAMP (or other similar mortgage loan modification programs). HAMP establishes standard loan modification guidelines for “at risk” homeowners and provides incentive payments to certain participants, including mortgage loan servicers, for achieving modifications and successfully remaining in the program. The mortgage loan servicing agreement entitles PLS to retain any incentive payments made to it and to which it is entitled under HAMP; provided, however, that with respect to any such incentive payments paid to PLS in connection with a mortgage loan modification for which we previously paid PLS a modification fee, PLS is required to reimburse us an amount equal to the incentive payments.

PLS continues to be entitled to reimbursement for all customary, bona fide reasonable and necessary out of pocket expenses incurred by PLS in connection with the performance of its servicing obligations.

**Mortgage Banking Services Agreement.** Pursuant to a mortgage banking services agreement (the “MBS agreement”), PLS provides us with certain mortgage banking services, including fulfillment and disposition-related services, with respect to loans acquired by us from correspondent sellers.

Pursuant to the MBS agreement, PLS has agreed to provide such services exclusively for our benefit, and PLS and its affiliates are prohibited from providing such services for any other third party. However, such exclusivity and prohibition shall not apply, and certain other duties instead will be imposed upon PLS, if we are unable to purchase or finance mortgage loans as contemplated under our MBS agreement for any reason. The MBS agreement expires, unless terminated earlier in accordance with the terms of the agreement, on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the agreement.

In consideration for the mortgage banking services provided by PLS with respect to our acquisition of mortgage loans, PLS is entitled to a monthly fulfillment fee that shall equal (a) no greater than the product of (i) 0.35% and (ii) the aggregate initial unpaid principal balance (the “Initial UPB”) of all mortgage loans purchased in such month, plus (b) in

the case of all mortgage loans other than mortgage loans sold to or securitized through Fannie Mae or Freddie Mac, no greater than the product of (i) 0.50% and (ii) the aggregate Initial UPB of all such mortgage loans sold and securitized in such month; provided however, that no fulfillment fee shall be due or payable to PLS with respect to any Ginnie Mae mortgage loans. We do not hold the Ginnie Mae approval required to issue Ginnie Mae MBS and act as a servicer. Accordingly, under the MBS agreement, PLS currently purchases loans underwritten in accordance with the Ginnie Mae Mortgage-Backed Securities Guide “as is” and without recourse of any kind from us at our cost less an administrative fee plus accrued interest and a sourcing fee ranging from two to three and one-half basis points, generally based on the average number of calendar days that mortgage loans are held by us prior to purchase by PLS.

In consideration for the mortgage banking services provided by PLS with respect to our acquisition of mortgage loans under PLS’ early purchase program, PLS is entitled to fees accruing (i) at a rate equal to \$1,500 per year per early purchase facility administered by PLS, and (ii) in the amount of \$35 for each mortgage loan that we acquire thereunder.

Notwithstanding any provision of the MBS agreement to the contrary, if it becomes reasonably necessary or advisable for PLS to engage in additional services in connection with post-breach or post-default resolution activities for the purposes of a correspondent agreement, then we have generally agreed with PLS to negotiate in good faith for additional compensation and reimbursement of expenses to be paid to PLS for the performance of such additional services.

**MSR Recapture Agreement.** Pursuant to the terms of the MSR recapture agreement entered into by PMC with PLS, if PLS refinances through its consumer direct lending business mortgage loans for which we previously held the MSRs, PLS is generally required to transfer and convey to PMC, cash in an amount equal to 30% of the fair market value of the MSRs related to all such mortgage loans so originated. The MSR recapture agreement expires, unless terminated earlier in accordance with the terms of the agreement, on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the agreement.

**Spread Acquisition and MSR Servicing Agreement.** On December 19, 2016, we amended and restated a master spread acquisition and MSR servicing agreement with PLS (the “12/19/16 Spread Acquisition Agreement”). Pursuant to the 12/19/16 Spread Acquisition Agreement, we may acquire from PLS, from time to time, the right to receive participation certificates representing beneficial ownership in ESS arising from Ginnie Mae MSRs acquired by PLS, in which case PLS generally would be required to service or subservice the related mortgage loans for Ginnie Mae. The primary purpose of the amendment and restatement was to facilitate the continued financing of the ESS owned by us in connection with the parties’ participation in the GNMA MSR Facility (as defined below).

To the extent PLS refinances any of the mortgage loans relating to the ESS we have acquired, the 12/19/16 Spread Acquisition Agreement also contains recapture provisions requiring that PLS transfer to us, at no cost, the ESS relating to a certain percentage of the unpaid principal balance of the newly originated mortgage loans. However, under the 12/19/16 Spread Acquisition Agreement, in any month where the transferred ESS relating to newly originated Ginnie Mae mortgage loans is not equivalent to at least 90% of the product of the excess servicing fee rate and the unpaid principal balance of the refinanced mortgage loans, PLS is also required to transfer additional ESS or cash in the amount of such shortfall. Similarly, in any month where the transferred ESS relating to modified Ginnie Mae mortgage loans is not equivalent to at least 90% of the product of the excess servicing fee rate and the unpaid principal balance of the modified mortgage loans, the 12/19/16 Spread Acquisition Agreement contains provisions that require PLS to transfer additional ESS or cash in the amount of such shortfall. To the extent the fair market value of the aggregate ESS to be transferred for the applicable month is less than \$200,000, PLS may, at its option, wire cash to us in an amount equal to such fair market value in lieu of transferring such ESS.

#### Master Repurchase Agreement with PLS

On December 19, 2016, we, through PMH, entered into a master repurchase agreement with PLS (the “PMH Repurchase Agreement”), pursuant to which PMH may borrow from PLS for the purpose of financing PMH’s participation certificates representing beneficial ownership in ESS acquired from PLS under the 12/19/16 Spread Acquisition Agreement. PLS then re-pledges such participation certificates to PNMAR GMSR ISSUER TRUST (the “Issuer Trust”) under a master repurchase agreement by and among PLS, the Issuer Trust and Private National Mortgage Acceptance Company, LLC, as guarantor (the “PC Repurchase Agreement”). The Issuer Trust was formed for the purpose of allowing PLS to finance MSRs and ESS relating to such MSRs (the “GNMA MSR Facility”).

In connection with the GNMA MSR Facility, PLS pledges and/or sells to the Issuer Trust participation certificates representing beneficial interests in MSRs and ESS pursuant to the terms of the PC Repurchase Agreement. In return, the Issuer Trust (a) has issued to PLS, pursuant to the terms of an indenture, the Series 2016-MSRVF1 Variable

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Funding Note, dated December 19, 2016, known as the “PNMAC GMSR ISSUER TRUST MSR Collateralized Notes, Series 2016-MSRVF1” (the “VFN”), and (b) has issued and may, from time to time pursuant to the terms of any supplemental indenture, issue to institutional investors additional term notes (“Term Notes”), in each case secured on a pari passu basis by the participation certificates relating to the MSRs and ESS. The maximum principal balance of the VFN is \$1,000,000,000.

The principal amount paid by PLS for the participation certificates under the PMH Repurchase Agreement is based upon a percentage of the market value of the underlying ESS. Upon PMH’s repurchase of the participation certificates, PMH is required to repay PLS the principal amount relating thereto plus accrued interest (at a rate reflective of the current market and consistent with the weighted average note rate of the VFN and any outstanding Term Notes) to the date of such repurchase. PLS is then required to repay the Issuer Trust the corresponding amount under the PC Repurchase Agreement.

As a condition to our entry into the 12/19/16 Spread Acquisition Agreement and our participation in the GNMA MSR Facility, we were also required to enter into a subordination, acknowledgement and pledge agreement (the “Subordination Agreement”). Under the terms of the Subordination Agreement, we pledged to the Issuer Trust our rights under the 12/19/16 Spread Acquisition Agreement and our interest in any ESS purchased thereunder.

The Subordination Agreement contains representations, warranties and covenants by us that are substantially similar to those contained in our other financing arrangements. To the extent there exists an event of default under the PC Repurchase Agreement or a “trigger event” (as defined in the Subordination Agreement), the Issuer Trust would be entitled to liquidate any and all of the collateral securing the PC Repurchase Agreement, including the ESS subject to the PMH Repurchase Agreement.

**Loan Purchase Agreement.** We have entered into a mortgage loan purchase agreement with our Servicer. Currently, we use the mortgage loan purchase agreement for the purpose of acquiring prime jumbo and Agency-eligible residential mortgage loans originated by our Servicer through its consumer direct lending channel. The loan purchase agreement contains customary terms and provisions, including representations and warranties, covenants, repurchase remedies and indemnities. The purchase prices we pay our Servicer for such loans are market-based.

**Reimbursement Agreement.** In connection with the initial public offering of our common shares on August 4, 2009 (the “IPO”), we entered into an agreement with PCM pursuant to which we agreed to reimburse PCM for the \$2.9 million payment that it made to the underwriters for the IPO (the “Conditional Reimbursement”) if we satisfied certain performance measures over a specified period of time. Effective February 1, 2013, we amended the terms of the reimbursement agreement to provide for the reimbursement of PCM of the Conditional Reimbursement if we are required to pay PCM performance incentive fees under our management agreement at a rate of \$10 in reimbursement for every \$100 of performance incentive fees earned. The reimbursement of the Conditional Reimbursement is subject to a maximum reimbursement in any particular 12-month period of \$1.0 million and the maximum amount that may be reimbursed under the agreement is \$2.9 million. The reimbursement agreement also provides for the payment to the IPO underwriters of the payment that we agreed to make to them at the time of the IPO if we satisfied certain performance measures over a specified period of time. As PCM earns performance incentive fees under our management agreement, the IPO underwriters will be paid at a rate of \$20 of payments for every \$100 of performance incentive fees earned by PCM. The payment to the underwriters is subject to a maximum reimbursement in any particular 12-month period of \$2.0 million and the maximum amount that may be paid under the agreement is \$5.9 million.

In the event the termination fee is payable to our Manager under our management agreement and our Manager and the underwriters have not received the full amount of the reimbursements and payments under the reimbursement agreement, such amount will be paid in full. On February 1, 2019, the term of the reimbursement agreement was extended, and it now expires on February 1, 2023.

#### Quantitative and Qualitative Disclosures About Market Risk

Market risk is the exposure to loss resulting from changes in interest rates, foreign currency exchange rates, commodity prices, equity prices, real estate values and other market-based risks. The primary market risks that we are exposed to are real estate risk, credit risk, interest rate risk, prepayment risk, inflation risk and market value risk. Our primary trading asset is our inventory of mortgage loans acquired for sale. We believe that such assets’ fair values respond primarily to changes in the market interest rates for comparable recently-originated mortgage loans. Our other market-risk assets are a substantial portion of our investments and are primarily comprised of distressed mortgage loans, MSRs, ESS, CRT Agreements and MBS. We believe that the fair values of MSRs, ESS and MBS also respond primarily to changes in the market interest rates for comparable mortgage loans or yields on MBS. We believe that the fair values of our investment in distressed mortgage loans respond primarily to changes in the fair value of the real estate securing such loans.



### Real Estate Risk

Residential property values are subject to volatility and may be affected adversely by a number of factors, including, but not limited to, national, regional and local economic conditions (which may be adversely affected by industry slowdowns and other factors); local real estate conditions (such as an oversupply of housing); construction quality, age and design; demographic factors; and retroactive changes to building or similar codes. Decreases in property values reduce the value of the collateral and the potential proceeds available to a borrower to repay our loans, which could cause us to suffer losses.

### Credit Risk

We are subject to credit risk in connection with our investments. A significant portion of our assets is comprised of residential mortgage loans. The credit risk related to these investments pertains to the ability and willingness of the borrowers to pay, which is assessed before credit is granted. We believe that residual loan credit quality is primarily determined by the borrowers' credit profiles and loan characteristics. We have entered into CRT Agreements which involve the absorption on our part of losses relating to certain mortgage loans we sell that subsequently default. The fair value of the assets we carry related to these agreements are sensitive to credit market conditions generally, perceptions of the performance of the mortgage loans in our CRT Agreements' reference pools specifically and to the actual performance of such mortgage loans.

### Interest Rate Risk

Interest rate risk is highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control. Changes in interest rates affect the fair value of, interest income and net servicing income we earn from our mortgage-related investments. This effect is most pronounced with fixed-rate investments, MSRs and ESS. In general, rising interest rates negatively affect the fair value of our investments in MBS and mortgage loans, while decreasing market interest rates negatively affect the fair value of our MSRs and ESS.

Our operating results will depend, in part, on differences between the income from our investments and our financing costs. Presently much of our debt financing is based on a floating rate of interest calculated on a fixed spread over the relevant index, as determined by the particular financing arrangement.

In the event of a significant rising interest rate environment and/or economic downturn, defaults could increase and result in credit losses to us, which could materially and adversely affect our business, financial condition, liquidity, results of operations and prospects. Furthermore, such defaults could have an adverse effect on the spread between our interest earning assets and interest bearing liabilities.

We engage in interest rate risk management activities in an effort to reduce the variability of earnings caused by changes in interest rates. To manage this price risk resulting from interest rate risk, we use derivative financial instruments acquired with the intention of moderating the risk that changes in market interest rates will result in unfavorable changes in the value of our interest rate lock commitments, inventory of mortgage loans acquired for sale, MBS, ESS, mortgage loans and MSRs. We do not use derivative financial instruments for purposes other than in support of our risk management activities.

### Prepayment Risk

To the extent that the actual prepayment rate on our mortgage-based investments differs from what we projected when we purchased the loans and when we measured fair value as of the end of each reporting period, our unrealized gain or loss will be affected. As we receive prepayments of principal on our MBS investments, any premiums paid for such investments will be amortized against interest income using the interest method through the expected maturity dates of

the investments. In general, an increase in prepayment rates will accelerate the amortization of purchase premiums, thereby reducing the interest income earned on the MBS investments and will accelerate the amortization of MSRs and ESS thereby reducing net servicing income. Conversely, as we receive prepayments of principal on our investments, any discounts realized on the purchase of such investments will be accrued into interest income using the interest method through the expected maturity dates of the investments. In general, an increase in prepayment rates will accelerate the accrual of purchase discounts, thereby increasing the interest income earned on the MBS investments.



### Inflation Risk

Virtually all of our assets and liabilities are interest rate sensitive in nature. As a result, interest rates and other factors will influence our performance more so than inflation. Changes in interest rates do not necessarily correlate with inflation rates or changes in inflation rates. Furthermore, our consolidated financial statements are prepared in accordance with GAAP and any distributions we may make to our shareholders will be determined by our board of trustees based primarily on our taxable income and, in each case, our activities and balance sheet are measured with reference to historical cost and/or fair value without considering inflation.

### Fair Value Risk

Our mortgage loans, MBS, MSRs, ESS and CRT arrangements are reported at their fair values. The fair value of these assets fluctuates primarily based on the exposure of the underlying investment. Performing prime mortgage loans (along with any related recognized IRLCs), MBS, MSRs and ESS are more sensitive to changes in market interest rates, while distressed mortgage loans and CRT agreements are more sensitive to changes in the market credit spreads, underlying real estate values, relating to the loans underlying our investments, and other factors such as the effectiveness and servicing practices of the servicers associated with the properties securing such investment.

Generally, in an interest rate market where interest rates are rising or are expected to rise, the fair value of our mortgage loans and MBS would be expected to decrease, whereas in an interest rate market where interest rates are generally decreasing or are expected to decrease, mortgage loan and MBS values would be expected to increase. The fair value of MSRs and ESS, on the other hand, tends to respond generally in an opposite manner to that of mortgage loans acquired for sale and MBS.

Generally, in a real estate market where values are rising or are expected to rise, the fair value of our investment in distressed mortgage loans and CRT arrangements would be expected to appreciate, whereas in a real estate market where values are generally dropping or are expected to drop, the fair values of distressed mortgage loans and CRT arrangements would be expected to decrease.

The following sensitivity analyses are limited in that they were performed at a particular point in time; only contemplate the movements in the indicated variables; do not incorporate changes to other variables; are subject to the accuracy of various models and assumptions used; and do not incorporate other factors that would affect our overall financial performance in such scenarios, including operational adjustments made by management to account for changing circumstances. For these reasons, the following estimates should not be viewed as earnings forecasts.

### Mortgage-backed securities at fair value

The following table summarizes the estimated change in fair value of our mortgage-backed securities as of December 31, 2018, given several hypothetical (instantaneous) changes in interest rates and parallel shifts in the yield curve:

Interest rate shift in basis points	-200	-75	-50	50	75	200
	(dollar in thousands)					
Fair value	\$2,750,928	\$2,691,168	\$2,667,584	\$2,543,571	\$2,507,793	\$2,316,845
Change in fair value:						
\$	\$140,506	\$80,746	\$57,162	\$(66,851)	\$(102,629)	\$(293,577)
%	5.4	% 3.1	% 2.2	% (2.6)	% (3.9)	% (11.2)

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Mortgage Servicing Rights

The following tables summarize the estimated change in fair value of MSR as of December 31, 2018, given several shifts in pricing spread, prepayment speeds and annual per-loan cost of servicing:

Pricing spread shift in %	-20%	-10%	-5%	+5%	+10%	+20%
	(dollars in thousands)					
Fair value	\$1,221,241	\$1,191,106	\$1,176,568	\$1,148,496	\$1,134,941	\$1,108,742
Change in fair value:						
\$	\$58,872	\$28,738	\$14,200	\$(13,872)	\$(27,428)	\$(53,626)
%	5.1	% 2.5	% 1.2	% (1.2)	% (2.4)	% (4.6)

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Prepayment speed shift in %	-20%	-10%	-5%	+5%	+10%	+20%
	(dollars in thousands)					
Fair value	\$1,258,838	\$1,208,508	\$1,184,949	\$1,140,708	\$1,119,911	\$1,080,709
Change in fair value:						
\$	\$96,469	\$46,140	\$22,580	\$(21,661 )	\$(42,458 )	\$(81,660 )
%	8.3	% 4.0	% 1.9	% (1.9 )%	(3.7 )%	(7.0 )%

Per-loan servicing cost shift in %	-20%	-10%	-5%	+5%	+10%	+20%
	(dollars in thousands)					
Fair value	\$1,195,562	\$1,178,966	\$1,170,667	\$1,154,070	\$1,145,772	\$1,129,175
Change in fair value:						
\$	\$33,194	\$16,597	\$8,298	\$(8,298 )	\$(16,597 )	\$(33,194 )
%	2.9	% 1.4	% 0.7	% (0.7 )%	(1.4 )%	(2.9 )%

Excess servicing spread

The following tables summarize the estimated change in fair value of our ESS as of December 31, 2018, given several shifts in pricing spread and prepayment speed:

Pricing spread shift in %	-20%	-10%	-5%	+5%	+10%	+20%
	(dollars in thousands)					
Fair value	\$222,150	\$219,091	\$217,591	\$214,649	\$213,206	\$210,375
Change in fair value:						
\$	\$6,040	\$2,980	\$1,481	\$(1,461 )	\$(2,904 )	\$(5,735 )
%	2.8	% 1.4	% 0.7	% (0.7 )%	(1.3 )%	(2.7 )%

Prepayment speed shift in %	-20%	-10%	-5%	+5%	+10%	+20%
	(dollars in thousands)					
Fair value	\$236,495	\$225,889	\$220,902	\$211,503	\$207,070	\$198,693
Change in fair value:						
\$	\$20,385	\$9,779	\$4,792	\$(4,607 )	\$(9,040 )	\$(17,418 )
%	9.4	% 4.5	% 2.2	% (2.1 )%	(4.2 )%	(8.1 )%

CRT Agreements

Following is a summary of the effect on fair value of various changes to the pricing spread input used to estimate the fair value of our CRT Agreements given several shifts in pricing spread:

-100	-50	-25	25	50	100
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Pricing spread shift in  
basis points

	(dollars in thousands)					
Fair value	\$1,292,592	\$1,263,040	\$1,248,648	\$1,220,558	\$1,206,872	\$1,180,182
Change in fair value:						
\$	\$58,115	\$28,563	\$14,171	\$(13,918 )	\$(27,605 )	\$(54,295 )
%	4.7	% 2.3	% 1.2	% (1.1 )%	(2.2 )%	(4.4 )%

Following is a summary of the effect on fair value of various instantaneous changes in home values from those used to estimate the fair value of our CRT Agreements given several shifts:

Property value shift in %	-15%	-10%	-5%	5%	10%	15%
	(dollars in thousands)					
Fair value	\$1,205,997	\$1,220,842	\$1,229,026	\$1,237,919	\$1,240,309	\$1,241,805
Change in fair value:						
\$	\$(28,494 )	\$(13,649 )	\$(5,465 )	\$3,428	\$5,818	\$7,314
%	(2.3 )%	(1.1 )%	(0.4 )%	0.3	% 0.5	% 0.6

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Firm commitment to purchase CRT securities

Following is a summary of the effect on fair value of various changes to the pricing spread input used to estimate the fair value of our Firm commitment to purchase CRT securities given several shifts in pricing spread:

Pricing spread shift in basis points	-100	-50	-25	25	50	100
	(dollars in thousands)					
Fair value	\$67,937	\$52,700	\$45,282	\$30,832	\$23,794	\$10,079
Change in fair value:						
\$	\$29,943	\$14,707	\$7,289	\$(7,162)	\$(14,200)	\$(27,915)
%	78.8	% 38.7	% 19.2	% (18.9)	% (37.4)	% (73.5)

Following is a summary of the effect on fair value of various instantaneous changes in home values from these used to estimate the fair value of our Firm commitment to purchase CRT securities giving several shifts:

Property value shift in %	-15%	-10%	-5%	5%	10%	15%
	(dollars in thousands)					
Fair value	\$25,530	\$31,921	\$35,749	\$39,398	\$40,246	\$40,660
Change in fair value:						
\$	\$(12,464)	\$(6,073)	\$(2,245)	\$1,405	\$2,252	\$2,667
%	(32.8)	% (16.0)	% (5.9)	3.7	% 5.9	% 7.0

Mortgage Loans at Fair Value

The following table summarizes the estimated change in fair value of our portfolio of distressed mortgage loans (comprised of mortgage loans at fair value, excluding mortgage loans at fair value held by VIE) as of December 31, 2018, given several hypothetical (instantaneous) changes in home values from those used in estimating fair value:

Property value shift in %	-15%	-10%	-5%	+5%	+10%	+15%
	(dollars in thousands)					
Fair value	\$104,781	\$109,412	\$113,731	\$121,459	\$124,900	\$128,106
Change in fair value:						
\$	\$(12,951)	\$(8,321)	\$(4,001)	\$3,726	\$7,167	\$10,374
%	(11.0)	% (7.1)	% (3.4)	3.2	% 6.1	% 8.8

The following table summarizes the estimated change in fair value of our mortgage loans at fair value held by VIE as of December 31, 2018, net of the effect of changes in fair value of the related asset-backed financing of the VIE at fair value, given several hypothetical (instantaneous) changes in interest rates and parallel shifts in the yield curve:

Interest rate shift in basis points	-200	-75	-50	50	100	200
	(dollar in thousands)					
Fair value	\$291,264	\$291,023	\$290,892	\$290,210	\$290,020	\$289,042
Change in fair value:						
\$	\$691	\$450	\$319	\$(363)	\$(553)	\$(1,531)

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% 0.2 % 0.2 % 0.1 % (0.1 )% (0.2 )% (0.5 )%

Item 7A. Quantitative and Qualitative Disclosures About Market Risk  
In response to this Item 7A, the information set forth on pages 92 through 96 is incorporated herein by reference.

Item 8. Financial Statements and Supplementary Data

The information called for by this Item 8 is hereby incorporated by reference from our Financial Statements and Auditors' Report beginning at page F-1 of this Report.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None

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Item 9A. Controls and Procedures  
Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934 (the “Exchange Act”) is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. However, no matter how well a control system is designed and operated, it can provide only reasonable, not absolute, assurance that it will detect or uncover failures within the Company to disclose material information otherwise required to be set forth in our periodic reports.

Our management has conducted an evaluation, with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Report as required by paragraph (b) of Rules 13a-15 and 15d-15 under the Exchange Act. Based on our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective, as of the end of the period covered by this Report, to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Internal Control over Financial Reporting

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rule 13a-15(f). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Management assessed the effectiveness of its internal control over financial reporting based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control—Integrated Framework (2013) . Based on those criteria, management concluded that our internal control over financial reporting was effective as of December 31, 2018.

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which appears herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Trustees and Shareholders of

PennyMac Mortgage Investment Trust

3043 Townsgate Road

Westlake Village, CA 91361

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of PennyMac Mortgage Investment Trust and subsidiaries (the “Company”) as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated February 26, 2019, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company’s election in 2018 to prospectively change its method of accounting for the classes of mortgage servicing rights it had accounted for using the amortization method.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.



We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

#### Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Los Angeles, California

February 26, 2019

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2018, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item 10 is hereby incorporated by reference from our definitive proxy statement, or will be contained in an amendment to this Report, in either case to be filed by April 30, 2019, which is within 120 days after the end of fiscal year 2018.

