2018 ANNUAL REPORT

10 years of mortgage excellence.

PennyMac Financial Services, Inc. (NYSE: PFSI) is a specialty financial services firm with a comprehensive mortgage platform and integrated business focused on the production and servicing of U.S. mortgage loans and the management of investments related to the U.S. mortgage market.

PennyMac was founded in 2008 by members of our executive leadership team and two strategic partners, BlackRock Mortgage Ventures, LLC and HC Partners, LLC. Since our founding, we have pursued opportunities to acquire, originate and manage mortgage loans and mortgage-related assets and established what we believe to be a best-in-class mortgage platform.

We manage PennyMac Mortgage Investment Trust (NYSE: PMT), a publicly-traded mortgage real estate investment trust (REIT). PMT is a tax-efficient vehicle for investing in mortgage-related assets and has a successful track record of deploying capital in mortgage-related investments.

Dear Fellow Stockholders,

We marked the tenth anniversary of PennyMac Financial in 2018 with solid performance that resulted from our resilient and comprehensive mortgage platform and our ability to successfully address a challenging U.S. mortgage market. The market environment in 2018 was characterized by higher rates, heightened competition, and lower total mortgage origination volumes. We produced net revenue of $985 million, up 3 percent from the prior year while pretax income of $268 million declined from $336 million a year ago. Diluted earnings per share were $2.59 in 2018, compared to $4.03 per share in the prior year, both of which included a benefit of $0.20 per share and $1.79 per share, respectively, resulting from the remeasurement of tax-related items. Key to these strong financial results was the growth of our servicing portfolio to nearly $300 billion in unpaid principal balance, or UPB, which generated pretax earnings of $172 million, up from $59 million in 2017 and substantially offsetting a decline in our production segment pretax earnings which totaled $87 million this year. Our pretax return on shareholders' equity was 15 percent in 2018 and notably, our book value per share increased to $21.34, reflecting a compounded annual growth rate of 22 percent over the five years since our initial public offering in 2013.

Underpinning our strong performance is our high-quality balance sheet, broad and diverse sources of liquidity to finance our daily operations and low reliance on debt relative to our competitors. Last year we told you about a securitization structure we put in place to provide financing for PennyMac Financial's largest asset, Ginnie Mae mortgage servicing rights, or MSRs. This year we successfully refinanced the outstanding secured notes from this vehicle, significantly lowering our borrowing costs and raising incremental new capital, while extending the average maturity. Our platform is strengthened by our well-developed and sophisticated risk management structure that incorporates extensive market expertise and technology to identify and monitor risks across the enterprise. Moreover, our strong performance is supported by our more than 3,000 employees who embrace our core culture of being Accountable, Reliable and Ethical in all that we do.

In November 2018, we successfully completed a corporate reorganization transaction that converted all equity ownership of the Company into a single class of publicly-traded common stock, which continues to trade on the New York Stock Exchange under the ticker "PFSI." This transaction eliminated the allocation of income and equity between different classes of stockholders, and now all equity holders are represented by a single class of common stock. The result greatly simplifies the reporting of our financial results and facilitates better understanding of the Company's performance by investors and analysts, with earnings and book value per share calculations more comparable to our peers. With the completion of this transaction, PFSI's market capitalization increased from approximately $500 million to $1.5

billion, providing improved transparency into the strength of our capital foundation. We also believe that the reorganization may lead to expanded eligibility for inclusion in certain broader stock market indices over time. Taken as a whole, these factors have the potential to expand our investor universe and demand for the Company's stock.

PennyMac Financial produced new residential mortgage loans totaling $68 billion in UPB, essentially unchanged from the prior year. Our ability to profitably maintain production volumes while the mortgage market as a whole declined 10 percent from the prior year is a remarkable achievement. Driving these results was continued focus on our correspondent seller network, ongoing emphasis on purchase-money loans which represented over 80 percent of our correspondent production activity for the year and an increase in conventional conforming mortgage production enabled by our unique execution capabilities and partnership with PennyMac Mortgage Investment Trust (NYSE: PMT), the residential mortgage REIT that we manage. We also introduced our broker-direct lending channel, providing us with access to all significant production channels in the U.S. mortgage origination market. Our servicing portfolio reached 1.5 million customers and totaled $299 billion in UPB at December 31, 2018, up 22 percent from the same period a year ago, driven by our mortgage production activities in addition to $18 billion in UPB of bulk MSR acquisitions from third parties. We ended 2018 as the third largest producer of residential mortgages in the U.S. during the fourth quarter and we remained the 8th largest servicer of residential mortgages in the U.S. according to *Inside Mortgage Finance*.

2018 also marked a successful year for our Investment Management segment, as PMT's strong performance placed it among the top performing residential mortgage REIT stocks in 2018. Through the operational capabilities of PennyMac Financial, PMT invests in attractive credit risk transfer, or CRT, and MSR investments sourced from its conventional conforming loan production. PMT's ability to generate its own investments makes it truly unique among mortgage REITs, and the synergistic partnership between the two companies provides each with distinct competitive advantages by uniting the industry-leading operating platform of PennyMac Financial with PMT's ability to hold attractive residential mortgage investments as a tax-efficient, permanent capital vehicle. In light of PMT's outlook for strong growth of its CRT and MSR investments during 2019 and beyond, PMT raised approximately $145 million in gross proceeds from an issuance of 7 million of its common shares in an underwritten equity offering in February this year.

To further our success and evolve our business activities as consumer demand for mortgage financing evolves, we are pursuing initiatives across each of our production channels to develop new products. Earlier this year, we launched a new home equity line of credit, or HELOC, product in our consumer direct lending channel to offer customers in our servicing portfolio a flexible way to tap into the equity in their home for a variety of expenditures or debt consolidation. We also launched a prime non-qualified mortgage, or non-QM, loan product in the correspondent channel that utilizes a technology-based underwriting solution. The non-QM market has nearly doubled each of the last two years and is expected to continue its robust growth trajectory for the foreseeable future. These products expand our loan offerings and allow us to serve a greater number of consumers in the marketplace, while also providing opportunities for PMT to invest in the credit risk tranches of future securitizations.

Critical to the long-term success and competitive advantage of PennyMac Financial is our continued investment in the development and utilization of technology. Throughout the

Company's history, we have implemented technology to improve and streamline operations across the enterprise. Our strategy involves a combination of systems developed in-house alongside third-party technology with an emphasis on deploying innovative mortgage banking systems that drive cost savings, realize scale efficiencies and facilitate new business opportunities. Some examples from 2018 include ongoing enhancements to our consumer direct portal and the launch of our broker direct portal called POWER. We continued to develop automated "back office" workflow technologies to drive sustainable cost advantages, and we also continued to deploy servicing system enhancement modules as part of our multi-year plan to capture greater economies of scale and efficiencies from our servicing system platform. We expect the servicing system enhancement project to drive meaningful long-term cost savings. We are also working to strengthen the already robust capabilities of our enterprise risk management function through the development of a comprehensive risk intelligence system that will enhance risk monitoring across the organization and strengthen our ability to identify and mitigate risks as they emerge.

As we enter 2019, we are well-positioned to capitalize on new opportunities in this ever-changing U.S. mortgage origination market and already this year have completed the acquisition of new servicing portfolios totaling $17 billion in UPB. We are pleased with our results in 2018, and we remain optimistic about our future. Our employees and our leadership team remain committed to profitably managing our growth and maintaining the respected leadership position we have built over the past 11 years as an organization. We thank you, our customers and stakeholders, for your continued support and confidence in PennyMac Financial.

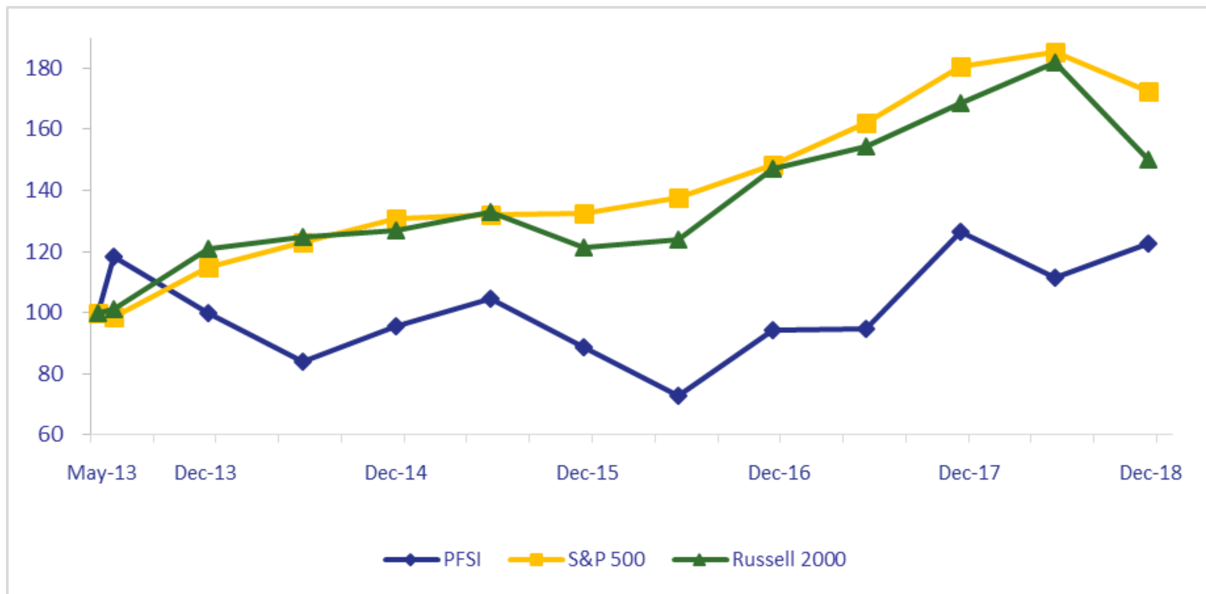
Sincerely,

Stanford L. Kurland
Executive Chairman
April 17, 2019

David A. Spector
President and Chief Executive Officer
April 17, 2019

STOCK PERFORMANCE GRAPH

The following graph and table describe certain information comparing the cumulative total return on our Class A common stock to the cumulative total return of the S&P 500 Index and the Russell 2000 Index. The comparison period is from May 8, 2013, the day our Class A common stock commenced trading on the NYSE, to December 31, 2018, and the calculation assumes reinvestment of any dividends. The graph and table illustrate the value of a hypothetical investment in our Class A common stock and the two other indices on May 8, 2013.



	5/8/13	12/31/13	12/31/14	12/31/15	12/31/16	12/29/17	12/31/18
PFSI	100	100	96	89	94	127	123
S&P 500	100	115	131	132	148	181	173
Russell 2000	100	121	127	121	147	169	150

Source: S&P Global Market Intelligence

The information in the performance graph and table has been obtained from sources believed to be reliable, but neither its accuracy nor its completeness can be guaranteed. The historical information set forth above is not necessarily indicative of future performance. Accordingly, we do not make or endorse any predictions as to future share performance. The share performance graph and table shall not be deemed, under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, to be (i) “soliciting material” or “filed” or (ii) incorporated by reference by any general statement into any filing made by us with the Securities and Exchange Commission, except to the extent that we specifically incorporate such share performance graph and table by reference.

CORPORATE INFORMATION

Corporate Offices
3043 Townsgate Road
Westlake Village, CA 91361
(818) 264-4907
www.ir.pennymacfinancial.com

2019 Annual Meeting
The 2019 Annual Meeting of Stockholders will be held at 11:00 a.m. PDT on May 30, 2018, at 3043 Townsgate Road, Westlake Village, CA 91361.

Independent Registered Public Accounting Firm
Deloitte & Touche LLP
Los Angeles, CA

Market Data of PennyMac Financial Services, Inc.
Common Stock
Traded: New York Stock Exchange
Symbol: PFSI

Transfer Agent
Computershare Shareowner Services LLC
Jersey City, NJ

Pursuant to Rule 303A.12 of the New York Stock Exchange Listed Companies Manual, each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the company of NYSE corporate governance listing standards. David A. Spector's annual CEO certification regarding the NYSE's corporate governance listing standards was submitted to the NYSE on June 29, 2018.

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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: 001-38727

PennyMac Financial Services, Inc.

(formerly known as New PennyMac Financial Services, Inc.)

(Exact name of registrant as specified in its charter)

Delaware	**83-1098934**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
3043 Townsgate Road, Westlake Village, California	**91361**
(Address of principal executive offices)	(Zip Code)

(818) 224-7442

(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
Common Stock, $0.0001 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 Stock, $0.0001 par value ("common stock"), held by non-affiliates was $412,801,482 based on the closing price as reported on the New York Stock Exchange on that date.

As of February 28, 2019, the number of outstanding shares of common stock of the registrant was 77,534,715.

Documents Incorporated by Reference

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

PENNYMAC FINANCIAL SERVICES, INC.
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," "could," "project," "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 as set forth in Item IA. of Part I hereof 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:

- the continually changing federal, state and local laws and regulations applicable to the highly regulated industry in which we operate;
- our ability to manage third-party service providers and vendors and their compliance with laws, regulations and investor requirements;
- lawsuits or governmental actions if we do not comply with the laws and regulations applicable to our businesses;
- the mortgage lending and servicing-related regulations promulgated by the Consumer Financial Protection Bureau ("CFPB") and its enforcement of these regulations;
- our dependence on U.S. government-sponsored entities and changes in their current roles or their guarantees or guidelines;
- changes to government mortgage modification programs;
- certain banking regulations that may limit our business activities;
- foreclosure delays and changes in foreclosure practices;

- the licensing and operational requirements of states and other jurisdictions applicable to our businesses, to which our bank competitors are not subject;
- changes in macroeconomic and U.S. real estate market conditions;
- difficulties inherent in growing loan production volume;
- difficulties inherent in adjusting the size of our operations to reflect changes in business levels;
- any required additional capital and liquidity to support business growth that may not be available on acceptable terms, if at all;
- changes in prevailing interest rates;
- increases in loan delinquencies and defaults;
- our reliance on PennyMac Mortgage Investment Trust ("PMT") as a significant source of financing for, and revenue related to, our mortgage banking business;
- our obligation to indemnify third-party purchasers or repurchase loans if loans that we originate, acquire, service or assist in the fulfillment of, fail to meet certain criteria or characteristics or under other circumstances;
- our exposure to counterparties that are unwilling or unable to honor contractual obligations, including their obligation to indemnify us or repurchase defective mortgage loans;
- our ability to realize the anticipated benefit of potential future acquisitions of mortgage servicing rights ("MSRs");
- our obligation to indemnify PMT if our services fail to meet certain criteria or characteristics or under other circumstances;
- decreases in the returns on the assets that we select and manage for our clients, and our resulting management and incentive fees;
- the extensive amount of regulation applicable to our investment management segment;
- conflicts of interest in allocating our services and investment opportunities among ourselves and our Advised Entities;
- the effect of public opinion on our reputation;
- our recent growth;
- our ability to effectively identify, manage, monitor and mitigate financial risks;
- our initiation of new business activities or expansion of existing business activities;
- our ability to detect misconduct and fraud;
- our ability to mitigate cybersecurity risks and cyber incidents;
- our ability to effectively deploy new information technology applications and infrastructure;
- our exposure to risks of loss resulting from adverse weather conditions and man-made or natural disasters; 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," and the "Company" refer to PennyMac Financial Services, Inc. (formerly known as New PennyMac Financial Services, Inc.)("PFSI").

Our Company

We are a specialty financial services firm with a comprehensive mortgage platform and integrated business primarily focused on the production and servicing of U.S. residential mortgage loans (activities which we refer to as mortgage banking) and the management of investments related to the U.S. mortgage market. We believe that our operating capabilities, specialized expertise, access to long-term investment capital, and our management's experience across all aspects of the mortgage business will allow us to profitably grow these activities and capitalize on other related opportunities as they arise in the future.

We operate and control all of the business and affairs and consolidate the financial results of Private National Mortgage Acceptance Company, LLC ("PennyMac"). PennyMac was founded in 2008 by members of our executive leadership team and two strategic partners, BlackRock Mortgage Ventures, LLC ("BlackRock" or "BlackRock, Inc.") and HC Partners, LLC, formerly known as Highfields Capital Investments, LLC, together with its affiliates ("Highfields").

We were formed as a Delaware corporation on July 2, 2018. We became the top-level parent holding company for the consolidated PennyMac business pursuant to a corporate reorganization (the "Reorganization") that was consummated on November 1, 2018. Before the Reorganization, PNMAC Holdings, Inc. (formerly known as PennyMac Financial Services, Inc.) ("PNMAC Holdings") was our top-level parent holding company and our public company registrant. One result of the consummation of the Reorganization was that our equity structure was changed to create a single class of publicly-held common stock as opposed to the two classes that were in place before the Reorganization. The Reorganization is to be treated as an integrated transaction that qualifies as a reorganization with the meaning of Section 368(a) of the Internal Revenue Code and/or a transfer described in Section 351(a) of the Internal Revenue Code. PNMAC Holdings' financial statements remain our historical financial statements.

Our principal mortgage banking subsidiary, PennyMac Loan Services, LLC ("PLS"), is a non-bank producer and servicer of mortgage loans in the United States. PLS is a seller/servicer for the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac"), each of which is a government-sponsored entity ("GSE"). PLS is also an approved issuer of securities guaranteed by the Government National Mortgage Association ("Ginnie Mae"), a lender of the Federal Housing Administration ("FHA"), and a lender/servicer of the Veterans Administration ("VA") and the U.S. Department of Agriculture ("USDA"). We refer to each of Fannie Mae, Freddie Mac, Ginnie Mae, FHA, VA and USDA as an "Agency" and collectively as the "Agencies." PLS is able to service loans in all 50 states, the District of Columbia, Guam and the U.S. Virgin Islands, and originate loans in 49 states and the District of Columbia, either because PLS is properly licensed in a particular jurisdiction or exempt or otherwise not required to be licensed in that jurisdiction.

Our investment management subsidiary is PNMAC Capital Management, LLC ("PCM"), a Delaware limited liability company registered with the Securities and Exchange Commission ("SEC") as an investment adviser under the Investment Advisers Act of 1940 (the "Advisers Act"), as amended. PCM manages PennyMac Mortgage Investment Trust ("PMT"), a mortgage real estate investment trust listed on the New York Stock Exchange under the ticker symbol PMT. PCM previously managed PNMAC Mortgage Opportunity Fund, LLC, PNMAC Mortgage Opportunity Fund, LP, an affiliate of these funds and PNMAC Mortgage Opportunity Fund Investors, LLC. We refer to these funds collectively

as our "Investment Funds" and, together with PMT, as our "Advised Entities." During 2018, the Investment Funds were dissolved.

We conduct our business in three segments: production, servicing (together, production and servicing comprise our mortgage banking activities) and investment management.

- The production segment performs mortgage loan origination, acquisition and sale activities.
- The servicing segment performs mortgage loan servicing for both newly originated loans we are holding for sale and loans we service for others, including for PMT.
- The investment management segment represents our investment management activities, which include the activities associated with investment asset acquisitions and dispositions such as sourcing, due diligence, negotiation and settlement.

Following is a summary of our segment's results for the years presented:

	Year ended December 31,				
	2018	2017	2016	2015	2014
			(in thousands)		
Net revenues:					
Production	$ 385,995	$ 513,641	$ 694,405	$ 481,636	$ 260,673
Servicing	567,921	386,203	212,886	202,322	207,239
Investment management	29,587	22,679	23,996	30,847	48,987
	$ 983,503	$ 922,523	$ 931,287	$ 714,805	$ 516,899
Income (loss) before income taxes:					
Production	$ 87,266	$ 238,508	$ 416,096	$ 271,869	$ 135,619
Servicing	172,302	58,672	(36,099)	1,297	65,925
Investment management	7,003	5,789	2,486	7,722	20,111
Non-segment activities (1)	1,126	32,940	600	(1,695)	1,378
	$ 267,697	$ 335,909	$ 383,083	$ 279,193	$ 223,033
Total assets at year end:					
Production	$ 2,434,897	$ 2,459,014	$ 2,195,330	$ 1,122,242	$ 1,040,358
Servicing	5,031,920	4,886,594	2,841,551	2,270,940	1,320,092
Investment management	11,681	19,880	91,517	92,893	92,881
	$ 7,478,498	$ 7,365,488	$ 5,128,398	$ 3,486,075	$ 2,453,331

(1) Primarily represents repricing of *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement* we entered into as part of our initial public offering during 2013.

Mortgage Banking

Loan Production

In our loan production activities, we earn interest income, gains or losses during the holding period and upon the sale of these loans, and retain the associated MSRs. Our loan production segment sources new prime credit quality first-lien residential conventional and government-insured or guaranteed mortgage loans through three channels: correspondent production, consumer direct and broker direct lending.

In correspondent production we manage, on behalf of PMT and for our own account, the purchase from non-affiliates of mortgage loans that have been underwritten to investor guidelines. For conventional mortgage loans, we perform fulfillment activities for PMT and earn a fulfillment fee for each mortgage loan purchased by PMT. In the case of government insured mortgage loans, we fulfill them for our own account and purchase them from PMT at PMT's cost plus a sourcing fee.

Through our consumer direct lending channel, we originate mortgage loans on a national basis. Our consumer direct model relies on the Internet and call center-based staff to acquire and interact with customers across the country, and we do not have a "brick and mortar" branch network.

In broker direct lending, we obtain loan application packages from third-party mortgage loan brokers for mortgage loans, underwrite and fund mortgage loans for sale to PMT or investors.