Item 11. Executive Compensation

The information required by this Item 11 is hereby incorporated by reference from our definitive proxy statement, or will be contained in an amendment to this Report, in either case to be filed by April 30, 2019, which is within 120 days after the end of fiscal year 2018.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item 12 is hereby incorporated by reference from our definitive proxy statement, or will be contained in an amendment to this Report, in either case to be filed by April 30, 2019, which is within 120 days after the end of fiscal year 2018.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item 13 is hereby incorporated by reference from our definitive proxy statement, or will be contained in an amendment to this Report, in either case to be filed by April 30, 2019, which is within 120 days after the end of fiscal year 2018.

Item 14. Principal Accounting Fees and Services

The information required by this Item 14 is hereby incorporated by reference from our definitive proxy statement, or will be contained in an amendment to this Report, in either case to be filed by April 30, 2019, which is within 120 days after the end of fiscal year 2018.

## PART IV

## Item 15. Exhibits and Financial Statement Schedules

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 14-64423)	Form Filing Date
3.1	<u>Declaration of Trust of PennyMac Mortgage Investment Trust, as amended and restated.</u>		10-Q November 6, 2009
3.2	<u>Second Amended and Restated Bylaws of PennyMac Mortgage Investment Trust</u>		8-K March 16, 2018
3.3	<u>Articles Supplementary classifying and designating the 8.125% Series A Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest.</u>		8-A March 7, 2017
3.4	<u>Articles Supplementary classifying and designating the 8.00% Series B Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest.</u>		8-A June 30, 2017
4.1	<u>Specimen Common Share Certificate of PennyMac Mortgage Investment Trust.</u>		10-Q November 6, 2009
4.2	<u>Specimen Certificate for 8.125% Series A Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest.</u>		8-A March 7, 2017
4.3	<u>Specimen Certificate for 8.00% Series B Fixed-to-Floating Rate Cumulative Redeemable Preferred Shares of Beneficial Interest.</u>		8-A June 30, 2017
4.4	<u>Indenture for Senior Debt Securities, dated as of April 30, 2013, among PennyMac Corp., PennyMac Mortgage Investment Trust and The Bank of New York Mellon Trust Company, N.A.</u>		8-K April 30, 2013
4.5	<u>First Supplemental Indenture, dated as of April 30, 2013, among PennyMac Corp., PennyMac Mortgage Investment Trust and The Bank of New York Mellon Trust Company, N.A.</u>		8-K April 30, 2013
4.6	<u>Form of 5.375% Exchangeable Senior Notes due 2020 (included in Exhibit 4.5).</u>		
10.1	<u>Amended and Restated Limited Partnership Agreement of PennyMac Operating Partnership, L.P.</u>		10-Q November 6, 2009

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|------|---|------|------------------|
| 10.2 | <u>First Amendment to the Amended and Restated Limited Partnership Agreement of PennyMac Operating Partnership, L.P., dated as of March 9, 2017.</u>  | 8-K  | March 9, 2017    |
| 10.3 | <u>Second Amendment to the Amended and Restated Limited Partnership Agreement of PennyMac Operating Partnership, L.P., dated as of July 5, 2017.</u>  | 8-K  | July 6, 2017     |
| 10.4 | <u>Registration Rights Agreement, dated as of August 4, 2009, among PennyMac Mortgage Investment Trust, Stanford L. Kurland, David A. Spector, BlackRock Holdco II, Inc., Highfields Capital Investments LLC and Private National Mortgage Acceptance Company, LLC.</u> | 10-Q | November 6, 2009 |
| 10.5 | <u>Amended and Restated Underwriting Fee Reimbursement Agreement, dated as of February 1, 2013, by and among PennyMac Mortgage Investment Trust, PennyMac Operating Partnership, L.P. and PNMAC Capital Management, LLC.</u>  | 8-K  | February 7, 2013 |

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- 10.6 Second Amended and Restated Underwriting Fee Reimbursement Agreement, dated as of February 1, 2019, by and among PennyMac Mortgage Investment Trust, PennyMac Operating Partnership, L.P. and PNMAC Capital Management, LLC. \*
- 10.7 Second Amended and Restated Management Agreement, dated as of September 12, 2016, by and among PennyMac Mortgage Investment Trust, PennyMac Operating Partnership, L.P. and PNMAC Capital Management, LLC. 8-K September 12, 2016
- 10.8 Amendment No. 1 to Second Amended and Restated Management Agreement, dated as of September 27, 2017, among PennyMac Mortgage Investment Trust, PennyMac Operating Partnership, L.P. and PNMAC Capital Management, LLC. 10-Q November 8, 2017
- 10.9 Third Amended and Restated Flow Servicing Agreement, dated as of September 12, 2016, between PennyMac Operating Partnership, L.P. and PennyMac Loan Services, LLC. 8-K September 12, 2016
- 10.10 Amendment No. 1 to Third Amended and Restated Flow Servicing Agreement, dated as of March 1, 2018, between PennyMac Operating Partnership, L.P. and PennyMac Loan Services, LLC. 10-Q Mar 7, 2018
- 10.11 Amended and Restated Mortgage Banking Services Agreement, dated as of September 12, 2016, by and between PennyMac Loan Services, LLC and PennyMac Corp. 8-K September 12, 2016
- 10.12 Amendment No. 1 to Amended and Restated Mortgage Banking Services Agreement, dated as of May 25, 2017, by and between PennyMac Loan Services, LLC and PennyMac Corp. 10-Q August 8, 2017
- 10.13 Amendment No. 2 to Amended and Restated Mortgage Banking Services Agreement, dated as of October 31, 2017, among PennyMac Loan Services, LLC and PennyMac Corp. 10-Q November 8, 2017
- 10.14 Amendment No. 3 to Amended and Restated Mortgage Banking Services Agreement, dated as of December 1, 2017, by and between PennyMac Loan Services, LLC and PennyMac Corp. 10-K March 1, 2018
- 10.15 Amended and Restated MSR Recapture Agreement, dated as of September 12, 2016, by and between PennyMac Loan Services, LLC and PennyMac Corp. 8-K September 12, 2016
- 10.16 Amendment No. 1 to Amended and Restated MSR Recapture Agreement, dated as of December 1, 2017, by and between PennyMac Loan Services, LLC and PennyMac Corp. 10-K March 1, 2018
- 10.17 Master Spread Acquisition and MSR Servicing Agreement, dated as of December 19, 2014, by and between PennyMac Loan Services, LLC, PennyMac Holdings, LLC and PennyMac Operating Partnership, L.P. 8-K December 24, 2014
- 10.18 Amendment No 1. to Master Spread Acquisition and MSR Servicing Agreement, dated as of March 3, 2015, by and between PennyMac Loan Services, LLC, PennyMac Operating Partnership, L.P., and PennyMac Holdings, LLC. 10-Q May 8, 2015
- 10.19 PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan. 10-Q November 6, 2009
- 10.20 First Amendment to the PennyMac Mortgage Investment Trust Equity Incentive Plan. 10-Q

November 8,  
2017

10.21 Second Amendment to the PennyMac Mortgage Investment Trust Equity Incentive Plan. 10-K March 1,  
2018

10.22 Form of Restricted Share Unit Award Agreement under the PennyMac Mortgage S-11/A July 24, 2009  
Investment Trust 2009 Equity Incentive Plan.

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10.23	<u>Form of Restricted Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan.</u>	10-Q	May 6, 2016
10.24	<u>Form of Performance Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan.</u>	10-Q	May 6, 2016
10.25	<u>Form of Performance Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan (2016).</u>	10-K	March 1, 2018
10.26	<u>Form of Performance Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan (2017).</u>	10-Q	November 8, 2017
10.27	<u>Form of Performance Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan (2018).</u>	10-Q	August 7, 2018
10.28	<u>Form of Restricted Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan (2019).</u>	*	
10.29	<u>Form of Performance Share Unit Award Agreement under the PennyMac Mortgage Investment Trust 2009 Equity Incentive Plan (2019).</u>	*	
10.30	<u>Amended and Restated Master Repurchase Agreement, dated as of March 3, 2017, among Citibank, N.A., PennyMac Corp., PennyMac Holdings, LLC and PennyMac Loan Services, LLC.</u>	8-K	March 8, 2017
10.31	<u>Amendment Number One to the Amended and Restated Master Repurchase Agreement, dated as of March 2, 2018, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Loan Services, LLC, and Citibank, N.A.</u>	10-Q	May 7, 2018
10.32	<u>Amendment Number Two to the Amended and Restated Master Repurchase Agreement, dated as of May 1, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC, PPennyMac Loan Services, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.33	<u>Amendment Number Three to the Amended and Restated Master Repurchase Agreement, dated as of May 9, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Loan Services, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.34	<u>Amendment Number Four to the Amended and Restated Master Repurchase Agreement, dated as of May 14, 2018, by and among PennyMac Loan Services, LLLC, PennyMac Holdings, LLC, PennyMac Corp., and Citibank, N.A.</u>	8-K	May 18, 2018
10.35	<u>Amendment Number Five to the Amended and Restated Master Repurchase Agreement, dated as of June 8, 2018, by and among PennyMac Loan Services, LLC, PennyMac Holdings, LLC, PennyMac Corp. and Citibank, N.A.</u>	8-K	June 14, 2018
10.36	<u>Guaranty Agreement, dated as of December 9, 2010, by PennyMac Mortgage Investment Trust in favor of Citibank, N.A.</u>	8-K	December 15, 2010
10.37	<u>Second Amended and Restated Master Repurchase Agreement, dated as of April 28, 2017, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating</u>	8-K	May 3, 2017



Partnership, L.P., PMC REO Financing Trust and PennyMac Mortgage Investment Trust.

10.38 Amendment No. 1 to Second Amended and Restated Master Repurchase Agreement, dated as of June 1, 2017, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating Partnership, L.P., PMC REO Financing Trust and PennyMac Mortgage Investment Trust. 10-Q August 8, 2017

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- 10.39 Amendment No. 2 to Second Amended and Restated Master Repurchase Agreement, dated December 20, 2017, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating Partnership, L.P., PMC REO Financing Trust, LLC and PennyMac Mortgage Investment Trust. 10-K March 1, 2018
- 10.40 Amendment No. 3 to Second Amended and Restated Master Repurchase Agreement, dated February 1, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating Partnership, L.P., PMC REO Financing Trust, LLC and PennyMac Mortgage Investment Trust 8-K February 7, 2018
- 10.41 Amendment No. 4 to Second Amended and Restated Master Repurchase Agreement, dated as of April 27, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating Partnership, L.P., PMC REO Financing Trust, and PennyMac Mortgage Investment Trust. 10-Q August 7, 2018
- 10.42 Amendment No. 5 to Second Amended and Restated Master Repurchase Agreement, dated as of February 11, 2019, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Holdings, LLC, PennyMac Corp., PennyMac Operating Partnership, L.P., PMC REO Financing Trust, and PennyMac Mortgage Investment Trust. \*
- 10.43 Second Amended and Restated Guaranty, dated as of April 28, 2017, by PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P., in favor of Credit Suisse First Boston Mortgage Capital LLC. 8-K May 3, 2017
- 10.44 Second Amended and Restated Master Repurchase Agreement, dated as of April 28, 2017, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Alpine Securitization LTD, PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 8-K May 3, 2017
- 10.45 Amendment No. 1 to Second Amended and Restated Master Repurchase Agreement, dated as of April 27, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 10-Q August 7, 2018
- 10.46 Amended and Restated Guaranty, dated as of April 28, 2017, by PennyMac Mortgage Investment Trust in favor of Credit Suisse First Boston Mortgage Capital LLC. 8-K May 3, 2017
- 10.47 Amended and Restated Master Repurchase Agreement, dated as of March 3, 2017, among Citibank, N.A., PennyMac Corp., and PennyMac Loan Services, LLC. 8-K March 8, 2017
- 10.48 Amendment Number One to the Amended and Restated Master Repurchase Agreement, dated as of March 2, 2018, by and among PennyMac Corp., and PennyMac Loan Services, LLC and Citibank, N.A. 10-Q May 7, 2018
- 10.49 Amendment Number Two to the Amended and Restated Master Repurchase Agreement, dated as of May 1, 2018, by and among PennyMac Corp., PennyMac Loan Services, LLC and Citibank, N.A. 10-Q August 7, 2018

- 10.50 Amendment Number Three to the Amended and Restated Master Repurchase Agreement, dated as of May 9, 2018, by and among PennyMac Corp., PennyMac Loan Services, LLC, and Citibank, N.A. 10-Q August 7, 2018
- 10.51 Amendment Number Four to the Amended and Restated Master Repurchase Agreement, dated as of May 14, 2018, by and among PennyMac Corp., PennyMac Operating Partnership, L.P. and PennyMac Loan Services, LLC and Citibank, N.A. 8-K May 18, 2018

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- 10.52 Amendment Number Five to the Amended and Restated Master Repurchase Agreement, dated as of June 8, 2018, by and among PennyMac Corp., PennyMac Operating Partnership, L.P. and PennyMac Loan Services, LLC and Citibank, N.A. 8-K June 14, 2018
- 10.53 Guaranty, dated as of May 24, 2012, by PennyMac Mortgage Investment Trust in favor of Citibank, N.A. 8-K May 30, 2012
- 10.54 Master Repurchase Agreement, dated as of November 20, 2012, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 8-K November 26, 2012
- 10.55 Amendment Number One to the Master Repurchase Agreement, dated as of August 20, 2013, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-Q November 12, 2013
- 10.56 Amendment Number Two to the Master Repurchase Agreement, dated as of August 26, 2013, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-Q November 12, 2013
- 10.57 Amendment Number Three to the Master Repurchase Agreement, dated as of November 14, 2013, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-K February 28, 2014
- 10.58 Amendment Number Four to the Master Repurchase Agreement, dated as of December 19, 2013, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-K February 28, 2014
- 10.59 Amendment Number Five to the Master Repurchase Agreement, dated as of December 18, 2014, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-K March 2, 2015
- 10.60 Amendment Number Six to the Master Repurchase Agreement, dated as of July 27, 2015, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 8-K July 30, 2015
- 10.61 Amendment Number Seven to the Master Repurchase Agreement, dated as of December 17, 2015, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-K February 29, 2016
- 10.62 Amendment Number Eight to the Master Repurchase Agreement, dated as of August 26, 2016, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-Q November 4, 2016
- 10.63 Amendment Number Nine to the Master Repurchase Agreement, dated as of June 30, 2017, among PennyMac Corp., Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 8-K July 7, 2017
- 10.64 Amendment Number Ten to the Master Repurchase Agreement, dated as of August 25, 2017, among PennyMac Corp., Morgan Stanley Bank N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 8-K August 31, 2017
- 10.65 10-Q May 7, 2018

Amendment Number Eleven to the Master Repurchase Agreement, dated as of March 20, 2018, among PennyMac Corp., PennyMac Operating Partnership, L.P., Morgan Stanley Bank N.A. and Morgan Stanley Mortgage Capital Holdings LLC.

10.66 Amendment Number Twelve to the Master Repurchase Agreement, dated as of August 24, 2018, among PennyMac Corp., PennyMac Operating Partnership, L.P., Morgan Stanley Bank N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 10-Q November 7, 2018

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- 10.67 Guaranty, dated as of November 20, 2012, by PennyMac Mortgage Investment Trust in favor of Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC. 8-K November 26, 2012
- 10.68 Second Amended and Restated Master Spread Acquisition and MSR Servicing Agreement, dated as of December 19, 2016, between PennyMac Loan Services, LLC and PennyMac Holdings, LLC. 8-K December 21, 2016
- 10.69 Master Repurchase Agreement, dated as of December 19, 2016, by and among PennyMac Holdings, LLC, as Seller, PennyMac Loan Services, LLC, as Buyer, and PennyMac Mortgage Investment Trust, as Guarantor. 8-K December 21, 2016
- 10.70 Guaranty, dated as of December 19, 2016, by PennyMac Mortgage Investment Trust, in favor of PennyMac Loan Services, LLC. 8-K December 21, 2016
- 10.71 Subordination, Acknowledgment and Pledge Agreement, dated as of December 19, 2016, between PNMAC GMSR ISSUER TRUST, as Buyer, and PennyMac Holdings, LLC, as Pledgor. 8-K December 21, 2016
- 10.72 Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 23, 2011, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.73 Amendment No. 1 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of August 17, 2012, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.74 Amendment No. 2 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of October 29, 2012, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.75 Amendment No. 3 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 5, 2012, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.76 Amendment No. 4 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of January 3, 2013, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.77 Amendment No. 5 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of March 28, 2013, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.78 Amendment No. 6 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of January 2, 2014, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.79 Amendment No. 7 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of January 31, 2014, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 8-K February 6, 2014
- 10.80 10-Q

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Amendment No. 8 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of August 11,  
March 27, 2014, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage 2014  
Investment Trust and PennyMac Operating Partnership, L.P.

10.81 Amendment No. 9 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of 10-K March 2,  
January 30, 2015, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage 2015  
Investment Trust and PennyMac Operating Partnership, L.P.

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- 10.82 Amendment No. 10 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 22, 2015, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 10-K February 29, 2016
- 10.83 Amendment No. 11 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of March 29, 2016, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 10-Q May 6, 2016
- 10.85 Amendment No. 12 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of March 28, 2017, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 10-Q August 8, 2017
- 10.86 Amendment No. 14 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of April 20, 2018, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. 10-Q May 7, 2018
- 10.87 Amendment No. 15 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of June 29, 2018, among Bank of America, N.A., PennyMac Corp., PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. \*
- 10.88 Guaranty, dated as of December 23, 2011, by PennyMac Mortgage Investment Trust and PennyMac Operating Partnership, L.P. in favor of Bank of America, N.A. 8-K February 6, 2014
- 10.89 Master Repurchase Agreement, dated as of July 9, 2014, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 8-K July 14, 2014
- 10.90 Amendment No. 1 to Master Repurchase Agreement, dated as of January 30, 2015, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 10-K March 2, 2015
- 10.91 Amendment No. 2 to Master Repurchase Agreement, dated as of March 29, 2016, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 10-Q May 6, 2016
- 10.92 Amendment No. 3 to Master Repurchase Agreement, dated as of May 23, 2017, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 8-K May 30, 2017
- 10.93 Amendment No. 4 to Master Repurchase Agreement, dated as of April 20, 2018, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. 10-Q May 7, 2018
- 10.94 Amendment No. 5 to Master Repurchase Agreement, dated as of June 29, 2018, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. \*
- 10.95 Amendment No. 6 to Master Repurchase Agreement, dated as of November 30, 2018, among Bank of America, N.A., PennyMac Operating Partnership, L.P. and PennyMac Mortgage Investment Trust. \*
- 10.71 8-K



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Guaranty, dated as of July 9, 2014, by PennyMac Mortgage Investment Trust in favor of Bank of America, N.A.

July 14,  
2014

10.97 Amended and Restated Master Repurchase Agreement, dated as of March 15, 2017, among JPMorgan Chase Bank, National Association, PennyMac Corp., PennyMac Operating Partnership, L.P., PennyMac Holdings, LLC, PMC REO Trust 2015-1 and PennyMac Mortgage Investment Trust.

8-K March 21,  
2017

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10.98	<u>Amendment No. 1 to Amended and Restated Master Repurchase Agreement, dated as of March 14, 2018, by and among JPMorgan Chase Bank, National Association, PennyMac Corp., PennyMac Operating Partnership, L.P., PennyMac Holdings, LLC, PMC REO Trust 2015-1 and PennyMac Mortgage Investment Trust.</u>	8-K	March 16, 2018
10.99	<u>Amended and Restated Guaranty, dated as of March 15, 2017, of PennyMac Mortgage Investment Trust in favor of JPMorgan Chase Bank, National Association.</u>	8-K	March 21, 2017
10.100	<u>Second Amended and Restated Loan and Security Agreement, dated as of March 24, 2017, by and among PennyMac Corp., PennyMac Holdings, LLC and Citibank, N.A.</u>	8-K	March 30, 2017
10.102	<u>Amendment Number Two to the Second Amended and Restated Loan and Security Agreement, dated as of May 1, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.103	<u>Amendment Number Three to the Second Amended and Restated Loan and Security Agreement, dated as of May 9, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.104	<u>Amendment Number Four to the Second Amended and Restated Loan and Security Agreement, dated as of May 14, 2018, by and among PennyMac Holdings, LLC, PennyMac Corp. and Citibank, N.A.</u>	8-K	May 18, 2018
10.105	<u>Amendment Number Five to the Second Amended and Restated Loan and Security Agreement, dated as of June 8, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.106	<u>Amendment Number Six to the Second Amended and Restated Loan and Security Agreement, dated as of June 22, 2018, by and among PennyMac Corp., PennyMac Holdings, LLC and Citibank, N.A.</u>	10-Q	August 7, 2018
10.107	<u>Amended and Restated Guaranty Agreement, dated as of September 15, 2016, by PennyMac Mortgage Investment Trust in favor of Citibank, N.A.</u>	8-K	September 21, 2016
10.108	<u>Master Repurchase Agreement, dated as of October 14, 2016, among PennyMac Corp., PennyMac Operating Partnership, L.P. and JPMorgan Chase Bank, N.A.</u>	8-K	October 20, 2016
10.109	<u>First Amendment to Master Repurchase Agreement, dated as of May 23, 2017, among PennyMac Corp., PennyMac Operating Partnership, L.P. and JPMorgan Chase Bank, N.A.</u>	8-K	May 30, 2017
10.110	<u>Second Amendment to Master Repurchase Agreement, dated as of July 31, 2017, among JPMorgan Chase Bank, N.A., PennyMac Corp. and PennyMac Operating Partnership, L.P.</u>	10-Q	November 8, 2017
10.111	<u>Third Amendment to Master Repurchase Agreement, dated as of October 13, 2017, among JPMorgan Chase Bank, N.A., PennyMac Corp. and PennyMac Operating Partnership, L.P.</u>	10-Q	November 8, 2017
10.112	<u>Fourth Amendment to Master Repurchase Agreement, dated as of July 26, 2018, among PennyMac Corp. and PennyMac Operating Partnership, L.P. and JPMorgan Chase Bank, N.A.</u>	10-Q	November 7, 2018
10.113		10-Q	

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Fifth Amendment to Master Repurchase Agreement, dated as of October 12, 2018, among PennyMac Corp. and PennyMac Operating Partnership, L.P. and JPMorgan Chase Bank, N.A.

November 7,  
2018

10.114 Guaranty, dated as of October 14, 2016, by PennyMac Mortgage Investment Trust in favor of JPMorgan Chase Bank, N.A.

8-K October 20,  
2016

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10.115	<u>Mortgage Loan Purchase Agreement, dated as of September 25, 2012, by and between PennyMac Loan Services, LLC and PennyMac Corp.</u>	10-K February 29, 2016
10.116	<u>Flow Sale Agreement, dated as of June 16, 2015, by and between PennyMac Corp. and PennyMac Loan Services, LLC.</u>	10-Q August 10, 2015
10.117	<u>Master Repurchase Agreement, dated as of September 14, 2015, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	8-K September 18, 2015
10.118	<u>Amendment Number One to Master Repurchase Agreement, dated as of August 31, 2016, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	10-Q November 4, 2016
10.119	<u>Amendment Number Two to Master Repurchase Agreement, dated as of September 29, 2016, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	10-Q November 4, 2016
10.120	<u>Amendment Number Three to Master Repurchase Agreement, dated as of December 2, 2016, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	10-K February 28, 2017
10.121	<u>Amendment Number Four to Master Repurchase Agreement, dated as of March 24, 2017, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	10-Q May 9, 2017
10.122	<u>Amendment Number Five to Master Repurchase Agreement, dated as of May 3, 2017, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	8-K May 5, 2017
10.123	<u>Amendment Number Six to Master Repurchase Agreement, dated as of June 16, 2017, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	8-K June 21, 2017
10.124	<u>Amendment Number Seven to Master Repurchase Agreement, dated as of December 1, 2017, among Barclays Bank PLC, PennyMac Corp., PennyMac Loan Services, LLC and PennyMac Mortgage Investment Trust.</u>	10-K March 1, 2018
10.125	<u>Mortgage Loan Participation Purchase and Sale Agreement, dated as of September 14, 2015, among PennyMac Corp., PennyMac Loan Services, LLC and Barclays Bank PLC.</u>	8-K September 18, 2015
10.126	<u>Amendment Number One to Mortgage Loan Participation Purchase and Sale Agreement, dated as of August 31, 2016, among PennyMac Corp., PennyMac Loan Services, LLC and Barclays Bank PLC.</u>	10-Q November 4, 2016
10.127	<u>Amendment Number Two to Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 2, 2016, among PennyMac Corp., PennyMac Loan Services, LLC and Barclays Bank PLC.</u>	10-K February 28, 2017
10.128	<u>Amendment Number Three to Mortgage Loan Participation Purchase and Sale Agreement, dated as of May 3, 2017, among PennyMac Corp., PennyMac Loan Services, LLC and</u>	8-K May 5, 2017

Barclays Bank PLC.

- 10.129 Amendment Number Four to Mortgage Loan Participation Purchase and Sale Agreement, dated as of June 16, 2017, among PennyMac Corp., PennyMac Loan Services, LLC and Barclays Bank PLC. 8-K June 21, 2017
- 10.130 Amendment Number Five to Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 1, 2017, among PennyMac Corp., PennyMac Loan Services, LLC and Barclays Bank PLC. 10-K March 1, 2018

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- 10.131 Amended and Restated Loan and Security Agreement, dated as of January 22, 2016, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 8-K January 28, 2016
- 10.132 Amendment Number One to Amended and Restated Loan and Security Agreement, dated as of August 31, 2016, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-Q November 4, 2016
- 10.133 Amendment Number Two to Amended and Restated Loan and Security Agreement, dated as of December 2, 2016, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-K February 28, 2017
- 10.134 Amendment Number Three to Amended and Restated Loan and Security Agreement, dated as of January 30, 2017, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-K February 28, 2017
- 10.135 Amendment Number Four to Amended and Restated Loan and Security Agreement, dated as of March 24, 2017, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-Q May 9, 2017
- 10.136 Amendment Number Five to Amended and Restated Loan and Security Agreement, dated as of June 16, 2017, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 8-K June 21, 2017
- 10.137 Amendment Number Six to Amended and Restated Loan and Security Agreement, dated as of December 1, 2017, among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-K March 1, 2018
- 10.138 Loan and Security Agreement, dated as of March 24, 2017, by and among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 8-K March 30, 2017
- 10.139 Amendment Number One to Loan and Security Agreement, dated June 16, 2017, by and among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 8-K June 21, 2017
- 10.140 Amendment Number Two to Loan and Security Agreement, dated December 1, 2017, by and among PennyMac Corp., PennyMac Holdings, LLC, PennyMac Mortgage Investment Trust and Barclays Bank PLC. 10-K March 1, 2018
- 10.141 Amended and Restated Flow Commercial Mortgage Loan Purchase Agreement, dated as of June 1, 2016, by and between PennyMac Loan Services, LLC and PennyMac Corp. 10-Q August 5, 2016
- 10.142 Amendment No. 1 to Amended and Restated Flow Commercial Mortgage Loan Purchase Agreement, dated as of September 27, 2017, among PennyMac Corp. and PennyMac Loan Services, LLC. 10-Q November 8, 2017
- 10.143 Servicing Agreement, dated as of July 13, 2015, between PennyMac Corp., PennyMac Holdings, LLC, any other parties signing this Agreement as an owner of Mortgage Loans as listed in Schedule I and any New Owners, PennyMac Loan Services, LLC, and Midland Loan Services, a division of PNC Bank, National Association. 10-K February 29, 2016

- 10.144 Amended and Restated Commercial Mortgage Servicing Oversight Agreement, dated as of June 1, 2016, among PennyMac Corp., PennyMac Holdings, LLC, and PennyMac Loan Services, LLC. 10-Q August 5, 2016
- 10.145 Amendment No. 1 to Amended and Restated Commercial Mortgage Servicing Oversight Agreement, dated as of September 27, 2017, among PennyMac Corp., PennyMac Holdings, LLC and PennyMac Loan Services, LLC. 10-Q November 8, 2017

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- 10.146 Master Repurchase Agreement, dated as of August 18, 2017, among PennyMac Corp. and Deutsche Bank AG, Cayman Islands Branch. 8-K August 24, 2017
- 10.147 Amendment No. 1 to the Master Repurchase Agreement, dated as of April 17, 2018, by and between PennyMac Corp. and Deutsche Bank AG, Cayman Islands Branch. 8-K April 23, 2018
- 10.148 Amendment No. 2 to the Master Repurchase Agreement, dated as of September 27, 2018, by and between PennyMac Corp. and Deutsche Bank AG, Cayman Islands Branch. 10-Q November 7, 2018
- 10.149 Amendment No. 3 to the Master Repurchase Agreement, dated as of December 31, 2018, by and between PennyMac Corp. and Deutsche Bank AG, Cayman Islands Branch. \*
- 10.150 Amendment No. 4 to the Master Repurchase Agreement, dated as of January 29, 2019, by and between PennyMac Corp. and Deutsche Bank AG, Cayman Islands Branch. \*
- 10.151 Guaranty, dated as of August 18, 2017, by PennyMac Mortgage Investment Trust in favor of Deutsche Bank AG, Cayman Islands Branch. 8-K August 24, 2017
- 10.152 Base Indenture, dated as of December 20, 2017, by and among PMT ISSUER TRUST-FMSR, Citibank, N.A., PennyMac Corp. and Credit Suisse First Boston Mortgage Capital LLC. 8-K December 27, 2017
- 10.153 Amendment No. 1, dated as of April 25, 2018, to the Base Indenture dated as of December 20, 2017, by and among PMT ISSUER TRUST - FMSR, Citibank, N.A., PennyMac Corp., and Credit Suisse First Boston Mortgage Capital LLC. 8-K April 30, 2018
- 10.154 Series 2017-VF1 Indenture Supplement, dated as of December 20, 2017, by and among PMT ISSUER TRUST-FMSR, Citibank, N.A., PennyMac Corp. and Credit Suisse First Boston Mortgage Capital LLC. 10-K March 1, 2018
- 10.155 Amendment No. 1 to the Series 2017-VF1 Indenture Supplement, dated as of June 29, 2018, by and among PMT ISSUER TRUST-FMSR, Citibank, N.A., PennyMac Corp. and Credit Suisse First Boston Mortgage Capital LLC. 8-K July 6, 2018
- 10.156 Series 2018-FT1 Indenture Supplement, dated as of April 25, 2018 to Base Indenture dated as of December 20, 2017, by and among PMT ISSUER TRUST – FMSR, Citibank, N.A., PennyMac Corp., and Credit Suisse First Boston Mortgage Capital LLC. 8-K April 30, 2018
- 10.157 Master Repurchase Agreement, dated as of December 20, 2017, by and among PennyMac Corp., PMT ISSUER TRUST-FMSR and PennyMac Mortgage Investment Trust. 8-K December 27, 2017
- 10.158 Guaranty, dated as of December 20, 2017, by PennyMac Mortgage Investment Trust in favor of PMT ISSUER TRUST – FMSR. 8-K December 27, 2017
- 10.159 Master Repurchase Agreement, dated as of December 20, 2017, by and among PennyMac Holdings, LLC, PennyMac Corp. and PennyMac Mortgage Investment Trust. 8-K December 27, 2017
- 10.160 Guaranty, dated as of December 20, 2017, by PennyMac Mortgage Investment Trust in favor of PennyMac Corp. 8-K December 27, 2017



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- 10.161 Subordination, Acknowledgement and Pledge Agreement, dated as of December 20, 2017, between PMT ISSUER TRUST – FMSR and PennyMac Holdings, LLC. 8-K December 27, 2017
- 10.162 Amended and Restated Master Repurchase Agreement, dated as of June 29, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC and PennyMac Corp. 8-K July 6, 2018

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- 10.163 Amended and Restated Guaranty, dated as of June 29, 2018 by PennyMac Mortgage Investment Trust in favor of Credit Suisse AG, Cayman Island Branch and Citibank, N.A. 8-K July 6, 2018
- 10.164 Loan and Security Agreement, dated as of February 1, 2018, by and among Credit Suisse AG, Cayman Islands Branch, PennyMac Corp., PennyMac Holdings, LLC PennyMac Mortgage Investment Trust. 8-K February 7, 2018
- 10.165 Master Repurchase Agreement, dated as of April 17, 2018, by and among PennyMac Operating Partnership, L.P., PennyMac Corp. and PennyMac Mortgage Investment Trust and Royal Bank of Canada. 8-K April 23, 2018
- 10.166 Amendment No. 1 to Master Repurchase Agreement, dated as of May 3, 2018, by and among PennyMac Operating Partnership, L.P., PennyMac Corp., PennyMac Mortgage Investment Trust and Royal Bank of Canada. 10-Q August 7, 2018
- 10.167 Guaranty, dated as of April 17, 2018, by PennyMac Mortgage Investment Trust, in favor of Royal Bank of Canada. 8-K April 23, 2018
- 10.168 Master Repurchase Agreement, dated as of August 3, 2018, by and among BNP Paribas, PennyMac Operating Partnership, L.P., and PennyMac Mortgage Investment Trust. 8-K August 8, 2018
- 10.169 Guaranty, dated as of August 3, 2018, by PennyMac Mortgage Investment Trust in favor of BNP Paribas. 8-K August 8, 2018
- 21.1 Subsidiaries of PennyMac Mortgage Investment Trust \*
- 23.1 Consent of Deloitte & Touche LLP. \*
- 31.1 Certification of David A. Spector pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. \*
- 31.2 Certification of Andrew S. Chang pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. \*
- 32.1\*\* Certification of David A. Spector pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. \*\*
- 32.2\*\* Certification of Andrew S. Chang pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. \*\*
- 101 Interactive data files pursuant to Rule 405 of Regulation S-T: (i) the Consolidated Balance Sheets as of December 31, 2018 and December 31, 2017 (ii) the Consolidated Statements of Income for the years ended December 31, 2018 and December 31, 2017, (iii) the Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2018 and December 31, 2017, (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2018 and December 31, 2017 and (v) the Notes to the Consolidated Financial Statements.

\* Filed herewith

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The certifications attached hereto as Exhibits 32.1 and 32.2 are furnished to the SEC pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, except as shall be expressly set forth by specific reference in such filing.

Indicates management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None.

PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2018

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Trustees and Shareholders of

PennyMac Mortgage Investment Trust

3043 Townsgate Road

Westlake Village, CA 91361

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of PennyMac Mortgage Investment Trust and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of income, changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 26, 2019, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 3 to the consolidated financial statements, during 2018 the Company elected to prospectively change its method of accounting for the classes of mortgage servicing rights it had accounted for using the amortization method.

Basis for Opinion

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These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Los Angeles, California

February 26, 2019

We have served as the Company's auditor since 2009.

## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

	December 31, 2018	December 31, 2017
	(in thousands, except share information)	
<b>ASSETS</b>		
Cash	\$59,845	\$ 77,647
Short-term investments at fair value	74,850	18,398
Mortgage-backed securities at fair value pledged to creditors	2,610,422	989,461
Mortgage loans acquired for sale at fair value (includes \$1,621,879 and \$1,249,277 pledged to creditors, respectively)	1,643,957	1,269,515
Mortgage loans at fair value (includes \$399,266 and \$1,081,893 pledged to creditors, respectively)	408,305	1,089,473
Excess servicing spread purchased from PennyMac Financial Services, Inc. at fair value pledged to secure Assets sold to PennyMac Financial Services, Inc. under agreements to repurchase	216,110	236,534
Derivative assets (includes \$87,976 and \$26,058 pledged to creditors, respectively)	167,165	113,881
Firm commitment to purchase credit risk transfer securities at fair value	37,994	—
Real estate acquired in settlement of loans (includes \$40,198 and \$124,532 pledged to creditors, respectively)	85,681	162,865
Real estate held for investment (includes \$23,262 and \$31,128 pledged to creditors, respectively)	43,110	44,224
Deposits securing credit risk transfer agreements (includes \$1,146,501 and \$400,778 pledged to creditors, respectively)	1,146,501	588,867
Mortgage servicing rights (includes \$1,162,369 and \$91,459 at fair value; \$1,139,582 and \$831,892 pledged to creditors)	1,162,369	844,781
Servicing advances	67,666	77,158
Due from PennyMac Financial Services, Inc.	4,077	4,154
Other	85,309	87,975
<b>Total assets</b>	<b>\$7,813,361</b>	<b>\$ 5,604,933</b>
<b>LIABILITIES</b>		
Assets sold under agreements to repurchase	\$4,777,027	\$ 3,180,886
Mortgage loan participation purchase and sale agreements	178,639	44,488
Exchangeable senior notes	248,350	247,186
Notes payable	445,573	—
Asset-backed financing of a variable interest entity at fair value	276,499	307,419
Interest-only security payable at fair value	36,011	7,070
Assets sold to PennyMac Financial Services, Inc. under agreements to repurchase	131,025	144,128

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Derivative liabilities	5,914	1,306
Accounts payable and accrued liabilities	70,687	64,751
Due to PennyMac Financial Services, Inc.	33,464	27,119
Income taxes payable	36,526	27,317
Liability for losses under representations and warranties	7,514	8,678
Total liabilities	6,247,229	4,060,348

Commitments and contingencies Note 19

SHAREHOLDERS' EQUITY

Preferred shares of beneficial interest, \$0.01 par value per share, authorized 100,000,000 shares,

issued and outstanding 12,400,000 shares, liquidation preference \$310,000,000	299,707	299,707
Common shares of beneficial interest—authorized, 500,000,000 common shares of \$0.01 par value; issued and outstanding, 60,951,444 and 61,334,087 common shares, respectively	610	613
Additional paid-in capital	1,285,533	1,290,931
Accumulated deficit	(19,718 )	(46,666 )
Total shareholders' equity	1,566,132	1,544,585
Total liabilities and shareholders' equity	\$7,813,361	\$ 5,604,933

The accompanying notes are an integral part of these consolidated financial statements.



## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

Assets and liabilities of consolidated variable interest entities (“VIEs”) included in total assets and liabilities (the assets of each VIE can only be used to settle liabilities of that VIE):

	December 31,	December 31,
	2018	2017
	(in thousands)	
<b>ASSETS</b>		
Mortgage loans at fair value	\$ 290,573	\$ 321,040
Derivative assets	123,987	98,640
Deposits securing credit risk transfer agreements	1,146,501	588,867
Other—interest receivable	839	904
	\$ 1,561,900	\$ 1,009,451
<b>LIABILITIES</b>		
Asset-backed financing at fair value	\$ 276,499	\$ 307,419
Interest-only security payable at fair value	36,011	7,070
Accounts payable and accrued liabilities—interest payable	839	904
	\$ 313,349	\$ 315,393

The accompanying notes are an integral part of these consolidated financial statements.

## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except per share amounts)		
Net investment income			
Net mortgage loan servicing fees:			
From nonaffiliates	\$ 118,395	\$ 67,812	\$ 53,216
From PennyMac Financial Services, Inc.	2,192	1,428	1,573
	120,587	69,240	54,789
Net gain on mortgage loans acquired for sale:			
From nonaffiliates	48,260	62,432	97,218
From PennyMac Financial Services, Inc.	10,925	12,084	9,224
	59,185	74,516	106,442
Mortgage loan origination fees	43,321	40,184	41,993
Net gain (loss) on investments:			
From nonaffiliates	70,842	110,914	24,569
From PennyMac Financial Services, Inc.	11,084	(14,530)	(17,394)
	81,926	96,384	7,175
Interest income:			
From nonaffiliates	207,634	178,225	199,521
From PennyMac Financial Services, Inc.	15,138	16,951	22,601
	222,772	195,176	222,122
Interest expense:			
To nonaffiliates	167,709	143,333	141,938
To PennyMac Financial Services, Inc.	7,462	8,038	7,830
	175,171	151,371	149,768
Net interest income	47,601	43,805	72,354
Results of real estate acquired in settlement of loans	(8,786)	(14,955)	(19,118)
Other	7,233	8,766	8,453
Net investment income	351,067	317,940	272,088
Expenses			
Earned by PennyMac Financial Services, Inc.:			
Mortgage loan fulfillment fees	81,350	80,359	86,465
Mortgage loan servicing fees	42,045	43,064	50,615
Management fees	24,465	22,584	20,657
Mortgage loan collection and liquidation	7,852	6,063	13,436
Compensation	6,781	6,322	7,000
Mortgage loan origination	6,562	7,521	7,108
Professional services	6,380	6,905	6,819
Real estate held for investment	6,251	6,376	3,213
Other	11,393	14,200	15,012
Total expenses	193,079	193,394	210,325
Income before provision for (benefit from) income taxes	157,988	124,546	61,763
Provision for (benefit from) income taxes	5,190	6,797	(14,047)
Net income	152,798	117,749	75,810

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Dividends on preferred shares	24,938	15,267	—
Net income attributable to common shareholders	\$127,860	\$102,482	\$75,810
Earnings per common share			
Basic	\$2.09	\$1.53	\$1.09
Diluted	\$1.99	\$1.48	\$1.08
Weighted average common shares outstanding			
Basic	60,898	66,144	68,642
Diluted	69,365	74,611	77,109

The accompanying notes are an integral part of these consolidated financial statements.

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## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Preferred shares		Common shares			Retained earnings (accumulated deficit)	Total
	Number of shares (in thousands, except	Amount	Number of shares (in thousands, except	Par value	Additional paid-in capital		
Balance at December 31, 2015	—	\$—	73,767	\$ 738	\$1,469,722	\$ 25,653	\$1,496,113
Net income	—	—	—	—	—	75,810	75,810
Share-based compensation	—	—	298	3	5,745	—	5,748
Common share dividends (\$1.88 per share)	—	—	—	—	—	(128,187 )	(128,187 )
Repurchase of common shares	—	—	(7,368 )	(74 )	(98,296 )	—	(98,370 )
Balance at December 31, 2016	—	—	66,697	667	1,377,171	(26,724 )	1,351,114
Net income	—	—	—	—	—	117,749	117,749
Share-based compensation	—	—	284	2	4,902	—	4,904
Dividends							
Common shares (\$1.88 per share)	—	—	—	—	—	(123,625 )	(123,625 )
Preferred shares	—	—	—	—	—	(14,066 )	(14,066 )
Issuance of preferred shares	12,400	310,000	—	—	—	—	310,000
Issuance cost relating to preferred shares	—	(10,293 )	—	—	—	—	(10,293 )
Repurchase of common shares	—	—	(5,647 )	(56 )	(91,142 )	—	(91,198 )
Balance at December 31, 2017	12,400	299,707	61,334	613	1,290,931	(46,666 )	1,544,585
Cumulative effect of a change in accounting principle—Adoption of fair value accounting for mortgage servicing rights	—	—	—	—	—	14,361	14,361
Balance at January 1, 2018	12,400	299,707	61,334	613	1,290,931	(32,305 )	1,558,946
Net income	—	—	—	—	—	152,798	152,798
Share-based compensation	—	—	288	3	5,315	—	5,318
Dividends							
Common shares (\$1.88 per share)	—	—	—	—	—	(115,267 )	(115,267 )
Preferred shares	—	—	—	—	—	(24,944 )	(24,944 )
Repurchase of common shares	—	—	(671 )	(6 )	(10,713 )	—	(10,719 )
Balance at December 31, 2018	12,400	\$299,707	60,951	\$ 610	\$1,285,533	\$ (19,718 )	\$1,566,132

The accompanying notes are an integral part of these consolidated financial statements.



## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Cash flows from operating activities			
Net income	\$152,798	\$117,749	\$75,810
Adjustments to reconcile net income to net cash (used in) provided by operating activities:			
Net change in fair value, amortization and impairment of mortgage servicing rights	94,330	103,487	78,628
Net gain on mortgage loans acquired for sale at fair value	(59,185 )	(74,516 )	(106,442 )
Net gain on investments	(81,926 )	(96,384 )	(7,175 )
Accrual of interest on excess servicing spread purchased from PennyMac Financial Services, Inc.	(15,138 )	(16,951 )	(22,601 )
Capitalization of interest and fees on mortgage loans at fair value	(7,439 )	(30,795 )	(84,820 )
Amortization of debt issuance (premiums) and costs, net	(9,323 )	13,769	13,152
Accrual of unearned discounts and amortization of premiums on mortgage-backed securities, mortgage loans at fair value, and asset-backed financing of a VIE	5,270	5,703	1,766
Results of real estate acquired in settlement of loans	8,786	14,955	19,118
Share-based compensation expense	5,318	4,904	5,748
Purchase of mortgage loans acquired for sale at fair value from nonaffiliates	(64,671,970)	(65,830,095)	(66,112,316)
Purchase of mortgage loans acquired for sale at fair value from PennyMac Financial Services, Inc.	(3,343,028 )	(904,097 )	(21,541 )
Repurchase of mortgage loans subject to representation and warranties	(12,208 )	(11,412 )	(11,380 )
Sale to nonaffiliates and repayment of mortgage loans acquired for sale at fair value	29,369,656	24,314,165	23,525,952
Sale of mortgage loans acquired for sale to PennyMac Financial Services, Inc.	37,967,724	42,624,288	42,051,505
Settlement of repurchase agreement derivatives	8,964	—	—
Decrease (increase) in servicing advances	20,525	(2,353 )	4,672
(Increase) decrease in due from PennyMac Financial Services, Inc.	(26 )	2,514	1,640
(Increase) decrease in other assets	(23,482 )	8,822	(62,028 )
Increase (decrease) in accounts payable and accrued liabilities	6,400	(40,435 )	46,657
Increase (decrease) in due to PennyMac Financial Services, Inc.	6,345	10,656	(2,549 )

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Increase (decrease) in income taxes payable	3,857	9,151	(15,339 )
Net cash (used in) provided by operating activities	(573,752 )	223,125	(621,543 )
Cash flows from investing activities			
Net (increase) decrease in short-term investments	(56,452 )	103,690	(80,223 )
Purchase of mortgage-backed securities at fair value	(1,810,877 )	(251,872 )	(765,467 )
Sale and repayment of mortgage-backed securities at fair value	173,862	127,591	206,508
Sale to nonaffiliates and repayment of mortgage loans at fair value	622,705	582,207	712,975
Sale of mortgage loans at fair value to PennyMac Financial Services, Inc.	—	—	891
Repayment of excess servicing spread by PennyMac Financial Services, Inc.	46,750	54,980	69,992
Sale of excess servicing spread to PennyMac Financial Services, Inc.	—	—	59,045
Net settlement of derivative financial instruments	(4,863 )	(716 )	(7,216 )
Sale of real estate acquired in settlement of loans	99,194	166,921	234,684
Contribution to deposits securing credit risk transfer agreements	(596,626 )	(152,641 )	(306,507 )
Distribution from credit risk transfer agreements	125,920	65,564	24,746
Purchase of mortgage servicing rights	—	(79 )	(2,739 )
Sale of mortgage servicing rights	100	1,199	106
(Increase) decrease in margin deposits and restricted cash	(24,005 )	(15,163 )	40,062
Purchase of Federal Home Loan Bank capital stock	—	—	(225 )
Redemption of Federal Home Loan Bank capital stock	—	—	7,320
Net cash (used in) provided by investing activities	(1,424,292 )	681,681	193,952

The accompanying notes are an integral part of these consolidated financial statements.

## PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Cash flows from financing activities</b>			
Sale of assets under agreements to repurchase	85,574,226	77,985,354	70,684,674
Repurchase of assets sold under agreements to repurchase	(83,978,547)	(78,587,535)	(70,030,317)
Issuance of mortgage loan participation certificates	7,559,680	6,960,713	6,579,706
Repayment of mortgage loan participation certificates	(7,425,503 )	(6,942,079 )	(6,553,789 )
Advance under notes payable	450,000	396,240	129,812
Repayment of notes payable	—	(671,346 )	(90,812 )
Issuance of asset-backed financing of a variable interest entity at fair value	—	—	182,400
Repayment of asset-backed financing of a variable interest entity at fair value	(21,886 )	(51,687 )	(73,624 )
Sale of assets to PennyMac Financial Services, Inc. under agreements to repurchase	2,293	—	—
Repurchase of assets sold to PennyMac Financial Services, Inc. under agreement to repurchase	(15,396 )	(5,872 )	—
Federal Home Loan Bank advances	—	—	28,000
Repayment of Federal Home Loan Bank advances	—	—	(211,000 )
Payment of debt issuance costs	(13,230 )	(13,670 )	(11,161 )
Issuance of preferred shares	—	310,000	—
Payment of issuance costs related to preferred shares	—	(10,293 )	—
Payment of dividends to preferred shareholders	(24,944 )	(14,066 )	—
Payment of dividends to common shareholders	(115,596 )	(126,135 )	(131,560 )
Repurchase of common shares	(10,719 )	(91,198 )	(98,370 )
Payment of contingent underwriting fees payable	(136 )	(61 )	—
Net cash provided by (used in) financing activities	1,980,242	(861,635 )	403,959
Net (decrease) increase in cash and restricted cash	(17,802 )	43,171	(23,632 )
Cash and restricted cash at beginning of year	77,647	34,476	58,108
Cash and restricted cash at end of year	\$59,845	\$77,647	\$34,476
Cash and restricted cash end of year are comprised of the following:			
Cash	\$59,845	\$77,647	\$34,476
Restricted cash	—	—	—
	\$59,845	\$77,647	\$34,476

The accompanying notes are an integral part of these consolidated financial statements.