We conduct our own fulfillment for mortgage loans originated through the consumer direct and broker direct lending channels. Our loan production activity is summarized below:

	Year ended December 31,		
	2018	**2017**	**2016**
		(in thousands)	
Unpaid principal balance ("UPB") of mortgage loans purchased and originated for sale:			
Government-insured or guaranteed mortgage loans acquired from PennyMac Mortgage Investment Trust	$ 36,415,933	$ 40,561,241	$ 39,908,163
Mortgage loans sourced through our consumer direct channel	4,650,316	5,466,669	6,491,107
Mortgage loans sourced through our broker direct channel	378,544	—	—
	41,444,793	46,027,910	46,399,270
Unpaid principal balance of conventional mortgage loans fulfilled for PennyMac Mortgage Investment Trust	26,194,303	22,971,119	23,188,386
Total loan production	$ 67,639,096	$ 68,999,029	$ 69,587,656

Loan Servicing

Our loan servicing segment performs 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. We service mortgage loans both as the owner of MSRs and on behalf of other MSR or mortgage owners. We provide servicing for conventional and government-insured or guaranteed loans ("prime servicing"), as well as servicing for distressed mortgage loans that have been acquired as investments by PMT ("special servicing").

The UPB of our mortgage loan servicing portfolio is summarized below:

	December 31, 2018			December 31, 2017		
	Servicing rights owned	Contract servicing and subservicing	Total mortgage loans serviced	Servicing rights owned	Contract servicing and subservicing	Total mortgage loans serviced
	(in thousands)					
Investor:						
Non-affiliated entities:						
Originated	$ 145,224,596	$ —	$ 145,224,596	$ 120,853,138	$ —	$ 120,853,138
Purchased	56,990,486	—	56,990,486	47,016,708	—	47,016,708
	202,215,082	—	202,215,082	167,869,846	—	167,869,846
Advised entities	—	94,658,154	94,658,154	—	74,980,268	74,980,268
Mortgage loans held for sale	2,420,636	—	2,420,636	2,998,377	—	2,998,377
Total	$ 204,635,718	$ 94,658,154	$ 299,293,872	$ 170,868,223	$ 74,980,268	$ 245,848,491

Investment Management

We are an investment manager through our subsidiary, PCM. PCM currently manages PMT. For these activities, we earn management fees as a percentage of net assets and may earn incentive compensation based on investment performance. During 2018, we completed the liquidation of the Investment Funds.

The net assets of the Advised Entities are summarized below:

	December 31,	
	2018	2017
	(in thousands)	
PennyMac Mortgage Investment Trust	$ 1,566,132	$ 1,544,585
Investment Funds	—	29,329
	$ 1,566,132	$ 1,573,914

U.S. Mortgage Market

The U.S. residential mortgage market is one of the largest financial markets in the world, with approximately $10.8 trillion of outstanding debt as of September 30, 2018. According to Inside Mortgage Finance, first lien mortgage loan origination volume was approximately $1.6 trillion in 2018. Many of the largest financial institutions, primarily banks which have traditionally held the majority of the market share in mortgage origination and servicing, have reduced their participation in the mortgage market and the industry remains in a period of significant transformation, creating opportunities for non-bank participants.

The residential mortgage industry is characterized by high barriers to entry, including the necessity for approvals required to sell loans to and service loans for the Agencies, state licensing requirements for non-federally chartered banks, sophisticated infrastructure, technology, risk management, and processes required for successful operations, and financial capital requirements.

Our Growth Strategies

Our growth strategies include:

Growing our Mortgage Loan Servicing Portfolio

We expect to focus the growth of our servicing portfolio on loan production activities, as our correspondent government-insured production and consumer and broker direct lending add new prime servicing for owned MSRs, and correspondent conventional production adds new subservicing. In 2018, our correspondent, consumer direct and broker direct loan production totaled $67.6 billion in UPB. We plan to supplement our organic growth with MSR acquisitions, some of which may be concentrated in delinquent or defaulted loans for which we have expertise in servicing. We have acquired MSRs from large mortgage servicers, which are selling MSRs due to continuing operational and regulatory pressures, higher regulatory capital requirements for banks, and a re-focus on core customers and business, and from independent mortgage banks, which are selling MSRs due to reduced origination volumes, operational losses, and a need for capital. In 2018, we purchased approximately $18.8 billion in UPB of MSRs.

Growing Correspondent Production through Expanding Seller Relationships and Adding Products and Services

We expect to grow our correspondent production business by expanding the number and types of sellers from which we purchase loans and increasing the volume of loans that we purchase from our sellers as we continue to add to the loan products and services we offer. Over the past several years, a number of large banks have exited or reduced the size of their correspondent production businesses, creating an opportunity for non-bank entities to gain market share. We believe that we are well positioned to continue to taking advantage of this opportunity based on our management expertise in the correspondent production business, our relationships with correspondent sellers, and our supporting systems and processes. In 2016, we launched a non-delegated correspondent service to complement our delegated correspondent channel. The non-delegated correspondent lending service involves the purchase of loans for which PLS has provided underwriting eligibility services to the originating correspondent seller. Entry into this market leverages our existing loan fulfillment infrastructure, gives our existing sellers an additional method through which they can deliver loans to us and provides us with access to new sellers that were not previously served.

Growing Consumer Direct Lending through Portfolio Recapture and Non-Portfolio Originations

We expect to grow our consumer direct lending business by leveraging our growing servicing portfolio through recapture of existing customers for refinance and purchase-money loans as well as increasing our non-portfolio originations. As our servicing portfolio grows, we will have a greater number of leads to pursue, which we believe will lead to greater origination activity through our consumer direct business. As of December 31, 2018, we serviced 1.5 million loans for existing customers. At the same time, we are making significant investments in technology, personnel and marketing to increase our non-portfolio originations. We believe that our national call center model and our technology will enable us to drive origination process efficiencies and best-in-class customer service.

Growing Broker Direct Lending

During 2018, we introduced our broker direct lending channel.The broker lending channel involves the underwriting and funding of mortgage loans sourced by mortgage loan brokers and other financial intermediaries. We estimate that the broker lending channel represents approximately 10% of U.S. residential mortgage originations and we have recently entered that market. Through this mortgage loan origination channel, third-party mortgage loan brokers submit loan application packages to us and we underwrite and fund the mortgage loans. In 2018, we funded $378.5 million of mortgage loans through our broker direct channel. We plan on growing our mortgage loan volume by adding broker relationships and offering our mortgage loan brokers access to our technology through a dedicated portal.

Expansion into New Markets and Products

We regularly evaluate opportunities to grow our business, including expansion into new markets, such as the broker lending channel and non-delegated correspondent lending services. We also continue to develop new products to satisfy demand from customers in each of our production channels and respond to changing circumstances in the market for mortgage-related financing. For example, the Company recently launched a home equity line of credit ("HELOC") product through its consumer direct lending channel that allows customers to use their home equity for home improvements, debt consolidation or other expenses while maintaining their existing first mortgage. The HELOC product leverages the Company's partnership with PMT through its ability to securitize and invest in HELOC assets.

Compliance and Regulatory

Our business is subject to extensive federal, state and local regulation. The CFPB was established on July 21, 2010 under Title X of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The CFPB is responsible for ensuring consumers are provided with timely and understandable information to make responsible decisions about financial transactions, federal consumer financial laws are enforced and consumers are protected from unfair, deceptive, or abusive acts and practices and from discrimination. Although the CFPB's actions may improve consumer protection, such actions also have resulted in a meaningful increase in costs to consumers and financial services companies including mortgage originators and servicers.

Our loan production and loan servicing operations are regulated at the state level by state licensing authorities and administrative agencies. We, along with certain PennyMac employees who engage in regulated activities, must apply for licensing as a mortgage banker or lender, loan servicer and debt collector pursuant to applicable state law. These state licensing requirements typically require an application process, the payment of fees, background checks and administrative review. Our servicing operations are licensed (or exempt or otherwise not required to be licensed) to service mortgage loans in all 50 states, the District of Columbia, Guam and the U.S. Virgin Islands. Our consumer direct lending business is licensed to originate loans in 49 states and the District of Columbia. From time to time, we receive requests from states and Agencies and various investors for records, documents and information regarding our policies, procedures and practices regarding our loan production and loan servicing business activities, and undergo periodic examinations by federal and state regulatory agencies. We incur significant ongoing costs to comply with these licensing and examination requirements.

The Secure and Fair Enforcement for Mortgage Licensing Act of 2008 (the "SAFE Act") requires all states to enact laws that require all individuals acting in the United States as mortgage loan originators to be individually licensed or registered if they intend to offer mortgage loan products. These licensing requirements include enrollment in the Nationwide Mortgage Licensing System, application to state regulators for individual licenses and the completion of pre-licensing education, annual education and the successful completion of both national and state exams.

We must comply with a number of federal consumer protection laws, including, among others:

- the Real Estate Settlement Procedures Act ("RESPA"), and Regulation X thereunder, which require certain disclosures to mortgagors regarding the costs of mortgage loans, the administration of tax and insurance escrows, the transferring of servicing of mortgage loans, the response to consumer complaints, and payments between lenders and vendors of certain settlement services;

- the Truth in Lending Act ("TILA"), and Regulation Z thereunder, which require certain disclosures to mortgagors regarding the terms of their mortgage loans, notices of sale, assignments or transfers of ownership of mortgage loans, new servicing rules involving payment processing, and adjustable rate mortgage change notices and periodic statements;

- the Equal Credit Opportunity Act and Regulation B thereunder, which prohibit discrimination on the basis of age, race and certain other characteristics, in the extension of credit;

- the Fair Housing Act, which prohibits discrimination in housing on the basis of race, sex, national origin, and certain other characteristics;

- the Home Mortgage Disclosure Act and Regulation C thereunder, which require financial institutions to report certain public loan data;

- the Homeowners Protection Act, which requires the cancellation of private mortgage insurance once certain equity levels are reached, sets disclosure and notification requirements, and requires the return of unearned premiums;

- the Servicemembers Civil Relief Act, which provides, among other things, interest and foreclosure protections for service members on active duty;

- the Gramm-Leach-Bliley Act and Regulation P thereunder, which require us to maintain privacy with respect to certain consumer data in our possession and to periodically communicate with consumers on privacy matters;

- the Fair Debt Collection Practices Act, which regulates the timing and content of debt collection communications;

- the Fair Credit Reporting Act and Regulation V thereunder, which regulate the use and reporting of information related to the credit history of consumers; and

- the National Flood Insurance Reform Act of 1994, which provides for lenders to require from borrowers or to purchase flood insurance on behalf of borrower/owners of properties in special flood hazard areas.

Many of these laws are further impacted by the SAFE Act and implementation of new rules by the CFPB.

Our senior management team has established a comprehensive compliance management system ("CMS") that is designed to ensure compliance with applicable mortgage origination and servicing laws and regulations. The components of our CMS include: (a) oversight by senior management and our Board of Directors to ensure that our compliance culture, guidance, and resources are appropriate; (b) a compliance program to ensure that our policies, training and monitoring activities are complete and comprehensive; (c) a complaint management program to ensure that consumer complaints are appropriately addressed and that any required actions are implemented on a timely basis; and (d) independent oversight to ensure that our CMS is functioning as designed.

An important component of the CMS is management's Mortgage Regulatory Compliance Committee ("MRCC"). This committee oversees the CMS and supports our cultural initiatives that reinforce the importance of regulatory compliance. The MRCC also monitors changes in the internal and external environment, approves mortgage compliance policies, monitors compliance with those policies and ensures any required remediation is implemented on a timely basis. The MRCC has identified individuals throughout the organization to oversee specific areas of compliance. MRCC membership includes senior management from all areas of the Company impacted by mortgage compliance laws and regulations. The MRCC meets on a regular basis throughout the year.

Intellectual Property

We hold various registered trademarks, including trademarks with respect to the name PennyMac®, the swirl design and rooftop design appearing in certain PennyMac drawings and logos and various additional designs and word marks relating to the PennyMac name. Depending upon the jurisdiction, trademarks generally are valid as long as they are in use and/or their registrations are properly maintained. We generally intend to renew our trademarks as they come up for renewal. We do not otherwise rely on any copyright, patent or other form of registration to protect our rights in our intellectual property. Our other intellectual property includes proprietary know-how and technological innovations, such as our proprietary loan-level analytics systems and models for distressed loan management, and other trade secrets that we have developed to maintain our competitive position.

Competition

Given the diverse and specialized nature of our businesses, we do not believe we have a direct competitor for the totality of our business. We compete with a number of nationally-focused companies in each of our businesses.

In our mortgage banking segments, we compete with large financial institutions and with other independent residential mortgage loan producers and servicers, such as Wells Fargo, JP Morgan Chase, Quicken Loans and Mr. Cooper. In our loan production segment, we compete on the basis of product offerings, technical knowledge, manufacturing quality, speed of execution, rate and fees. In our servicing segment, we compete on the basis of experience in the residential loan servicing business, quality and efficiency of execution and servicing performance, especially in the servicing of delinquent and defaulted loans.

In our investment management segment, we compete for capital with both traditional and alternative investment managers. We compete on the basis of historical track record of risk-adjusted returns, experience of investment management team, the return profile of prospective investment opportunities and on the level of fees and expenses.

Employees

As of December 31, 2018, we, through a subsidiary, had 3,460 employees.

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 through the investor relations section of our website at www.pennymacfinancial.com 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. 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, financial condition, liquidity and results of operations 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 adversely affect our business, financial condition, liquidity and results of operations in future periods.

Risks Related to Our Mortgage Banking Segment

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, liquidity 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 and examinations by federal and state regulators. This 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 PLS may lose its

licenses. Negative publicity or fines and penalties incurred in one jurisdiction may cause investigations or other actions by regulators in other jurisdictions.

Federal, state and local governments have proposed or enacted numerous 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, bankruptcy, 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. Service providers we use must also comply with some of these legal requirements, including outside counsel retained to process foreclosures and bankruptcies.

Our failure to operate effectively and in compliance with any of 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, liquidity and results of operations. In addition, our failure 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 whom loans were acquired through our correspondent production activities to comply with any applicable laws, regulations and rules may also result in these adverse consequences. We have 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, we may not detect every violation of law by these mortgage lenders. Further, to the extent any other 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, serviced or owned 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 are unable to fulfill their indemnity or repurchase obligations to us to a material extent, our business, liquidity, financial condition and results of operations could be materially and adversely affected.

The CFPB is active in its monitoring of the residential mortgage origination and servicing sectors. New 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 risk 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 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. In January 2018, the Home Mortgage Disclosure Act regulatory amendments became effective that require us to collect, record and report substantially more data about originations, purchases, and applications for certain covered loans. The expanded

data fields include information such as applicant demographics, loan fees and costs, underwriting results, and other key loan and property characteristics.

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.

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 changes in leadership (including interim 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 failure to comply with the laws, rules or regulations to which we are subject, whether actual or alleged, would 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, liquidity, financial condition and results of operations.

We are highly dependent on U.S. government-sponsored entities and government agencies, and any changes in these entities, their current roles or the leadership at such entities or their regulators could materially and adversely affect our business, financial condition, liquidity and results of operations.

Our ability to generate revenues through mortgage loan sales depends to a significant degree on programs administered by GSEs, such as Fannie Mae and Freddie Mac, government agencies, including Ginnie Mae, and others that facilitate the issuance of mortgage-backed securities ("MBS"), in the secondary market. These Agencies play a critical role in the mortgage industry and we have significant business relationships with many of them. Presently, almost all of the newly originated conforming loans that we originate directly with borrowers or assist PMT in acquiring from mortgage lenders through our correspondent production activities qualify under existing standards for inclusion in MBS issued by Fannie Mae or Freddie Mac or guaranteed by Ginnie Mae. We also derive other material financial benefits from our Agency relationships, including the assumption of credit risk by certain of these Agencies on loans included in such MBS in exchange for our payment of 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 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. 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 in underwriting criteria could materially and adversely affect our business, financial condition, liquidity and results of operations.

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 requests and/or the manner in which they are pursued, or possible limits on delivery volumes imposed upon us and other seller/servicers, could also materially and adversely affect our business, including our ability to sell and securitize loans through our loan production segment, and the performance, liquidity and market value of our investments. Our ability to generate revenues from newly originated loans that we assist PMT in acquiring through its correspondent production business would be similarly affected. 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 and results of operations.

Our ability to generate revenues from newly originated loans that we assist PMT in acquiring through its correspondent production business 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, the number of loans available for purchase by aggregators is reduced, which could materially and adversely affect our business and results of operations. 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.

We are required to hold various Agency approvals in order to conduct our business and there is no assurance that we will be able to obtain or maintain those Agency approvals or that changes in Agency guidelines will not materially and adversely affect our business, financial condition, liquidity and results of operations.

We are required to hold certain Agency approvals in order to sell mortgage loans to the Agencies and service such mortgage loans on their behalf. Our failure to satisfy the various requirements necessary to obtain and maintain such Agency approvals over time would restrict our direct business activities and could materially adversely impact our business, financial condition, liquidity and results of operations.

We are also required to follow specific guidelines that impact the way that we originate and service Agency loans, including guidelines with respect to:

- credit standards for mortgage loans;
- collections, remittances and other payments;
- our staffing levels and other servicing practices;
- the servicing and ancillary fees that we may charge;
- our modification standards and procedures; and
- the amount of non-reimbursable advances.

We generally cannot negotiate these terms with the Agencies and they are subject to change at any time. A significant change in these guidelines that has the effect of decreasing the fees we charge or requires us to expend additional resources in providing mortgage services could decrease our revenues or increase our costs, which would also adversely affect our business, financial condition, liquidity and results of operations.

In addition, the Federal Housing Finance Agency ("FHFA") has directed the GSEs to align their guidelines for servicing delinquent mortgages that they own or that back securities which they guarantee, which can result in monetary incentives for servicers that perform well and penalties for those that do not. The FHFA has also directed the GSEs to assess compensatory penalties against servicers in connection with the failure to meet specified timelines relating to delinquent loans and foreclosure proceedings, and other breaches of servicing obligations. Our failure to operate efficiently and effectively within the prevailing regulatory framework and in accordance with the applicable origination and servicing guidelines and/or the loss of our seller/servicer license approval or approved issuer status with the Agencies could result in our failure to benefit from available monetary incentives and/or expose us to monetary penalties and curtailments, all of which could materially and adversely affect our business, financial condition, liquidity and results of operations.

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

We are subject to minimum financial eligibility requirements established by the Agencies. These eligibility requirements align the minimum financial requirements for entities 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 are required to maintain cash and cash equivalents in amounts that may adversely affect our business, financial condition, liquidity and results of operations, and this could significantly impede us from growing our business 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 our Agency approvals or agreements, which could cause us to cross default under financing arrangements and/or have a material adverse effect on our business, financial condition liquidity and results of operations.

We may be subject to certain banking regulations that may limit our business activities.

As of December 31, 2018, PNC Financial Services Group Inc. ("PNC") owned approximately 22% of the outstanding voting common shares of BlackRock, Inc. Based on PNC's interests in and relationships with BlackRock, Inc., BlackRock, Inc. is deemed to be a non-bank subsidiary of PNC. BlackRock, Inc. is an affiliate of BlackRock Mortgage Ventures, LLC, which is one of our largest equity holders. Due to these relationships, we are deemed to be a non-bank subsidiary of PNC, which is regulated as a financial holding company under the Bank Holding Company Act of 1956, as amended. As a non-bank subsidiary of PNC, we may be subject to certain banking regulations, including the supervision and regulation of the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Such banking regulations could limit the activities and the types of businesses that we may conduct. The Federal Reserve has broad enforcement authority over financial holding companies and their subsidiaries. The Federal Reserve could exercise its power to restrict PNC from having a non-bank subsidiary that is engaged in any activity that, in the Federal Reserve's opinion, is unauthorized or constitutes an unsafe or unsound business practice, and could exercise its power to restrict us from engaging in any such activity. The Federal Reserve may also impose substantial fines and other penalties for violations that we may commit. To the extent that we, as a non-bank mortgage lender, are subject to banking regulations, we could be at a competitive disadvantage because many of our non-bank competitors are not subject to these same regulations.

In addition, provisions of the Dodd-Frank Act referred to as the "Volcker Rule" prohibit or restrict a bank holding company and its affiliates from conducting certain transactions with certain investment funds, including hedge funds and private equity funds (collectively "covered funds"), when it has an ownership interest in, sponsors or advises a covered fund. The Volcker Rule prohibits proprietary trading as defined by such rule, unless the trading is permitted by an exemption, such as for risk-mitigating hedging purposes. The Volcker Rule applies to us by virtue of our affiliation with PNC through BlackRock. The Volcker Rule limits our ability to acquire or retain an ownership interest in, sponsor, advise or manage covered funds, and limits investments in certain covered funds by our employees, among other restrictions. If a fund, whether newly created or existing, becomes a covered fund, then certain transactions between us

and the covered fund could be prohibited or restricted, or the fund may need to be restructured. These prohibitions, restrictions and limitations could disadvantage us against those competitors that are not subject to the Volcker Rule in the ability to manage covered funds and to retain employees. Our failure to comply with the requirements of the Volcker Rule may adversely affect our business, financial condition, liquidity and results of operations.

Unlike competitors that are federally chartered banks, we are subject to the licensing and operational requirements of states and other jurisdictions that result in substantial compliance costs, and our business would be adversely affected if we lose our licenses.

Because we are not a federally chartered depository institution, we do not benefit from exemptions to state mortgage lending, loan servicing or debt collection licensing and regulatory requirements. We must comply with state licensing requirements and varying compliance requirements in all 50 states, the District of Columbia, Guam and the U.S. Virgin Islands, and regulatory changes may increase our costs through stricter licensing laws, disclosure laws or increased fees or may impose conditions to licensing that we or our personnel are unable to meet.

In most states in which we operate, a regulatory agency or agencies regulate and enforce laws relating to mortgage servicers and mortgage originators. These rules and regulations generally provide for licensing as a mortgage servicer, mortgage originator, loan modification underwriter, or third-party debt collection specialist (or a combination thereof), requirements as to the form and content of employee compensation contracts and other documentation, licensing of our employees and those of independent contractors with whom we contract, and employee hiring background checks. They also set forth restrictions on advertising and collection practices and disclosure and record-keeping requirements, and they establish a variety of borrowers' rights. Future state legislation and changes in existing regulation may significantly increase our compliance costs or reduce the amount of ancillary income we are entitled to collect from borrowers or otherwise. This could make our business cost-prohibitive in the affected state or states and could materially affect our business.