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PENNYMAC MORTGAGE INVESTMENT TRUST AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Organization

PennyMac Mortgage Investment Trust (“PMT” or the “Company”) is a specialty finance company, which, through its subsidiaries (all of which are wholly-owned), invests primarily in residential mortgage-related assets. The Company operates in four segments: correspondent production, credit sensitive strategies, interest rate sensitive strategies and corporate:

•The correspondent production segment represents the Company’s operations aimed at serving as an intermediary between mortgage lenders and the capital markets by purchasing, pooling and reselling newly originated prime credit quality mortgage loans either directly or in the form of mortgage-backed securities (“MBS”), using the services of PNMAC Capital Management, LLC (“PCM” or the “Manager”) and PennyMac Loan Services, LLC (“PLS”), both indirect controlled subsidiaries of PennyMac Financial Services, Inc. (“PFSI”).

Almost all of the mortgage loans the Company has acquired in its correspondent production activities have been eligible for sale to government-sponsored entities (“GSEs”) such as the Federal National Mortgage Association (“Fannie Mae”) and the Federal Home Loan Mortgage Corporation (“Freddie Mac”) or through government agencies such as the Government National Mortgage Association (“Ginnie Mae”). Fannie Mae, Freddie Mac and Ginnie Mae are each referred to as an “Agency” and, collectively, as the “Agencies.”

•The credit sensitive strategies segment represents the Company’s investments in credit risk transfer arrangements, including credit risk transfer agreements (“CRT Agreements”) and CRT securities, distressed mortgage loans, real estate acquired in settlement of mortgage loans (“REO”), real estate held for investment, non-Agency subordinated bonds and small balance commercial real estate mortgage loans.

•The interest rate sensitive strategies segment represents the Company’s investments in mortgage servicing rights (“MSRs”), excess servicing spread purchased from PFSI (“ESS”), Agency and senior non-Agency MBS and the related interest rate hedging activities.

•The corporate segment includes certain interest income, management fee and corporate expense amounts.

The Company conducts substantially all of its operations and makes substantially all of its investments through its subsidiary, PennyMac Operating Partnership, L.P. (the “Operating Partnership”), and the Operating Partnership’s subsidiaries. A wholly-owned subsidiary of the Company is the sole general partner, and the Company is the sole limited partner, of the Operating Partnership.

The Company believes that it qualifies, and has elected to be taxed, as a real estate investment trust (“REIT”) under the Internal Revenue Code of 1986, as amended. To maintain its tax status as a REIT, the Company is required to distribute at least 90% of its taxable income in the form of qualifying distributions to shareholders.

Note 2—Concentration of Risks

As discussed in Note 1— Organization above, PMT’s operations and investing activities are centered in residential mortgage-related assets, including CRT Agreements and distressed mortgage loans. These investments include assets that are more sensitive to borrower credit worthiness than other mortgage investments such as traditional mortgage loans and mortgage-backed securities.

CRT Arrangements

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As detailed in Note 5 – Loan Sales and Variable Interest Entities, the Company invests in CRT arrangements whereby it sells pools of recently-originated mortgage loans into Fannie Mae-guaranteed securitizations while either:

• Retaining a portion of the credit risk underlying such mortgage loans as part of the retention of an interest-only (“IO”) ownership interest in such mortgage loans and an obligation to absorb credit losses arising from such mortgage loans (“Recourse Obligations”); or

• Beginning in June 2018, by entering into a firm commitment to purchase CRT securities that absorb losses from defaults of such loans.

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The Company's retention of credit risk through its investment in CRT arrangements subjects it to risks associated with delinquency and foreclosure similar to the risks associated with owning the related mortgage loans, and exposes the Company to risk of loss greater than the risks associated with selling such mortgage loans to Fannie Mae without the retention of such credit risk. The CRT Agreements are structured such that mortgage loans that reach a specific number of days delinquent will trigger losses to the CRT Agreements in proportion to the size of the loan and a contractual schedule of loss severity. Therefore, the risks associated with delinquency and foreclosure may in some instances be greater than the risks associated with owning the related mortgage loans because the structure of certain of the CRT Agreements provides that the Company may be required to absorb losses in the event of delinquency or foreclosure even where there is ultimately no loss realized with respect to such loans (e.g., as a result of a borrower's re-performance).

At the commencement of the aggregation period and before the settlement of the CRT securities, the Company makes a firm commitment to purchase the CRT securities. The Company has elected to account for these commitments at fair value. Accordingly, the Company recognizes the fair value of such commitment as it sells loans subject to the firm commitment, and also recognizes changes in fair value of the firm commitment during the time it is outstanding. Unlike the Company's investment in CRT Agreements before June 2018, the structure of its investment in CRT securities only requires the Company to absorb losses when the reference mortgage loans realize actual losses.

In addition to the risks specific to credit, the Company is exposed to market risk and, as a result of prevailing market conditions or the economy generally, may be required to recognize losses associated with adverse changes to the fair value of the CRT Agreements, the firm commitment to purchase CRT securities, and CRT securities.

#### Distressed Mortgage Loans

Due to the nature of the Company's investments in distressed mortgage loans, the Company is exposed, to a greater extent than traditional mortgage investors, to certain risks associated with loan performance and resolution, including the risk that borrowers may develop or be in economic distress and/or may have become unemployed, bankrupt or otherwise unable or unwilling to make payments when due, and that fluctuations in the residential real estate market may affect the performance of the Company's investments.

Factors influencing these risks include, but are not limited to:

- changes in the overall economy, unemployment rates and residential real estate fair values in the markets where the properties securing the Company's distressed mortgage loans are located;
- PFCM's ability to identify and PLS' ability to execute optimal resolutions of distressed mortgage loans;
- the accuracy of valuation information obtained during the Company's due diligence activities;
- PFCM's ability to effectively model, and to develop appropriate model inputs that properly anticipate, future outcomes;
- the level of government support for resolution of distressed mortgage loans and the effect of current and future proposed and enacted legislative and regulatory changes on the Company's ability to effect cures or resolutions to distressed mortgage loans; and
- regulatory, judicial and legislative support of the foreclosure process, and the resulting effect on the Company's ability to acquire and liquidate the real estate securing its portfolio of distressed mortgage loans in a timely manner or at all.

Due to these uncertainties, there can be no assurance that risk management activities identified and executed on PMT's behalf will prevent significant losses arising from the Company's investments in distressed mortgage assets.

#### Note 3—Significant Accounting Policies

PMT's significant accounting policies are summarized below.

#### Basis of Presentation

The Company's consolidated financial statements have been prepared in compliance with accounting principles generally accepted in the United States ("GAAP") as codified in the Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC").

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## Use of Estimates

Preparation of financial statements in compliance with GAAP requires the Manager to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and revenues and expenses during the reporting period. Actual results will likely differ from those estimates.

## Consolidation

The consolidated financial statements include the accounts of PMT and all wholly-owned subsidiaries. PMT has no significant equity method or cost-basis investments. Intercompany accounts and transactions are eliminated upon consolidation. The Company also consolidates assets and liabilities included in a securitization transaction, and, previously, CRT Agreements as discussed below.

## Variable Interest Entities

The Company enters into various types of on- and off-balance sheet transactions with special purpose entities (“SPEs”), which are trusts that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions. In a securitization transaction, the Company transfers assets on its balance sheet to an SPE, which then issues various forms of beneficial interests in those assets to investors. In a securitization transaction, the Company typically receives a combination of cash and beneficial interests in the SPE in exchange for the assets transferred by the Company.

SPEs are generally Variable Interest Entities (“VIEs”). A VIE is an entity having either a total equity investment at risk that is insufficient to finance its activities without additional subordinated financial support or whose equity investors at risk lack the ability to control the entity’s activities. Variable interests are investments or other interests that will absorb portions of a VIE’s expected losses or receive portions of the VIE’s expected residual returns. Expected residual returns represent the expected positive variability in the fair value of a VIE’s net assets.

PMT consolidates the assets and liabilities of VIEs of which the Company is the primary beneficiary. The primary beneficiary is the party that has both the power to direct the activities that most significantly impact the VIE and holds a variable interest that could potentially be significant to the VIE. To determine whether a variable interest the Company holds could potentially be significant to the VIE, the Company considers both qualitative and quantitative factors regarding the nature, size and form of its involvement with the VIE. The Company assesses whether it is the primary beneficiary of a VIE on an ongoing basis.

The Company evaluates the securitization trust into which assets are transferred to determine whether the entity is a VIE and whether the Company is the primary beneficiary and therefore is required to consolidate the securitization trust.

## Jumbo Mortgage Loan Securitization Transaction

On September 30, 2013, the Company completed a securitization transaction in which PMT Loan Trust 2013-J1, a VIE, issued \$537.0 million in unpaid principal balance (“UPB”) of certificates backed by fixed-rate prime jumbo mortgage loans at a 3.9% weighted cost.

The asset-backed securities issued by the VIE are backed by the expected cash flows from the underlying fixed-rate prime jumbo mortgage loans. Cash inflows from these fixed-rate prime jumbo mortgage loans are distributed to investors and service providers in accordance with the contractual priority of payments and, as such, most of these inflows must be directed first to service and repay the senior certificates. After the senior certificates are settled, substantially all cash inflows will be directed to the subordinated certificates until fully repaid and, thereafter, to the

residual interest in the trust that the Company owns.

The Company retains beneficial interests in the securitization transaction, including subordinated certificates and residual interests issued by the VIE. The Company retains credit risk in the securitization because the Company's beneficial interests include the most subordinated interests in the securitized assets, which are the first to absorb credit losses on those assets. The Manager expects that any credit losses in the pools of securitized assets will likely be limited to the Company's subordinated and residual interests. The Company has no obligation to repurchase or replace securitized assets that subsequently become delinquent or are otherwise in default other than pursuant to breaches of representations and warranties.

The VIE is consolidated by the Company as the Manager determined that PMT is the primary beneficiary of the VIE. The Manager concluded that the Company is the primary beneficiary of the VIE as it has the power, through its affiliate, PLS, in its role as servicer of the mortgage loans, to direct the activities of the trust that most significantly impact the trust's economic performance and the retained subordinated and residual interest trust certificates expose the Company to losses and returns that could potentially be significant to the VIE.

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For financial reporting purposes, the mortgage loans owned by the consolidated VIE are included in Mortgage loans at fair value and the securities issued to third parties by the consolidated VIE are included in Asset-backed financing of a variable interest entity at fair value on the Company's consolidated balance sheets. Both the mortgage loans at fair value included in the consolidated VIE and the Asset-backed financing of a variable interest entity at fair value are also included in a separate statement following the Company's consolidated balance sheets.

The Company recognizes the interest income earned on the mortgage loans owned by the VIE and the interest expense attributable to the asset-backed securities issued to nonaffiliates by the VIE on its consolidated income statements.

#### Credit Risk Transfer

The Company, through its wholly-owned subsidiary, PennyMac Corp. ("PMC"), entered into CRT Agreements with Fannie Mae, pursuant to which PMC, through subsidiary trust entities, sold pools of mortgage loans into Fannie Mae-guaranteed loan securitizations while retaining Recourse Obligations in addition to IO ownership interests in such mortgage loans. The mortgage loans subject to the CRT Agreements were transferred by PMC to subsidiary trust entities which sold the mortgage loans into Fannie Mae mortgage loan securitizations. Transfers of mortgage loans subject to CRT Agreements received sale accounting treatment.

The Manager has concluded that the Company's subsidiary trust entities are VIEs and the Company is the primary beneficiary of the VIEs as it is the holder of the primary beneficial interests which absorb the variability of the trusts' results of operations. Consolidation of the VIEs results in the inclusion on the Company's consolidated balance sheet of the fair value of the Recourse Obligations, and retained IO ownership interests in the form of derivative assets, and the deposits pledged to fulfill the Recourse Obligations and an interest only security payable at fair value. The deposits represent the Company's maximum contractual exposure to claims under its Recourse Obligations and is the sole source of settlement of losses under the CRT Agreements. Gains and losses on the derivatives related to CRT Agreements are included in Net gain on investments in the consolidated statements of income.

#### Fair Value

These financial statements include assets and liabilities that are measured based on their fair values. Measurement at fair value may be on a recurring or nonrecurring basis depending on the accounting principles applicable to the specific asset or liability and whether the Manager has elected to carry them at fair value. PMT groups its assets and liabilities at fair value in three levels, based on the markets in which the assets and liabilities are traded and the observability of the inputs used to determine fair value. These levels are:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Prices determined or determinable using other significant observable inputs. Observable inputs are inputs that other market participants would use in pricing an asset or liability and are developed based on market data obtained from sources independent of the Company.
- Level 3—Prices determined using significant unobservable inputs. In situations where significant observable inputs are unavailable, unobservable inputs may be used. Unobservable inputs reflect the Company's own judgments about the factors that market participants use in pricing an asset or liability, and are based on the best information available in the circumstances.

As a result of the difficulty in observing certain significant valuation inputs affecting "Level 3" fair value assets and liabilities, the Manager is required to make judgments regarding these items' fair values. Different persons in possession of the same facts may reasonably arrive at different conclusions as to the inputs to be applied in valuing these financial statement items and their fair values. Such differences may result in significantly different fair value measurements. Likewise, due to the general illiquidity of some of these assets and liabilities, subsequent transactions



may be at values significantly different from those reported.

The Manager reclassifies its assets and liabilities between levels of the fair value hierarchy when the inputs required to establish fair value at a level of the fair value hierarchy are no longer readily available, requiring the use of lower-level inputs, or when the inputs required to establish fair value at a higher level of the hierarchy become available.

#### Short-Term Investments

Short-term investments are carried at fair value with changes in fair value recognized in current period income. Short-term investments represent deposit accounts. The Company categorizes its short-term investments as “Level 1” fair value assets.

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## Mortgage-Backed Securities

Purchases and sales of MBS are recorded as of the trade date. The Company's investments in MBS are carried at fair value with changes in fair value recognized in current period income. Changes in fair value arising from amortization of purchase premiums and accrual of unearned discounts are recognized using the interest method and are included in Interest income. Changes in fair value arising from other factors are included in Net gain (loss) on investments. The Company categorizes its investments in MBS as "Level 2" fair value assets.

## Interest Income Recognition

Interest income on MBS is recognized over the life of the security using the interest method. The Manager estimates, at the time of purchase, the future expected cash flows and determines the effective interest rate based on the estimated cash flows and the security's purchase price. The Manager updates its cash flow estimates monthly.

## Mortgage Loans

Mortgage loans are carried at their fair values. Changes in the fair value of mortgage loans are recognized in current period income. Changes in fair value, other than changes in fair value attributable to accrual of unearned discounts and amortization of purchase premiums, are included in Net gain (loss) on investments for mortgage loans classified as mortgage loans at fair value and Net gain on mortgage loans acquired for sale for mortgage loans classified as mortgage loans acquired for sale at fair value. Changes in fair value attributable to accrual of unearned discounts and amortization of purchase premiums are included in Interest income on the consolidated statements of income.

## Sale Recognition

The Company purchases from and sells mortgage loans into the secondary mortgage market without recourse for credit losses. However, the Company maintains continuing involvement with the mortgage loans in the form of servicing arrangements and the liability under the representations and warranties it makes to purchasers and insurers of the mortgage loans.

The Company recognizes transfers of mortgage loans as sales based on whether the transfer is made to a VIE:

For mortgage loans that are not transferred to a VIE, the Company recognizes the transfer as a sale when it surrenders control over the mortgage loans. Control over transferred mortgage loans is deemed to be surrendered when (i) the mortgage loans have been isolated from the Company, (ii) the transferee has the right (free of conditions that constrain it from taking advantage of that right) to pledge or exchange the transferred mortgage loans, and (iii) the Company does not maintain effective control over the transferred mortgage loans through either (a) an agreement that entitles and obligates the Company to repurchase or redeem them before their maturity or (b) the ability to unilaterally cause the holder to return specific mortgage loans.

For mortgage loans that are transferred to a VIE, the Company recognizes the transfer as a sale when the Manager determines that the Company is not the primary beneficiary of the VIE, as the Company would not both have the power to direct the activities that will have the most significant economic impact on the VIE and/or would not hold a variable interest that could potentially be significant to the VIE.

## Interest Income Recognition

The Company has the ability but not the intent to hold mortgage loans acquired for sale and mortgage loans at fair value other than mortgage loans held in a VIE for the foreseeable future. Therefore, interest income on mortgage loans acquired for sale and mortgage loans at fair value other than mortgage loans held in a VIE is recognized over the life of the loans using their contractual interest rates.

The Company has both the ability and intent to hold mortgage loans held in a VIE for the foreseeable future. Therefore, interest income on mortgage loans held in a variable interest entity is recognized over the estimated remaining life of the mortgage loans using the interest method. Unearned discounts and purchase premiums are accrued and amortized to interest income using the effective interest rate inherent in the estimated cash flows from the mortgage loans.

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Income recognition is suspended and the accrued unpaid interest receivable is reversed against interest income when mortgage loans become 90 days delinquent, or when, in the Manager's opinion, a full recovery of income and principal becomes doubtful. Income recognition is resumed when the loan becomes contractually current.

#### Excess Servicing Spread

The Company has acquired the right to receive the ESS related to certain of the MSR's owned by PFSI. ESS is carried at its fair value. Changes in fair value resulting from changes in market yield requirements are recognized in current period income in Net gain (loss) on investments. The Company categorizes ESS as a "Level 3" fair value asset.

#### Interest Income Recognition

Interest income for ESS is accrued using the interest method, based upon the expected yield from the ESS through the expected life of the underlying mortgages. Changes to the expected interest yield result in a change in fair value which is recorded in Interest income.

#### Derivative Financial Instruments

The Company holds and issues derivative financial instruments in connection with its operating and interest rate risk management activities. Derivative financial instruments are created as a result of certain of the Company's operations and the Company also enters into derivative transactions as part of its interest rate risk management activities.

Derivative financial instruments created as a result of the Company's operations include:

- IRLCs that are created when the Company commits to purchase mortgage loans acquired for sale;
- CRT Agreements that were created when the Company retained Recourse Obligations relating to certain mortgage loans it sold into Fannie Mae guaranteed securitizations, IO ownership interests in such mortgage loans and interest-only securities payable relating to the issuance of such instruments to nonaffiliates; and
- Derivatives that are created when the Company finances mortgage loans approved as satisfying certain consumer credit relief characteristics under a master repurchase agreement that entitles the Company to receive interest expense offsets when it finances mortgage loans under the master repurchase agreement. The master repurchase agreement is subject to a rolling six-month term through August 21, 2019, unless terminated earlier at the option of the lender. The Company expects that it will cease to accrue the incentives under the repurchase agreement beginning in the second quarter of 2019.

The Company engages in interest rate risk management activities in an effort to reduce the variability of earnings caused by the effects of changes in interest rates on the fair value of certain of its assets and liabilities:

- The Company is exposed to price risk relative to the IRLCs it issues to correspondent sellers and to the mortgage loans it purchases as a result of issuing the IRLCs. The Company bears price risk from the time an IRLC is issued to a correspondent seller until either the prospective purchase transaction is cancelled or the time the purchased mortgage loan is sold. The Company is exposed to loss if market mortgage interest rates increase, because such interest rate increases generally cause the fair value of the IRLC or mortgage loan acquired for sale to decrease.
- The Company is exposed to losses related to its investment in MSR's and ESS if market mortgage interest rates decrease, because such interest rate decreases generally encourage mortgage refinancing activity, which reduces the expected life of the mortgage loans underlying the MSR's and ESS, causing the fair value of MSR's and ESS to decrease.

To manage the price risk resulting from interest rate risk, the Company uses derivative financial instruments with the intention of moderating the risk that changes in market mortgage interest rates will result in unfavorable changes in the fair value of the Company's inventory of mortgage loans acquired for sale, mortgage loans held in a VIE, IRLCs, MSR's, ESS and MBS financing.



The Company accounts for its derivative financial instruments as free-standing derivatives. The Company does not designate its derivative financial instruments for hedge accounting. All derivative financial instruments are recognized on the balance sheet at fair value with changes in fair value being reported in current period income. The fair value of the Company's derivative financial instruments is included in Derivative assets and Derivative liabilities and changes in fair value are included in Net mortgage loan servicing fees from nonaffiliates, in Net gain on mortgage loans acquired for sale, in Net gain (loss) on investments, or in Interest expense, as applicable, in the Company's consolidated statements of income. Cash flows from derivative financial instruments relating to MSRMs are included in Cash flows from investing activities, cash flows from derivative financial instruments relating to IRLCs and mortgage loans acquired for sale are included in Cash flows from operating activities in Sale to nonaffiliates and repayment of mortgage loans acquired for sale at fair value; and cash flows from repurchase agreement derivatives are included in Cash flows from operating activities.

When the Company has master netting agreements with its derivatives counterparties, the Company nets its counterparty positions along with any cash collateral received from or delivered to the counterparty.

Exchange-traded hedging derivatives are classified as "Level 1" fair value financial assets and liabilities. Hedging derivatives whose fair values are derived from observed MBS market interest rates and volatilities are classified as "Level 2" fair value assets and liabilities. IRLCs, CRT Agreements and derivatives embedded in a master repurchase agreement are classified as "Level 3" fair value assets and liabilities.

#### Firm Commitment to Purchase Credit Risk Transfer Securities

The Company carries its firm commitment to purchase CRT securities at fair value. The firm commitment to purchase CRT securities is recognized initially as a component of Net gain on mortgage loans acquired for sale. Subsequent changes in fair value are recorded in Net gain (loss) on investments. The Company categorizes its firm commitment to purchase CRT securities as a "Level 3" fair value asset.

#### Real Estate Acquired in Settlement of Loans

REO is measured at the lower of the acquisition cost of the property (as measured by purchase price in the case of purchased REO; or the fair value of the mortgage loan immediately before REO acquisition in the case of acquisition in settlement of a mortgage loan) or its fair value reduced by estimated costs to sell. Changes in fair value to levels that are less than or equal to acquisition cost and gains or losses on sale of REO are recognized in the consolidated statements of income under the caption Results of real estate acquired in settlement of loans. The Company categorizes REO as a "Level 3" fair value asset.

#### Mortgage Servicing Rights

MSRs arise from contractual agreements between the Company and investors (or their agents) in mortgage securities and mortgage loans. Under these contracts, the Company is obligated to provide mortgage loan servicing functions in exchange for fees and other remuneration. The servicing functions typically performed include, among other responsibilities, collecting and remitting mortgage loan payments; responding to borrower inquiries; accounting for principal and interest, holding custodial (impound) funds for payment of property taxes and insurance premiums; counseling delinquent mortgagors; and supervising the acquisition and disposition of REO. The Company has engaged PFSI to provide these services on its behalf.

The Company recognizes MSRMs initially at their fair values, either as proceeds from sales of mortgage loans where the Company assumes the obligation to service the mortgage loan in the sale transaction, or from the purchase of MSRMs. The Company categorizes its MSRMs as "Level 3" fair value assets.

The fair value of MSRs is derived from the net positive cash flows associated with the servicing contracts. The Company receives a servicing fee of generally 0.25% annually on the remaining outstanding principal balances of conventional mortgage loans. The Company generally receives other remuneration including rights to various mortgagor-contracted fees such as late charges and collateral reconveyance charges and the Company is generally entitled to retain any interest earned on funds held pending remittance of mortgagor principal, interest, tax and insurance payments.

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Through December 31, 2017, the Company accounted for MSR's at either the asset's fair value with changes in fair value recorded in current period earnings or using the amortization method with the MSR's carried at the lower of amortized cost or fair value based on the class of MSR. The Company identified two classes of MSR's: originated MSR's backed by mortgage loans with initial interest rates of less than or equal to 4.5%; and originated MSR's backed by mortgage loans with initial interest rates of more than 4.5%. Originated MSR's backed by mortgage loans with initial interest rates of less than or equal to 4.5% were accounted for using the amortization method. Originated MSR's backed by loans with initial interest rates of more than 4.5% were accounted for at fair value with changes in fair value recorded in current period income.

#### MSR's Accounted for at Fair Value

Effective January 1, 2018, the Company accounts for all current classes of MSR's at fair value. Changes in fair value of MSR's accounted for at fair value are recognized in current period income as a component of Net mortgage loan servicing fees-from nonaffiliates.

#### MSR's Accounted for Using the MSR Amortization Method

The Company amortized MSR's that were accounted for using the MSR amortization method. MSR amortization was determined by applying the ratio of the net MSR cash flows projected for the current period to the projected total remaining net MSR cash flows. The estimated total net MSR cash flows were estimated at the beginning of each month using prepayment inputs applicable at that time.

The Company assessed MSR's accounted for using the amortization method for impairment monthly. Impairment occurred when the current fair value of the MSR fell below the asset's amortized cost. If MSR's were impaired, the impairment was recognized in current-period income and the carrying value (carrying value is amortized cost reduced by a valuation allowance) of the MSR's was adjusted through a valuation allowance. If the fair value of impaired MSR's subsequently increased, the Company recognized the increase in fair value in current-period earnings and adjusted the carrying value of the MSR's through a reduction in the valuation allowance to adjust the carrying value only to the extent of the valuation allowance.

The Company stratified its MSR's by risk characteristic when evaluating for impairment. For purposes of performing its MSR impairment evaluation, the Company stratified its servicing portfolio on the basis of certain risk characteristics including mortgage loan type (fixed-rate or adjustable-rate) and note interest rate. Fixed-rate mortgage loans were stratified into note interest rate pools of 50 basis points for note interest rates between 3.0% and 4.5% and a single pool for note interest rates below 3%. Adjustable rate mortgage loans with initial interest rates of 4.5% or less were evaluated in a single pool. If the fair value of MSR's in any of the note interest rate pools was below the amortized cost of the MSR's for that pool, impairment was recognized to the extent of the difference between the fair value and the existing carrying value for that pool.

The Manager periodically reviewed the various impairment strata to determine whether the fair value of the impaired MSR's in a given stratum was likely to recover in the foreseeable future. When the Manager deemed recovery of the fair value to be unlikely in the foreseeable future, a write-down of the cost of the MSR's for that stratum to its estimated recoverable value was charged to the valuation allowance.

Amortization and impairment of MSR's were included in current period income as a component of Net mortgage loan servicing fees-from nonaffiliates.

#### Servicing Advances

Servicing advances represent advances made on behalf of borrowers and the mortgage loans' investors to fund delinquent balances for property tax and insurance premiums and out of pocket costs (e.g., preservation and



restoration of mortgaged property REO, legal fees, appraisals and insurance premiums). Servicing advances are made in accordance with the Company's servicing agreements and, when made, are deemed recoverable. The Company periodically reviews servicing advances for collectability. Servicing advances are written off when they are deemed uncollectible.

#### Borrowings

Borrowings, other than Asset-backed financing of a VIE at fair value and Interest-only security at fair value, are carried at amortized cost. Costs of creating the facilities underlying the agreements and premiums received relating to advances under the facilities are included in the carrying value of the borrowing facilities and are amortized to Interest expense over the term of revolving borrowing facilities on the straight-line basis and for Exchangeable Notes and Notes payable are amortized over the respective borrowings' contractual lives using the interest method.

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#### Asset-backed financing of a VIE at Fair Value

The certificates issued to nonaffiliates by the Company relating to the asset-backed financing are recorded as borrowings. Certificates issued to nonaffiliates have the right to receive principal and interest payments of the mortgage loans held by the consolidated VIE. Asset-backed financings of the VIE are carried at fair value. Changes in fair value are recognized in current period income as a component of Net gain (loss) on investments. The Company categorizes asset-backed financing of the VIE at fair value as a “Level 2” fair value liability.

#### Liability for Losses Under Representations and Warranties

The Company provides for its estimate of the losses that it expects to incur in the future as a result of its breach of the representations and warranties that it provides to the purchasers and insurers of the mortgage loans it has sold. The Company’s agreements with the Agencies and other investors include representations and warranties related to the mortgage loans the Company sells to the Agencies and other investors. The representations and warranties require adherence to Agency and other investor origination and underwriting guidelines, including but not limited to the validity of the lien securing the mortgage loan, property eligibility, property value, loan amount, borrower credit, income and asset requirements, and compliance with applicable federal, state and local law.

In the event of a breach of its representations and warranties, the Company may be required to either repurchase the mortgage loans with the identified defects or indemnify the investor or insurer. In such cases, the Company bears any subsequent credit loss on the mortgage loans. The Company’s credit loss may be reduced by any recourse it has to correspondent sellers that, in turn, had sold such mortgage loans to the Company and breached similar or other representations and warranties. In such event, the Company has the right to seek a recovery of related repurchase losses from that correspondent seller.

The Company records a provision for losses relating to representations and warranties as part of its mortgage loan sale transactions. The method used to estimate the liability for representations and warranties is a function of the representations and warranties given and considers a combination of factors, including, but not limited to, estimated future defaults and mortgage loan defect rates, the estimated severity of loss in the event of default and the probability of reimbursement by the correspondent mortgage loan seller. The Company establishes a liability at the time mortgage loans are sold and periodically updates its liability estimate. The level of the liability for representations and warranties is reviewed and approved by the Manager’s management credit committee.

The level of the liability for representations and warranties is difficult to estimate and requires considerable judgment. The level of mortgage loan repurchase losses is dependent on economic factors, investor demand strategies, and other external conditions that may change over the lives of the underlying mortgage loans. The Company’s representations and warranties are generally not subject to stated limits of exposure. However, the Manager believes that the current unpaid principal balance of mortgage loans sold by the Company to date represents the maximum exposure to repurchases related to representations and warranties.

#### Mortgage Loan Servicing Fees

Mortgage loan servicing fees and other remuneration are received by the Company for servicing residential mortgage loans. Mortgage loan servicing includes loan administration, collection, and default management activities, including the collection and remittance of loan payments; response to customer inquiries; accounting for principal and interest; holding custodial (impounded) funds for the payment of property taxes and insurance premiums; counseling delinquent mortgagors; and supervising foreclosures and property dispositions.

Mortgage loan servicing fee amounts are based upon fee schedules established by the applicable investor and upon the unpaid principal balance of the mortgage loans.

The Company's obligation under its mortgage loan servicing agreements is fulfilled as the Company services the mortgage loans. Mortgage loan servicing fees are recorded net of Agency guarantee fees paid by the Company. Mortgage loan servicing fees are recorded when the mortgage loan payments are collected from the borrowers.

#### Share-Based Compensation

The Company amortizes the fair value of previously granted share-based awards to compensation expense over the vesting period using the graded vesting method. Expense relating to share-based awards is included in Compensation expense on the consolidated statements of income.

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The initial cost of restricted share units awarded is established at the Company's closing share price adjusted for the portion of the awards expected to vest on the date of the award. The Company adjusts the cost of its share-based compensation awards depending on whether the awards are made to its trustees and certain named executive officers or other employees of our Manager or affiliates:

For awards to trustees and certain named executive officers of the Company, compensation cost relating to restricted share units is generally fixed at the fair value of the award on the grant date.

Compensation cost relating to performance share units is adjusted for changes in expected performance attainment in each subsequent reporting period until the units have vested or have been forfeited, the service being provided is subsequently completed, or, under certain circumstances, is likely to be completed, whichever occurs first.

Compensation cost for share-based compensation awarded to other executive officers of the Company or employees of the Manager or affiliates is adjusted to reflect changes in the fair value of awards, including changes in the Company's share price for both restricted share units and performance share units and, in the case of performance share units, for changes in expected performance attainment in each subsequent reporting period until the award has vested or expired, the service being provided is subsequently completed, or, under certain circumstances, is likely to be completed, whichever occurs first.

The Manager's estimates of compensation costs reflect the expected portion of share-based compensation awards that are expected to vest.

#### Income Taxes

The Company has elected to be taxed as a REIT and the Manager believes the Company complies with the provisions of the Internal Revenue Code applicable to REITs. Accordingly, the Manager believes the Company will not be subject to federal income tax on that portion of its REIT taxable income that is distributed to shareholders as long as certain asset, income and share ownership tests are met. If PMT fails to qualify as a REIT, and does not qualify for certain statutory relief provisions, it will be subject to income taxes and may be precluded from qualifying as a REIT for the four tax years following the year of loss of the Company's REIT qualification.

The Company's taxable REIT subsidiary ("TRS") is subject to federal and state income taxes. Income taxes are provided for using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates expected to apply to taxable income in the years in which the Manager expects those temporary differences to be recovered or settled. The effect on deferred taxes of a change in tax rates is recognized in income in the period in which the change occurs.

A valuation allowance is established if, in the Manager's judgment, realization of deferred tax assets is not more likely than not. The Company recognizes a tax benefit relating to tax positions it takes only if it is more likely than not that the position will be sustained upon examination by the appropriate taxing authority. A tax position that meets this standard is recognized as the largest amount that exceeds 50 percent likelihood of being realized upon settlement. The Company will classify any penalties and interest as a component of income tax expense.

#### Recently Issued Accounting Pronouncement

On June 20, 2018, the FASB issued Accounting Standards Update 2018-07, Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting ("ASU 2018-07"). ASU 2018-07 expands the scope of the Compensation—Stock Compensation topic of the ASC, which currently provides accounting guidance relating to share-based payments issued to employees, to include share-based payments issued to non-employees for goods or services. Consequently, under ASU 2018-07, the accounting for share-based payments to employees of the Manager will be substantially aligned with the Company's present accounting for share-based payments to its trustees and certain of its named executive officers.

The Company issues share-based compensation to certain employees of the Manager. Presently, the Company accounts for share-based payments to employees of the Manager under the guidance of Equity – Equity-Based Payments to Non-Employees topic of the ASC. Under that topic, the measure of cost relating to such grants is generally established based on the fair value of the shares upon vesting of the share-based awards. Accordingly, the Manager’s estimate of compensation costs, and by extension periodic expense amounts, fluctuates with movements in the Company’s common share price during the period that expense relating to the grants is being recognized. This guidance is being replaced by ASU 2018-07. As a result of the adoption of ASU 2018-07, the cost of share-based grants made to employees of the Manager will be fixed at the date of the grant for restricted share units issued to those employees of the Manager and variable to the extent of changes in performance attainment expectations for performance share units issued to all grantees.

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The amendments in this ASU are effective for the Company for the fiscal year ending December 31, 2019, including interim periods within that fiscal year. Upon adoption, the Manager does not expect to record a cumulative effect adjustment to its accumulated deficit.

Note 4—Transactions with Related Parties

Operating Activities

Correspondent Production

The Company is provided fulfillment and other services by PLS under an amended and restated mortgage banking services agreement.

Pursuant to the terms of the agreement, the monthly fulfillment fee is an amount that shall equal (a) no greater than the product of (i) 0.35% and (ii) the aggregate initial unpaid principal balance (the “Initial UPB”) of all mortgage loans purchased in such month, plus (b) in the case of all mortgage loans other than mortgage loans sold to or securitized through Fannie Mae or Freddie Mac, no greater than the product of (i) 0.50% and (ii) the aggregate Initial UPB of all such mortgage loans sold and securitized in such month; provided however, that no fulfillment fee shall be due or payable to PLS with respect to any mortgage loans underwritten to the Ginnie Mae MBS Guide.

The Company does not hold the Ginnie Mae approval required to issue securities guaranteed by Ginnie Mae MBS and act as a servicer. Accordingly, under the agreement, PLS currently purchases loans saleable in accordance with the Ginnie Mae MBS Guide “as is” and without recourse of any kind from the Company at cost less any administrative fees paid by the correspondent to the Company plus accrued interest and a sourcing fee ranging from two to three and one-half basis points, generally based on the average number of calendar days loans are held by the Company prior to purchase by PLS.

In consideration for the mortgage banking services provided by PLS with respect to the Company’s acquisition of mortgage loans under PLS’s early purchase program, PLS is entitled to fees accruing (i) at a rate equal to \$1,500 per annum per early purchase facility administered by PLS, and (ii) in the amount of \$35 for each mortgage loan that the Company acquires.

The mortgage banking services agreement expires on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the agreement.

The Company purchases newly originated loans from PLS under a mortgage loan purchase and sale agreement. Historically, the Company has used the mortgage loan purchase and sale agreement for the purpose of purchasing from PLS prime jumbo residential mortgage loans. Beginning in the quarter ended September 30, 2017, the Company also purchases conforming balance non-government insured or guaranteed mortgage loans from PLS under the mortgage loan purchase and sale agreement.

Following is a summary of correspondent production activity between the Company and PLS:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Mortgage loans fulfillment fees earned by PLS	\$81,350	\$80,359	\$86,465

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UPB of mortgage loans fulfilled by PLS	\$26,194,303	\$22,971,119	\$23,188,386
Sourcing fees received from PLS included in			
Net gain on mortgage loans acquired for sale	\$10,925	\$12,084	\$11,976
UPB of mortgage loans sold to PLS	\$36,415,933	\$40,561,241	\$39,908,163
Early purchase program fees paid to PLS			
included in Mortgage loan servicing fees	\$—	\$7	\$30
Purchases of mortgage loans acquired for sale			
from PLS	\$3,343,028	\$904,097	\$21,541
Tax service fee paid to PLS included in Other			
expense	\$7,433	\$7,078	\$6,690

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	December 31, 2018	December 31, 2017
	(in thousands)	
Mortgage loans included in Mortgage loans acquired		
for sale at fair value pending sale to PLS	\$86,308	\$ 279,571

### Mortgage Loan Servicing

The Company, through its Operating Partnership, has an amended and restated mortgage loan servicing agreement with PLS dated as of September 12, 2016. The servicing agreement provides for servicing fees earned by PLS that are based on a percentage of the mortgage loan's unpaid principal balance or fixed per loan monthly amounts based on the delinquency, bankruptcy and/or foreclosure status of the serviced mortgage loan or the REO. PLS is also entitled to market-based fees and charges including boarding and deboarding fees, liquidation and disposition, assumption, modification and origination fees and a percentage of late charges relating to mortgage loans it services for the Company.

• The base servicing fee rates for distressed whole mortgage loans range from \$30 per month for current loans up to \$85 per month for loans where the borrower has declared bankruptcy. The base servicing fee rate for REO is \$75 per month.

• To the extent that the Company rents its REO under an REO rental program, the Company pays PLS an REO rental fee of \$30 per month per REO, an REO property lease renewal fee of \$100 per lease renewal, and a property management fee in an amount equal to PLS' cost if property management services and/or any related software costs are outsourced to a third-party property management firm or 9% of gross rental income if PLS provides property management services directly. PLS is also entitled to retain any tenant paid application fees and late rent fees and seek reimbursement for certain third party vendor fees.

• Except as otherwise provided in the MSR recapture agreement, when PLS effects a refinancing of a mortgage loan on behalf of the Company and not through a third-party lender and the resulting mortgage loan is readily saleable, or PLS originates a loan to facilitate the disposition of an REO, PLS is entitled to receive from the Company market-based fees and compensation consistent with pricing and terms PLS offers unaffiliated parties on a retail basis.

• PLS is required to provide a range of services and activities significantly greater in scope than the services provided in connection with a customary servicing arrangement because the Company has limited employees and infrastructure. For these services, PLS received a supplemental fee of \$25 per month for each distressed whole loan. PLS is entitled to reimbursement for all customary, good faith reasonable and necessary out-of-pocket expenses incurred in the performance of its servicing obligations.

• PLS, on behalf of the Company, is entitled to retain any incentive payments made to it and to which it is entitled under the U.S. Department of Treasury's Home Affordable Modification Plan ("HAMP"); provided, however, that with respect to any such incentive payments paid to PLS under HAMP in connection with a mortgage loan modification for which the Company previously paid PLS a modification fee, PLS shall reimburse the Company an amount equal



to the incentive payments.

PLS is also entitled to certain activity-based fees for distressed whole mortgage loans that are charged based on the achievement of certain events. These fees range from \$750 for a streamline modification to \$1,750 for a full modification or liquidation and \$500 for a deed-in-lieu of foreclosure. PLS is not entitled to earn more than one liquidation fee, reperformance fee or modification fee per mortgage loan in any 18-month period.

The base servicing fees for non-distressed mortgage loans subserviced by PLS on the Company's behalf are also calculated through a monthly per-loan dollar amount, with the actual dollar amount for each loan based on whether the mortgage loan is a fixed-rate or adjustable-rate loan. The base servicing fees for loans subserviced on the Company's behalf are \$7.50 per month for fixed-rate loans and \$8.50 per month for adjustable-rate mortgage loans.

To the extent that these non-distressed mortgage loans become delinquent, PLS is entitled to an additional servicing fee per mortgage loan ranging from \$10 to \$55 per month and based on the delinquency, bankruptcy and foreclosure status of the mortgage loan or \$75 per month if the underlying mortgaged property becomes REO. PLS is also entitled to customary ancillary income and certain market-based fees and charges, including boarding and deboarding fees, liquidation and disposition fees, assumption, modification and origination fees.

The term of the servicing agreement expires on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the servicing agreement.

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Pursuant to the terms of an amended and restated MSR recapture agreement, if PLS refinances mortgage loans for which the Company previously held the MSRs, PLS is generally required to transfer and convey to one of the Company's wholly-owned subsidiaries cash in an amount equal to 30% of the fair market value of the MSRs related to all the loans so originated. The MSR recapture agreement expires, unless terminated earlier in accordance with the agreement, on September 12, 2020, subject to automatic renewal for additional 18-month periods.

Following is a summary of mortgage loan servicing fees earned by PLS and MSR recapture income earned from PLS:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Mortgage loans servicing fees:			
Mortgage loans acquired for sale at fair value:			
Base	\$347	\$305	\$330
Activity-based	690	649	733
	1,037	954	1,063
Mortgage loans at fair value:			
Distressed mortgage loans:			
Base	2,771	6,650	11,078
Activity-based	4,784	8,960	18,521
	7,555	15,610	29,599
Mortgage loans held in VIE—Base	40	129	83
MSRs:			
Base	32,814	25,862	19,378
Activity-based	599	509	492
	33,413	26,371	19,870
	\$42,045	\$43,064	\$50,615
Average investment in:			
Mortgage loans acquired for sale at fair value	\$1,577,395	\$1,366,017	\$1,443,587
Mortgage loans at fair value:			
Distressed mortgage loans	\$473,458	\$1,152,930	\$1,731,638
Mortgage loans held in a VIE	\$301,398	\$344,942	\$422,122
Average MSR portfolio UPB	\$80,500,212	\$63,836,843	\$49,626,758
MSR recapture income recognized included in			
Net mortgage loan servicing fees—from PennyMac			
Financial Services, Inc.	\$2,192	\$1,428	\$1,573

#### Management Fees

Under a management agreement, the Company pays PCM management fees as follows:

• A base management fee that is calculated quarterly and is equal to the sum of (i) 1.5% per year of average shareholders' equity up to \$2 billion, (ii) 1.375% per year of average shareholders' equity in excess of \$2 billion and up to \$5 billion, and (iii) 1.25% per year of average shareholders' equity in excess of \$5 billion.

• A performance incentive fee that is calculated quarterly at a defined annualized percentage of the amount by which “net income,” on a rolling four-quarter basis and before deducting the incentive fee, exceeds certain levels of return on “equity.”

The performance incentive fee is equal to the sum of: (a) 10% of the amount by which “net income” for the quarter exceeds (i) an 8% return on equity plus the high watermark, up to (ii) a 12% return on equity; plus (b) 15% of the amount by which “net income” for the quarter exceeds (i) a 12% return on equity plus the high watermark, up to (ii) a 16% return on equity; plus (c) 20% of the amount by which “net income” for the quarter exceeds a 16% return on equity plus the high watermark.

For the purpose of determining the amount of the performance incentive fee:

“Net income” is defined as net income or loss attributable to common shares of beneficial interest computed in accordance with GAAP and certain other non-cash charges determined after discussions between PCM and the Company’s independent trustees and after approval by a majority of the Company’s independent trustees.

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“Equity” is the weighted average of the issue price per common share of all of the Company’s public offerings, multiplied by the weighted average number of common shares outstanding (including restricted share units) in the rolling four-quarter period.

The “high watermark” is the quarterly adjustment that reflects the amount by which the “Net income” (stated as a percentage of return on equity) in that quarter exceeds or falls short of the lesser of 8% and the average Fannie Mae 30-year MBS yield (the target yield) for the four quarters then ended. The “high watermark” starts at zero and is adjusted quarterly. If the “Net income” is lower than the target yield, the high watermark is increased by the difference. If the “Net income” is higher than the target yield, the high watermark is reduced by the difference. Each time a performance incentive fee is earned, the high watermark returns to zero. As a result, the threshold amounts required for PCM to earn a performance incentive fee are adjusted cumulatively based on the performance of PMT’s “Net income” over (or under) the target yield, until the “Net income” in excess of the target yield exceeds the then-current cumulative high watermark amount.

The base management fee and the performance incentive fee are both payable quarterly in arrears. The performance incentive fee may be paid in cash or a combination of cash and the Company’s common shares (subject to a limit of no more than 50% paid in common shares), at the Company’s option.

The management agreement expires on September 12, 2020, subject to automatic renewal for additional 18-month periods, unless terminated earlier in accordance with the terms of the agreement. In the event of termination of the management agreement between the Company and PCM, PCM may be entitled to a termination fee in certain circumstances. The termination fee is equal to three times the sum of (a) the average annual base management fee, and (b) the average annual performance incentive fee earned by PCM, in each case during the 24-month period immediately preceding the date of termination.

Following is a summary of the base management and performance incentive fees payable to PCM recorded by the Company:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Base management	\$23,033	\$22,280	\$20,657
Performance incentive	1,432	304	—
	\$24,465	\$22,584	\$20,657

In the event of termination of the management agreement between the Company and PCM, PCM may be entitled to a termination fee in certain circumstances. The termination fee is equal to three times the sum of (a) the average annual base management fee, and (b) the average annual performance incentive fee earned by PCM, in each case during the 24-month period before termination.

#### Expense Reimbursement and Amounts Payable to and Receivable from PCM

Under the management agreement, PCM is entitled to reimbursement of its organizational and operating expenses, including third-party expenses, incurred on the Company’s behalf, it being understood that PCM and its affiliates shall

allocate a portion of their personnel's time to provide certain legal, tax and investor relations services for the direct benefit of the Company. With respect to the allocation of PCM's and its affiliates' compensation expenses, from and after September 12, 2016, PCM shall be reimbursed \$120,000 per fiscal quarter, such amount to be reviewed annually and to not preclude reimbursement for any other services performed by PCM or its affiliates.

The Company is required to pay PCM and its affiliates a portion of rent, telephone, utilities, office furniture, equipment, machinery and other office, internal and overhead expenses of PCM and its affiliates required for the Company's and its subsidiaries' operations. These expenses are allocated based on the ratio of the Company's and its subsidiaries' proportion of gross assets compared to all remaining gross assets managed by PCM as calculated at each fiscal quarter end.

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Following is a summary of the Company's reimbursements to PCM and its affiliates for expenses:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Reimbursement of:</b>			
Common overhead incurred by PCM and its affiliates	\$4,640	\$5,306	\$7,898
Compensation	480	—	—
Expenses incurred on the Company's behalf, net	1,113	2,257	(163)
	<b>\$6,233</b>	<b>\$7,563</b>	<b>\$7,735</b>
Payments and settlements during the year (1)	\$71,943	\$64,945	\$143,542

(1) Payments and settlements include payments and netting settlements made pursuant to master netting agreements between the Company and PFSI for the operating, investment and financing activities itemized in this Note. Investing Activities

### Spread Acquisition and MSR Servicing Agreements

On December 19, 2016, the Company, through a wholly-owned subsidiary, PennyMac Holdings, LLC ("PMH"), amended and restated a master spread acquisition and MSR servicing agreement with PLS (the "Spread Acquisition Agreement"), pursuant to which the Company may purchase from PLS, from time to time, the right to receive participation certificates representing beneficial ownership in ESS arising from Ginnie Mae MSRs acquired by PLS, in which case PLS generally would be required to service or subservice the related mortgage loans for Ginnie Mae. The primary purpose of the amendment and restatement was to facilitate the continued financing of the ESS owned by the Company in connection with the parties' participation in the GNMA MSR Facility (as defined below).

To the extent PLS refinances any of the mortgage loans relating to the ESS the Company has acquired, the Spread Acquisition Agreement also contains recapture provisions requiring that PLS transfer to the Company, at no cost, the ESS relating to a certain percentage of the unpaid principal balance of the newly originated mortgage loans. However, under the Spread Acquisition Agreement, in any month where the transferred ESS relating to newly originated Ginnie Mae mortgage loans is not equivalent to at least 90% of the product of the excess servicing fee rate and the unpaid principal balance of the refinanced mortgage loans, PLS is also required to transfer additional ESS or cash in the amount of such shortfall. Similarly, in any month where the transferred ESS relating to modified Ginnie Mae mortgage loans is not equivalent to at least 90% of the product of the excess servicing fee rate and the unpaid principal balance of the modified mortgage loans, the Spread Acquisition Agreement contains provisions that require PLS to transfer additional ESS or cash in the amount of such shortfall. To the extent the fair market value of the aggregate ESS to be transferred for the applicable month is less than \$200,000, PLS may, at its option, settle its recapture liability to the Company in cash in an amount equal to such fair market value in lieu of transferring such ESS.

Following is a summary of investing activities between the Company and PFSI:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Sale of mortgage loans at fair value to PFSI	\$—	\$—	\$891
ESS:			

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Received pursuant to a recapture agreement	\$2,688	\$5,244	\$6,603
Repayments and sales	\$46,750	\$54,980	\$129,037
Interest income	\$15,138	\$16,951	\$22,601
Net (loss) gain included in Net gain (loss) on			
investments:			
Valuation changes	\$8,500	\$(19,350)	\$(23,923)
Recapture income	2,584	4,820	6,529
	\$11,084	\$(14,530)	\$(17,394)
At the end of the year:			
Excess servicing spread purchased from PennyMac			
Financial Services, Inc. at fair value	\$216,110	\$236,534	

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Financing Activities

PFSI held 75,000 of the Company's common shares at both December 31, 2018 and December 31, 2017.