The failure of PennyMac Loan Services, LLC to avail itself of an appropriate exemption from registration as an investment company under the Investment Company Act of 1940 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 of 1940, as amended, or the Investment Company Act. We believe that our subsidiary, PennyMac Loan Services, LLC ("PLS"), qualifies 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 percent 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 percent of PLS' 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 PLS' 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 PLS has not sought a no-action letter from the SEC staff respecting its position. If PLS is ultimately unable to rely on the Section 3(c)(6) exemption due to a failure to meet the 25 percent 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 and results of operations.

In the case of a restructuring, PLS 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, PLS 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. PLS would be more limited in its ability to hold MSRs 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 PLS 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 PLS was or is required to register as an investment company, PLS 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 and results of operations.

Liability relating to environmental matters may impact the 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 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 and results of operations.

Market Risks

Our mortgage banking revenues are highly dependent on macroeconomic and United States real estate market, mortgage market and financial market conditions.

The success of our business strategies and our results of operations are materially affected by current or future conditions in the real estate market, mortgage markets, financial markets and the economy generally. Factors such as inflation, deflation, unemployment, personal and business income taxes, healthcare, energy costs, domestic political issues, government shutdowns, climate change and the availability and cost of credit may contribute to increased volatility and unclear expectations for the economy in general and the real estate, mortgage market and financial markets in particular going forward. A destabilization of the real estate market, mortgage market and financial markets or deterioration in these markets also could reduce our loan production volume, reduce the profitability of servicing mortgages or adversely affect our ability to sell mortgage loans that we originate or acquire, either at a profit or at all. Any of the foregoing could materially and adversely affect our business, financial condition, liquidity and results of operations.

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

We operate in a highly competitive industry that could become even more competitive as a result of economic, legislative, regulatory and technological changes. With respect to mortgage loan production, we face competition in such areas as mortgage loan offerings, rates, fees and customer service. With respect to servicing, we face competition in areas such as fees, cost to service and service levels, including our performance in reducing delinquencies and entering into successful modifications.

Large commercial banks and savings institutions and other non-bank mortgage originators and servicers are becoming increasingly competitive in the origination or acquisition of newly originated mortgage loans and the servicing of mortgage loans. Many of these institutions have significantly greater resources and access to capital and financing arrangements 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 loan production and servicing models. For example, other non-bank loan servicers may try to leverage their servicing relationships and expertise to develop or expand a loan origination business. Since the withdrawal or decreased participation of a number of large participants from these markets following the financial crisis in 2008, there has been a steady increase in the number of non-bank participants. As more non-bank entities enter these markets and as more commercial banks aggressively compete, our mortgage banking businesses may generate lower volumes and/or margins. We believe that changes in supply and demand within the marketplace have been driving lower margins in recent periods, which is reflected in our results of operations and in our gains on mortgage loans held for sale. If we are unable to grow our loan production volumes or if our margins become compressed, then our business, financial condition, liquidity and results of operations could be materially and adversely affected.

In addition, technological advances and heightened e-commerce activities have increased consumers' access to products and services. This has intensified competition among banks and non-banks in offering and servicing mortgage loans. We may be unable to compete successfully in our mortgage banking businesses and this could materially and adversely affect our business, financial condition, liquidity and results of operations.

We may not be able to effectively manage significant increases or decreases in our loan production volume, which could negatively affect our business, financial condition, liquidity and results of operations.

Our loan production segment consists of our consumer direct lending activities, in which we originate mortgage loans directly with borrowers through telephone call centers or the Internet, our correspondent production activities, in which we facilitate the acquisition by PMT from correspondent sellers of newly originated mortgage loans that have been underwritten to our standards and, in the case of government loans, acquire such loans from PMT, and our broker direct lending activities, in which we provide brokers with a broad range of mortgage loan products and programs.

Our correspondent production activities are relationship driven. As of December 31, 2018, we worked with 710 approved mortgage lenders, but these lenders are not contractually obligated to do business with us or PMT, and our competitors also have relationships with these lenders and actively compete against us in our efforts to expand PMT's network of approved mortgage lenders. To date, we have grown our loan production volumes with mortgage lenders on the basis of our product offerings, technical knowledge, manufacturing quality, speed of execution, interest rates and fees. If we are not able to consistently maintain these qualities of execution, our reputation and existing relationships with mortgage lenders could be damaged. We may not be able to maintain PMT's existing relationships or develop new relationships with mortgage lenders or our new mortgage products may not gain widespread acceptance.

Our current volume of consumer direct lending originations, which is based in large part on the refinancing of existing mortgage loans that we service, is highly dependent on interest rates and may decline if interest rates increase. Our non-servicing portfolio consumer direct lending platform may not succeed because of the referral-driven nature of our industry. For example, the origination of purchase money mortgage loans is greatly influenced by traditional business clients in the home buying process such as real estate agents and builders. As a result, our ability to secure relationships with such traditional business clients will influence our ability to grow our purchase money mortgage loan volume and, thus, our consumer direct lending business. We may not be successful in establishing such relationships. In addition, to grow our consumer direct lending business, we will need to convert leads regarding prospective borrowers into funded loans, the success of which depends on the pricing we offer relative to the pricing of our competitors and our operational ability to process, underwrite and close loans. Institutions that compete with us in this regard may have significantly greater access to capital or other resources than we do, which may give them the benefit of a lower cost of operations.

On the other hand, we may experience significant growth in our correspondent production, consumer direct lending and broker direct lending loan volumes. If we do not effectively manage our growth, the quality of our

correspondent production and consumer direct lending operations could suffer, which could negatively affect our brand and operating results. Our correspondent production and consumer direct lending operations are also subject to overall market factors that can impact our ability to grow our loan production volume. For example, increased competition from new and existing market participants, reductions in the overall level of refinancing activity or slow growth in the level of new home purchase activity can impact our ability to continue to grow our loan production volumes, and we may be forced to accept lower margins in our respective businesses in order to continue to compete and keep our volume of activity consistent with past or projected levels.

We may be unable to maintain sufficient capital and liquidity to meet the financing requirements of our business.

We will require new and continued debt financing to facilitate our anticipated growth. Accordingly, our ability to finance our operations and repay maturing obligations rests in large part on our ability to borrow money. We are generally required to renew our financing arrangements each year, which exposes us to refinancing and interest rate risks. Our ability to refinance existing debt and borrow additional funds is affected by a variety of factors beyond our control including:

- limitations imposed on us under our financing agreements that contain restrictive covenants and borrowing conditions, which may limit our ability to raise additional debt;
- restrictions imposed upon us by regulatory agencies that mandate certain minimum capital and liquidity requirements and additional scrutiny from such regulatory agencies that we face as a non-bank;
- liquidity in the credit markets;
- prevailing interest rates;
- the strength of the lenders from which we borrow, and the regulatory environment in which they operate, including proposed capital strengthening requirements;
- limitations on borrowings on credit facilities imposed by the amount of eligible collateral pledged, which may be less than the borrowing capacity of the credit facility; and
- accounting changes that may impact calculations of covenants in our debt agreements.

No assurance can be given that any refinancing or additional financing will be possible when needed, that we will be able to negotiate acceptable terms or that market conditions will be favorable at the times that we require such refinancing or additional financing. If we are unable to obtain sufficient capital to meet the financing requirements of our business, financial condition, liquidity and results of operations would be materially and adversely affected.

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, profitability and risk thresholds and tolerances, any of which may change materially and negatively impact their business strategies, including their extension of credit to us specifically or mortgage lenders and servicers generally. Certain banking institutions have already exited, and others may in the future decide to exit, the mortgage business. 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 and results of operations would be materially and adversely affected.

We leverage our assets under credit and other financing agreements and utilize various other sources of borrowings, which exposes us to significant risk and may materially and adversely affect our business, financial condition, liquidity and results of operations.

We currently leverage and, to the extent available, we intend to continue to leverage the mortgage loans produced through our consumer direct lending business and the government-insured loans acquired through our correspondent production operations from PMT with borrowings under repurchase agreements. When we enter into repurchase agreements, we sell mortgage loans to lenders, which are the 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 that we receive from a lender when we initially sell the assets to that 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 (assuming that 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. If we are unable to satisfy a margin call, our counterparty may sell the collateral, which may result in significant losses to us.

In addition, we invest in certain assets, including MSRs, for which financing has historically been difficult to obtain. We currently leverage certain of our MSRs under secured financing arrangements. Our Fannie Mae and Freddie Mac MSRs are pledged to secure borrowings under a loan and security agreement, while our Ginnie Mae MSRs and related excess servicing spread financing (“ESS”) are pledged 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. 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 fair 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 MSRs 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 any of Fannie Mae, Freddie Mac or Ginnie Mae of its rights under the applicable acknowledgment agreement could result in the extinguishment of our and the secured parties’ rights in the related collateral and result in significant losses to us.

We leverage certain of our other assets under a capital lease and a revolving credit agreement and 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 cash flows. 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 and results of operations.

Our credit and financing agreements contain financial and restrictive covenants that could adversely affect our business, financial condition, liquidity and results of operations.

The lenders under our credit and financing 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. Incurring substantial debt subjects us to the risk that our cash flows from operations may be insufficient to repurchase the assets that we have sold to the lenders under our repurchase agreements or otherwise

service the debt incurred under our other credit and financing agreements. 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 assets 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; enter into transactions with affiliates; and amend, modify or prepay certain indebtedness. 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 and results of operations.

Our earnings may decrease because of changes in prevailing interest rates.

Our profitability is directly affected by changes in prevailing interest rates. The following are the material risks we face related to increases in prevailing interest rates:

- an increase in prevailing interest rates could adversely affect our loan production volume because refinancing an existing loan would be less attractive for homeowners and qualifying for a loan may be more difficult for consumers;

- an increase in prevailing interest rates could adversely affect our Ginnie Mae early buyout program because loan modifications would become less economically feasible;

- an increase in prevailing interest rates would increase the cost of servicing our outstanding debt, including debt related to servicing assets and loan production; and

- an increase in prevailing interest rates could increase payments for servicing customers with adjustable rate mortgages and generate an increase in delinquency, default and foreclosure rates, resulting in an increase in our loan servicing expenses.

The following are the material risks we face related to decreases in prevailing interest rates:

- a decrease in prevailing interest rates may cause more borrowers to refinance existing loans that we service or may cause the expected volume of refinancing to increase, which would require us to record decreases in fair value and a higher level of amortization, impairment or both on our MSRs; and

- a decrease in prevailing interest rates could reduce our earnings from our custodial deposit accounts.

An event of default, a negative ratings action by a rating agency, the perception of financial weakness, an adverse action by a regulatory authority, a lengthening of foreclosure timelines or a general deterioration in the economy

that constricts the availability of credit may increase our cost of funds and make it difficult for us to refinance existing debt and borrow additional funds. In addition, we may not be able to adjust our operational capacity in a timely fashion, or at all, in response to increases or decreases in mortgage production volume resulting from changes in prevailing interest rates.

Any of the increases or decreases discussed above could have a material adverse effect on our business, financial condition, liquidity and results of operations.

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

We pursue hedging strategies to reduce our exposure to adverse changes in interest rates. Our hedging activity will vary in scope based on the risks hedged, the level of interest rates, the type of investments held, and other changing market conditions. Hedging instruments involve risk because they often are not traded on regulated exchanges, guaranteed by an exchange or its clearing house, or regulated by any U.S. or foreign governmental authorities, and our interest rate hedging may fail to protect or could adversely affect us because, among other things:

- interest rate hedging can be expensive, particularly during periods of rising and volatile interest rates;
- available interest rate hedging may not correspond directly with the interest rate risk for which protection is sought;
- the duration of the hedge may not match the duration of the related liability or asset;
- the credit quality of the hedging counterparty owing money on the hedge may be downgraded to such an extent that it impairs our ability to sell or assign our side of the hedging transaction; and
- the hedging counterparty owing the money in the hedging transaction may default on its obligation to pay.

In addition, we may fail to recalculate, re-adjust and execute hedges in an efficient manner. Any hedging activity, which is intended to limit losses, may materially and adversely affect our results of operations and cash flows. Therefore, while we may enter into such transactions seeking to reduce interest rate risk, unanticipated changes in interest rates may result in worse overall investment performance than if we had not engaged in any such hedging transactions. A liquid secondary market may not exist for a hedging instrument purchased or sold, and we may be required to maintain a position until exercise or expiration, which could result in significant losses. In addition, the degree of correlation between price movements of the instruments used in hedging strategies and price movements in the portfolio positions or liabilities being hedged may vary materially. Moreover, for a variety of reasons, we may not establish an effective correlation between such hedging instruments and the portfolio positions or liabilities being hedged. Any such ineffective correlation may prevent us from achieving the intended hedge and expose us to risk of loss. Numerous regulations currently apply to hedging and any new regulations or changes in existing regulations may significantly increase our administrative or compliance costs. Our derivative agreements generally provide for the daily mark to market of our hedge exposures. If a hedge counterparty determines that its exposure to us exceeds its exposure threshold, it may initiate a margin call and require us to post collateral. If we are unable to satisfy a margin call, we would be in default of our agreement, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

We use estimates in determining the fair value of our MSRs, which are highly volatile assets with continually changing fair values. If our estimates of their value prove to be inaccurate, we may be required to write down the fair values of the MSRs which could adversely affect our business, financial condition, liquidity and results of operations.

Our estimates of the fair value of our MSRs is based on the cash flows projected to result from the servicing of the related mortgage loans and continually fluctuates due to a number of factors. These factors include prepayment speeds, changes in interest rates and other market conditions, which affect the number of loans that are repaid or refinanced and thus no longer result in cash flows, and the number of loans that become delinquent.

We use internal financial models that utilize our understanding of inputs and assumptions used by market participants to value our MSRs for purposes of financial reporting and for purposes of determining the price that we pay for portfolios of MSRs and to acquire loans for which we will retain MSRs. These models are complex and use asset-specific collateral data and market inputs for interest and discount rates. In addition, the modeling requirements of MSRs are complex because of the high number of variables that drive cash flows associated with MSRs. Even if the general accuracy of our valuation models is validated, valuations are highly dependent upon the reasonableness of our inputs and the results of the models.

If loan delinquencies or prepayment speeds are different than anticipated or other factors perform differently than modeled, the recorded value of certain of our MSRs may change. Significant differences in performance could increase the chance that we do not adequately estimate the impact of these factors on our valuations which could result in misstatements of our financial results, restatements of our financial statements, or otherwise materially and adversely affect our business, financial condition, liquidity and results of operations.

The geographic concentration of our servicing portfolio may decrease the fair value of our MSRs and adversely affect our consumer direct business, which would adversely affect our business, financial condition, liquidity and results of operations.

As of December 31, 2018, approximately 17% of the aggregate outstanding loan balance in our servicing portfolio was secured by properties located in California. To the extent that California or other states in which we have greater concentrations of business in the future experience weaker economic conditions or greater rates of decline in real estate values than the United States generally, such concentration may disproportionately decrease the fair value of our MSRs and adversely affect our consumer direct lending business. The impact of property value declines may increase in magnitude and it may continue for a long period of time. Additionally, if states in which we have greater concentrations of business were to change their licensing or other regulatory requirements to make our business cost-prohibitive, we may be required to stop doing business in those states or may be subject to a higher cost of doing business in those states, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Increases in delinquencies and defaults may adversely affect our business, financial condition, liquidity and results of operations.

A decrease in home prices may result in higher loan-to-value ratios (“LTVs”), lower recoveries in foreclosure and an increase in loss severities above those that would have been realized had property values remained the same or continued to increase. Some borrowers do not have sufficient equity in their homes to permit them to refinance their existing loans, which may reduce the volume or growth of our loan production business. This may also provide borrowers with an incentive to default on their mortgage loans even if they have the ability to make principal and interest payments. Further, despite recent increases, interest rates have remained near historical lows for an extended period of time. Borrowers with adjustable rate mortgage loans must make larger monthly payments when the interest rates on those mortgage loans adjust upward from their initial fixed rates or low introductory rates to the rates computed in accordance with the applicable index and margin. Increases in monthly payments may increase the delinquencies, defaults and foreclosures on a significant number of the loans that we service.

Increased mortgage delinquencies, defaults and foreclosures may result in lower revenue for loans that we service for the Agencies because we only collect servicing fees from the Agencies for performing loans, and our failure to service delinquent and defaulted loans in accordance with the applicable servicing guidelines could result in our failure to benefit from available monetary incentives and/or expose us to monetary penalties and curtailments. Additionally, while increased delinquencies generate higher ancillary fees, including late fees, these fees are not likely to be recoverable in the event that the related loan is liquidated. In addition, an increase in delinquencies lowers the interest income that we receive on cash held in collection and other accounts because there is less cash in those accounts. Also, increased mortgage defaults may ultimately reduce the number of mortgages that we service.

Increased mortgage delinquencies, defaults and foreclosures will also result in a higher cost to service those loans due to the increased time and effort required to collect payments from delinquent borrowers and to acquire and liquidate the properties securing the loans or otherwise resolve loan defaults if payment collection is unsuccessful, and

only a portion of these increased costs are recoverable under our servicing agreements. Increased mortgage delinquencies, defaults and foreclosures may also result in an increase in servicing advances we are obligated to make to fulfill our obligations to MBS holders and to protect our investors' interests in the properties securing the delinquent mortgage loans. An increase in required advances also may cause an increase in our interest expense and affect our liquidity as a result of increased borrowings under our credit facilities to fund any such increase in the advances.

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

Most of the loans that we produce are pooled into MBS issued by Fannie Mae or Freddie Mac or guaranteed by Ginnie Mae. 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 own liquidity and the liquidity of PMT because no existing alternative secondary market would likely be willing and able to accommodate on a timely basis the volume of loans that we typically sell in any given period. Furthermore, we would remain contractually obligated to fund loans under our outstanding IRLCs without being able to sell our existing inventory of mortgage loans. Accordingly, if the MBS market experiences a period of illiquidity, we might be prevented from selling the loans that we produce into the secondary market in a timely manner or at favorable prices and we would be required to hold a larger inventory of loans than we have committed facilities to fund or we may be required to repay a portion of the debt secured by these assets, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Related Party Risks

We rely on PMT as a significant source of financing for, and revenue related to, our mortgage banking business, and the termination of, or material adverse change in, the terms of this relationship, or a material adverse change to PMT or its operations, would adversely affect our business, financial condition, liquidity and results of operations.

PMT is the counterparty that currently acquires all of the newly originated mortgage loans in connection with our correspondent production operations. A significant portion of our income is derived from a fulfillment fee earned in connection with PMT's acquisition of conventional loans. We are able to conduct our correspondent production operations without having to incur the significant additional debt financing that would be required for us to purchase those loans from the originating lender. In the case of government-insured loans, we purchase them from PMT at PMT's cost plus a sourcing fee and fulfill them for our own account and sell the loans, typically by pooling the federally insured or guaranteed loans together into an MBS which Ginnie Mae guarantees. We earn interest income and gains or losses during the holding period and upon the sale of these securities, and we retain the MSRs with respect to the loans. If this relationship with PMT is terminated by PMT or PMT reduces the volume of these loans that it acquires for any reason, we would have to acquire these loans from the correspondent sellers for our own account, something that we may be unable to do, or enter into another similar counterparty arrangement with a third party, which we may not be able to enter into on terms that are as favorable to us, or at all.

The management agreement, the mortgage banking services agreement and certain of the other agreements that we have entered into with PMT contain cross-termination provisions that allow PMT to terminate one or more of those agreements under certain circumstances where another one of such agreements is terminated. Accordingly, the termination of this relationship with PMT, or a material change in the terms thereof that is adverse to us, would likely have a material adverse effect our business, financial condition, liquidity and results of operations. 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.

We expect that PMT will continue to qualify as a REIT for U.S. federal income tax purposes. However, it is possible that PMT may not meet the requirements for qualification as a REIT. If PMT were to lose its REIT status, corporate-level income taxes, including alternative minimum taxes, would apply to all of PMT's taxable income at federal and state tax rates. Either of these scenarios would potentially impair PMT's financial position and its ability to

raise capital, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

A significant portion of our loan servicing operations are conducted pursuant to subservicing contracts with PMT, and any termination by PMT of these contracts, or a material change in the terms thereof that is adverse to us, would adversely affect our business, financial condition, liquidity and results of operations.

PMT, as the owner of a substantial number of all of the MSRs or mortgage loans that we subservice, may, under certain circumstances, terminate our subservicing contract with or without cause, in some instances with little notice and little to no compensation. Upon any such termination, it would be difficult to replace such a large volume of subservicing in a short period of time, or perhaps at all. Accordingly, we may not generate as much revenue from subservicing for other third parties. If we were to have our subservicing terminated by PMT, or if there was a change in the terms under which we perform subservicing for PMT that was material and adverse to us, this would have a material adverse effect on our business, financial condition, liquidity and results of operations.

PMT has an exclusive right to acquire the loans that are produced through our correspondent production operations, which may limit the revenues that we could otherwise earn in respect of those loans.

Our mortgage banking services agreement with PMT requires PLS to provide fulfillment services for correspondent production activities exclusively to PMT as long as PMT has the legal and financial capacity to purchase correspondent loans. As a result, the revenue that we earn with respect to these loans will be limited to the fulfillment fees that we earn in connection with the production of these loans, which may be less than the revenues that we might otherwise be able to realize by acquiring these loans ourselves and selling them in the secondary loan market.

Our financings of MSRs using excess servicing spread exposes us to significant risks.

We have previously sold to PMT or its subsidiaries, from time to time, the right to receive certain ESS arising from MSRs that we owned or acquired. The ESS represents the difference between our contractual servicing fee with the applicable Agency and the base servicing fee that we retain as compensation for servicing the related mortgage loans upon our sale of the ESS.

As a condition of our sale of the ESS, PMT was required to subordinate its interests in the ESS to those of the applicable Agency. With respect to our Ginnie Mae MSRs, we pledged our interest in such MSRs and PMT’s interest in the related ESS 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 MSRs and PMT’s interest in the related ESS are 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 our Ginnie Mae MSRs (including the ESS we sell to PMT and record as a financing).

The indenture trustee, on behalf of the note holders, may liquidate our Ginnie Mae MSRs along with PMT’s interest in the ESS 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 and results of operations. In the event PMT’s ESS is liquidated as a result of certain of our actions or inactions, we generally would be required to indemnify PMT under the applicable spread acquisition agreement. A claim by PMT for the loss of its ESS as a result of our actions or inactions would likely be significant in size and could also have a material adverse effect on our business, financial condition, liquidity and results of operations.

In connection with PLS’ repurchase agreement with the special purpose entity, we also provide pass through financing to PMT under a repurchase agreement to facilitate its financing of the ESS it acquires from us. The repurchase agreement subjects us to the credit risk of PMT. To the extent PMT defaults in its payments of principal and interest under its repurchase agreement with us, we would still be required to make the allocable and corresponding payments under our repurchase agreement with the special purpose entity. To the extent PMT fails to make such payments of principal and interest to us or otherwise defaults under its repurchase agreement and we are unable to make the allocable

and corresponding payments under our repurchase agreement with the special purpose entity, this could also create an event of default that could cause a cross default under other financing arrangements and/or have a material adverse effect on our business, financial condition, liquidity and results of operations.

Other Risks

We may be required to indemnify the purchasers of loans that we originate, acquire or assist in the fulfillment of, or repurchase those loans, if those loans fail to meet certain criteria or characteristics or under other circumstances.

Our contracts with purchasers of newly originated loans that we fund through our consumer direct lending business or acquire from PMT through our correspondent production activities contain provisions that require us to indemnify the purchaser of the related loans or repurchase such loans under certain circumstances. We believe that, as a result of the current market environment, many purchasers of mortgage loans, including the Agencies, are particularly aware of the conditions under which loan originators or sellers must indemnify them against losses related to purchased loans, or repurchase such loans, and would benefit from enforcing any indemnity or repurchase remedies they may have. Our loan sale agreements with purchasers, including the Agencies, contain provisions that generally require us to indemnify or repurchase these loans if:

- our representations and warranties concerning loan quality and loan characteristics are inaccurate; or
- the loans fail to comply with the respective Agency's underwriting or regulatory requirements.

Repurchased loans typically can only be financed at a steep discount to their repurchase price, if at all. They are also typically valued and, therefore, can generally only be sold at a significant discount to the underlying UPBs. In certain cases involving mortgage lenders from whom loans were acquired through our correspondent production activities, we may have contractual rights to either recover some or all of our indemnification losses or otherwise demand repurchase of these loans. Depending on the volume of repurchase and indemnification requests, some of these mortgage lenders may not be able to financially fulfill their obligation to indemnify us or repurchase the affected loans. If a material amount of recovery cannot be obtained from these mortgage lenders, our business, financial condition, liquidity and results of operations could be materially and adversely affected.

Although our indemnification and repurchase exposure cannot be quantified with certainty, to recognize these potential indemnification and repurchase losses, we have recorded a liability of $21.2 million as of December 31, 2018. Because of the increase in our loan production over time, we expect that indemnification and repurchase requests are also likely to increase. Should home values decrease and negatively impact the related loan values, our realized loan losses from indemnifications and repurchases may increase as well. As such, our indemnification and repurchase costs may increase well beyond our current expectations. In addition, our mortgage banking services agreement with PMT requires us to indemnify it with respect to loans for which we provide fulfillment services in certain instances. If we are required to indemnify PMT or other purchasers against losses, or repurchase loans from PMT or other purchasers, that result in losses that exceed the recorded liability, this could have a material adverse effect on our business, financial condition, liquidity and results of operations.

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

In deciding whether to approve loans or to enter into other transactions across our businesses with borrowers and counterparties, including brokers, correspondent lenders and non-delegated correspondent lenders, we may rely on information furnished to us by or on behalf of borrowers and such counterparties, including financial statements and other financial information. We also may rely on representations of borrowers and such counterparties as to the accuracy and completeness of that information and, with respect to 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. Whether a misrepresentation is made by the loan applicant, another third party or one of our employees, we generally bear the risk of loss associated with the

misrepresentation. Our controls and processes may not have detected or may not detect all misrepresented information in our loan originations or acquisitions. Any such misrepresented information could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Our prime servicing portfolio, which consists primarily of recently originated loans, has a limited performance history, which makes our future results of operations more difficult to predict.

The likelihood of mortgage delinquencies and defaults, and the associated risks to our business, including higher costs to service such loans and a greater risk that we may incur losses due to repurchase or indemnification demands, change as loans season. Newly originated loans typically exhibit low delinquency and default rates as the changes in economic conditions, individual financial circumstances and other factors that drive borrower delinquency often do not appear for months or years. Highly seasoned loan portfolios, in which borrowers have demonstrated years of performance on their mortgage payments, also tend to exhibit low delinquency and default rates. Most of the loans in our prime servicing portfolio were originated in the years 2016 through 2018. As a result, we expect the delinquency rate and defaults in the prime servicing portfolio to increase in future periods as the portfolio seasons, but we cannot predict the magnitude of this impact on our results of operations.

Our counterparties may terminate our MSRs, which could adversely affect our business, financial condition, liquidity and results of operations.

As is standard in the industry, under the terms of our master servicing agreements with the Agencies in respect of Agency MSRs that we retain in connection with our loan production, the Agencies have the right to terminate us as servicer of the loans we service on their behalf at any time (and, in certain instances, without the payment of any termination fee) and also have the right to cause us to sell the MSRs to a third party. In addition, our failure to comply with applicable servicing guidelines could result in our termination under such master servicing agreements by the Agencies with little or no notice and without any compensation. The owners of other non-Agency loans that we service may also terminate certain of our MSRs if we fail to comply with applicable servicing guidelines. If the MSRs are terminated on a material portion of our servicing portfolio, our business, financial condition, liquidity and results of operations could be adversely affected.

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 and results of operations.

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 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 and results of operations.

We may not realize all of the anticipated benefits of potential future acquisitions of MSRs, which could adversely affect our business, financial condition, liquidity and results of operations.

Our ability to realize the anticipated benefits of potential future acquisitions of servicing portfolios will depend, in part, on our ability to appropriately service any such assets. The process of acquiring these assets may disrupt our business and may not result in the full benefits expected. The risks associated with these acquisitions include, among others, unanticipated issues in integrating information regarding the new loans to be serviced into our information technology systems, and the diversion of management's attention from other ongoing business concerns. We have also seen increased scrutiny by the Agencies and regulators with respect to large servicing acquisitions, the effect of which

could reduce the willingness of selling institutions to pursue MSR sales and/or impede our ability to complete MSR acquisitions. Moreover, if we inappropriately value the assets that we acquire or the fair value of the assets that we acquire declines after we acquire them, the resulting charges may negatively affect both the carrying value of the assets on our balance sheet and our earnings. Furthermore, if we incur additional indebtedness to finance an acquisition, the acquired servicing portfolio may not be able to generate sufficient cash flows to service that additional indebtedness. Unsuitable or unsuccessful acquisitions could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Risks Related to our Investment Management Segment

Market conditions could reduce the fair value of the assets that we manage, which would reduce our management and incentive fees.

A significant portion of the fees that we earn under our investment management agreements with clients are based on the fair value of the assets that we manage. The fair values of the securities and other assets held in the portfolios that we manage and, therefore, our assets under management may decline due to any number of factors beyond our control, including, among others, a decline in housing, changes to interest rates, stock or bond market movements a general economic downturn, political uncertainty or acts of terrorism. The economic outlook cannot be predicted with certainty and we continue to operate in a challenging business environment. If volatile market conditions cause a decline in the fair value of our assets under management, that decline in fair value could materially reduce our management fees and incentive fees under our management contract with PMT and adversely affect our revenues. If our revenues decline without a commensurate reduction in our expenses, our net income will be reduced.

We currently manage assets for a single client, the loss of which could significantly reduce our management and incentive fees and have a material adverse effect on our results of operations.

Substantially all of our management and incentive fees result from our management of PMT. The term of the management agreement that we have entered into with PMT, 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 agreement. In the event of a termination of one or more related party agreements by PMT in certain circumstances, we may be entitled to a termination fee under our management agreement. However, the termination of such management agreement and the loss of PMT as a client would significantly affect our investment management segment and negatively impact our management fees and incentive fees.

The historical returns on the assets that we select and manage for PMT, and our resulting management and incentive fees, may not be indicative of future results.

The historical returns of the assets that we manage should not be considered indicative of the future returns on those assets or future returns on other assets that we may select for investment by PMT. The investment performance that is achieved for the assets that we manage varies over time, and the nature and mix of assets we manage has changed significantly over the past several years. As a result, the change and variance in investment performance can be significant. Accordingly, the management and incentive fees that we have earned in the past based on those returns should not be considered indicative of the management or incentive fees that we may earn in the future from managing those same assets or from managing other assets for PMT. A decline in the investment performance of our managed assets will also adversely affect our ability to attract and retain clients.

Changes in regulations applicable to our investment management segment could materially and adversely affect our business, financial condition, liquidity and results of operations.

The legislative and regulatory environment in which we operate has undergone significant changes in the recent past. We believe that significant regulatory changes in the investment management industry are likely to continue, which is likely to subject industry participants to additional, more costly and generally more detailed regulation. New laws or regulations, or changes in the enforcement of existing laws or regulations, applicable to us and our clients may adversely

affect our business. Our ability to function in this environment will depend on our ability to monitor and promptly react to legislative and regulatory changes.

Certain provisions of the Dodd-Frank Act will, and other provisions may, increase regulatory burdens and reporting and related compliance costs on our investment management segment. The scope of many provisions of the Dodd-Frank Act is being determined by implementing regulations, some of which are subject to additional proposal and promulgation periods. The SEC requires investment advisers such as us who are registered with the SEC and advise one or more funds to provide certain information about their funds and assets under management, including the amount of borrowings, concentration of ownership and other performance information. These filings have required, and will continue to require, significant investments in people, resources and systems to ensure timely and accurate reporting. The Dodd-Frank Act will affect a broad range of market participants with whom we interact or may interact, including banks, non-bank financial institutions, rating agencies, mortgage brokers, credit unions, insurance companies and broker-dealers, and may cause us or PMT to become subject to further regulation by the Commodity Futures Trading Commission. Regulatory changes that will affect other market participants are likely to change the way in which we conduct business with our counterparties. The uncertainty regarding the continued implementation of the Dodd-Frank Act and its impact on the investment management industry and us cannot be predicted at this time but will continue to be a risk for our business.

We may be adversely affected as a result of new or revised legislation or regulations imposed by the SEC, other U.S. or non-U.S. governmental regulatory authorities or self-regulatory organizations that supervise the financial markets. We also may be adversely affected by changes in the interpretation or enforcement of existing laws and rules by these governmental authorities and self-regulatory organizations, as well as by U.S. and non-U.S. courts. It is impossible to determine the extent of the impact of any new laws, regulations or initiatives that may be imposed on us or the markets in which we trade, or whether any of the proposals will become law. Compliance with any new laws or regulations could add to our compliance burden and costs and adversely affect the manner in which we conduct business, as well as our financial condition, liquidity and results of operations.

Our failure to comply with the extensive amount of regulation applicable to our investment management segment could materially and adversely affect our business, financial condition, liquidity and results of operations.

Our investment management segment is subject to extensive regulation in the United States, primarily at the federal level, including regulation of PCM by the SEC under the Advisers Act. The requirements imposed by our regulators are designed primarily to ensure the integrity of the financial markets and to protect investors in any entity that we advise and are not designed to protect our stockholders. Consequently, these regulations often serve to limit our activities.

These requirements relate to, among other things, fiduciary duties to clients, solicitation agreements, conflicts of interest, recordkeeping and reporting requirements, disclosure requirements, limitations on agency cross and principal transactions between an adviser and advisory clients and general anti-fraud prohibitions. More generally, we are required to maintain an effective compliance program, and we have engaged an outside third party compliance advisor to implement and administer a substantial portion of our compliance program. Registered investment advisers are also subject to routine periodic examinations by the staff of the SEC.

We also regularly rely on exemptions and exclusions from various requirements of the Securities Act of 1933, as amended (the "Securities Act"), the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Investment Company Act and ERISA. These exemptions are sometimes highly complex and may in certain circumstances depend on compliance by third parties and service providers who we do not control. If for any reason these exemptions were to be revoked or challenged or otherwise become unavailable to us, we could be subject to regulatory action or third-party claims, and our business could be materially and adversely affected.

Our business combines the production and servicing of loans and investment management, the combination of which presents particular compliance challenges. For example, regulations applicable to our investment management business that are easily applied to traditional investments, such as stocks and bonds, may be more difficult to apply to a

portfolio of mortgage loans, and the regulations applicable to our investment management business can require procedures that are uncommon, impractical or difficult in our loan production and servicing businesses.

The failure by us or our service providers to comply with applicable laws or regulations, or the failure of our outside third party compliance advisor to design and successfully implement and administer our compliance program, could result in fines, suspensions of individual employees or other sanctions, any of which could have a material adverse effect on our business, financial condition, liquidity and results of operations. Even if an investigation or proceeding did not result in a fine or sanction or the fine or sanction imposed against us or our employees by a regulator were small in monetary amount, the adverse publicity relating to an investigation, proceeding or imposition of these fines or sanctions could harm our reputation and cause us to lose existing clients.

We may encounter conflicts of interest in trying to appropriately allocate our time and services between activities for our own account and for PMT, or in trying to appropriately allocate investment opportunities among ourselves and for PMT.

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

In addition, we and the other entities or accounts that we may manage may participate in some of PMT's investments now or in the future, 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 PMT or such other entities. Any such potential or actual conflicts of interest could damage our reputation and materially and adversely affect our business, financial condition, liquidity and results of operations.

We are subject to significant financial and reputational risks from potential liability arising from lawsuits, and regulatory and government action.

We face significant legal risks in our business, and the volume of claims and amount of damages, penalties and fines claimed in litigation, and regulatory and government proceedings against us and other financial institutions remains high. Greater than expected investigation costs and litigation, including class action lawsuits associated with compliance related issues, substantial legal liability or significant regulatory or government action against us could have adverse effects on our financial condition and results of operations or cause significant reputational harm to us, which in turn could adversely impact our business results and prospects. We may experience a significant volume of litigation and other disputes, including claims for contractual indemnification, with counterparties regarding relative rights and responsibilities. Consumers, clients and other counterparties may also become increasingly litigious.

We also may be exposed to the risk of litigation by investors in clients that we manage from time to time if our management advice is alleged to constitute gross negligence or willful misconduct. Investors could sue us to recover amounts lost by those entities due to our alleged misconduct, up to the entire amount of loss. Further, we may be subject to litigation arising from investor dissatisfaction with the performance of any such entities that we manage or from allegations that we improperly exercised control or influence over those entities. In addition, we are exposed to risks of litigation or investigation relating to transactions which presented conflicts of interest that were not properly addressed. In such actions, we would be obligated to bear legal, settlement and other costs (which may be in excess of available insurance coverage). In addition, although we are generally indemnified by the entities that we manage, our rights to indemnification may be challenged. If we are required to incur all or a portion of the costs arising out of litigation or investigations as a result of inadequate insurance proceeds or failure to obtain indemnification from the entities that we manage, our business, financial condition, liquidity and results of operations would be materially and adversely affected.

Risks Related to Our Business in General

The loss of the services of our senior managers could adversely affect our business.

The experience of our senior managers is a valuable asset to us. Our management team has significant experience in the mortgage loan production and servicing industry and the investment management industry. We do not maintain key person life insurance policies relating to our senior managers. The loss of the services of our senior managers for any reason could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Our business could suffer if we fail to attract and retain a highly skilled workforce.

Our future success will depend on our ability to identify, hire, develop, motivate and retain highly qualified personnel for all areas of our organization, in particular skilled managers, loan officers, underwriters, loan servicers and debt default specialists. Trained and experienced personnel are in high demand and may be in short supply in some areas. Many of the companies with which we compete for experienced employees have greater resources than we have and may be able to offer more attractive terms of employment. In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. We may not be able to attract, develop and maintain an adequate skilled workforce necessary to operate our businesses and labor expenses may increase as a result of a shortage in the supply of qualified personnel. If we are unable to attract and retain such personnel, we may not be able to take advantage of acquisitions and other growth opportunities that may be presented to us and this could have a material adverse effect on our business, financial condition, liquidity and results of operations.

We depend on counterparties and vendors to provide services that are critical to our business, which subjects us to a variety of risks.

We have a number of counterparties and vendors, who provide us with financial, technology and other services that are critical to support our businesses. If our current counterparties and vendors were to stop providing services to us on acceptable terms, we may be unable to procure alternative services from other counterparties or vendors in a timely and efficient manner and on similarly acceptable terms, or at all. Some of these counterparties and vendors have significant operations outside of the United States. If we or our vendors had to curtail or cease operations in these countries due to political unrest or natural disasters and then transfer some or all of these operations to another geographic area, we could experience disruptions in service and incur significant transition costs as well as higher future overhead costs. With respect to vendors engaged to perform certain servicing activities, we are required to assess their compliance with various regulations and establish procedures to provide reasonable assurance that the vendor's activities comply in all material respects with such regulations. In the event that a vendor's activities are not in compliance, it could negatively impact our relationships with our regulators, as well as our business and operations. Further, we may incur significant costs to resolve any such disruptions in service which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

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

Maintaining our reputation is critical to attracting and retaining clients, 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 prospects and earnings. 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.

Certain of our officers also serve as officers of PMT. As we expand the scope of our businesses, we increasingly confront potential conflicts of interest relating to investment activities that we manage for our clients. In addition, investors may perceive conflicts of interest regarding investment decisions and wind-down strategies for funds in which certain of our officers have made and may continue to make personal investments. Similarly, conflicts of interest may exist regarding decisions about the allocation of specific investment opportunities between funds in which we receive an allocation of profits as the general partner and funds in which we do not.

The SEC and certain regulators have increased their scrutiny of potential conflicts of interest, and as we experience growth in our businesses, we must continue to monitor and mitigate or otherwise address any conflicts between our interests and those of our clients. 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 stockholders, investors in any entity that we advise 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. Reputational risk incurred in connection with conflicts of interest could negatively affect our business, strain our working relationships with regulators and government agencies, expose us to litigation and regulatory action, impact our ability to attract and retain clients, customers, trading counterparties, investors and employees and adversely affect our results of operations.

Reputational risk, or the risk to our business, earnings and capital 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 can 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 counterparties and employees and adversely affect our results of operations.

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

Initiating new business activities, developing new products, such as the recently launched home equity line of credit product, or significantly expanding existing business activities, such as our entry into broker direct and consumer direct lending and non-delegated correspondent production, 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 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.

Our risk management efforts may not be effective.

We could incur substantial losses and our business operations could be disrupted if we are 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 laws, regulations and rules that are not industry specific, including employment laws related to employee hiring and termination practices, health and safety laws, environmental laws and other federal, state and local laws, regulations and rules in the jurisdictions in which we operate. Our 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 we may not effectively identify, manage, monitor, and mitigate these risks as our business activities change or increase.

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

We are exposed to risks relating to misconduct by our employees, contractors we use, or other third parties with whom we have relationships. For example, our 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 assets we manage for others through our investment advisory subsidiary, and can be difficult to detect. If not prevented or

detected, misconduct by employees, contractors, or others could result in losses, claims or enforcement actions against us, or could 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. As a result, our stockholders could lose confidence in our financial results, which could harm our business and the market value of our common stock.

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 of 2002 (the "Sarbanes-Oxley Act") requires that we evaluate and report on our internal control over financial reporting. We cannot be certain that we will be successful in maintaining adequate control over our financial reporting and financial processes. Furthermore, as we rapidly grow our businesses, our internal controls will become more complex, and we will require significantly more resources to ensure our internal controls remain effective. Section 404(b) of the Sarbanes-Oxley Act requires our auditors to formally attest to and report on the effectiveness of our internal control over financial reporting.

If we cannot maintain effective internal control over financial reporting, or our independent registered public accounting firm cannot provide an unqualified attestation report on the effectiveness of our internal control over financial reporting, investor confidence and, in turn, the market price of our common stock could decline. 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 shares of our common stock. 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 and results of operations.

Accounting rules for certain of our transactions are highly complex and involve significant judgment and assumptions. Changes in accounting interpretations or assumptions could impact our financial statements.

Accounting rules for mortgage loan sales and securitizations, valuations of financial instruments and MSRs, investment consolidations, income taxes and other aspects of our operations are highly complex and involve significant judgment and assumptions. These complexities could lead to a delay in preparation of financial information and the delivery of this information to our stockholders and also increase the risk of errors and restatements, as well as the cost of compliance. Changes in accounting interpretations or assumptions could impact our financial statements and our ability to timely prepare our financial statements. Our inability to timely prepare our financial statements in the future would likely adversely affect our share price significantly.

The success and growth of our business depends upon our ability to adapt to and implement technological changes.

Our mortgage loan production businesses are dependent upon our ability to effectively interface with our borrowers, mortgage lenders and other third parties and to efficiently process loan applications and closings. The direct lending and correspondent production processes are becoming more dependent upon technological advancement, such as our continued ability to process applications over the Internet, accept electronic signatures, provide process status updates instantly and other borrower- or counterparty-expected conveniences.