Repurchase Agreement with PLS

On December 19, 2016, the Company, through PMH, entered into a master repurchase agreement with PLS (the "PMH Repurchase Agreement"), pursuant to which PMH may borrow from PLS for the purpose of financing PMH's participation certificates representing beneficial ownership in ESS acquired from PLS under the Spread Acquisition Agreement. PLS then re-pledges such participation certificates to PNMAC GMSR ISSUER TRUST (the "Issuer Trust") under a master repurchase agreement by and among PLS, the Issuer Trust and Private National Mortgage Acceptance Company, LLC, as guarantor (the "PC Repurchase Agreement"). The Issuer Trust was formed for the purpose of allowing PLS to finance MSR and ESS relating to such MSRs (the "GNMA MSR Facility").

In connection with the GNMA MSR Facility, PLS pledges and/or sells to the Issuer Trust participation certificates representing beneficial interests in MSRs and ESS pursuant to the terms of the PC Repurchase Agreement. In return, the Issuer Trust (a) has issued to PLS, pursuant to the terms of an indenture, the Series 2016-MSRVF1 Variable Funding Note, dated December 19, 2016, known as the "PNMAC GMSR ISSUER TRUST MSR Collateralized Notes, Series 2016-MSRVF1" (the "VFN"), and (b) may, from time to time pursuant to the terms of any supplemental indenture, issue to institutional investors additional term notes ("Term Notes"), in each case secured on a pari passu basis by the participation certificates relating to the MSRs and ESS. The maximum principal balance of the VFN is \$1 billion.

The principal amount paid by PLS for the participation certificates under the PMH Repurchase Agreement is based upon a percentage of the market value of the underlying ESS. Upon PMH's repurchase of the participation certificates, PMH is required to repay PLS the principal amount relating thereto plus accrued interest (at a rate reflective of the current market and consistent with the weighted average note rate of the VFN and any outstanding Term Notes) to the date of such repurchase. PLS is then required to repay the Issuer Trust the corresponding amount under the PC Repurchase Agreement.

Conditional Reimbursement of Initial Public Offering ("IPO") Underwriting Fees

In connection with its IPO, the Company conditionally agreed to reimburse PCM up to \$2.9 million for underwriting fees paid to the IPO underwriters by PCM on the Company's behalf (the "Conditional Reimbursement"). Also in connection with its IPO, the Company agreed to pay the IPO underwriters up to \$5.9 million in contingent underwriting fees.

Following is a summary of financing activities between the Company and PFSI:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Sale of assets under agreements to repurchase	\$2,293	\$—	\$—
Repurchase of assets sold under agreements to repurchase	\$15,396	\$5,872	\$—
Interest expense	\$7,462	\$8,038	\$7,830
Conditional Reimbursement paid to:			



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PCM	\$69	\$30	\$—
Underwriters	\$136	\$61	\$—

	December 31, 2018	December 31, 2017
	(in thousands)	
Assets sold to PFSI under agreement to repurchase	\$131,025	\$ 144,128
Conditional Reimbursement payable to PCM included in Accounts payable and accrued liabilities	\$801	\$ 870

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Amounts Receivable from and Payable to PFSI

Amounts receivable from and payable to PFSI are summarized below:

	December 31, 2018	December 31, 2017
	(in thousands)	
<b>Due from PFSI:</b>		
MSR recapture receivable	\$ 179	\$ 282
Other	3,898	3,872
	\$4,077	\$ 4,154
<b>Due to PFSI:</b>		
Fulfillment fees	\$10,006	\$ 346
Allocated expenses and expenses paid by PFSI on PMT's behalf	9,066	11,542
Management fees	6,559	5,901
Mortgage loan servicing fees	4,841	6,583
Correspondent production fees	2,071	1,735
Conditional Reimbursement	801	870
Interest on Assets sold to PFSI under agreement to repurchase	120	142
	\$33,464	\$ 27,119

Note 5—Loan Sales and Variable Interest Entities

The Company is a variable interest holder in various special purpose entities that relate to its mortgage loan transfer and financing activities and credit risk transfer investments. These entities are classified as VIEs for accounting purposes. The Company has distinguished its involvement with VIEs between those VIEs which the Company does not consolidate and those VIEs which the Company consolidates.

Unconsolidated VIEs with Continuing Involvement

Sales of Mortgage Loans

The following table summarizes cash flows between the Company and transferees in transfers of mortgage loans that are accounted for as sales where the Company maintains continuing involvement with the mortgage loans:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Cash flows:</b>			
Proceeds from sales	\$29,369,656	\$24,314,165	\$23,525,952
Mortgage loan servicing fees received (1)	\$204,663	\$164,776	\$125,961

(1) Net of Agency guarantee fees.



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The following table summarizes for the dates presented collection status information for mortgage loans that are accounted for as sales where the Company maintains continuing involvement:

	December 31,	
	2018	2017
	(in thousands)	
UPB of mortgage loans outstanding	\$91,982,335	\$71,639,351
UPB of delinquent mortgage loans:		
30-89 days delinquent	\$614,668	\$532,673
90 or more days delinquent:		
Not in foreclosure	\$142,871	\$280,786
In foreclosure	\$40,445	\$25,258
UPB of mortgage loans in bankruptcy	\$75,947	\$52,202
Custodial funds managed by the Company (1)	\$970,328	\$879,321

(1) Custodial funds include borrower and investor custodial cash accounts relating to mortgage loans serviced under mortgage servicing agreements and are not included on the Company's consolidated balance sheets. The Company earns placement fees on certain of the custodial funds it manages on behalf of the mortgage loans' investors, which are included in Interest income in the Company's consolidated statements of income.

### Consolidated VIEs

#### Credit Risk Transfer Transactions

The Company has entered into mortgage loan sales arrangements pursuant to which it accepts credit risk relating to certain of its mortgage loan sales. These arrangements include CRT Agreements and sales of mortgage loans that include commitments to purchase CRT securities that absorb credit losses on such mortgage loans.

The Company, through PMC, entered into CRT Agreements with Fannie Mae, pursuant to which PMC, through subsidiary trust entities, sold pools of mortgage loans into Fannie Mae-guaranteed securitizations while retaining Recourse Obligations in addition to IO ownership interests in such mortgage loans. The transfers of mortgage loans subject to CRT Agreements were accounted for as sales. The Company placed Deposits securing CRT Agreements into the subsidiary trust entities to secure its Recourse Obligations. The Deposits securing CRT Agreements represent the Company's maximum contractual exposure to claims under its Recourse Obligations and is the sole source of settlement of losses under the CRT Agreements.

The Company's exposure to losses under its Recourse Obligation was limited initially to 3.5% of the UPB of the mortgage loans sold under the CRT Agreements. As the UPB of the underlying mortgage loans subject to each CRT Agreement is reduced through repayments, the percentage exposure of each CRT Agreement will increase to a maximum of 4.5% of outstanding UPB, although the total dollar amount of exposure to losses does not increase. Gains and losses on derivatives related to CRT Agreements are included in Net gain (loss) on investments in the consolidated statements of income. The final sales of mortgage loans subject to the CRT Agreements were made during 2018.



transfer agreements

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Effective in June 2018, the Company began selling mortgage loans subject to agreements that require the Company to purchase securities that absorb credit losses on such mortgage loans. The Company has elected to account for the firm commitments to purchase such CRT securities at fair value. The Company recognizes these purchase commitments initially as a component of Gain on sale of mortgage loans; subsequent changes in fair value are recognized in Net gain (loss) on investments.

Following is a summary of activity under these purchase commitments:

	Year ended December 31, 2018 (in thousands)
UPB of mortgage loans sold	\$ 16,392,300
Increase in expected face amount of firm commitment to purchase CRT	
securities backed by mortgage loans sold	\$ 605,052
Fair value of firm commitment recognized in Gain on sale of mortgage loans	\$ 30,595
Gains recognized on firm commitment included in Net gain (loss) on	
investments	\$ 7,399
	December 31, 2018 (in thousands)
Firm commitment to purchase CRT securities	\$ 605,052
Fair value of firm commitment	\$ 37,994
UPB of mortgage loans sold subject to firm commitment to purchase CRT	
securities related to such loans	\$ 16,392,300
Collection status (in UPB):	
Current	\$ 16,329,044
30—89 days delinquent	\$ 61,035
90—180 days delinquent	\$ 2,221
180 or more days delinquent	\$ —
Foreclosure	\$ —
Bankruptcy	\$ 1,258

### Jumbo Mortgage Loan Financing

On September 30, 2013, the Company completed a securitization transaction in which PMT Loan Trust 2013-J1, a VIE, issued \$537.0 million in UPB of certificates backed by fixed-rate prime jumbo mortgage loans, at a 3.9% weighted yield. The fair value of the certificates retained by the Company was \$14.1 million and \$9.7 million as of December 31, 2018 and December 31, 2017, respectively. The Company includes the balance of certificates issued to nonaffiliates in Asset backed financing of a variable interest entity at fair value.

Note 6—Fair Value

## Fair Value Accounting Elections

The Manager identified all of the Company's non-cash financial assets, firm commitment to purchase CRT securities and MSRs to be accounted for at fair value. The Manager has elected to account for these assets at fair value so such changes in fair value will be reflected in income as they occur and more timely reflect the results of the Company's performance. Before January 1, 2018, originated MSRs backed by mortgage loans with initial interest rates of less than or equal to 4.5% were accounted for using the amortization method. Beginning January 1, 2018, the Company elected to account for all MSRs at fair value prospectively. The Manager determined that this change makes the accounting treatment for MSRs consistent with lender valuation under financing arrangements and simplifies hedging activities.

The Manager has also identified the Company's asset-backed financing of a VIE and interest only security payable at fair value to be accounted for at fair value to reflect the generally offsetting changes in fair value of these borrowings to changes in fair value of the assets at fair value collateralizing these financings. For other borrowings, the Manager has determined that historical cost accounting is more appropriate because under this method debt issuance costs are amortized over the term of the debt facility, thereby matching the debt issuance cost to the periods benefiting from the availability of the debt.



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Financial Statement Items Measured at Fair Value on a Recurring Basis

Following is a summary of financial statement items that are measured at fair value on a recurring basis:

	December 31, 2018			Total
	Level 1	Level 2	Level 3	
	(in thousands)			
<b>Assets:</b>				
Short-term investments	\$74,850	\$—	\$—	\$74,850
Mortgage-backed securities at fair value	—	2,610,422	—	2,610,422
Mortgage loans acquired for sale at fair value	—	1,626,483	17,474	1,643,957
Mortgage loans at fair value	—	290,573	117,732	408,305
Excess servicing spread purchased from PFSI	—	—	216,110	216,110
<b>Derivative assets:</b>				
Interest rate lock commitments	—	—	12,162	12,162
CRT Agreements	—	—	123,987	123,987
Repurchase agreement derivatives	—	—	14,511	14,511
Forward purchase contracts	—	14,845	—	14,845
Forward sale contracts	—	13	—	13
MBS put options	—	218	—	218
MBS call options	—	945	—	945
Call options on interest rate futures	5,137	—	—	5,137
Put options on interest rate futures	178	—	—	178
Total derivative assets before netting	5,315	16,021	150,660	171,996
Netting	—	—	—	(4,831 )
Total derivative assets after netting	5,315	16,021	150,660	167,165
<b>Firm commitment to purchase credit risk transfer</b>				
securities at fair value	—	—	37,994	37,994
Mortgage servicing rights at fair value	—	—	1,162,369	1,162,369
	\$80,165	\$4,543,499	\$1,702,339	\$6,321,172
<b>Liabilities:</b>				
Asset-backed financing of a VIE at fair value	\$—	\$276,499	\$—	\$276,499
Interest-only security payable at fair value	—	—	36,011	36,011
<b>Derivative liabilities:</b>				
Interest rate lock commitments	—	—	174	174
Forward purchase contracts	—	43	—	43
Forward sales contracts	—	29,273	—	29,273
Total derivative liabilities before netting	—	29,316	174	29,490
Netting	—	—	—	(23,576 )
Total derivative liabilities after netting	—	29,316	174	5,914
	\$—	\$305,815	\$36,185	\$318,424

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	December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
<b>Assets:</b>				
Short-term investments	\$18,398	\$—	\$—	\$18,398
Mortgage-backed securities at fair value	—	989,461	—	989,461
Mortgage loans acquired for sale at fair value	—	1,261,380	8,135	1,269,515
Mortgage loans at fair value	—	321,040	768,433	1,089,473
Excess servicing spread purchased from PFSI	—	—	236,534	236,534
<b>Derivative assets:</b>				
Interest rate lock commitments	—	—	4,859	4,859
CRT Agreements	—	—	98,640	98,640
Repurchase agreement derivatives	—	—	3,748	3,748
Forward purchase contracts	—	4,343	—	4,343
Forward sale contracts	—	387	—	387
MBS put options	—	3,170	—	3,170
Put options on interest rate futures	656	—	—	656
Total derivative assets before netting	656	7,900	107,247	115,803
Netting	—	—	—	(1,922 )
Total derivative assets after netting	656	7,900	107,247	113,881
Mortgage servicing rights at fair value	—	—	91,459	91,459
	\$19,054	\$2,579,781	\$1,211,808	\$3,808,721
<b>Liabilities:</b>				
Asset-backed financing of a VIE at fair value	\$—	\$307,419	\$—	\$307,419
Interest-only security payable at fair value	—	—	7,070	7,070
<b>Derivative liabilities:</b>				
Interest rate lock commitments	—	—	227	227
Forward purchase contracts	—	248	—	248
Forward sales contracts	—	2,830	—	2,830
Total derivative liabilities before netting	—	3,078	227	3,305
Netting	—	—	—	(1,999 )
Total derivative liabilities after netting	—	3,078	227	1,306
	\$—	\$310,497	\$7,297	\$315,795

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The following is a summary of changes in items measured at fair value on a recurring basis using Level 3 inputs that are significant to the estimation of the fair values of the assets and liabilities at either the beginning or end of the years presented:

	Year ended December 31, 2018								
	Mortgage								
	loans						Firm		
	acquired	Mortgage	Excess	Interest	CRT	Repurchase	commitment	Mortgage	
	for	loans at	servicing	rate	Agreement	agreement	to	servicing	
	sale at	fair value	spread	lock	derivatives	derivatives	CRT securities	rights	Total
	fair	(in thousands)		commitment	derivatives	derivatives			
	value			(1)					
Assets									
Balance, December 31, 2017	\$8,135	\$768,433	\$236,534	\$4,632	\$98,640	\$3,748	\$—	\$91,459	\$1,211,581
Cumulative effect of a change in accounting principle — Adoption of fair value accounting for mortgage servicing rights	—	—	—	—	—	—	—	773,035	773,035
Balance, January 1, 2018	8,135	768,433	236,534	4,632	98,640	3,748	—	864,494	1,984,616
Purchases and issuances	12,208	—	—	4,655	—	19,918	—	—	36,781
Repayments and sales	(12,934)	(600,638)	(46,750)	—	(86,928)	(8,964)	—	(100)	(756,314)
Capitalization of interest	—	7,439	15,138	—	—	—	—	—	22,577
Capitalization of advances	—	5,481	—	—	—	—	—	—	5,481
ESS received pursuant to a recapture agreement with PFSI	—	—	2,688	—	—	—	—	—	2,688

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Amounts received  
as proceeds from  
sales

of mortgage loans	—	—	—	—	—	—	30,595	356,755	387,350
Changes in fair value included in income arising from:									
Changes in instrument-specific credit risk	—	2,907	—	—	—	—	—	—	2,907
Other factors	(16 )	(18,104 )	8,500	(14,016)	112,275	(191 )	7,399	(58,780 )	37,067
	(16 )	(15,197 )	8,500	(14,016)	112,275	(191 )	7,399	(58,780 )	39,974
Transfers of mortgage loans to REO	—	(47,786 )	—	—	—	—	—	—	(47,786 )
Transfers of mortgage loans acquired for sale at fair value from "Level 2" to "Level 3" (2)	10,081	—	—	—	—	—	—	—	10,081
Transfers of interest rate lock commitments to mortgage loans acquired for sale	—	—	—	16,717	—	—	—	—	16,717
Balance, December 31, 2018	\$17,474	\$117,732	\$216,110	\$11,988	\$123,987	\$14,511	\$37,994	\$1,162,369	\$1,702,165
Changes in fair value recognized during the year relating to assets still held at December 31, 2018	\$(158 )	\$(18,428 )	\$8,500	\$11,988	\$25,347	\$77	\$37,994	\$(58,780 )	\$6,540

(1)For the purpose of this table, the IRLC asset and liability positions are shown net.

(2)During the year ended December 31, 2018, the Manager identified certain "Level 2" fair value mortgage loans acquired for sale that were not saleable into the prime mortgage market and therefore transferred them to "Level 3".



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	Year ended December 31, 2018 Interest-only security payable (in thousands)
<b>Liabilities:</b>	
Balance, December 31, 2017	\$ 7,070
<b>Changes in fair value included in income arising from:</b>	
Changes in instrument-specific credit risk	—
Other factors	28,941
	28,941
Balance, December 31, 2018	\$ 36,011
<b>Changes in fair value recognized during the year relating to liability</b>	
outstanding at December 31, 2018	\$ 28,941

Year ended December 31, 2017

Mortgage

loans

	acquired for	Mortgage loans at fair value (in thousands)	Excess servicing spread	Interest rate lock (1)	CRT Agreement derivatives	Repurchase agreement derivatives	Mortgage servicing rights	Total
<b>Assets:</b>								
Balance, December 31, 2016	\$5,682	\$1,354,572	\$288,669	\$ 3,777	\$ 15,610	\$ —	\$ 64,136	\$1,732,446
Purchases and issuances	11,415	—	—	36,005	—	3,864	79	51,363
Repayments and sales	(12,513)	(530,367 )	(54,980 )	—	(51,731 )	—	—	(649,591 )
Capitalization of interest	—	30,795	16,951	—	—	—	—	47,746
Capitalization of advances	—	18,923	—	—	—	—	—	18,923
ESS received pursuant to a recapture	—	—	5,244	—	—	—	—	5,244

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agreement with PFSI									
Amounts received as proceeds from									
sales of mortgage loans	—	—	—	—	—	—	41,379	41,379	
Changes in fair value included in									
income arising from:									
Changes in instrument-specific									
credit risk	—	24,685	—	—	—	—	—	24,685	
Other factors	1,045	(25,369 )	(19,350 )	45,304	134,761	(116 )	(14,135 )	122,140	
	1,045	(684 )	(19,350 )	45,304	134,761	(116 )	(14,135 )	146,825	
Transfers of mortgage loans to REO	—	(104,806 )	—	—	—	—	—	(104,806 )	
Transfers of mortgage loans acquired									
for sale at fair value from "Level 2"									
to "Level 3" (2)	2,506	—	—	—	—	—	—	2,506	
Transfers of interest rate lock									
commitments to mortgage loans									
acquired for sale	—	—	—	(80,454 )	—	—	—	(80,454 )	
Balance, December 31, 2017	\$8,135	\$768,433	\$236,534	\$4,632	\$98,640	\$3,748	\$91,459	\$1,211,581	
Changes in fair value recognized during									
the year relating to assets still held at									
December 31, 2017	\$98	\$(10,594 )	\$(19,350 )	\$4,632	\$83,030	\$(116 )	\$(14,135 )	\$43,565	

(1) For the purpose of this table, the IRLC asset and liability positions are shown net.

(2) During the year ended December 31, 2017, the Manager identified certain “Level 2” fair value mortgage loans acquired for sale that were not saleable into the prime mortgage market and therefore transferred them to “Level 3”.

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	Year ended December 31, 2017 Interest-only security payable (in thousands)
<b>Liabilities:</b>	
Balance, December 31, 2016	\$ 4,114
<b>Changes in fair value included in income arising from:</b>	
Changes in instrument-specific credit risk	—
Other factors	2,956
	2,956
Balance, December 31, 2017	7,070
Changes in fair value recognized during the year relating to liability	
outstanding at December 31, 2017	\$ 2,956

	Year ended December 31, 2016					
	Interest rate					
	Mortgage	Excess	lock	CRT	Mortgage servicing	Total
	loans at	servicing	commitments	Agreement	rights	
	fair value	spread	(1)	derivatives	rights	Total
	(in thousands)					
<b>Assets:</b>						
Balance, December 31, 2015	\$2,100,394	\$412,425	\$ 4,646	\$ 593	\$ 66,584	\$2,584,642
Purchases and issuances	—	—	71,892	—	2,739	74,631
Repayments and sales	(626,095 )	(129,037 )	—	(21,298 )	—	(776,430 )
Capitalization of interest	84,820	22,601	—	—	—	107,421
ESS received pursuant to a recapture						
agreement with PFSI	—	6,603	—	—	—	6,603
Amounts received as proceeds from sales of						
mortgage loans	—	—	—	—	7,337	7,337
Changes in fair value included in income						
arising from:						
Changes in instrument-specific credit risk	26,910	—	—	—	—	26,910
Other factors	(30,414 )	(23,923 )	15,944	36,315	(12,524 )	(14,602 )
	(3,504 )	(23,923 )	15,944	36,315	(12,524 )	12,308

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Transfers of mortgage loans to REO	(201,043 )	—	—	—	—	(201,043 )
Transfers of interest rate lock commitments to						
mortgage loans acquired for sale	—	—	(88,705 )	—	—	(88,705 )
Balance, December 31, 2016	\$1,354,572	\$288,669	\$ 3,777	\$ 15,610	\$ 64,136	\$1,726,764
Changes in fair value recognized during the year						
relating to assets still held at December 31, 2016	\$(15,877 )	\$(16,713 )	\$ 3,777	\$ 15,610	\$( 12,524 )	\$(25,727 )

(1) For the purpose of this table, the IRLC asset and liability positions are shown net.

	Year ended December 31, 2016 Interest-only security payable (in thousands)
<b>Liabilities:</b>	
Balance, December 31, 2015	\$ —
Changes in fair value included in income arising from:	
Changes in instrument- specific credit risk	—
Other factors	4,114
	4,114
Balance, December 31, 2016	4,114
Changes in fair value recognized during the year relating to liability	
outstanding at December 31, 2016	\$ 4,114

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The Company had transfers among the fair value levels arising from transfers of IRLCs to mortgage loans held for sale at fair value upon purchase of the respective mortgage loans and identification of certain mortgage loans acquired for sale are not saleable into the prime mortgage market.