Similarly, our servicing business is dependent on our ability to effectively interface with our customers and investors, as well as service mortgage loans in compliance with applicable laws and regulations and the contractual requirements of such investors. We have developed proprietary servicing technology to automate our workflows in order to better meet these needs while reducing servicing costs and creating sustainable efficiencies.

Maintaining and improving these new technologies and becoming proficient with them requires significant capital expenditures. As these technological advancements and investor and compliance requirements increase in the future, we will need to fully develop these technological capabilities in order to remain competitive, and we will need to implement, execute and maintain them in an operating and regulatory environment that exposes us to significant risk. Any failure by us to develop, implement, execute or maintain these technological capabilities could have a material adverse effect on our business, financial condition and results of operations.

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 proprietary 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 our efforts to ensure the integrity of our systems our investment in significant physical and technological security measures, employee training, contractual precautions and business continuity plans, and our 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 may not be recognized until after such attack has been 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 our 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 and results of operations, any of which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Terrorist attacks and other acts of violence or war may cause disruptions in our operations and in the financial 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 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 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.

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 insurance, we cannot predict at this time if we or our borrowers will be able to obtain appropriate 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 in which we hold 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 increasing costs of providing insurance coverage in certain geographic areas.

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.

Risks Related to Our Organizational Structure

BlackRock and Highfields may be able to significantly influence the outcome of votes of our common stock, or exercise certain other rights pursuant to separate stockholder agreements we have entered into with each of them, and their interests may differ from those of our public stockholders.

Pursuant to separate stockholder agreements with BlackRock and Highfields, which were amended and restated in connection with the Reorganization in November 2018, each of BlackRock and Highfields has the right to nominate one or two individuals for election to our board of directors, depending on the percentage of the voting power of our outstanding shares common stock that it holds, and we are obligated to use our best efforts to cause the election of those nominees. In addition, these stockholder agreements require that we obtain the consent of BlackRock and Highfields with respect to amendments to our certificate of incorporation or bylaws. As a result, each of BlackRock and Highfields may be able to significantly influence our management and affairs. In addition, as a result of the size of their individual equity holding they may be able to significantly influence the outcome of all matters requiring stockholder approval, including mergers and other material transactions, and may be able to cause or prevent a change in the composition of our board of directors or a change in control of our Company that could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

We will be required to pay certain of the former owners of PennyMac other than us for certain tax benefits that we may claim, and the amounts we may pay could be significant.

We are a party to a tax receivable agreement with certain former owners of PennyMac other than us that provides for the payment from time to time by us to those former owners of 85% of the tax benefits, if any, that we are deemed to realize under certain circumstances as a result of (i) increases in tax basis resulting from exchanges of Class A units of PennyMac for shares of our common stock and (ii) certain other tax benefits related to our entering into the tax receivable agreement, including tax benefits attributable to payments under the tax receivable agreement. As a result of the Reorganization, each Class A unit of PennyMac held by a Class A unit holder was contributed and exchanged on a one-for-one basis into a share of our common stock. Notwithstanding the foregoing, we have continuing payment obligations under the tax receivable agreement to any Class A unit holder who exchanged Class A units for shares of our common stock prior to the completion of the Reorganization.

It is possible that future transactions or events could increase or decrease the actual tax benefits realized and the corresponding tax receivable agreement payments. There may be a material negative effect on our liquidity if, as a result of timing discrepancies or otherwise, the payments under the tax receivable agreement precede or exceed the actual benefits we realize in respect of the tax attributes subject to the tax receivable agreement or distributions to us by PennyMac are not sufficient to permit us to make payments under the tax receivable agreement after we have paid our taxes. Furthermore, our obligations to make payments under the tax receivable agreement could make us a less attractive target for an acquisition, particularly in the case of an acquirer that cannot use some or all of the tax benefits that are deemed realized under the tax receivable agreement. The payments under the tax receivable agreement are not conditioned upon the continued ownership of us by former owners of PennyMac.

In certain cases, payments under the tax receivable agreement to former owners of PennyMac other than us may be accelerated and/or significantly exceed the actual benefits we realize in respect of the tax attributes subject to the tax receivable agreement.

The tax receivable agreement provides that upon certain mergers, asset sales, other forms of business combinations or other changes of control, or if, at any time, we elect an early termination of the tax receivable agreement, our (or our successor's) obligations with respect to previously exchanged Class A units of PennyMac would be based on certain assumptions, including that we would have sufficient taxable income to fully utilize the deductions arising from the increased tax deductions and tax basis and other benefits related to entering into the tax receivable agreement. As a result, we could be required to make payments under the tax receivable agreement that differ from the percentage specified in the tax receivable agreement of the actual benefits that we realize in respect of the tax attributes that are subject to the tax receivable agreement. Also, if we elect to terminate the tax receivable agreement early, we would be required to make an immediate payment equal to the present value of the anticipated future tax benefits, which upfront payment may be made years in advance of the actual realization of such future benefits (if any). In these situations, our obligations under the tax receivable agreement could have a substantial negative impact on our liquidity, as well as our attractiveness as a target for an acquisition. In addition, we may not be able to finance our obligations under the tax receivable agreement.

Payments under the tax receivable agreement will be based on the tax reporting positions that we determine. Although we are not aware of any issue that would cause the Internal Revenue Service, or IRS, to challenge a tax basis increase, we will not be reimbursed for any payments previously made under the tax receivable agreement. As a result, in certain circumstances, payments could be made under the tax receivable agreement in excess of the tax benefits that we actually realize in respect of (i) increases in tax basis resulting from exchanges of Class A units of PennyMac for shares of our common stock and (ii) certain other tax benefits related to our entering into the tax receivable agreement, including tax benefits attributable to payments under the tax receivable agreement.

Our only material assets are our equity interests in PNMAC Holdings, Inc., PennyMac and their subsidiaries, and we are accordingly dependent upon distributions from such entities to pay taxes, make payments under the tax receivable agreement or pay dividends.

We are a holding company and have no material assets other than our direct ownership of PNMAC Holdings, Inc. and our direct and indirect ownership of all of the Class A units of PennyMac. We have no independent means of generating revenue. We are required to pay tax on the taxable income of PennyMac and make payments under the tax receivable agreement without regard to whether PennyMac distributes to us any cash or other property. To the extent that we need funds, and PennyMac is restricted from making such distributions under applicable laws or regulations or under the terms of financing arrangements, or is otherwise unable to provide such funds, it could materially and adversely affect our liquidity and financial condition.

We may not pay dividends on our common stock in the foreseeable future.

We are entitled to receive the tax distributions made by PennyMac. The cash received from such distributions will first be used to satisfy any of our tax liabilities and then to make any payments under the tax receivable agreement with certain former owners of PennyMac other than us. The declaration, amount and payment of any dividends on shares of our common stock with respect to any remaining excess cash will be at the sole discretion of our board of directors. For example, in 2018, PNMAC Holdings Inc. (our former top-level parent entity prior to the Reorganization) declared a special dividend of $0.40 per share to holders of record of its Class A Common Stock with a record date of August 13, 2018, that was paid on August 30, 2018. Our board of directors may take into account general and economic conditions, our financial condition and operating results, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions and implications on the payment of dividends by us to our stockholders or by our subsidiaries to us, and such other factors as our board of directors may deem relevant. We may also enter into credit agreements or other borrowing arrangements in the future that restrict or limit our ability to pay cash dividends on our common stock. Accordingly, we may not pay any dividends on our common stock in the foreseeable future.

Anti-takeover provisions in our charter documents and Delaware law might discourage or delay acquisition attempts for us that you might consider favorable.

Our certificate of incorporation and bylaws contain provisions that may make the acquisition of our company more difficult without the approval of our board of directors. Among other things, these provisions:

- authorize the issuance of undesignated preferred stock, the terms of which may be established and the shares of which may be issued without stockholder approval, and which may include super voting, special approval, dividend, or other rights or preferences superior to the rights of the holders of common stock;

- prohibit stockholder action by written consent unless the matter as to which action is being taken has been approved by our board of directors, which requires all stockholder actions regarding matters not approved by our board of directors to be taken at a meeting of our stockholders;

- provide that our board of directors is expressly authorized to make, alter, or repeal our bylaws (provided that, if that action adversely affects BlackRock or Highfields when that entity, together with its affiliates, holds at least 5% of the voting power of our outstanding shares of capital stock, our stockholder agreements provide that such action must be approved by that entity);

- establish advance notice requirements for nominations for elections to our board or for proposing matters that can be acted upon by stockholders at stockholder meetings; and

- prevent us from selling substantially all of our assets or completing a merger or other business combination that constitutes a change of control without the approval of a majority of those of our directors who are not also our officers.

These anti-takeover provisions and other provisions under Delaware law could discourage, delay or prevent a transaction involving a change in control of our company, including actions that our stockholders may deem advantageous, or negatively affect the trading price of our common stock. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing and to cause us to take other corporate actions you desire.

Our certificate of incorporation contains provisions renouncing our interest and expectancy in certain corporate opportunities identified by or presented to BlackRock and Highfields.

BlackRock, Highfields and their respective affiliates are in the business of providing capital to growing companies, and may acquire interests in businesses that directly or indirectly compete with certain portions of our business. Our certificate of incorporation provides that neither BlackRock nor Highfields nor their respective affiliates has any duty to refrain from (i) engaging, directly or indirectly, in a corporate opportunity in the same or similar lines of business in which we now engage or propose to engage, or (ii) doing business with any of our clients, customers or vendors. In the event that either of BlackRock or Highfields or their respective affiliates acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself or its affiliates and for us or our affiliates other than in the capacity as one of our officers or directors, then neither BlackRock nor Highfields has any duty to communicate or offer such transaction or business opportunity to us and may take any such opportunity for themselves or offer it to another person or entity. Neither BlackRock nor Highfields nor any officer, director or employee thereof, shall be liable to us or to any of our stockholders (or any affiliates thereof) for breach of any fiduciary or other duty by engaging in any such activity and we waive and renounce any claim based on such activity. This provision applies even if the business opportunity is one that we might reasonably be deemed to have pursued or had the ability or desire to pursue if granted the opportunity to do so. Our separate stockholder agreements with BlackRock and Highfields provide that any amendment or repeal of the provisions related to corporate opportunities described above requires the consent of each of BlackRock and Highfields as long as it, or any of its affiliates, holds any equity interest in us. These potential conflicts of interest could have a material and adverse effect on our business, financial condition, liquidity, results of operations or prospects if attractive corporate opportunities are allocated by BlackRock or Highfields to themselves or their other affiliates instead of to us.

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

Our bylaws provide that the state or federal court located within the State of Delaware 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 the Delaware General Corporation Law, our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. This exclusive forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other associates, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the exclusive 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, financial condition, liquidity and results of operations.

Risks Related to Our Common Stock

The market price and trading volume of our common stock may be volatile, which could result in rapid and substantial losses for our stockholders.

The market price of our common stock has fluctuated significantly in the past and may be highly volatile in the future and could be subject to wide fluctuations. In addition, the trading volume in our common stock may fluctuate and cause significant price variations to occur. Further, if the market price of our common stock declines significantly, you may be unable to resell your shares at or above your purchase price, if at all. The market price of our common stock may

decline significantly in the future. Some of the factors that could negatively affect our share price or result in fluctuations in the price or trading volume of our common stock include:

- variations in our quarterly or annual operating results;
- changes in our earnings estimates (if provided) or differences between our actual financial and operating results and those expected by investors and analysts;
- the contents of published research reports about us or our industry or the failure of securities analysts to cover our common stock;
- additions or departures of key management personnel;
- any increased indebtedness we may incur in the future;
- announcements by us or others and developments affecting us;
- actions by institutional stockholders;
- litigation and governmental investigations;
- changes in market valuations of similar companies;
- speculation or reports by the press or investment community with respect to us or our industry in general;
- increases in market interest rates that may lead purchasers of our shares to demand a higher yield;
- announcements by us or our competitors of significant contracts, acquisitions, dispositions, strategic relationships, joint ventures or capital commitments; and
- general market, political and economic conditions, including any such conditions and local conditions in the markets in which our customers are located.

These broad market and industry factors may decrease the market price of our common stock, regardless of our actual operating performance. The stock market in general has from time to time experienced extreme price and volume fluctuations, including in recent months. In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

The market price of our common stock could be negatively affected by sales of substantial amounts of our common stock into the public trading market.

PennyMac was founded in 2008 by members of our executive leadership team, BlackRock and Highfields. As a result of the Reorganization, BlackRock, Highfields, and certain other former owners of PennyMac contributed 37,497,607 Class A units of PennyMac to us in exchange for, on a one-for-one basis, shares of our common stock. Some of these former owners of PennyMac should be eligible for long-term capital gains treatment (rather than ordinary income tax treatment) on future sales of such common stock if the holding period is more than one year. Accordingly, we believe that, following the one year anniversary of the Reorganization, such owners may be more likely to sell their shares of common stock into the public trading market. Sales of substantial numbers of shares of our common stock into the public trading market, or the perception that such sales could occur, could adversely affect the market price of our common stock and impede our ability to raise capital through the issuance of additional common stock or other equity securities.

The future issuance of additional common stock in connection with our incentive plans, acquisitions or otherwise will dilute all other stockholdings.

As of December 31, 2018, we have an aggregate of 3,909,942 shares of common stock authorized and remaining available for future issuance under our 2013 Equity Incentive Plan. We may issue all of these shares of common stock without any action or approval by our stockholders, subject to certain exceptions. We also intend to continue to evaluate acquisition opportunities and may issue common stock in connection with these acquisitions. Any common stock issued in connection with our incentive plans, acquisitions, the exercise of outstanding stock options or otherwise would dilute the percentage ownership held by investors who purchase our common stock.

Future offerings of debt or equity securities by us may adversely affect the market price of our common stock.

In the future, we may attempt to obtain financing or to further increase our capital resources by issuing additional shares of our common stock or offering debt or other equity securities, including commercial paper, medium-term notes, senior or subordinated notes, debt securities convertible into equity or shares of preferred stock. In particular, we intend to seek opportunities to acquire MSR portfolios. Future acquisitions could require substantial additional capital in excess of cash from operations. We would expect to obtain the capital required for acquisitions through a combination of additional issuances of equity, corporate indebtedness, asset-backed acquisition financing and/or cash from operations.

Issuing additional shares of our common stock or other equity securities or securities convertible into equity may dilute the economic and voting rights of our existing stockholders or reduce the market price of our common stock or both. Upon liquidation, holders of such debt securities and preferred shares, if issued, and lenders with respect to other borrowings would receive a distribution of our available assets prior to the holders of our common stock. Debt securities convertible into equity could be subject to adjustments in the conversion ratio pursuant to which certain events may increase the number of equity securities issuable upon conversion. Preferred shares, if issued, could have a preference with respect to liquidating distributions or a preference with respect to dividend payments that could limit our ability to pay dividends to the holders of our common stock. Our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, which may adversely affect the amount, timing or nature of our future offerings. Any such issuance will dilute the ownership of holders of our stock in substantially all of our operating assets. Thus, holders of our common stock bear the risk that our future offerings, including any future offerings by PennyMac, may reduce the market price of our common stock and dilute their stockholdings in us.

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 transitionary 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.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Our corporate offices are housed in a 60,000 square foot leased facility located at 3043 Townsgate Road, Westlake Village, California 91361 where we conduct executive management for all of our businesses and investment management activities. Our primary loan servicing operation is housed in a 142,000 square foot leased facility located in Moorpark, CA. Much of our California-based loan production operation is housed in a leased 60,000 square foot facility in close proximity to our corporate offices. Our information technology division is housed in a 50,000 square foot facility in Agoura Hills, CA.

We lease several additional locations throughout the country generally housing loan production and servicing activities. Our consumer direct lending business occupies a 36,000 square foot facility in Pasadena, CA. Loan servicing and its call center operations occupy a 116,000 square foot facility in Fort Worth, TX, and a 75,000 square foot facility in Plano, TX. In 2018, we leased a new facility in Summerlin, NV as a future site primarily for loan servicing activities. We have five loan production centers located in Roseville, CA, Honolulu, HI, Edina, MN, St. Louis, MO, and Henderson, NV. We also lease a 30,000 square foot facility in Tampa, FL devoted to our correspondent production activities.

The financial commitments of our leases are immaterial to the scope of our operations.

Item 3. ***Legal Proceedings***

The Company is a party to legal proceedings and potential claims arising in the ordinary course of our business. The amount, if any, of ultimate liability with respect to such matters cannot be determined, but despite the inherent uncertainties of litigation, management believes that the ultimate disposition of such proceedings and exposure will not have a material adverse impact on the financial condition, results of operations, or cash flows of the Company.

On December 20, 2018, a purported shareholder of the Company filed a complaint in a putative class and derivative action in the Court of Chancery of the State of Delaware, captioned *Robert Garfield v. BlackRock Mortgage Ventures, LLC et al.*, Case No. 2018-0917-KSJM (the "Garfield Action"). The Garfield Action alleges, among other things, that certain current directors and officers of the Company breached their fiduciary duties to the Company and its shareholders by, among other things, agreeing to and entering into the Reorganization without ensuring that the Reorganization was entirely fair to the Company or public shareholders. The Reorganization was approved by 99.8% of voting shareholders on October 24, 2018. On March 1, 2019, the Company and its directors and officers named in the Garfield Action filed a motion to dismiss the complaint.

Item 4. ***Mine Safety Disclosures***

Not applicable.

PART II

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

Our shares of common stock are listed on the New York Stock Exchange (Symbol: PFSI). As of February 28, 2019, our shares of common stock were held by 2,936 holders of record.

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 directors and depend on our earnings, our financial condition and such other factors as our board of directors 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.

Repurchase of our Common Stock

The following table summarized the stock repurchase activity for the quarter ended December 31, 2018:

	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or program (1)	Approximate dollar value of shares that may yet be purchased under the plans or program (1)
October 1, 2018 – October 31, 2018	—	$ —	—	$ 36,575,218
November 1, 2018 – November 30, 2018	16,110	$ 19.74	16,110	$ 36,257,166
December 1, 2018 – December 31, 2018	7,517	$ 19.84	7,517	$ 36,108,029
Total	23,627	$ 19.77	23,627	$

(1) In June 2017, our board of directors approved a stock repurchase program authorizing us to repurchase up to $50 million of our outstanding common stock. The stock repurchase program does not require us to purchase a specific number of shares, and the timing and amount of any shares repurchased are based on market conditions and other factors, including price, regulatory requirements and capital availability. Stock repurchases may be effected through negotiated transactions or open market purchases, including pursuant to a trading plan implemented pursuant to Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. The stock repurchase program does not have an expiration date but may be suspended, modified or discontinued at any time without prior notice.

Equity Compensation Plan Information

We have adopted an equity incentive plan, the 2013 Equity Incentive Plan, which provides for the grant of incentive stock option and nonstatutory stock options, stock appreciation rights, restricted stock and stock unit awards, performance units, stock grants and qualified performance-based awards, which we collectively refer to as "awards." Directors, officers and other employees of our Company and our subsidiaries, as well as others performing consulting or advisory services for us, are eligible for grants under the 2013 Equity Incentive Plan. The plan administrator of the equity incentive plan is the compensation committee of the board of directors. The board of directors itself may also exercise any of the powers and responsibilities under the 2013 Equity Incentive Plan. Subject to the terms of the 2013 Equity Incentive Plan, the plan administrator will select the recipients of awards and determine, among other things, the:

- number of shares of common stock covered by the awards and the dates upon which such awards become exercisable or any restrictions lapse, as applicable;

- type of award and the exercise or purchase price and method of payment for each such award;

- performance measures, if applicable, required to be satisfied prior to vesting;
- vesting period for awards, risks of forfeiture and any potential acceleration of vesting or lapses in risks of forfeiture; and
- duration of awards.

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

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted average exercise price of outstanding options, warrants and rights (1)	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (2)
Equity compensation plans approved by security holders (3)	6,211,440	$ 17.81	3,909,942
Equity compensation plans not approved by security holders (4)	—	—	—
Total	6,211,440	$ 17.81	3,909,942

(1) The weighted average exercise price set forth in this column relates only to 3,692,674 shares of stock options outstanding under our 2013 Equity Incentive Plan. The remaining securities included in column (a) of this table are performance-based restricted stock units and time-based restricted stock units, for which no exercise price applies.

(2) This number includes a general pool of 3,909,942 shares of common stock authorized for future awards (excluding securities reflected in column (a)). This general pool initially consisted of 3,906,433 shares of common stock authorized under the 2013 Equity Incentive Plan for future awards, and has been, and will continue to be, increased pursuant to the terms of the 2013 Equity Incentive Plan on January 1st of each calendar year by an amount equal to the lesser of (i) 1.75% of our outstanding common stock on a fully diluted basis as of the end of our immediately preceding fiscal year, (ii) 1,322,024 shares, and (iii) any lower amount determined by our board of directors. The annual increase to this general pool on January 1, 2018 pursuant to the foregoing formula was 1,322,024 and in May 2018, an additional 2,000,000 shares of common stock was authorized for future awards under the 2013 Equity Incentive Plan and approved by security holders at our 2018 annual meeting of stockholders.

(3) Represents our 2013 Equity Incentive Plan.

(4) We do not have any equity plans that have not been approved by our stockholders.

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
	(in thousands, except per share data)				
Condensed Consolidated Statements of Income:					
Revenues					
Net mortgage loan servicing fees	$ 445,393	$ 306,059	$ 185,466	$ 229,543	$ 216,919
Net gains on mortgage loans held for sale	249,022	391,804	531,780	320,715	167,024
Loan origination fees	101,641	119,202	125,534	91,520	41,576
Fulfillment fees from PennyMac Mortgage Investment Trust	81,350	80,359	86,465	58,607	48,719
Management fees and Carried Interest	24,104	22,545	23,726	30,865	48,664
Net interest income (expense)	71,819	(1,341)	(25,079)	(19,382)	(9,486)
Other	11,300	36,835	3,995	1,242	4,861
Total net revenue	984,629	955,463	931,887	713,110	518,277
Expenses					
Compensation	403,270	358,721	342,153	274,262	190,707
Servicing	137,104	117,696	85,857	68,085	48,430
Other	176,558	143,137	120,794	91,570	56,107
Total expenses	716,932	619,554	548,804	433,917	295,244
Income before provision for income taxes	267,697	335,909	383,083	279,193	223,033
Provision for income taxes	23,254	24,387	46,103	31,635	26,722
Net income	244,443	311,522	336,980	247,558	196,311
Less: Net income attributable to noncontrolling interest	156,749	210,765	270,901	200,330	159,469
Net income attributable to PennyMac Financial Services, Inc. common stockholders	$ 87,694	$ 100,757	$ 66,079	$ 47,228	$ 36,842
Income before provision for income taxes by segment:					
Mortgage banking:					
Production	$ 87,266	$ 238,508	$ 416,096	$ 271,869	$ 135,619
Servicing	172,302	58,672	(36,099)	1,297	65,925
Total mortgage banking	259,568	297,180	379,997	273,166	201,544
Investment management	7,003	5,789	2,486	7,722	20,111
Non-segment activities	1,126	32,940	600	(1,695)	1,378
	$ 267,697	$ 335,909	$ 383,083	$ 279,193	$ 223,033
Condensed Consolidated Balance Sheets at Year End:					
Assets					
Mortgage loans held for sale at fair value	$ 2,521,647	$ 3,099,103	$ 2,172,815	$ 1,101,204	$ 1,147,884
Mortgage servicing rights	2,820,612	2,119,588	1,627,672	1,411,935	730,828
Servicing advances	313,197	318,066	348,306	299,354	228,630
Investments in and advances to affiliates	165,886	181,421	239,769	241,352	95,042
Mortgage loans eligible for repurchase	1,102,840	1,208,195	382,268	166,070	72,539
Other	554,391	441,720	363,072	285,379	231,763
Total assets	$ 7,478,573	$ 7,368,093	$ 5,133,902	$ 3,505,294	$ 2,506,686
Liabilities and stockholders' equity					
Short-term debt	$ 2,332,143	$ 2,922,542	$ 2,567,658	$ 1,467,535	$ 1,112,675
Long-term debt	1,648,973	1,135,401	301,917	421,208	191,166
Liability for mortgage loans eligible for repurchase	1,102,840	1,208,195	382,268	166,070	72,539
Other	740,826	382,281	482,703	388,131	323,040
Total liabilities	5,824,782	5,648,419	3,734,546	2,442,944	1,699,420
Stockholders' equity	1,653,791	1,719,674	1,399,356	1,062,350	807,266
Total liabilities and stockholders' equity	$ 7,478,573	$ 7,368,093	$ 5,133,902	$ 3,505,294	$ 2,506,686
Earnings Per Share:					
Basic	$ 2.62	$ 4.34	$ 2.98	$ 2.17	$ 1.73
Diluted	$ 2.59	$ 4.03	$ 2.94	$ 2.17	$ 1.73
Year End Per Share:					
Book value	$ 21.34	$ 19.95	$ 15.49	$ 12.32	$ 9.92
Share price	$ 21.26	$ 22.35	$ 16.65	$ 15.36	$ 17.30

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

Critical Accounting Policies

Preparation of financial statements in compliance with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates 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 us to make difficult, subjective or complex judgments. Our critical accounting policies primarily relate to our fair value estimates.

Fair Value

We group assets 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. These levels are:

	December 31, 2018		
		Percentage of	
Level/Description	**Carrying value of assets measured**	**Total assets**	**Total stockholders' equity**
	(in thousands)		
Level 1: Prices determined using quoted prices in active markets for identical assets or liabilities.	$ 126,052	2%	8%
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 us.	2,273,878	30%	137%
Level 3: Prices determined using significant unobservable inputs. Unobservable inputs reflect our judgements about the factors that market participants use in pricing an asset or liability, and are based on the best information available in the circumstances.	3,160,147	42%	191%
Total assets measured at or based on fair value (1)	$ 5,560,077	74%	336%
Total assets	$ 7,478,573		
Total stockholders' equity	$ 1,653,791		

(1) Includes assets measured on both a recurring and nonrecurring basis based on the accounting principles applicable to the specific asset or liability and whether we have elected to carry the asset or liability at its fair value.

As shown above, our consolidated balance sheet is substantially comprised of assets and liabilities that are measured at or based on their fair values. At December 31, 2018, $5.6 billion or 74% of our total assets were carried at fair value on a recurring basis and $2.3 million (real estate acquired in settlement of loans ("REO") properties, were carried based on its fair value on a non-recurring basis when fair value indicates evidence of impairment of individual properties. Of these assets carried at or based on fair value, $3.2 billion or 42% of total assets are measured using "Level 3" fair value inputs – significant inputs where there is difficulty in observing the inputs used by market participants in establishing fair value. Changes in inputs to measurement of these assets can have a significant effect on the amounts reported for these items including their reported balances and their effects on our income.

As a result of the difficulty in observing certain significant valuation inputs affecting our "Level 3" fair value assets and liabilities, we are 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 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 assets, subsequent transactions may be at values significantly different from those reported.

Because the fair value of "Level 3" fair value assets and liabilities are difficult to estimate, our valuation process includes performance of these items' fair value estimation by specialized staff and significant senior management oversight. We have assigned the responsibility for estimating the fair values of non-interest rate lock commitment ("IRLC") "Level 3" fair value assets and liabilities to our Financial Analysis and Valuation group (the "FAV group"), which is responsible for valuing and monitoring these items and maintenance of our valuation policies and procedures for non-IRLC assets and liabilities. The FAV group submits the results of its valuations to our senior management valuation committee, which oversees the valuations. During 2018, our senior management 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 Capital Markets Risk Management staff and is reviewed by our Capital Markets Operations group.

Following is a discussion of our approach to measuring the balance sheet items 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 *Net gains on mortgage loans held for sale at fair value*. How we estimate the fair value of mortgage loans is based on whether the mortgage loans are saleable into active markets with observable fair value inputs.

- We categorize mortgage loans that are saleable into active markets as "Level 2" fair value assets. We estimate the fair value of such mortgage loans using their quoted market price or market price equivalent. At December 31, 2018, we held $2.3 billion of such mortgage loans.

- We categorize mortgage loans that are not saleable into active markets as "Level 3" fair value assets. "Level 3" fair value mortgage loans arise primarily from two sources:

  - We may purchase certain delinquent government guaranteed or insured mortgage loans from Ginnie Mae guaranteed securitizations included in our mortgage loan servicing portfolio. Our right to purchase such mortgage loans arises as the result of the borrower's failure to make payments for three consecutive months preceding the month that we repurchase the mortgage loan. Our ability to purchase delinquent mortgage loans provides us with an alternative to our obligation to continue advancing principal and interest at the coupon rate of the related Ginnie Mae security. To the extent such mortgage loans ("early buyout loans" or "EBO") have not become saleable into another Ginnie Mae guaranteed security by becoming current either through the borrower's reperformance or through completion of a modification of the mortgage loan's terms, we measure such mortgage loans using "Level 3" fair value inputs.

  - Certain of our mortgage loans may become non-saleable into active markets due to our identification of one or more defects. Because such mortgage loans are generally not saleable into active mortgage markets, we classify them as "Level 3" fair value assets.

We use a discounted cash flow model to estimate the fair value of "Level 3" fair value mortgage loans. The significant unobservable inputs used in the fair value measurement of our "Level 3" fair value mortgage loans held for sale are discount rates, home price projections and prepayment speeds. Significant changes in any of those inputs in isolation could result in a significant change to the mortgage loans' fair value measurement. At December 31, 2018, we held $260.0 million of "Level 3" fair value mortgage loans.

Interest Rate Lock Commitments

Our net gains on mortgage loans held for sale include our estimates of the gains or losses we expect to realize upon the sale of mortgage loans we have contractually committed to fund or purchase but have not yet funded, purchased or sold. We recognize a substantial portion of our net gains on mortgage loans held for sale at fair value before we fund or purchase the mortgage loans as the result of these commitments. We call these commitments IRLCs. We recognize the fair value of IRLCs at the time we make the commitment to the correspondent seller or mortgage loan applicant and adjust the fair value of such IRLCs as the mortgage loan approaches the point of funding or purchase or the prospective transaction is canceled.

We carry IRLCs as either *Derivative assets* or *Derivative liabilities* on our consolidated balance sheet. The fair value of an IRLC is transferred to *Mortgage loans held for sale at fair value* when the mortgage loan is funded or purchased.

An active, observable market for IRLCs does not exist. Therefore, we measure the fair value of IRLCs using methods we believe that market participants use in pricing IRLCs. We estimate the fair value of an IRLC based on observable Agency MBS prices, our estimates of the fair value of the MSRs we expect to receive in the sale of the mortgage loans and the probability that we will fund or purchase the mortgage loan (the "pull-through rate").

Pull-through rates and MSR fair values are based on our estimates as these inputs are difficult to observe in the mortgage marketplace. Our estimate of the probability that a mortgage loan will be funded and market interest rates are updated as the mortgage loans move through the funding or purchase process and as mortgage market interest rates change and may result in significant changes in our 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 gains on mortgage loans held for sale at fair value* in the period of the change. The financial effects of changes in these inputs are generally inversely correlated. Increasing mortgage 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 mortgage loan principal and interest payment cash flow component, which has decreased in fair value.

A shift in our assessment of an input to the valuation of IRLCs can have a significant effect on the amount of *Net gains on sale of mortgage loans held for sale* for the period. We believe that the most significant "Level 3" fair value input to the measurement of IRLCs is the pull-through rate. At December 31, 2018, we held $49.3 million of net IRLC assets at fair value. Following is a quantitative summary of the effect of changes in the pull-through rate input on the fair value of IRLCs at December 31, 2018:

Change in input (1)	**Effect on fair value of IRLC of a change in pull-through rate**
	(in thousands)
5 %	$ 2,868
10 %	$ 5,469
20 %	$ 9,588
(5)%	$ (3,184)
(10)%	$ (6,369)
(20)%	$ (12,739)

(1) The upward shift in input amount on a per-loan basis is limited to the amount of shift required to reach a 100% pull-through rate.

The preceding analysis holds constant all of the other inputs to show an estimate of the effect on fair value of a change in the pull-through rate. 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 analysis is not a projection of the effects of a shock event or a change in our estimate of an input and should not be relied upon as an earnings projection.

Mortgage Servicing Rights

MSRs represent the fair value assigned to contracts that obligate us to service the mortgage loans on behalf of the owners of the mortgage loans in exchange for servicing fees and the right to collect certain ancillary income from the borrower. We recognize MSRs at our estimate of the fair value of the contract to service the loans.

We include changes in fair value of MSRs in current period income as a component of *Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities.* During the year ended December 31, 2018, we recognized a $129.4 million net reduction in fair value of MSRs: $303.8 million of the reduction was due to realization of cash flows underlying the fair value of MSR, partially offset by a $174.4 million increase due to changes in inputs used to estimate fair value.

We classify MSRs as “Level 3” fair value assets and determine their fair value using a discounted cash flow approach. We believe the most significant “Level 3” fair value inputs to the valuation of MSRs are the pricing spread (used to develop periodic discount rates), prepayment speed and annual per-loan cost of servicing.

A shift in the market for MSRs or a change in our assessment of an input to the valuation of MSRs can have a significant effect on their fair value and in our income for the period. The fair value of MSRs that we held at December 31, 2018 was $2.8 billion.

Following is a summary of the effect on fair value of MSRs of various changes to these key inputs at December 31, 2018:

	Effect on fair value of MSRs of a change in input value		
Change in input	**Pricing spread**	**Prepayment speed**	**Servicing cost**
		(in thousands)	
5 %	$ (45,268)	$ (47,687)	$ (22,944)
10 %	$ (89,073)	$ (93,626)	$ (45,888)
20 %	$ (172,556)	$ (180,623)	$ (91,775)
(5)%	$ 46,801	$ 49,532	$ 22,944
(10)%	$ 95,208	$ 101,017	$ 45,888
(20)%	$ 197,162	$ 210,306	$ 91,775

The preceding 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 estimate of an input and should not be relied upon as earnings projections.

Excess Servicing Spread Financing

We finance a portion of the cost of Agency MSRs that we purchase from non-affiliate sellers through the sale to PMT of the servicing spread in excess of a specified level. We carry our ESS at fair value.

Because the ESS is a claim to a portion of the cash flows from MSRs, the valuation of the ESS is similar to that of MSRs. We use the same discounted cash flow approach to measure the ESS and the related MSRs except that certain

inputs relating to the cost to service the mortgage loans underlying the MSRs and certain ancillary income are not included in the ESS valuation as these cash flows do not accrue to the holder of the ESS.

A shift in the market for, or a change in our 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. However, we believe that this change will be offset to a great extent by a change in the fair value of the MSRs that the ESS is financing. We record changes in the fair value of ESS in *Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities*. During the year ended December 31, 2018, we recorded $8.5 million of net increase in fair value of ESS.

We believe that the most significant "Level 3" fair value inputs to the valuation of ESS are the pricing spread (used to develop periodic discount rates) and prepayment speed. At December 31, 2018, we carried $216.1 million of ESS at fair value. Following is a summary of the effect on fair value of various changes to these inputs at December 31, 2018:

	Effect on excess servicing spread of a change in input value	
Change in input	**Pricing spread**	**Prepayment speed**
	(in thousands)	
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

The preceding 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 that 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 estimate of an input and should not be relied upon as earnings projections.

Critical Accounting Policy Not Based on Fair Value – Liability for Losses Under Representations and Warranties

We record a provision for losses relating to our representations and warranties as part of our mortgage loan sale transactions and periodically update our estimates of our liability. The method we use 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 default and mortgage loan repurchase rates, the potential severity of loss in the event of default and, if applicable, the probability of reimbursement by the correspondent mortgage loan seller.

The level of the liability for losses under representations and warranties is difficult to estimate and requires considerable judgment. The level of mortgage loan repurchase losses is dependent on economic factors, purchaser or insurer loss mitigation strategies, 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 credit administration staff. The liability estimate is reviewed and approved by our senior management credit committee which includes the senior executives of the Company and of the loan production, loan servicing and credit risk management areas.

During the year ended December 31, 2018, we recorded $5.8 million in provision for losses relating to current year mortgage loan sales in *Net gain on mortgage loans held for sale at fair value* and incurred net losses totaling $50,000.

As economic fundamentals change, as purchaser and insurer 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 may be required to adjust the estimate of our liability for representations and warranties. Such an adjustment may be material to our financial condition and income. During the year ended December 31, 2018, we recorded reductions to our previously recorded representations and warranties liability amounts totaling $4.7 million in *Net gain on mortgage loans held for sale at fair value*. At December 31, 2018, the balance of our liability for losses under representations and warranties totaled $21.2 million.

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 on the Company.

Results of Operations

Our results of operations are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands except per-share amounts)		
Revenues:			
Net mortgage loan servicing fees	$ 445,393	$ 306,059	$ 185,466
Net gains on mortgage loans held for sale at fair value	249,022	391,804	531,780
Mortgage loan origination fees	101,641	119,202	125,534
Fulfillment fees from PennyMac Mortgage Investment Trust	81,350	80,359	86,465
Net interest income (expense)	71,819	(1,341)	(25,079)
Management fees & Carried Interest	24,104	22,545	23,726
Other	11,300	36,835	3,995
Total net revenue	984,629	955,463	931,887
Expenses	716,932	619,554	548,804
Provision for income taxes	23,254	24,387	46,103
Net income	$ 244,443	$ 311,522	$ 336,980
Earnings per share			
Basic	$ 2.62	$ 4.34	$ 2.98
Diluted	$ 2.59	$ 4.03	$ 2.94
Return on average common stockholders' equity	12.7 %	26.0 %	21.9 %
Income before provision for income taxes by segment:			
Mortgage banking:			
Production	$ 87,266	$ 238,508	$ 416,096
Servicing	172,302	58,672	(36,099)
Total mortgage banking	259,568	297,180	379,997
Investment management	7,003	5,789	2,486
Non-segment activities (1)	1,126	32,940	600
	$ 267,697	$ 335,909	$ 383,083
During the year:			
Interest rate lock commitments issued	$ 44,786,584	$ 49,606,767	$ 52,648,017
Unpaid principal balance of mortgage loans fulfilled for PMT subject to fulfillment fees	$ 26,194,303	$ 22,971,119	$ 23,188,386
Common stock closing prices			
High	$ 25.20	$ 22.45	$ 19.35
Low	$ 18.77	$ 15.65	$ 10.48
At year-end	$ 21.26	$ 22.35	$ 16.65
At year end:			
Unpaid principal balance of mortgage loan servicing portfolio:			
Owned:			
Mortgage servicing rights	$ 201,054,144	$ 166,249,237	$ 129,177,106
Mortgage servicing liabilities	1,160,938	1,620,609	2,074,896
Mortgage loans held for sale	2,420,636	2,998,377	2,101,283
	204,635,718	170,868,223	133,353,285
Subserviced for Advised Entities	94,658,154	74,980,268	60,886,717
	$ 299,293,872	$ 245,848,491	$ 194,240,002
Net assets of Advised Entities:			
PennyMac Mortgage Investment Trust	$ 1,566,132	$ 1,544,585	$ 1,351,114
Investment Funds	—	29,329	197,550
	$ 1,566,132	$ 1,573,914	$ 1,548,664
Book value per share	$ 21.34	$ 19.95	$ 15.49

(1) Primarily represents repricing of *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement,* of which, for 2017, $32.0 million was the result of the change in the federal tax rate under Tax Cuts and Jobs Act of 2017 (the "Tax Act").

Comparison of the years ended December 31, 2018, 2017 and 2016

During the year ended December 31, 2018, we recorded net income of $244.4 million, a decrease of $67.1 million or 22% from 2017. The decrease was primarily due to an increase of $97.4 million in total expense, which was partially offset by an increase of $29.2 million in total net revenue. The increase in total expense was primarily due to expansion of our loan servicing and production businesses. The increase in total net revenue is primarily due to an increase of $139.3 million in *Net mortgage loan servicing fees* and an increase of $73.2 million in *Net interest income*, partially offset by decreases of $142.8 million in *Net gains on mortgage loans held for sale at fair value*, $17.6 million in *Mortgage loan origination fees* and $25.5 million in *Other* income. The decrease in our *Net gains on mortgage loans held for sale at fair value* reflects continued competitive pressures in the mortgage market place arising from the effect of increasing interest rates on borrower demand for mortgage loans. Increasing interest rates also contributed $70.8 million to *Net mortgage loan servicing fees* in the form of fair value gains net of hedging results during 2018 as compared to 2017.

As discussed in *Net interest income* below, financing incentives contributed $48.1 million and $9.2 million to our pre-tax income during the years ended December 31, 2018, and 2017, respectively. The master repurchase agreement underlying the incentives is subject to a rolling six-month term through August 21, 2019, unless terminated earlier at the option of the lender. We expect that we will cease to accrue the incentives under the repurchase agreement in the second quarter of 2019. While there can be no assurance, we expect that the loss of such incentive income will be partially offset by an improvement in pricing margins.

During the year ended December 31, 2017, we recorded net income of $311.5 million, a decrease of $25.5 million or 8% from 2016. The decrease was primarily due to a decrease in *Net gains on mortgage loans held for sale at fair value* due to decreases in our loan production volume and production profit margins. The decrease in production volume and production profit margins during the year ended December 31, 2017, reflects generally rising interest rates in the mortgage market, which have a negative influence on demand for mortgage lending and causes increased competition for mortgage loans among market participants. The decrease in *Net gains on mortgage loans held for sale at fair value* was partially offset by an increase in *Net mortgage loan servicing fees* which reflects both growth in our servicing portfolio and improved fair value adjustments resulting from the more stable interest rates and decreased risk premium for government servicing assets.

Net mortgage loan servicing fees

Following is a summary of our net mortgage loan servicing fees:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Net mortgage loan servicing fees:			
Mortgage loan servicing fees:			
From non-affiliates	$ 585,101	$ 475,848	$ 385,633
From PennyMac Mortgage Investment Trust	42,045	43,064	50,615
From Investment Funds	3	1,461	2,583
Ancillary and other fees	64,133	58,924	46,910
	691,282	579,297	485,741
Amortization, impairment and change in fair value of mortgage servicing rights, mortgage servicing liabilities and excess servicing spread financing net of hedging results	(245,889)	(273,238)	(300,275)
Net mortgage loan servicing fees	$ 445,393	$ 306,059	$ 185,466
Average mortgage loan servicing portfolio	$ 269,402,670	$ 221,505,951	$ 177,676,686

Amortization, impairment and change in fair value of mortgage servicing rights and excess servicing spread are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Amortization and realization of cash flows	$ (280,015)	$ (236,584)	$ (204,608)
Other changes in fair value of, and provision for impairment of, mortgage servicing rights and mortgage servicing liabilities	163,671	(18,149)	(145,995)
Change in fair value of excess servicing spread	(8,500)	19,350	23,923
Hedging results	(121,045)	(37,855)	26,405
Total fair value adjustments, net of hedging results	34,126	(36,654)	(95,667)
Total amortization, impairment and change in fair value of mortgage servicing rights, mortgage servicing liabilities and excess servicing spread	$ (245,889)	$ (273,238)	$ (300,275)
Average mortgage servicing rights balances	$ 2,433,758	$ 1,873,001	$ 1,396,884
Average mortgage servicing liabilities	$ 10,506	$ 15,587	$ 8,327
Mortgage servicing rights at year end	$ 2,820,612	$ 2,119,588	$ 1,627,672
Mortgage servicing liabilities at year end	$ 8,681	$ 14,120	$ 15,192

Following is a summary of our mortgage loan servicing portfolio:

	December 31,	
	2018	2017
	(in thousands)	
Mortgage loans serviced		
Prime servicing:		
Owned:		
Mortgage servicing rights		
Originated	$ 144,296,544	$ 119,673,403
Acquired	56,757,600	46,575,834
	201,054,144	166,249,237
Mortgage servicing liabilities	1,160,938	1,620,609
Mortgage loans held for sale	2,420,636	2,998,377
	204,635,718	170,868,223
Subserviced for PMT	94,276,938	73,651,608
Total prime servicing	298,912,656	244,519,831
Special servicing – Subserviced for Advised Entities	381,216	1,328,660
Total mortgage loans serviced	$ 299,293,872	$ 245,848,491

Net mortgage loan servicing fees increased $139.3 million and $120.6 million during the years ended December 31, 2018 and 2017, compared to the years ended December 31, 2017 and 2016, respectively. The increase was due to a combination of increased mortgage loan servicing fees resulting from growth in our mortgage loan servicing portfolio and decreased losses in fair value and impairment of MSRs and mortgage servicing liabilities ("MSLs"), net of hedging results, resulting from the effect of generally rising interest rates from 2016.