Following are the fair values and related principal amounts due upon maturity of mortgage loans accounted for under the fair value option (including mortgage loans acquired for sale, mortgage loans held in a consolidated VIE, and distressed mortgage loans at fair value):

	December 31, 2018			December 31, 2017		
	Fair value (in thousands)	upon maturity amount due	Difference	Fair value (in thousands)	upon maturity amount due	Difference
<b>Mortgage loans acquired for sale at fair value:</b>						
Current through 89 days delinquent:	\$1,643,465	\$1,580,504	\$62,961	\$1,268,121	\$1,221,125	\$46,996
90 or more days delinquent:						
Not in foreclosure	492	492	—	950	1,120	(170 )
In foreclosure	—	—	—	444	496	(52 )
	492	492	—	1,394	1,616	(222 )
	\$1,643,957	\$1,580,996	\$62,961	\$1,269,515	\$1,222,741	\$46,774
<b>Mortgage loans at fair value:</b>						
<b>Mortgage loans held in a consolidated VIE:</b>						
Current through 89 days delinquent	\$290,573	\$294,617	\$(4,044 )	\$321,040	\$316,684	\$4,356
90 or more days delinquent:						
Not in foreclosure	—	—	—	—	—	—
In foreclosure	—	—	—	—	—	—
	—	—	—	—	—	—
	290,573	294,617	(4,044 )	321,040	316,684	4,356
<b>Distressed mortgage loans at fair value:</b>						
Current through 89 days delinquent	28,806	43,043	(14,237 )	414,785	519,009	(104,224 )
90 or more days delinquent:						
Not in foreclosure	37,288	71,732	(34,444 )	166,749	257,038	(90,289 )
In foreclosure	51,638	86,259	(34,621 )	186,899	267,911	(81,012 )
	88,926	157,991	(69,065 )	353,648	524,949	(171,301 )
	117,732	201,034	(83,302 )	768,433	1,043,958	(275,525 )
	\$408,305	\$495,651	\$(87,346 )	\$1,089,473	\$1,360,642	\$(271,169 )

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Following are the changes in fair value included in current period income by consolidated statement of income line item for assets and liabilities accounted for under the fair value option:

	Year ended December 31, 2018				
	Net gain on				
	Net mortgage loan servicing fees	mortgage loans acquired for sale	Net gain (loss) on investments	Net interest income	Total
	(in thousands)				
<b>Assets:</b>					
Short-term investments at fair value	\$—	\$—	\$—	\$—	\$—
Mortgage-backed securities at fair value	—	—	(11,262 )	(4,793 )	(16,055 )
Mortgage loans acquired for sale at fair value	—	(5,298 )	—	—	(5,298 )
Mortgage loans at fair value	—	—	(23,696 )	7,539	(16,157 )
ESS at fair value	—	—	8,500	15,138	23,638
<b>Firm commitment to purchase credit risk transfer securities at fair value</b>					
	—	30,595	7,399	—	37,994
MSRs at fair value	(58,780)	—	—	—	(58,780)
	<b>\$(58,780)</b>	<b>\$25,297</b>	<b>\$(19,059 )</b>	<b>\$17,884</b>	<b>\$(34,658)</b>
<b>Liabilities:</b>					
Interest-only security payable at fair value	\$—	\$—	\$(28,941 )	\$—	\$(28,941)
Asset-backed financing of a VIE at fair value	—	—	9,610	(577 )	9,033
	<b>\$—</b>	<b>\$—</b>	<b>\$(19,331 )</b>	<b>\$(577 )</b>	<b>\$(19,908)</b>

	Year ended December 31, 2017				
	Net gain on				
	Net mortgage loan servicing fees	mortgage loans acquired for sale	Net gain (loss) on investments	Net interest income	Total
	(in thousands)				
<b>Assets:</b>					
Short-term investments at fair value	\$—	\$—	\$—	\$—	\$—
Mortgage-backed securities at fair value	—	—	5,498	5,367	10,865
Mortgage loans acquired for sale at fair value	—	97,940	—	—	97,940
Mortgage loans at fair value	—	—	3,582	32,239	35,821
ESS at fair value	—	—	(19,350 )	16,951	(2,399 )
MSRs at fair value	(14,135)	—	—	—	(14,135)
	<b>\$(14,135)</b>	<b>\$97,940</b>	<b>\$(10,270 )</b>	<b>\$54,557</b>	<b>\$128,092</b>
<b>Liabilities:</b>					

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Interest-only security payable at fair value	\$—	\$—	\$ 2,956	\$—	\$2,956
Asset-backed financing of a VIE at fair value	—	—	(3,426 )	(1,781 )	(5,207 )
	\$—	\$—	\$ (470 )	\$(1,781 )	\$(2,251 )

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	Year ended December 31, 2016				
	Net gain on				
	Net mortgage servicing fees (in thousands)	mortgage loans acquired for sale	Net gain (loss) on investments	Net interest income	Total
<b>Assets:</b>					
Short-term investments at fair value	\$—	\$—	\$—	\$—	\$—
Mortgage-backed securities at fair value	—	—	(13,168 )	(2,391 )	(15,559 )
Mortgage loans acquired for sale at fair value	—	55,350	—	—	55,350
Mortgage loans at fair value	—	—	(5,252 )	86,114	80,862
ESS at fair value	—	—	(23,923 )	22,601	(1,322 )
MSRs at fair value	(12,524)	—	—	—	(12,524)
	<b>\$(12,524)</b>	<b>\$55,350</b>	<b>\$(42,343 )</b>	<b>\$106,324</b>	<b>\$106,807</b>
<b>Liabilities:</b>					
Asset-backed financing of a VIE at fair value	\$—	\$—	\$ 3,238	\$(669 )	\$2,569
	<b>\$—</b>	<b>\$—</b>	<b>\$ 3,238</b>	<b>\$(669 )</b>	<b>\$2,569</b>

Financial Statement Items Measured at Fair Value on a Nonrecurring Basis

Following is a summary of the carrying value at year end for financial statement items that were re-measured at fair value on a nonrecurring basis during the years presented:

	December 31, 2018			
	Level			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Real estate acquired in settlement of loans	\$—	\$—	\$24,515	\$24,515
	<b>\$—</b>	<b>\$—</b>	<b>\$24,515</b>	<b>\$24,515</b>
	December 31, 2017			
	Level			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Real estate acquired in settlement of loans	\$—	\$—	\$71,380	\$71,380
MSRs at lower of amortized cost or fair value	—	—	312,995	312,995
	<b>\$—</b>	<b>\$—</b>	<b>\$384,375</b>	<b>\$384,375</b>

The following table summarizes the fair value changes recognized during the years presented on assets held at year end that were remeasured at fair value on a nonrecurring basis:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Real estate asset acquired in settlement of loans	\$(4,434)	\$(11,882)	\$(17,561)
MSRs at lower of amortized cost or fair value	—	(5,876 )	(2,728 )
	\$(4,434)	\$(17,758)	\$(20,289)

#### Real Estate Acquired in Settlement of Loans

The Company evaluates its REO for impairment with reference to the respective properties' fair values less cost to sell. The initial carrying value of the REO is measured at cost as indicated by the purchase price in the case of purchased REO or as measured by the fair value of the mortgage loan immediately before REO acquisition in the case of acquisition in settlement of a mortgage loan. REO may be subsequently revalued due to the Company receiving greater access to the property, the property being held for an extended period or receiving indications that the property's fair value may not be supported by developing market conditions. Any subsequent change in fair value to a level that is less than or equal to the property's cost is recognized in Results of real estate acquired in settlement of loans in the Company's consolidated statements of income.

### Mortgage Servicing Rights at Lower of Amortized Cost or Fair Value

Before the Company adopted fair value accounting for all of its existing classes of MSR on January 1, 2018, the Manager evaluated the Company's MSR at lower of amortized cost or fair value for impairment with reference to the asset's fair value. For purposes of performing its MSR impairment evaluation, the Company stratified its MSR at lower of amortized cost or fair value based on the interest rates borne by the mortgage loans underlying the MSR. Mortgage loans were grouped into pools with 50 basis point interest rate ranges for fixed-rate mortgage loans with interest rates between 3.0% and 4.5% and a single pool for mortgage loans with interest rates below 3.0%. MSR relating to adjustable rate mortgage loans with initial interest rates of 4.5% or less were evaluated in a single pool. If the fair value of MSR in any of the interest rate pools was below the amortized cost of the MSR, those MSR were impaired.

When MSR were impaired, the change in impairment was recognized in current-period income and the carrying value of the MSR was adjusted using a valuation allowance. If the fair value of the MSR subsequently increased, the increase in fair value was recognized in current period income only to the extent of the valuation allowance for the respective impairment stratum.

The Manager periodically reviewed the various impairment strata to determine whether the fair value of the impaired MSR in a given stratum was likely to recover. When the Manager deemed recovery of fair value to be unlikely in the foreseeable future, a write-down of the cost of the MSR for that stratum to its estimated recoverable value was charged to the valuation allowance.

### Fair Value of Financial Instruments Carried at Amortized Cost

Most of the Company's borrowings are carried at amortized cost. The Company's Assets sold under agreements to repurchase, Mortgage loan participation purchase and sale agreements, Exchangeable senior notes, Notes payable and Assets sold to PennyMac Financial Services, Inc. under agreements to repurchase are classified as "Level 3" fair value liabilities due to the Company's reliance on unobservable inputs to estimate these instruments' fair values. The Manager has concluded that the fair values of these borrowings other than Exchangeable senior notes and Notes payable approximate the agreements' carrying values due to the borrowing agreements' variable interest rates and short maturities. The fair value of the Exchangeable senior notes at December 31, 2018 and December 31, 2017 was \$247.2 million and \$244.9 million, respectively. The fair value of the Exchangeable senior notes is estimated using a broker indication of fair value. The fair value of Notes payable was \$444.4 million at December 31, 2018. The fair value of the Notes payable is estimated using a discounted cash flow approach using broker-provided indications of market pricing spreads to develop an appropriate discount rate.

### Valuation Governance

Most of the Company's assets, its Asset-backed financing of a VIE, Interest-only security payable and Derivative liabilities are carried at fair value with changes in fair value recognized in current period income. A substantial portion of these items are "Level 3" fair value assets and liabilities which require the use of unobservable inputs that are significant to the estimation of the fair values of the assets and liabilities. Unobservable inputs reflect the Manager's own judgments about the factors that market participants use in pricing an asset or liability, and are based on the best information available under the circumstances.

Due to the difficulty in estimating the fair values of "Level 3" fair value assets and liabilities, the Manager has assigned responsibility for estimating fair value of these assets and liabilities to specialized staff and subjects the valuation process to significant senior management oversight. PFSI's Financial Analysis and Valuation group (the "FAV group") is responsible for estimating the fair values of "Level 3" fair value assets and liabilities other than IRLCs and maintaining its valuation policies and procedures. The fair value of the Company's IRLCs is developed by the Manager's Capital Markets Risk Management staff and is reviewed by the Manager's Capital Markets Operations group.



With respect to the non-IRLC “Level 3” valuations, the FAV group reports to PFSI’s senior management valuation committee, which oversees the valuations. The FAV group monitors the models used for valuation of the Company’s “Level 3” fair value assets and liabilities, including the models’ performance versus actual results, and reports those results to PFSI’s senior management valuation committee. PFSI’s senior management valuation committee includes the Company’s executive chairman, chief executive, chief financial, chief risk and deputy chief financial officers.

The FAV group is responsible for reporting to PFSI’s senior management valuation committee on the changes in the valuation of the non-IRLC “Level 3” fair value assets and liabilities, including major factors affecting the valuation and any changes in model methods and inputs. To assess the reasonableness of its valuations, the FAV group presents an analysis of the effect on the valuation of changes to the significant inputs to the models.

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## Valuation Techniques and Inputs

The following is a description of the techniques and inputs used in estimating the fair values of “Level 2” and “Level 3” fair value assets and liabilities:

### Mortgage-Backed Securities

The Company categorizes its current holdings of MBS as “Level 2” fair value assets. Fair value of these MBS is established based on quoted market prices for the Company’s MBS holdings or similar securities. Changes in the fair value of MBS are included in Net gain (loss) on investments in the consolidated statements of income.

### Mortgage Loans

Fair value of mortgage loans is estimated based on whether the mortgage loans are saleable into active markets:

✦ Mortgage loans that are saleable into active markets, comprised of most of the Company’s mortgage loans acquired for sale at fair value and all of the mortgage loans at fair value held in a VIE, are categorized as “Level 2” fair value assets. For mortgage loans acquired for sale, the fair values of mortgage loans acquired for sale at fair value are established using their quoted market or contracted price or market price equivalent. For the mortgage loans at fair value held in a VIE, the quoted fair values of all of the individual securities issued by the securitization trust are used to derive a fair value for the mortgage loans. The Company obtains indications of fair value from nonaffiliated brokers based on comparable securities and validates the brokers’ indications of fair value using pricing models and inputs the Manager believes are similar to the models and inputs used by other market participants.

✦ Mortgage loans that are not saleable into active markets, comprised primarily of distressed mortgage loans, are categorized as “Level 3” fair value assets and their fair values are estimated using a discounted cash flow approach. Inputs to the discounted cash flow model include current interest rates, loan amount, payment status, property type, discount rates and forecasts of future interest rates, home prices, prepayment speeds, default speeds, loss severities or contracted selling price when applicable.

Changes in fair value attributable to changes in instrument-specific credit risk are measured by the effect on fair value of the change in the respective mortgage loan’s delinquency status and performance history at period-end from the later of the beginning of the period or acquisition date.

The significant unobservable inputs used in the fair value measurement of the Company’s mortgage loans at fair value are discount rate, home price projections, voluntary prepayment speeds and default speeds. Significant changes in any of those inputs in isolation could result in a significant change to the mortgage loans’ fair value measurement. Increases in home price projections are generally accompanied by an increase in voluntary prepayment speeds. Changes in the fair value of mortgage loans at fair value are included in Net gain (loss) on investments in the consolidated statements of income.

Following is a quantitative summary of key inputs used in the valuation of the Company’s “Level 3” mortgage loans at fair value:

Key inputs (1)	December 31, 2018	December 31, 2017
Discount rate		
Range	2.8% – 19.6%	2.9% – 15.0%
Weighted average	12.0%	6.9%
Twelve-month projected housing price index change		
Range	3.1% – 3.7%	3.6% – 4.6%

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Weighted average	3.4%	4.4%
Voluntary prepayment speed (2)		
Range	0.9% – 8.3%	3.2% – 11.0%
Weighted average	3.2%	4.2%
Total prepayment speed (3)		
Range	8.3% – 22.0%	10.8% – 23.8%
Weighted average	18.3%	16.5%

(1) Weighted average inputs are based on fair value amounts of the mortgage loans.

(2) Prepayment speed is measured using Life Voluntary Conditional Prepayment Rate (“CPR”).

(3) Total prepayment speed is measured using Life Total CPR.

Excess Servicing Spread Purchased from PFSI

The Company categorizes ESS as a “Level 3” fair value asset. The Company uses a discounted cash flow approach to estimate the fair value of ESS. The key inputs used in the estimation of the fair value of ESS include pricing spread (discount rate) and prepayment speed. Significant changes to those inputs in isolation may result in a significant change in the ESS fair value measurement. Changes in these key inputs are not necessarily directly related. Changes in the fair value of ESS are included in Net gain (loss) on investments in the consolidated statements of income.

Following are the key inputs used in determining the fair value of ESS:

Key inputs (1)	December 31, 2018	December 31, 2017
UPB of underlying mortgage loans (in thousands)	\$ 23,196,033	\$ 27,217,199
Average servicing fee rate (in basis points)	34	34
Average ESS rate (in basis points)	19	19
Pricing spread (2)		
Range	2.8% - 3.2%	3.8% - 4.3%
Weighted average	3.1%	4.1%
Annual total prepayment speed (3)		
Range	8.2% - 29.5%	8.4% - 41.4%
Weighted average	9.7%	10.8%
Life (in years)		
Range	1.6 - 7.6	1.4 - 7.7
Weighted average	6.8	6.5

(1) Weighted average inputs are based on UPB of underlying amounts of mortgage loans.

(2) Pricing spread represents a margin that is applied to a reference interest rate’s forward rate curve to develop periodic discount rates. The Company applies a pricing spread to the United States Dollar London Interbank Offered Rate (“LIBOR”) curve for purposes of discounting cash flows relating to ESS.

(3) Prepayment speed is measured using Life Total CPR.

Derivative Financial Instruments

Interest Rate Lock Commitments

The Company categorizes IRLCs as “Level 3” fair value assets and liabilities. The Company estimates the fair value of IRLCs based on quoted Agency MBS prices, its estimate of the fair value of the MSR it expects to receive in the sale of the mortgage loan and the probability that the mortgage loan will be purchased under the commitment (the “pull-through rate”).

The significant unobservable inputs used in the fair value measurement of the Company’s IRLCs are the pull-through rate and the MSR component of the Company’s estimate of the fair value of the mortgage loans it has committed to purchase. Significant changes in the pull-through rate or the MSR component of the IRLCs, in isolation, may result in a significant change in the IRLCs’ fair value. The financial effects of changes in these inputs are generally inversely correlated as increasing interest rates have a positive effect on the fair value of the MSR component of IRLC fair

value, but also increase the pull-through rate for the mortgage loan principal and interest payment cash flow component that has decreased in fair value. Changes in fair value of IRLCs are included in Net gain on mortgage loans acquired for sale and may also be included in Net mortgage loan servicing fees – from nonaffiliates when the Manager includes IRLCs in its MSR hedging activities in the consolidated statements of income.

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Following is a quantitative summary of key unobservable inputs used in the valuation of IRLCs:

Key inputs (1)	December 31, 2018	December 31, 2017
<b>Pull-through rate</b>		
Range	45.4% - 100%	58.0% - 100%
Weighted average	91.8%	90.3%
<b>MSR value expressed as Servicing fee multiple</b>		
Range	2.4 - 5.6	2.1 - 5.8
Weighted average	4.3	4.9
<b>Percentage of UPB</b>		
Range	0.6% - 3.6%	0.0% - 2.4%
Weighted average	2.2%	1.3%

(1) Weighted average inputs are based on committed amounts.

#### CRT Agreements

The Company categorizes CRT Agreement derivatives as “Level 3” fair value assets. The fair value of CRT Agreements is established based on whether the aggregation period has been completed and the CRT Agreements have been securitized:

For securitized CRT Agreements, fair value is based on indications of fair value provided to the Company by nonaffiliated brokers for the certificates representing the beneficial interest in CRT Agreements which include the deposits securing the CRT Agreements, the Recourse Obligations and the IO ownership interest. Together, the Recourse Obligations and the IO ownership comprise the CRT Agreement derivative. Fair value of the CRT Agreement derivative is derived by deducting the balance of the Deposits securing CRT Agreements from the indication of fair value of the certificates provided by the nonaffiliated brokers.

For CRT Agreements that have not been securitized, fair value is estimated using a discounted cash flow analysis. The significant unobservable inputs into the valuation of CRT Agreement derivatives are the discount rate and voluntary involuntary prepayment speeds of the reference mortgage loans. Changes in fair value of CRT Agreements are included in Net gain (loss) on investments.

Following is a quantitative summary of key unobservable inputs used in the valuation of non-securitized CRT Agreements and the review and approval of broker-provided fair values for securitized CRT Agreements. At December 31, 2018, all CRT Agreements held by the Company were securitized:

Key inputs (1)	December 31, 2018	December 31, 2017
<b>Discount rate</b>		
Range	6.6% – 7.5%	5.1% – 6.2%
Weighted average	7.3%	5.6%
<b>Voluntary prepayment speed (2)</b>		
Range	9.0% – 10.6%	12.1% – 15.0%

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Weighted average	9.9%	13.0%
Involuntary prepayment speed (3)		
Range	0.2% – 0.2%	0.3% – 0.3%
Weighted average	0.2%	0.3%
Remaining loss expectation (4)		
Range	0.1% – 0.2%	0.1% – 0.3%
Weighted average	0.2%	0.2%

(1) Weighted average inputs are based on fair value amounts of the CRT Agreements.

(2) Voluntary prepayment speed is measured using Life Voluntary CPR.

(3) Involuntary prepayment speed is measured using Life Involuntary CPR.

(4) Remaining loss expectation is measured as expected future contractual losses divided by UPB of reference mortgage loans.

### Repurchase Agreement Derivatives

The Company has a master repurchase agreement that includes incentives for financing mortgage loans approved for satisfying certain consumer relief characteristics. These incentives are classified as embedded derivatives for accounting purposes and are accounted for separate from the repurchase agreements. The significant unobservable inputs into the valuation of these derivative assets are the discount rate and the expected approval rate of the mortgage loans financed under the master repurchase agreement. The resulting ratio included in the Company's fair value estimate was 97% at both December 31, 2018 and December 31, 2017. Changes in fair value of repurchase agreement derivatives are included in Interest expense in the consolidated statements of income. The Company classifies repurchase agreement derivatives as "Level 3" fair value assets.

### Hedging Derivatives

Fair values of derivative financial instruments based on exchange traded market prices are categorized by the Company as "Level 1" fair value assets and liabilities; fair values of derivative financial instruments based on observable interest rates, volatilities and prices in the MBS market are categorized by the Company as "Level 2" fair value assets and liabilities. Changes in the fair value of hedging derivatives are included in Net gain on mortgage loans acquired for sale, Net gain (loss) on investments, or Net mortgage loan servicing fees, as applicable, in the consolidated statements of income.

### Firm commitment to purchase CRT securities

The Company categorizes its firm commitment to purchase CRT securities as a "Level 3" fair value asset. The fair value of the firm commitment is estimated using a discounted cash flow approach to estimate the fair value of the CRT securities to be purchased less the contractual purchase price. Key inputs used in the estimation of fair value of the firm commitment are the discount rate and the voluntary and involuntary prepayment speeds of the reference mortgage loans. The firm commitment to purchase CRT securities is recognized initially as a component of Gain on sale of mortgage loans acquired for sale. Subsequent changes in fair value are recorded in Net gain (loss) on investments.

Following is a quantitative summary of key unobservable inputs in the valuation of firm commitment to purchase CRT securities:

Key inputs (1)	December 31, 2018
Discount rate	7.9%
Voluntary prepayment speed (2)	12.4%
Involuntary prepayment speed (3)	0.1%
Remaining loss expectation (4)	0.1%

- (1) Weighted average inputs are based on the UPB of underlying mortgage loans.
- (2) Voluntary prepayment speed is measured using Life Voluntary CPR.
- (3) Involuntary prepayment speed is measured using Life Involuntary CPR.
- (4) Remaining loss expectation is measured as expected future contractual losses divided by UPB of reference mortgage loans.

### Real Estate Acquired in Settlement of Loans



REO is measured based on its fair value on a nonrecurring basis and is categorized as a “Level 3” fair value asset. Fair value of REO is established by using a current estimate of fair value from a broker’s price opinion or a full appraisal, or the price given in a pending contract of sale.

REO fair values are reviewed by PFSI’s staff appraisers when the Company obtains multiple indications of fair value and there is a significant difference between the fair values received. PFSI’s staff appraisers will attempt to resolve the difference between the indications of fair value. In circumstances where the appraisers are not able to generate adequate data to support a fair value conclusion, the staff appraisers will order an additional appraisal to determine fair value. Recognized changes in the fair value of REO are included in Results of real estate acquired in settlement of loans in the consolidated statements of income.

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Mortgage Servicing Rights

MSRs are categorized as “Level 3” fair value assets. The Company uses a discounted cash flow approach to estimate the fair value of MSRs. The key inputs used in the estimation of the fair value of MSRs include the applicable pricing spread, the prepayment and default rates of the underlying mortgage loans, and annual per-loan cost to service mortgage loans, all of which are unobservable. Significant changes to any of those inputs in isolation could result in a significant change in the MSR fair value measurement. Changes in these key inputs are not necessarily directly related. Recognized changes in the fair value of MSRs are included in Net mortgage loan servicing fees in the consolidated statements of income.

MSRs are generally subject to loss in fair value when mortgage interest rates decrease. Decreasing mortgage interest rates normally encourage increased mortgage refinancing activity. Increased refinancing activity reduces the expected life of the underlying mortgage loans, thereby reducing the cash flows expected to accrue to the MSRs. Reductions in the fair value of MSRs affect income primarily through change in fair value and change in impairment. Through December 31, 2017, the Company accounted for certain of its MSRs using the amortization method. Beginning January 1, 2018 and prospectively, the Company accounts for all existing classes of MSRs at fair value.

Following are the key inputs used in determining the fair value of MSRs at the time of initial recognition:

	Year ended December 31,				
	2018	2017		2016	
	Fair	Fair	Amortized	Fair	Amortized
	value	value	cost	value	cost
	(MSR recognized and UPB of underlying mortgage loan amounts in thousands)				
MSR recognized	\$356,755	\$41,379	\$248,930	\$7,337	\$267,755
Key inputs (1)					
UPB of underlying mortgage loans	\$28,923,523	\$3,724,642	\$19,982,686	\$752,850	\$22,068,577
Weighted average annual servicing fee rate (in basis points)	26	25	25	26	25
Pricing spread (2)					
Range				7.2% –	
	5.8% – 12.9%	7.6% – 7.6%	7.6% – 12.6%	7.6%	7.2% – 12.6%
Weighted average	6.9%	7.6%	7.6%	7.3%	7.5%
Annual total prepayment speed (3)					
Range		7.9% –		7.2% –	
	3.2% – 35.3%	29.5%	3.2% – 31.1%	38.0%	3.3% – 49.2%
Weighted average	9.9%	10.7%	8.0%	14.5%	8.3%
Life (in years)					
Range	2.3 – 11.9	2.8 – 8.5	2.6 – 11.9	2.0 – 9.4	1.4 – 12.3
Weighted average	7.6	7.3	8.3	5.9	8.0
Annual per-loan cost of servicing					
Range	\$77 – \$79	\$79 – \$79	\$79 – \$79	\$68 – \$82	\$68 – \$79
Weighted average	\$79	\$79	\$79	\$73	\$77

(1)

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Weighted average inputs are based on UPB of the underlying mortgage loans.

(2) The Company applies a pricing spread to the United States Dollar LIBOR curve for purposes of discounting cash flows relating to MSRs.

(3) Prepayment speed is measured using Life Total CPR.