Mortgage loan servicing fees increased $112.0 million and $93.6 million during the years ended December 31, 2018 and 2017, compared to the years ended December 31, 2017 and 2016, respectively, reflecting an increase in our average servicing portfolio of 22% and 25% during the years ended December 31, 2018 and 2017, compared to the years ended December 31, 2017 and 2016, respectively. These increases were moderated by decreasing mortgage loan servicing fees from the Advised Entities due to a reduction in fees related to the servicing of distressed mortgage loans as those loan portfolios liquidated in the case of two of the Investment Funds, and continued to liquidate

in the case of PMT. Special servicing activities generate higher revenues on a per-loan basis than prime servicing due to the higher costs we incur to service such loans.

Net gains on mortgage loans held for sale at fair value

Most of our mortgage loan production consists of government-insured or guaranteed mortgage loans that we source primarily through PMT. PMT is not approved by Ginnie Mae as an issuer of Ginnie Mae-guaranteed securities which are backed by government-insured or guaranteed mortgage loans. We purchase such mortgage loans that PMT acquires through its correspondent production activities and pay PMT a sourcing fee ranging from two to three and one-half basis points on the UPB of such mortgage loans.

During the year ended December 31, 2018, we recognized *Net gains on mortgage loans held for sale at fair value* totaling $249.0 million, compared to $391.8 million and $531.8 million during the years ended December 31, 2017 and 2016, respectively. The decreases in 2018 and 2017 compared to 2017 and 2016 were primarily due to decreases in both loan production volume for our own account and profit margins reflecting the generally rising interest rates in the mortgage market, which has a negative influence on demand for mortgage lending. Reduced demand negatively influences profit margins by causing increased price competition in the acquisition and origination of mortgage loans.

Our net gains on mortgage loans held for sale include both cash and non-cash elements. We receive proceeds on sale that include both cash and MSRs. The net gain for the years ended December 31, 2018, 2017 and 2016 included $584.2 million, $563.9 million, and $562.5 million, respectively, in fair value of MSRs received as part of proceeds on sales, net of mortgage servicing liabilities incurred. We also recognize a liability for our estimate of the losses we expect to incur in the future as a result of claims against us in connection with the representations and warranties that we made in the loan sales transactions. The net gain for the years ended December 31, 2018, 2017 and 2016, included net provisions for (reversals of) losses relating to representations and warranties of $1.2 million, $1.6 million, and ($582,000), respectively.

Our net gains on mortgage loans held for sale are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
From non-affiliates:			
Cash loss:			
Mortgage loans	$ (469,647)	$ (174,669)	$ (62,283)
Hedging activities	93,288	(16,866)	10,275
	(376,359)	(191,535)	(52,008)
Non-cash gain:			
Mortgage servicing rights and mortgage servicing liabilities resulting from mortgage loan sales	584,156	563,872	562,540
Provision for losses relating to representations and warranties:			
Pursuant to mortgage loan sales	(5,824)	(5,890)	(7,090)
Reduction in liability due to change in estimate	4,672	4,301	7,672
Change in fair value of mortgage loans and derivative financial instruments outstanding at year end:			
Interest rate lock commitments	(8,934)	(1,120)	15,618
Mortgage loans	(1,506)	4,576	2,796
Hedging derivatives	(11,766)	(4,389)	10,344
	184,439	369,815	539,872
From PennyMac Mortgage Investment Trust	64,583	21,989	(8,092)
	$ 249,022	$ 391,804	$ 531,780
During the year:			
Interest rate lock commitments issued:			
Government-insured or guaranteed mortgage loans	$ 40,193,531	$ 46,341,356	$ 49,501,109
Conventional mortgage loans	4,593,053	3,265,411	3,146,908
	$ 44,786,584	$ 49,606,767	$ 52,648,017
At year end:			
Mortgage loans held for sale at fair value	$ 2,521,647	$ 3,099,103	$ 2,172,815
Commitments to fund and purchase mortgage loans	$ 2,805,400	$ 3,654,955	$ 4,279,611

Provision for Losses Under Representations and Warranties

We record our estimate of the losses that we expect to incur in the future as a result of claims against us made in connection with the representations and warranties provided to the purchasers and insurers of the mortgage loans we sold in our *Net gains on sale of mortgage loans held for sale at fair value*. Our agreements with the purchasers and insurers include representations and warranties related to the mortgage loans we sell to purchasers. 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 purchaser 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 originators that 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 used to estimate our losses on representations and warranties is a function of our estimate of future defaults, mortgage loan repurchase rates, the severity of loss in the event of default, if applicable, 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.

During the years ended December 31, 2018, 2017, and 2016 we recorded provisions for losses under representations and warranties relating to current mortgage loan sales as a component of *Net gains on mortgage loans held for sale at fair value* totaling $5.8 million, $5.9 million, and $7.1 million, respectively. We also recorded reductions in the liability of $4.7 million, $4.3 million, and $7.7 million, for the years ended December 31, 2018, 2017 and 2016, respectively. The reductions in the liability resulted from previously sold mortgage loans meeting criteria established by the Agencies which exempt them from certain repurchase or indemnification claims.

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

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
During the year:			
Indemnification activity			
Mortgage loans indemnified by PFSI at beginning of year	$ 7,579	$ 5,599	$ 3,470
New indemnifications	4,511	3,255	3,063
Less:			
Indemnified mortgage loans repurchased	209	303	—
Indemnified mortgage loans sold, repaid or refinanced	2,982	972	934
Mortgage loans indemnified by PFSI at end of year	$ 8,899	$ 7,579	$ 5,599
Repurchase activity			
Total mortgage loans repurchased by PFSI	$ 26,025	$ 20,152	$ 19,248
Less:			
Mortgage loans repurchased by correspondent lenders	18,127	14,298	12,625
Mortgage loans repaid by borrowers or resold with defects resolved	2,138	8,792	4,793
Net mortgage loans repurchased (resold or repaid) with losses chargeable to liability for representations and warranties	$ 5,760	$ (2,938)	$ 1,830
Net losses charged to liability for representations and warranties	$ 50	$ 603	$ 962
At year end:			
Unpaid principal balance of mortgage loans subject to representations and warranties	$ 137,849,704	$ 120,855,101	$ 90,650,605
Liability for representations and warranties	$ 21,155	$ 20,053	$ 19,067

During the year ended December 31, 2018, we repurchased mortgage loans with unpaid principal balances totaling $26.0 million and charged $50,000 in net incurred losses relating to repurchases against our liability for representations and warranties. As the outstanding balance of mortgage loans we purchase and sell subject to representations and warranties increases and the loans sold continue to season, we expect that the level of repurchase activity may increase.

Mortgage loan origination fees

Following is a summary of our mortgage loan origination fees:

	Year ended December 31,		
	2018	**2017**	**2016**
		(in thousands)	
Mortgage loan origination fee revenue	$ 101,641	$ 119,202	$ 125,534
Unpaid principal balance of mortgage loans purchased and originated for sale	$ 41,444,793	$ 46,027,911	$ 46,399,270

Mortgage loan origination fees decreased $17.6 million and $6.3 million during the years ended December 31, 2018, and 2017, compared to the years ended December 31, 2017 and 2016, respectively. The decreases were primarily due to decreases in the volume of mortgage loans we produced.

Fulfillment fees fron PennyMac Mortgage Investment Trust

Following is a summary of our fulfillment fees:

	Year ended December 31,		
	2018	**2017**	**2016**
		(dollars in thousands)	
Fulfillment fee revenue	$ 81,350	$ 80,359	$ 86,465
Unpaid principal balance of mortgage loans fulfilled subject to fulfillment fees	$ 26,194,303	$ 22,971,119	$ 23,188,386
Average fulfillment fee rate (in basis points)	31	35	37

Fulfillment fees from PMT represent fees we collect for services we perform on behalf of PMT in connection with the acquisition, packaging and sale of mortgage loans. The fulfillment fees are calculated as a percentage of the UPB of the mortgage loans we fulfill for PMT.

Fulfillment fees increased $1.0 million during the year ended December 31, 2018, compared to the year ended December 31, 2017. The increase was primarily due to increased volume of mortgage loans we fulfilled for PMT, partially offset by discretionary reductions in the fulfillment fee rate made to facilitate certain loan acquisition transactions by PMT in a competitive market environment. Fulfillment fees decreased $6.1 million during the year ended December 31, 2017, compared to the year ended December 31, 2016, primarily due to realization of a lower fulfillment fee rate during 2017 compared to 2016 resulting from amendments to the mortgage banking services agreement with PMT.

Net Interest Income

Net interest income increased $73.2 million during the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase is primarily due to a $38.9 million increase of incentives relating to financing of mortgage loans under a master repurchase agreement and an increase of $37.4 million in the placement fees we receive relating to the custodial funds, reflecting the growth of our servicing portfolio and higher interest rates, as well as an increase in interest income on mortgage loans held for sale.

Net interest expense decreased $23.7 million during the year ended December 31, 2017 compared to the year ended December 31, 2016. The decrease was primarily due to an increase in interest income on mortgage loans held for sale as a result of an increase in average mortgage loan inventory and an increase in the placement fees we receive relating to the custodial funds we held, partially offset by an increase in interest expense incurred to fund the growth in our average inventory of mortgage loans held for sale and to finance our MSRs.

We entered into a master repurchase agreement in 2017 that provides us with incentives to finance mortgage loans approved for satisfying certain consumer relief characteristics as provided in the agreement. We recorded $48.1 million and $9.2 million of such incentives as reductions of *Interest expense* during the year ended December 31, 2018 and 2017, respectively. 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. We expect that we will cease to accrue the incentives under the repurchase agreement in the second quarter of 2019. While there can be no assurance, we expect that the loss of such incentives will be partially offset by an improvement in pricing margins in our *Net gains on mortgage loans held for sale at fair value*.

Management fees and Carried Interest

Management fees and Carried Interest are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Management Fees:			
PennyMac Mortgage Investment Trust:			
Base management	$ 23,033	$ 22,280	$ 20,657
Performance incentive	1,432	304	—
	24,465	22,584	20,657
Investment Funds	4	1,001	2,089
Total management fees	24,469	23,585	22,746
Carried Interest	(365)	(1,040)	980
Total management fees and Carried Interest	$ 24,104	$ 22,545	$ 23,726
Net assets of Advised Entities at year end:			
PennyMac Mortgage Investment Trust	$ 1,566,132	$ 1,544,585	$ 1,351,114
Investment Funds	—	29,329	197,550
	$ 1,566,132	$ 1,573,914	$ 1,548,664

Management fees from PMT increased by $1.9 million during the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily reflecting the increase in PMT's average shareholders' equity upon which its management fees are based and an increase in performance incentive fees. The performance incentive fees increased $1.1 million during the year ended December 31, 2018, compared to the year ended December 31, 2017, resulting from an increase in PMT's net income on which incentive fees are based.

Management fees from PMT increased $1.9 million during the year ended December 31, 2017, compared to the year ended December 31, 2016, primarily reflecting the increase in PMT's average shareholders' equity upon which its base management fee is based. The increase of PMT's average shareholders' equity during the year ended December 31, 2017, compared to the year ended December 31, 2016, was primarily due to the issuance of additional equity by PMT in the form of preferred shares. The performance incentive fees increased $304,000 during the year ended December 31, 2017 compared to the year ended December 31, 2016 resulting from an increase in PMT's net income on which incentive fees are based.

Management fees from the Investment Funds decreased $1.0 million and $1.1 million for the years ended December 31, 2018 and December 31, 2017, compared to the years ended December 31, 2017 and December 31, 2016, respectively. The reduction of management fees was anticipated as the Investment Funds completed their liquidation during the year ended December 31, 2018.

Change in Fair Value of Investment in and Dividends Received from PMT

The results of our holdings of common shares of PMT, which is included in *Changes in fair value of investment in, and dividends received from PMT* are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Dividends from PennyMac Mortgage Investment Trust	$ 140	$ 141	$ 141
Change in fair value of investment in PennyMac Mortgage Investment Trust	192	(23)	83
Dividends received and change in fair value	$ 332	$ 118	$ 224
Fair value of PennyMac Mortgage Investment Trust shares at year end	$ 1,397	$ 1,205	$ 1,228

Change in fair value of investment in and dividends received from PMT increased $214,000 during the year ended December 31, 2018 compared to the year ended December 31, 2017 and decreased $106,000 during the year ended December 31, 2017 compared to the year ended December 31, 2016, primarily due to changes in the fair value of our investment in PMT. We held 75,000 common shares of PMT during each of the three years ended December 31, 2018.

Other revenues

Other revenue decreased $25.5 million for the year ended December 31, 2018, compared to the year ended December 31, 2017. The decrease is primarily due to a decrease of $31.8 million in *Revaluation of Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under the tax receivable agreement* as a result of the reduction in the federal tax rate which was recorded in 2017, partially offset by an increase of $5.1 million in reimbursements from PMT due to our adoption of the Financial Accounting Standard Board's Accounting Standards Update 2014-09, *Revenue from Contracts with Customers (Subtopic 606)* using the modified retrospective method effective January 1, 2018. Those reimbursements were included as a reduction of expense in previous years.

Other revenue increased $32.8 million during the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was primarily due to our recording of a $32.0 million *Revaluation of Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under the tax receivable agreement* as a result of the reduction in the federal tax rate.

Expenses

Compensation

Our compensation expense is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(dollars in thousands)	
Salaries and wages	$ 256,750	$ 229,710	$ 211,238
Incentive compensation	70,574	65,922	78,241
Taxes and benefits	50,695	42,392	36,169
Stock and unit-based compensation	25,251	20,697	16,505
	$ 403,270	$ 358,721	$ 342,153
Head count:			
Average	3,335	3,024	2,745
Year end	3,460	3,189	3,038

Compensation expense increased $44.5 million during the year ended December 31, 2018, compared to the year ended December 31, 2017. The increase in compensation was primarily due to increased base salaries, taxes and benefits due to increased average head count resulting from the growth in our mortgage banking activities during 2018.

Compensation expense increased $16.6 million during the year ended December 31, 2017, compared to the year ended December 31, 2016. The increase was primarily due to an increase in base salaries due to increased average head count during 2017 compared to 2016 resulting from the development of and growth in our mortgage banking segments, partially offset by a decrease in incentive compensation due to lower attainment of profitability targets during 2017 compared to 2016.

Servicing

Servicing expense increased $19.4 million and $31.8 million in the years ended December 31, 2018 and 2017 compared to the years ended December 31, 2017 and 2016, respectively. The increases were due to growth in our government-insured or guaranteed mortgage servicing portfolio, which includes mortgage loans that are subject to nonreimbursable servicing advance losses, and to our EBO program to purchase defaulted mortgage loans out of Ginnie Mae pools.

The EBO program reduces the ongoing cost of servicing defaulted mortgage loans subject to Ginnie Mae MBS when we purchase and either sell the defaulted loans or finance them with debt at interest rates below the Ginnie Mae MBS pass-through rates. While the EBO program reduces the ultimate cost of servicing such mortgage loan pools, it accelerates loss recognition when the mortgage loans are purchased. We recognize expense because purchasing the mortgage loans from their Ginnie Mae pools causes us to write off accumulated non-reimbursable interest advances, net of interest receivable from the mortgage loans' insurer or guarantor at the debenture rate of interest applicable to the respective mortgage loans.

During the year ended December 31, 2018, we purchased $3.0 billion in UPB of EBOs as compared to $2.9 billion for the year ended December 31, 2017 and $1.6 billion for the year ended December 31, 2016.

Technology

Technology expense increased $8.1 million and $16.7 million in the years ended December 31, 2018 and 2017 compared to the years ended December 31, 2017 and 2016, respectively. The increases were primarily due to growth in loan servicing operations and continued investment in loan production and servicing infrastructure.

Occupancy and equipment

Occupancy and equipment expenses increased $4.5 million and $5.5 million during the years ended December 31, 2018 and 2017, compared to the years ended December 31, 2017 and 2016, respectively. The increases are primarily attributable to expansion of our facilities to accommodate our growth.

Provision for Income Taxes

For the years ended December 31, 2018, 2017 and 2016, our effective tax rates were 8.7%, 7.3%, and 12.0%, respectively. The difference between our effective tax rate and the statutory rates was primarily due to the allocation of earnings to the noncontrolling interest unitholders. Pursuant to the Reorganization, the noncontrolling interest unitholders converted their ownership units into our shares and as a result, we were allocated starting on that date and will in the future be allocated 100% of PNMAC earnings that will be subject to corporate federal and state statutory tax rates, which will in turn increase our effective income tax rate. The lower effective tax rate for 2017 also reflects the effect of the repricing of the net deferred tax liability resulting from the change in the federal statutory rate from 35% to 21% under the Tax Act.

Balance Sheet Analysis

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

	December 31, 2018	December 31, 2017
	(in thousands)	
ASSETS		
Cash and short-term investments	$ 273,113	$ 207,805
Mortgage loans held for sale at fair value	2,521,647	3,099,103
Servicing advances, net	313,197	318,066
Investments in and advances to affiliates	165,886	181,421
Mortgage servicing rights	2,820,612	2,119,588
Mortgage loans eligible for repurchase	1,102,840	1,208,195
Other	281,278	233,915
Total assets	$ 7,478,573	$ 7,368,093
LIABILITIES AND STOCKHOLDERS' EQUITY		
Short-term debt	$ 2,332,143	$ 2,922,542
Long-term debt	1,648,973	1,135,401
Liability for mortgage loans eligible for repurchase	1,102,840	1,208,195
Other	740,826	382,281
Total liabilities	5,824,782	5,648,419
Stockholders' equity	1,653,791	1,719,674
Total liabilities and stockholders' equity	$ 7,478,573	$ 7,368,093

Total assets increased $110.5 million from $7.4 billion at December 31, 2017 to $7.5 billion at December 31, 2018. The increase was primarily due to an increase of $701.2 million in MSRs reflecting continued additions from our mortgage loan production activities and servicing portfolio acquisitions, partially offset by a decrease of $577.5 million in mortgage loans held for sale at fair value resulting from a reduction in mortgage loan production inventory.

Total liabilities increased by $176.4 million from $5.6 billion as of December 31, 2017 to $5.8 billion as of December 31, 2018. The increase was primarily attributable to an increase of $513.6 million in long-term debt primarily due to issuance of notes payable and an increase of $358.5 million in other liabilities primarily due to an increase in income tax payable relating to conversion of the noncontrolling interest in PennyMac to common stockholders’ equity pursuant to the Reorganization, partially offset by a decrease of $513.6 million of short-term debt due to lower production inventory.

Cash Flows

Our cash flows for the three years ended December 31, 2018 are summarized below:

	Year ended December 31, 2018	2017	2016
		(in thousands)	
Operating	$ 572,396	$ (883,412)	$ (938,325)
Investing	(322,611)	(339,231)	(34,739)
Financing	(132,034)	1,161,174	967,156
Net increase (decrease) in cash and restricted cash	$ 117,751	$ (61,469)	$ (5,908)

Operating activities

Net cash provided by (used in) operating activities totaled $572.4 million, ($883.4) million, and ($938.3) million during the years ended December 31, 2018, 2017, and 2016 respectively. Our cash flows from operating activities are primarily influenced by changes in the levels of our inventory of mortgage loans as shown below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flows from:			
Mortgage loans held for sale at fair value	$ 338,838	$ (1,019,898)	$ (1,075,095)
Other operating sources	233,558	136,486	136,770
	$ 572,396	$ (883,412)	$ (938,325)

The increase in cash flow from other operating sources during the year ended December 31, 2018, compared to the year ended December 31, 2017, was primarily attributable to our collection of $31.9 million in repurchase agreement derivatives and an increase in net changes in other assets and accounts payable and accrued expenses in the amount of $68.2 million. We expect that we will cease to accrue the incentives under the repurchase agreement in the second quarter of 2019. While there can be no assurance, we expect that the loss of such incentive income will be partially offset by an improvement in pricing margins in our *Net gains on mortgage loans held for sale at fair value*.

Investing activities

Net cash used in investing activities was $322.6 million during the year ended December 31, 2018, a decrease of $16.6 million compared to the year ended December 31, 2017. The decrease was primarily due to an $85.6 million increase in cash used in net settlement of derivative financial instruments used to hedge our investment in MSRs and an increase of $49.1 million in purchase of MSRs, partially offset by an increase of $136.4 million in short-term investment cash flows. Net cash used in investing activities was $339.2 million during 2017, an increase of $304.5 million from 2016 due to increased purchases of MSRs during 2017 as compared to 2016.

Financing activities

Net cash used in financing activities totaled $132.0 million during the year ended December 31, 2018 primarily due to net repurchases of assets sold under agreements to repurchase and mortgage loan participation purchase and sale agreements of $440.9 million, reflecting a reduction in our financing of mortgage loans held for sale, and repayments of excess servicing spread financing of $46.8 million, partially offset by net proceeds from issuance of notes payable of $400 million.