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Following is a quantitative summary of key inputs used in the valuation of MSRs as of the dates presented, and the effect on the fair value from adverse changes in those inputs:

	December 31, 2018	December 31, 2017	
	Fair	Fair	Amortized
	value	value	cost
	(Carrying value, UPB of underlying mortgage loans and effect on fair value amounts in thousands)		
Carrying value	\$1,162,369	\$91,459	\$753,322
Key inputs (1):			
UPB of underlying mortgage loans	\$92,410,226	\$8,273,696	\$63,853,606
Weighted average annual servicing fee rate (in basis points)	25	25	25
Weighted average note interest rate	4.2%	4.7%	3.9%
Pricing spread (2)			
Range		7.6% –	
	5.7% – 10.7%	12.6%	7.6% – 13.1%
Weighted average	5.8%	7.6%	7.6%
Effect on fair value of (3):			
5% adverse change	\$(13,872)	\$(1,347)	\$(11,848)
10% adverse change	\$(27,428)	\$(2,655)	\$(23,352)
20% adverse change	\$(53,626)	\$(5,162)	\$(45,379)
Prepayment speed (4)			
Range		7.3% –	
	8.1% – 27.1%	20.9%	7.1% – 27.1%
Weighted average	9.8%	11.1%	8.4%
Life (in years)			
Range	2.7 - 7.3	3.1 - 6.8	2.9 - 8.0
Weighted average	7.1	6.8	7.6
Effect on fair value of (3):			
5% adverse change	\$(21,661)	\$(1,954)	\$(12,267)
10% adverse change	\$(42,458)	\$(3,827)	\$(24,120)
20% adverse change	\$(81,660)	\$(7,352)	\$(46,668)
Annual per-loan cost of servicing			
Range	\$77 – \$78	\$77 – \$79	\$78 – \$79
Weighted average	\$78	\$79	\$79
Effect on fair value of (3):			
5% adverse change	\$(8,298)	\$(744)	\$(5,721)
10% adverse change	\$(16,597)	\$(1,488)	\$(11,441)
20% adverse change	\$(33,194)	\$(2,976)	\$(22,883)

(1) Weighted average inputs are based on the UPB of underlying mortgage loans.

- (2) The Company applies a pricing spread to the United States Dollar LIBOR curve for purposes of discounting cash flows relating to MSR.
- (3) For MSRs carried at fair value, an adverse change in one of the above-mentioned key inputs is expected to result in a recognized reduction in fair value which would be recorded in income. For MSRs carried at lower of amortized cost or fair value, an adverse change in one of the above-mentioned key inputs may have resulted in recognition of MSR impairment. The extent of the recognized MSR impairment depended on the relationship of fair value to the carrying value of such MSRs immediately before the adverse change took place.
- (4) Prepayment speed is measured using Life Total CPR.

The preceding sensitivity analyses are limited in that they were performed as of a particular date; only account for the estimated effect of the movements in the indicated inputs; do not incorporate changes in the inputs in relation to other inputs; are subject to the accuracy of the models and inputs used; and do not incorporate other factors that would affect the Company's overall financial performance in such events, including operational adjustments made by the Manager to account for changing circumstances. For these reasons, the preceding estimates should not be viewed as earnings forecasts.

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Note 7—Mortgage Backed Securities

Following is a summary of MBS:

	December 31, 2018				December 31, 2017			
	Principal balance (in thousands)	Unamortized purchase premiums	Accumulated valuation changes	Fair value	Principal balance	Unamortized purchase premiums	Accumulated valuation changes	Fair value
Agency: (1)								
Fannie Mae	\$2,050,769	\$ 39,488	\$ (14,920 )	\$2,075,337	\$774,473	\$ 30,355	\$ (7,975 )	\$796,853
Freddie Mac	530,734	6,702	(2,351 )	535,085	187,127	3,518	1,963	192,608
	\$2,581,503	\$ 46,190	\$ (17,271 )	\$2,610,422	\$961,600	\$ 33,873	\$ (6,012 )	\$989,461

(1) All MBS are fixed-rate pass-through securities with maturities of more than ten years. All MBS are pledged to secure Assets sold under agreements to repurchase at both December 31, 2018 and December 31, 2017.

Note 8—Mortgage Loans Acquired for Sale at Fair Value

Mortgage loans acquired for sale at fair value is comprised of recently originated mortgage loans purchased by the Company for resale. Following is a summary of the distribution of the Company's mortgage loans acquired for sale at fair value:

Loan type	December 31, 2018	December 31, 2017
	(in thousands)	
Agency-eligible	\$1,495,954	\$ 971,910
Held for sale to PLS — Government insured or guaranteed	86,308	279,571
Jumbo	44,221	—
Commercial real estate	8,559	9,898
Repurchased pursuant to representations and warranties	8,915	8,136
	\$1,643,957	\$ 1,269,515
Mortgage loans pledged to secure:		
Assets sold under agreements to repurchase	\$1,436,437	\$ 1,201,992
Mortgage loan participation purchase and sale agreements	185,442	47,285
	\$1,621,879	\$ 1,249,277

The Company is not approved by Ginnie Mae as an issuer of Ginnie Mae-guaranteed securities which are backed by government-insured or guaranteed mortgage loans. The Company transfers government-insured or guaranteed

mortgage loans that it purchases from correspondent sellers to PLS, which is a Ginnie Mae-approved issuer, and earns a sourcing fee ranging from two to three and one-half basis points, generally based on the average number of calendar days that mortgage loans are held prior to purchase by PLS.

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Note 9—Mortgage Loans at Fair Value

Mortgage loans at fair value are comprised of mortgage loans that are not acquired for sale and, to the extent they are not held in a VIE securing an asset-backed financing, may be sold at a later date pursuant to the Manager’s determination that such a sale represents the most advantageous disposition strategy for the identified mortgage loan.

Following is a summary of the distribution of the Company’s mortgage loans at fair value:

Loan type	December 31, 2018		December 31, 2017	
	Fair value	Unpaid principal balance	Fair value	Unpaid principal balance
(in thousands)				
<b>Distressed mortgage loans:</b>				
Nonperforming	\$88,926	\$157,991	\$353,648	\$524,949
Performing	28,806	43,043	414,785	519,009
	117,732	201,034	768,433	1,043,958
<b>Fixed interest rate jumbo mortgage loans held in a VIE</b>	<b>290,573</b>	<b>294,617</b>	<b>321,040</b>	<b>316,684</b>
	\$408,305	\$495,651	\$1,089,473	\$1,360,642
<b>Mortgage loans at fair value pledged to secure:</b>				
Assets sold under agreements to repurchase	\$108,693		\$760,853	
Asset-backed financing of a VIE at fair value	290,573		321,040	
	\$399,266		\$1,081,893	

Following is a summary of certain concentrations by state of credit risk in the portfolio of distressed mortgage loans at fair value:

Concentration by State	December 31, 2018	December 31, 2017
States contributing 5% or more of mortgage loans	(percentages are of fair value)	
	New York	New York
	Florida	California
	California	New Jersey
	New Jersey	Florida
	Hawaii	Massachusetts
	Massachusetts	





## Note 10—Derivative Activities

## Derivative Notional Amounts and Fair Value of Derivatives

The Company had the following derivative assets and liabilities recorded within Derivative assets and Derivative liabilities and related margin deposits recorded in Other assets on the consolidated balance sheets:

Instrument	December 31, 2018			December 31, 2017		
	Notional amount (in thousands)	Fair value Derivative assets	Derivative liabilities	Notional amount	Fair value Derivative assets	Derivative liabilities
Derivatives not designated as hedging instruments:						
Not subject to master netting arrangements:						
CRT Agreements	29,934,003	\$123,987	\$—	26,845,392	\$98,640	\$—
Interest rate lock commitments	1,688,516	12,162	174	1,250,803	4,859	227
Repurchase agreement derivatives		14,511	—		3,748	—
Subject to master netting agreements used for hedging purposes:						
Forward purchase contracts	3,072,223	14,845	43	1,996,235	4,343	248
Forward sale contracts	4,595,241	13	29,273	2,565,271	387	2,830
MBS put options	2,550,000	218	—	2,375,000	3,170	—
MBS call options	500,000	945	—	—	—	—
Call options on interest rate futures	512,500	5,137	—	—	—	—
Put options on interest rate futures	1,102,500	178	—	550,000	656	—
Swap futures	—	—	—	275,000	—	—
Bond futures	815,000	—	—	—	—	—
Eurodollar future sale contracts	—	—	—	937,000	—	—
Total derivative instruments before netting		171,996	29,490		115,803	3,305
Netting		(4,831 )	(23,576 )		(1,922 )	(1,999 )
		\$167,165	\$5,914		\$113,881	\$1,306
Margin deposits placed with derivatives counterparties included in Other assets, net						
		\$18,744			\$76	
Derivative assets pledged to secure Assets sold						
		\$87,976			\$26,058	

The following tables summarize the notional amount activity for derivative contracts used for hedging purposes:

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Instrument	Year ended December 31, 2018			Amount, end of year
	Amount, beginning of year	Additions	Dispositions/ expirations	
	(in thousands)			
Forward purchase contracts	1,996,235	97,737,906	(96,661,918 )	3,072,223
Forward sales contracts	2,565,271	129,544,573	(127,514,603 )	4,595,241
MBS put options	2,375,000	9,575,000	(9,400,000 )	2,550,000
MBS call options	—	2,000,000	(1,500,000 )	500,000
Call options on interest rate futures	—	3,487,500	(2,975,000 )	512,500
Put options on interest rate futures	550,000	13,302,500	(12,750,000 )	1,102,500
Swap futures	275,000	—	(275,000 )	—
Bond futures	—	5,274,400	(4,459,400 )	815,000
Eurodollar future sale contracts	937,000	149,597	(1,086,597 )	—

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Instrument	Year ended December 31, 2017			
	Amount, beginning of year (in thousands)	Additions	Dispositions/ expirations	Amount, end of year
Forward purchase contracts	4,840,707	71,768,061	(74,612,533 )	1,996,235
Forward sales contracts	6,148,242	95,889,432	(99,472,403 )	2,565,271
MBS put options	925,000	9,225,000	(7,775,000 )	2,375,000
MBS call options	750,000	550,000	(1,300,000 )	—
Call options on interest rate futures	200,000	825,000	(1,025,000 )	—
Put options on interest rate futures	550,000	7,150,000	(7,150,000 )	550,000
Swap futures	150,000	1,650,000	(1,525,000 )	275,000
Eurodollar future sale contracts	1,351,000	404,000	(818,000 )	937,000
Treasury future buy contracts	—	110,700	(110,700 )	—
Treasury future sale contracts	—	110,700	(110,700 )	—

Instrument	Year ended December 31, 2016			
	Amount, beginning of year (in thousands)	Additions	Dispositions/ expirations	Amount, end of year
Forward purchase contracts	2,469,550	73,269,440	(70,898,283 )	4,840,707
Forward sales contracts	2,450,642	99,737,855	(96,040,255 )	6,148,242
MBS put options	375,000	12,400,000	(11,850,000 )	925,000
MBS call options	—	750,000	—	750,000
Call options on interest rate futures	50,000	4,425,000	(4,275,000 )	200,000
Put options on interest rate futures	1,600,000	7,445,000	(8,495,000 )	550,000
Swap futures	—	175,000	(25,000 )	150,000
Eurodollar future sale contracts	1,755,000	282,000	(686,000 )	1,351,000
Treasury future buy contracts	—	558,700	(558,700 )	—
Treasury future sale contracts	—	558,700	(558,700 )	—

### Netting of Financial Instruments

The Company has elected to net derivative asset and liability positions, and cash collateral placed with or received from its counterparties when subject to a legally enforceable master netting arrangement. The derivative financial instruments that are not subject to master netting arrangements are IRLCs, CRT Agreement derivatives and repurchase agreement derivatives. As of December 31, 2018 and December 31, 2017, the Company did not enter into reverse repurchase agreements or securities lending transactions that are required to be disclosed in the following tables.

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Offsetting of Derivative Assets

Following is a summary of net derivative assets.

	December 31, 2018			December 31, 2017		
	Gross amounts		Net amounts	Gross amounts		Net amounts
	of assets	offset in the consolidated balance sheet	of assets in the consolidated balance sheet	of assets	offset in the consolidated balance sheet	of assets in the consolidated balance sheet
	(in thousands)		(in thousands)	(in thousands)		(in thousands)
<b>Derivative assets</b>						
Not subject to master netting arrangements:						
CRT Agreement derivatives	\$ 123,987	\$ —	\$ 123,987	\$ 98,640	\$ —	\$ 98,640
Interest rate lock commitments	12,162	—	12,162	4,859	—	4,859
Repurchase agreement derivatives	14,511	—	14,511	3,748	—	3,748
	150,660	—	150,660	107,247	—	107,247
Subject to master netting arrangements:						
Forward purchase contracts	14,845	—	14,845	4,343	—	4,343
Forward sale contracts	13	—	13	387	—	387
MBS put options	218	—	218	3,170	—	3,170
MBS call options	945	—	945	—	—	—
Call options on interest rate futures	5,137	—	5,137	—	—	—
Put options on interest rate futures	178	—	178	656	—	656
Netting	—	(4,831 )	(4,831 )	—	(1,922 )	(1,922 )
	21,336	(4,831 )	16,505	8,556	(1,922 )	6,634
	\$ 171,996	\$ (4,831 )	\$ 167,165	\$ 115,803	\$ (1,922 )	\$ 113,881

Derivative Assets, Financial Instruments and Collateral Held by Counterparty

The following table summarizes by significant counterparty the amount of derivative asset positions after considering master netting arrangements and financial instruments or cash pledged that do not meet the accounting guidance qualifying for setoff accounting.

December 31, 2018	December 31, 2017
Gross amounts	Gross amounts



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Offsetting of Derivative Liabilities and Financial Liabilities

Following is a summary of net derivative liabilities and assets sold under agreements to repurchase. Assets sold under agreements to repurchase do not qualify for setoff accounting.

	December 31, 2018		Net	December 31, 2017		Net
	Gross	offset	amounts	Gross	offset	amounts
	amounts	in the	of liabilities	amounts	in the	of liabilities
	Gross	consolidated	presented	Gross	consolidated	presented
	amounts	balance	in the	amounts	balance	in the
	of	consolidated	consolidated	of	consolidated	consolidated
	recognized	sheet	balance	recognized	sheet	balance
	liabilities	sheet	sheet	liabilities	sheet	sheet
	(in thousands)					
<b>Derivative liabilities:</b>						
Not subject to master netting arrangements —						
Interest rate lock commitments	\$ 174	\$ —	\$ 174	\$ 227	\$ —	\$ 227
<b>Subject to master netting arrangements:</b>						
Forward purchase contracts	43	—	43	248	—	248
Forward sales contracts	29,273	—	29,273	2,830	—	2,830
Netting	—	(23,576 )	(23,576 )	—	(1,999 )	(1,999 )
	29,316	(23,576 )	5,740	3,078	(1,999 )	1,079
	29,490	(23,576 )	5,914	3,305	(1,999 )	1,306
<b>Assets sold under agreements to repurchase:</b>						
UPB	4,777,486	—	4,777,486	3,182,504	—	3,182,504
Unamortized debt issuance costs	(459 )	—	(459 )	(1,618 )	—	(1,618 )
	4,777,027	—	4,777,027	3,180,886	—	3,180,886
	\$ 4,806,517	\$ (23,576 )	\$ 4,782,941	\$ 3,184,191	\$ (1,999 )	\$ 3,182,192

Derivative Liabilities, Financial Liabilities and Collateral Pledged by Counterparty

The following table summarizes by significant counterparty the amount of derivative liabilities and assets sold under agreements to repurchase after considering master netting arrangements and financial instruments or cash pledged that do not meet the accounting guidance qualifying for setoff accounting. All assets sold under agreements to repurchase

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represent sufficient collateral or exceed the liability amount recorded on the consolidated balance sheet.

	December 31, 2018			December 31, 2017				
	Net amount of liabilities presented in the consolidated balance sheet (in thousands)	Gross amounts not offset in the consolidated balance sheet Financial instruments	Cash collateral pledged Net amount	Net amount of liabilities presented in the consolidated balance sheet	Gross amounts not offset in the consolidated balance sheet Financial instruments	Cash collateral pledged Net amount		
Interest rate lock commitments	\$ 174	\$—	\$ —	\$ 174	\$ 227	\$—	\$ —	\$ 227
J.P. Morgan Securities LLC	1,441,934	(1,441,934)	—	—	373,186	(373,186)	—	—
Bank of America, N.A.	1,307,923	(1,307,584)	—	339	839,057	(838,771)	—	286
Credit Suisse Securities (USA) LLC	512,662	(512,662)	—	—	845,567	(845,567)	—	—
Deutsche Bank Securities LLC	495,974	(495,974)	—	—	374,526	(374,526)	—	—
Mizuho Securities	270,708	(270,708)	—	—	3	—	—	3
Daiwa Capital Markets	254,332	(254,332)	—	—	153,833	(153,730)	—	103
BNP Paribas	162,636	(162,357)	—	279	45,411	(45,411)	—	—
Morgan Stanley & Co. LLC	105,366	(105,366)	—	—	164,530	(164,530)	—	—
Citigroup Global Markets Inc.	99,626	(98,644)	—	982	235,541	(235,319)	—	222
Wells Fargo Securities, LLC	70,130	(70,130)	—	—	50,360	(50,360)	—	—
RBC Capital Markets, L.P.	57,795	(57,795)	—	—	92,014	(91,805)	—	209
Barclays Capital Inc.	325	—	—	325	9,374	(9,299)	—	75
Other	3,815	—	—	3,815	181	—	—	181
	\$ 4,783,400	\$ (4,777,486)	\$ —	\$ 5,914	\$ 3,183,810	\$ (3,182,504)	\$ —	\$ 1,306

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Following are the net gains (losses) recognized by the Company on derivative financial instruments and the consolidated statements of income line items where such gains and losses are included:

Derivative activity	Income statement line	Year ended December 31,		
		2018	2017	2016
		(in thousands)		
Interest rate lock commitments	Net gain on mortgage loans acquired for sale	\$7,356	\$81,309	\$87,836
CRT agreements	Net gain (loss) on investments	\$112,275	\$134,761	\$32,500
Repurchase agreement derivatives	Interest expense	\$191	\$116	\$—
Hedged item:				
Interest rate lock commitments and mortgage loans acquired for sale	Net gain on mortgage loans acquired for sale	\$25,334	\$(31,245)	\$50,274
Mortgage servicing rights	Net mortgage loan servicing fees	\$(35,550)	\$(2,512)	\$2,271
Fixed-rate assets and LIBOR-				
indexed repurchase agreements	Net gain (loss) on investments	\$(4,152)	\$(18,468)	\$7,251

## Note 11—Real Estate Acquired in Settlement of Loans

Following is a summary of financial information relating to REO:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Balance at beginning of year	\$ 162,865	\$ 274,069	\$ 341,846
Transfers:			
From mortgage loans at fair value and			
advances	32,578	87,202	207,431
To real estate held for investment	(5,183 )	(16,530 )	(21,406 )
From real estate held for investment	3,401	—	—
Results of REO:			
Valuation adjustments, net	(17,323 )	(27,505 )	(36,193 )
Gain on sale, net	8,537	12,550	17,075
	(8,786 )	(14,955 )	(19,118 )
Sales	(99,194 )	(166,921)	(234,684)
Balance at end of year	\$ 85,681	\$ 162,865	\$ 274,069
At the end of year:			
REO pledged to secure assets sold under			
agreements to repurchase	\$ 1,939	\$ 76,037	
REO held in a consolidated subsidiary whose			
stock is pledged to secure financings of such			
properties	38,259	48,495	
	\$ 40,198	\$ 124,532	

## Note 12—Mortgage Servicing Rights

Carried at Fair Value:

Following is a summary of MSR's carried at fair value:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Balance at beginning of year	\$91,459	\$64,136	\$66,584
Transfer of mortgage servicing rights from			
mortgage servicing rights carried at lower of			
amortized cost or fair value pursuant to a			
change in accounting principle	773,035	—	—
Balance after reclassification	864,494	64,136	66,584
Purchases	—	79	2,739
Sales	(100 )	—	—
MSR's resulting from mortgage loan sales	356,755	41,379	7,337
Changes in fair value:			
Due to changes in valuation inputs used in			
valuation model (1)	60,772	(9,762 )	(3,210 )
Other changes in fair value (2)	(119,552 )	(4,373 )	(9,314 )
	(58,780 )	(14,135 )	(12,524 )
Balance at end of year	\$1,162,369	\$91,459	\$64,136
At the end of year:			
Fair value of mortgage servicing rights pledged to			
secure Assets sold under agreements to			
repurchase and Notes payable (3)	\$1,139,582	\$90,284	

(1) Principally reflects changes in pricing spread (discount rate) and prepayment speed inputs, primarily due to changes in market interest rates.

(2) Represents changes due to realization of expected cash flows.

(3) During 2018, beneficial interest in Fannie Mae MSR's are pledged as collateral for both Assets sold under agreements to repurchase and Notes payable as discussed in Note 16 – Notes Payable.

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Carried at Lower of Amortized Cost or Fair Value:

Following is a summary of MSR's carried at lower of amortized cost or fair value:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Amortized cost:</b>			
Balance at beginning of year	\$772,870	\$606,103	\$404,101
Transfer of mortgage servicing right to mortgage servicing rights carried at fair value pursuant to a change in accounting principle	(772,870)	—	—
Balance after reclassification	—	606,103	404,101
MSR's resulting from mortgage loan sales	—	248,930	267,755
Amortization	—	(81,624)	(65,647)
Sales	—	(539)	(106)
Balance at end of year	—	772,870	606,103
<b>Valuation allowance:</b>			
Balance at beginning of year	(19,548)	(13,672)	(10,944)
Reduction pursuant to a change in accounting principle	19,548	—	—
Balance after reclassification	—	(13,672)	(10,944)
Additions to valuation allowance	—	(5,876)	(2,728)
Balance at end of year	—	(19,548)	(13,672)
MSR's, net	\$—	\$753,322	\$592,431
Fair value at beginning of year	\$772,940	\$626,334	\$424,154
Fair value at end of year		\$772,940	\$626,334
<b>At the end of year:</b>			
<b>MSR's carried at lower of cost or fair value pledged to secure:</b>			
Assets sold under agreements to repurchase		\$584,762	
Notes payable		156,846	
		\$741,608	

Servicing fees relating to MSR's are recorded in Net mortgage loan servicing fees on the Company's consolidated statements of income and are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Contractually-specified servicing fees	\$204,663	\$164,776	\$125,961
Ancillary and other fees:			

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Late charges	974	718	570
Other	7,088	5,805	5,302
	\$212,725	\$171,299	\$131,833

Note 13—Assets Sold Under Agreements to Repurchase

Following is a summary of financial information relating to assets sold under agreements to repurchase:

	Year ended December 31,					
	2018		2017		2016	
	(dollars in thousands)					
Weighted average interest rate (1)	3.25	%	2.49	%	2.44	%
Average balance	\$3,901,772		\$3,332,084		\$3,382,528	
Total interest expense (2)	\$115,383		\$93,580		\$92,838	
Maximum daily amount outstanding	\$6,665,118		\$4,242,600		\$5,573,021	

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- (1) Excludes the effect of net amortization of debt issuance premiums of \$11.7 million for the year ended December 31, 2018 and net debt issuance costs of \$8.3 million for the year ended December 31, 2017 and \$8.8 million for the year ended December 31, 2016.
- (2) The Company's interest expense relating to assets sold under agreements to repurchase for the years ended December 31, 2018 and 2017 includes recognition of incentives it received for financing certain of its mortgage loans acquired for sale satisfying certain consumer debt relief characteristics under a master repurchase agreement. During the years ended December 31, 2018 and 2017, the Company recognized \$19.7 million and \$3.1 million, respectively, in such incentives as a reduction of interest expense. The master repurchase agreement is subject to a rolling six-month term through August 21, 2019, unless terminated earlier at the option of the lender. The Company expects that it will cease to accrue the incentives under the repurchase agreement in the second quarter of 2019.

	December 31,	
	2018	2017
	(dollars in thousands)	
<b>Carrying value:</b>		
Unpaid principal balance	\$4,777,486	\$3,182,504
Unamortized debt issuance premiums and (costs), net	(459 )	(1,618 )
	\$4,777,027	\$3,180,886
Weighted average interest rate	3.38	% 2.77
<b>Available borrowing capacity (1):</b>		
Committed	\$783,415	\$749,650
Uncommitted	2,325,246	2,030,607
	\$3,108,661	\$2,780,257
Margin deposits placed with counterparties included in Other assets	\$43,676	\$28,154
<b>Assets securing agreements to repurchase:</b>		
Mortgage-backed securities	\$2,610,422	\$989,461
Mortgage loans acquired for sale at fair value	\$1,436,437	\$1,201,992
Mortgage loans at fair value	\$108,693	\$760,853
<b>CRT Agreements:</b>		
Deposits securing CRT agreements	\$1,146,501	\$400,778
Derivative assets	\$87,976	\$26,058
Real estate acquired in settlement of loans	\$40,198	\$124,532
Real estate held for investment	\$23,262	\$31,128
MSRs (2)	\$1,139,582	\$651,575

- (1) The amount the Company is able to borrow under asset repurchase agreements is tied to the fair value of unencumbered assets eligible to secure those agreements and the Company's ability to fund the agreements' margin requirements relating to the assets financed.
- (2) During 2018, beneficial interests in Fannie Mae MSRs are pledged as collateral for both Assets sold under agreements to repurchase and Notes payable as discussed in Note 16 – Notes Payable.

Following is a summary of maturities of outstanding advances under repurchase agreements by maturity date:

	Contractual
Remaining maturity at December 31, 2018	balance