Net cash provided by financing activities was $1.2 billion during the year ended December 31, 2017, primarily due to an increase in loans sold under agreements to repurchase and notes payable used to finance the growth in our inventory of mortgage loans held for sale and MSRs.

Net cash provided by financing activities was $967.2 million during the year ended December 31, 2016, primarily from net proceeds from sales of assets under agreements to repurchase of $569.5 million, net proceeds from issuances of mortgage loan participation certificates of $436.7 million and net proceeds from advances on notes payable of $89.3 million to finance growth in our inventory of mortgage loans held for sale and investments in MSRs. The increases were partially offset by repayments of ESS totaling $129.0 million.

Liquidity and Capital Resources

Our liquidity reflects our ability to meet our current obligations (including our operating expenses and, when applicable, the retirement of, and margin calls relating to, our debt, and margin calls relating to hedges on our commitments to purchase or originate mortgage loans and on our MSR investments), fund new originations and

purchases, and make investments as we identify them. We expect our primary sources of liquidity to be through cash flows from business activities, proceeds from bank borrowings, proceeds from and issuance of ESS and/or equity or debt offerings. We believe that our liquidity is sufficient to meet our current liquidity needs.

Our current borrowing strategy is to finance our assets where we believe such borrowing is prudent, appropriate and available. Our borrowing activities are in the form of sales of assets under agreements to repurchase, sales of mortgage loan participation certificates, ESS financing, notes payable (including a revolving credit agreement) and a capital lease. Most of our borrowings have short-term maturities and provide for terms of approximately one year. 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.

Our repurchase agreements represent the sales of assets together with agreements for us to buy back the assets at a later date. The table below presents the average outstanding, maximum and ending balances for each of the three years ended December 31, 2018, 2017 and 2016:

	Year ended December 31,		
	2018	**2017**	**2016**
		(in thousands)	
Average balance	$ 1,626,729	$ 1,829,257	$ 1,438,181
Maximum daily balance	$ 2,380,121	$ 3,022,656	$ 2,661,746
Balance at year end	$ 1,935,200	$ 2,380,866	$ 1,736,922

The differences between the average and maximum daily balances on our repurchase agreements reflect the fluctuations throughout the month of our inventory as we fund and pool mortgage loans for sale in guaranteed mortgage securitizations.

Our secured financing agreements at PLS require us to comply with various financial covenants. The most significant financial covenants currently include the following:

- positive net income during each calendar quarter;
- a minimum in unrestricted cash and cash equivalents of $40 million;
- a minimum tangible net worth of $500 million;
- a maximum ratio of total liabilities to tangible net worth of 10:1; and
- at least one other warehouse or repurchase facility that finances amounts and assets that are similar to those being financed under certain of our existing secured financing agreements.

With respect to servicing performed for PMT, PLS is also subject to certain covenants under PMT’s debt agreements. Covenants in PMT’s debt agreements are equally, or sometimes less, restrictive than the covenants described above.

In addition to the covenants noted above, PennyMac’s revolving credit agreement and capital lease contain additional financial covenants including, but not limited to,

- a minimum of cash equal to the amount borrowed under the revolving credit agreement;
- a minimum of unrestricted cash and cash equivalents equal to $25 million;
- a minimum of tangible net worth of $500 million;

- a minimum asset coverage ratio (the ratio of the total asset amount to the total commitment) of 2.5; and
- a maximum ratio of total indebtedness to tangible net worth ratio of 5:1.

Although these financial covenants limit the amount of indebtedness that we may incur and affect 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.

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. 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.

We are also subject to liquidity and net worth requirements established by FHFA for Agency seller/servicers and Ginnie Mae for single-family issuers. FHFA and Ginnie Mae have established minimum liquidity requirements and revised their net worth requirements for their approved non-depository single-family sellers/servicers in the case of Fannie Mae, Freddie Mac, and Ginnie Mae for its approved single-family issuers, as summarized below:

- FHFA liquidity requirement is equal to 0.035% (3.5 basis points) of total Agency servicing UPB plus an incremental 200 basis points of the amount by which total nonperforming Agency servicing UPB exceeds 6% of the applicable Agency servicing UPB; allowable assets to satisfy liquidity requirement include cash and cash equivalents (unrestricted), certain investment-grade securities that are available for sale or held for trading including Agency mortgage-backed securities, obligations of Fannie Mae or Freddie Mac, and U.S. Treasury obligations, and unused and available portions of committed servicing advance lines;
- FHFA net worth requirement is a minimum net worth of $2.5 million plus 0.25% (25 basis points) of UPB for total 1-4 unit residential mortgage loans serviced and a tangible net worth/total assets ratio greater than or equal to 6%;
- Ginnie Mae single-family issuer minimum liquidity requirement is equal to the greater of $1.0 million or 0.10% (10 basis points) of the issuer's outstanding Ginnie Mae single-family securities, which must be met with cash and cash equivalents; and
- Ginnie Mae net worth requirement is equal to $2.5 million plus 0.35% (35 basis points) of the issuer's outstanding Ginnie Mae single-family obligations.

We believe that we are currently in compliance with the applicable Agency requirements.

We have purchased portfolios of MSRs and have financed them in part through the sale to PMT of the right to receive ESS. The outstanding amount of the ESS is based on the current fair value of such ESS and amounts received on the underlying mortgage loans.

In June 2017, our Board of Directors approved a stock repurchase program that allows us to repurchase up to $50 million of our common stock using open market stock purchases or privately negotiated transactions in accordance with applicable rules and regulations. The stock repurchase program does not have an expiration date and the authorization does not obligate us to acquire any particular amount of common stock. We intend to finance the stock repurchase program through cash on hand. From inception through December 31, 2018, we have repurchased $13.9 million of shares under our stock repurchase program.

We continue to explore a variety of means of financing our continued growth, including debt financing through bank warehouse lines of credit, bank loans, repurchase agreements, securitization transactions and corporate debt.

However, there can be no assurance as to how much additional financing capacity such efforts will produce, what form the financing will take or whether 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 or guarantees.

Contractual Obligations

As of December 31, 2018 we had contractual obligations aggregating $7.3 billion, comprised of commitments to purchase and originate mortgage loans, borrowings, and a payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under a tax receivable agreement. We also lease our office facilities and license certain software to support our loan servicing operations.

Payment obligations under these agreements are summarized below:

	Payments due by year				
Contractual obligations	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
			(in thousands)		
Commitments to purchase and originate mortgage loans	$ 2,805,400	$ 2,805,400	$ —	$ —	$ —
Short-term debt	2,327,666	2,327,666	—	—	—
Long-term debt	1,662,715	6,033	140,572	1,300,000	216,110
Interest on long-term debt	366,146	77,929	218,974	40,096	29,147
Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	46,537	—	—	—	46,537
Software licenses (1)	18,509	18,509	—	—	—
Office leases	93,700	15,586	30,357	23,262	24,495
Total	$ 7,320,673	$ 5,251,123	$ 389,903	$ 1,363,358	$ 316,289

(1) Software licenses include both volume and activity based fees that are dependent on the number of loans serviced during each period and include a base fee of approximately $1.8 million per month. Estimated payments for software licenses above are based on the number of loans currently serviced by us, which totaled approximately 1.5 million at December 31, 2018. Future amounts due may significantly fluctuate based on changes in the number of loans serviced by us. For the year ended December 31, 2018, software license fees totaled $25.4 million.

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)	Weighted average maturity of advances under repurchase agreement	Facility maturity
Credit Suisse First Boston Mortgage Capital LLC (1)	$ 1,416,794	April 26, 2020	April 26, 2020
Credit Suisse First Boston Mortgage Capital LLC (2)	$ 33,906	February 2, 2019	April 26, 2019
Deutsche Bank AG	$ 53,901	March 16, 2019	June 30, 2019
Bank of America, N.A.	$ 15,863	January 30, 2019	October 28, 2019
BNP Paribas	$ 9,222	March 18, 2019	August 2, 2019
Morgan Stanley Bank, N.A.	$ 5,825	March 7, 2019	August 23, 2019
JP Morgan Chase Bank, N.A.	$ 5,286	March 3, 2019	October 11, 2019
Royal Bank of Canada	$ 2,129	January 25, 2019	March 29, 2019
Citibank, N.A.	$ 586	February 28, 2019	June 7, 2019

(1) The borrowing facility with Credit Suisse First Boston Mortgage Capital LLC is in the form of a sale of a variable funding note under an agreement to repurchase. Beneficial interests in the Ginnie Mae MSRs and servicing advances are pledged to the Issuer Trust and together serve as the collateral backing the VFN, 2018-GT1 Notes and 2018-GT2 Notes described in *Note 13—Borrowings.* 2018-GT1 Notes and 2018-GT2 Notes are included in *Notes payable* on the Company's consolidated balance sheet.

(2) The borrowing facility with Credit Suisse First Boston Mortgage Capital LLC is in the form of an asset sale under an agreement to repurchase.

Debt Obligations

As described further above in “Liquidity and Capital Resources,” we currently finance certain of our assets through borrowings with major financial institution counterparties in the form of sales of assets under agreements to repurchase, mortgage loan participation purchase and sale agreements, notes payable (including a revolving credit agreement), ESS and a capital lease. The borrower under each of these facilities is PLS or subsidiary Issuer Trust with the exception of the revolving credit agreement, which is classified as a note payable, and the capital lease, in each case where the borrower is PennyMac. All PLS obligations as previously noted are guaranteed by PennyMac.

Under the terms of these agreements, PLS is required to comply with certain financial covenants, as described further above in “Liquidity and Capital Resources,” and various non-financial covenants customary for transactions of this nature. As of December 31, 2018, we believe we were in compliance in all material respects with these covenants.

The agreements also contain margin call provisions that, upon notice from the applicable lender, require us to transfer cash or, in some instances, additional assets in an amount sufficient to eliminate any margin deficit. 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.

In addition, the agreements contain events of default (subject to certain materiality thresholds and grace periods), including payment defaults, breaches of covenants and/or certain representations and warranties, cross-defaults, guarantor defaults, servicer termination events and defaults, material adverse changes, bankruptcy or insolvency proceedings and other events of default customary for these types of transactions. The remedies for such events of default are also customary for these types of transactions and include the acceleration of the principal amount outstanding under the agreements and the liquidation by our lenders of the mortgage loans or other collateral then subject to the agreements.

The borrowings have maturities as follows:

Lender	Outstanding indebtedness (1)	Total facility size (2)	Committed facility (2)	Maturity date (2)
	(dollar amounts in thousands)			
Assets sold under agreements to repurchase				
Credit Suisse First Boston Mortgage Capital LLC	$ 550,766	$ 1,100,000	$ 300,000	April 26, 2019
Credit Suisse First Boston Mortgage Capital LLC (3)	$ 140,000	$ 400,000	$ 400,000	April 26, 2020
Deutsche Bank AG	$ 741,978	$ 950,000	$ —	August 21, 2019
Bank of America, N.A.	$ 170,820	$ 500,000	$ 500,000	October 28, 2019
BNP Paribas	$ 149,482	$ 200,000	$ 100,000	August 2, 2019
Morgan Stanley Bank, N.A.	$ 77,687	$ 500,000	$ 100,000	August 23, 2019
JPMorgan Chase Bank, N.A.	$ 54,326	$ 500,000	$ 50,000	October 11, 2019
Royal Bank of Canada	$ 35,181	$ 135,000	$ 20,000	March 29, 2019
Citibank, N.A.	$ 14,960	$ 700,000	$ 350,000	June 7, 2019
Mortgage loan participation purchase and sale agreements				
Bank of America, N.A.	$ 532,466	$ 550,000	$ —	October 28, 2019
Notes payable				
GMSR 2018-GT1 Term Note	$ 650,000	$ 650,000		February 25, 2023
GMSR 2018-GT2 Term Note	$ 650,000	$ 650,000		August 25, 2023
Credit Suisse AG	$ —	$ 150,000	$ —	October 31, 2019
Credit Suisse AG (3)	$ —	$ —	$ —	February 1, 2020
Obligations under capital lease				
Banc of America Leasing and Capital LLC	$ 6,605	$ 35,000	$ —	March 23, 2020

(1) Outstanding indebtedness as of December 31, 2018.

(2) Total facility size, committed facility and maturity date include contractual changes through the date of this Report.

(3) The borrowing of $140 million with Credit Suisse First Boston Mortgage Capital LLC is in the form of a sale of a variable funding note under an agreement to repurchase up to a maximum of $400 million, less any amount utilized under the Credit Suisse AG note payable facility.

All debt financing arrangements that matured between December 31, 2018 and the date of this Report have been renewed or extended and are described in Note 13—*Borrowings* to the accompanying consolidated financial statements.

Item 7A. *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 interest rate risk, prepayment risk, credit risk and fair value risk.

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 both the fair value of, and interest income we earn from, our mortgage-related investments and our derivative financial instruments. This effect is most pronounced with fixed-rate mortgage assets. In general, rising interest rates negatively affect the fair value of our IRLCs, inventory of mortgage loans held for sale and ESS financing and positively affect the fair value of our MSRs.

Our operating results will depend, in part, on differences between the income from our investments and our financing costs. Presently 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.

We engage in interest rate risk management activities in an effort to mitigate the effect of changes in interest rates on the fair value of our assets. 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 fair value of our IRLCs, inventory of mortgage loans held for sale and MSRs. We do not use derivative financial instruments other than IRLCs for purposes other than in support of our risk management activities.

Prepayment Risk

To the extent that the actual prepayment rate on the mortgage loans underlying our MSRs differs from what we projected when we initially recognized the MSRs, MSLs, and ESS financing and when we measured fair value as of the end of each reporting period, the carrying value of our investment in MSRs will be affected. In general, a decrease in the principal balances of the mortgage loans underlying our MSRs or an increase in prepayment expectations will decrease our estimates of the fair value of the MSRs, thereby reducing net servicing income, partially offset by the beneficial effect on net servicing income of a corresponding reduction in the fair value of our MSLs and ESS.

Credit Risk

We are subject to credit risk in connection with our mortgage loan sales activities. Our mortgage loan sales are generally made with contractual representations and warranties, which, if breached, can require us to repurchase the mortgage loan or reimburse the investor for any losses incurred due to such breach. These breaches are generally evidenced when the borrower defaults on a mortgage loan.

The amount of our liability for losses due to representations and warranties to the mortgage loans' investors is not limited. However, we believe that the current UPB of mortgage loans sold by us to date represents the maximum exposure to repurchases related to representations and warranties. We include a provision for potential losses due to the representations and warranties we make as part of our recognition of mortgage loan sales, based initially on our estimate of the fair value of such obligation. We review our loss experience relating to representations and warranties and adjust our liability estimate when necessary.

In the event of developments affecting the credit performance of mortgage loans we have sold subject to representations and warranties, such as a significant increase in unemployment or a significant deterioration in real estate values in markets where properties securing mortgage loans we produce are located, defaults could increase and result in credit losses arising from claims under our representations and warranties, which could materially and adversely affect our business, financial condition and results of operations.

Fair Value Risk

Our IRLCs, mortgage loans held for sale, our MSRs, MSLs and ESS financing are reported at their estimated fair values. The fair value of these assets fluctuates primarily due to changes in interest rates.

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 Servicing Rights

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

Pricing spread shift in %	**-20%**	**-10%**	**-5%**	**+5%**	**+10%**	**+20%**
			(dollar amounts in thousands)			
Fair value	$ 3,017,774	$ 2,915,820	$ 2,867,413	$ 2,775,344	$ 2,731,539	$ 2,648,056
Change in fair value:						
$	$ 197,162	$ 95,208	$ 46,801	$ (45,268)	$ (89,073)	$ (172,556)
%	7.0 %	3.4 %	1.7 %	(1.6)%	(3.2)%	(6.1)%

Prepayment speed shift in %	**-20%**	**-10%**	**-5%**	**+5%**	**+10%**	**+20%**
			(dollar amounts in thousands)			
Fair value	$ 3,030,919	$ 2,921,629	$ 2,870,145	$ 2,772,925	$ 2,726,986	$ 2,639,990
Change in fair value:						
$	$ 210,306	$ 101,017	$ 49,532	$ (47,687)	$ (93,626)	$ (180,623)
%	7.5 %	3.6 %	1.8 %	(1.7)%	(3.3)%	(6.4)%

Per-loan servicing cost shift in %	**-20%**	**-10%**	**-5%**	**+5%**	**+10%**	**+20%**
			(dollar amounts in thousands)			
Fair value	$ 2,912,387	$ 2,866,500	$ 2,843,556	$ 2,797,668	$ 2,774,724	$ 2,728,837
Change in fair value:						
$	$ 91,775	$ 45,888	$ 22,944	$ (22,944)	$ (45,888)	$ (91,775)
%	3.3 %	1.6 %	0.8 %	(0.8)%	(1.6)%	(3.3)%

Excess Servicing Spread Financing

The following tables summarize the estimated change in fair value of our ESS accounted for using the fair value method as of December 31, 2018, given several shifts in pricing spreads and prepayment speed (decrease in the liabilities' fair values increases net income):

Pricing spread shift in %	**-20%**	**-10%**	**-5%**	**+5%**	**+10%**	**+20%**
			(dollar amounts 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%**
			(dollar amounts 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)%

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 in Part IV of this Report.

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

None.

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 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 Rule 13a-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 Directors and Stockholders of
PennyMac Financial Services, Inc.
3043 Townsgate Rd
Westlake Village, CA 91361

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of PennyMac Financial Services, Inc. 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 March 5, 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
March 5, 2019

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the year 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 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 15-68669 or 001-38727) Form	Filing Date
2.1	Contribution Agreement and Plan of Merger, dated as of August 2, 2018, by and among PennyMac Financial Services, Inc., New PennyMac Financial Services, Inc., New PennyMac Merger Sub, LLC, Private National Mortgage Acceptance Company, LLC, and the Contributors.	8-K12B	November 1, 2018
3.1	Amended and Restated Certificate of Incorporation of New PennyMac Financial Services, Inc.	8-K12B	November 1, 2018
3.1.1	Certificate of Amendment to Amended and Restated Certificate of Incorporation of New PennyMac Financial Services, Inc.	8-K12B	November 1, 2018
3.2	Amended and Restated Bylaws of New PennyMac Financial Services, Inc.	8-K12B	November 1, 2018
10.1	Fifth Amended and Restated Limited Liability Company Agreement of Private National Mortgage Acceptance Company, LLC, dated as of November 1, 2018.	8-K12B	November 1, 2018
10.2	Tax Receivable Agreement, dated as of May 8, 2013, between PennyMac Financial Services, Inc., Private National Mortgage Acceptance Company, LLC and each of the Members.	8-K	May 14, 2013
10.3	Amended and Restated Registration Rights Agreement, dated as of November 1, 2018, among PennyMac Financial Services, Inc., New PennyMac Financial Services, Inc. and the Holders.	8-K12B	November 1, 2018
10.4	Amended and Restated Stockholder Agreement, dated as of November 1, 2018, among PennyMac Financial Services, Inc., New PennyMac Financial Services, Inc. and BlackRock Mortgage Ventures, LLC.	8-K12B	November 1, 2018
10.5	Amended and Restated Stockholder Agreement, dated as of November 1, 2018, among PennyMac Financial Services, Inc., New PennyMac Financial Services, Inc. and HC Partners LLC.	8-K12B	November 1, 2018
10.6†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan.	8-K	May 14, 2013
10.7†	First Amendment to the PennyMac Financial Services, Inc. 2013 Equity Incentive Plan.	10-K	March 9, 2018
10.8†	Second Amendment to the PennyMac Financial Services, Inc. 2013 Equity Incentive Plan.	DEF14A	April 17, 2018
10.9†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Restricted Stock Unit Award Agreement for Non-Employee Directors.	8-K	May 16, 2013

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.10†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Restricted Stock Unit Award Agreement for Executive Officers.	10-Q	November 6, 2015
10.11†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Restricted Stock Unit Award Agreement for Other Eligible Participants.	10-Q	November 6, 2015
10.12†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Stock Option Award Agreement.	8-K	June 17, 2013
10.13†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Restricted Stock Unit Subject to Performance Components Award Agreement (2018).	10-Q	August 2, 2018
10.14†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Restricted Stock Unit Subject to Continued Service Award Agreement (2018).	10-Q	August 2, 2018
10.15†	PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Form of Stock Option Award Agreement (2018).	10-Q	August 2, 2018
10.16†	Omnibus Amendment to PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Restricted Stock Unit Award Agreements (2019).	*	
10.17†	Form of PennyMac Financial Services, Inc. Indemnification Agreement.	S-1/A	April 5, 2013
10.18†	Employment Agreement, dated December 28, 2018, among Stanford L. Kurland, Private National Mortgage Acceptance Company, LLC and PennyMac Financial Services, Inc.	8-K	December 31, 2018
10.19†	Employment Agreement, dated December 28, 2018, among David A. Spector, Private National Mortgage Acceptance Company, LLC and PennyMac Financial Services, Inc.	8-K	December 31, 2018
10.20†	Employment Agreement, dated December 28, 2018, among Doug Jones, Private National Mortgage Acceptance Company, LLC and PennyMac Financial Services, Inc.	8-K	December 31, 2018
10.21	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
10.22	Amendment No. 1 to Second Amended and Restated Management Agreement, dated as of September 27, 2017, by and among PennyMac Mortgage Investment Trust, PennyMac Operating Partnership, L.P. and PNMAC Capital Management, LLC.	10-Q	November 7, 2017

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.23	Third Amended and Restated Flow Servicing Agreement, dated as of September 12, 2016, by and between PennyMac Operating Partnership, L.P. and PennyMac Loan Services, LLC.	8-K	September 12, 2016
10.24	Amendment No. 1 to Third Amended and Restated Flow Servicing Agreement, dated as of March 1, 2018, by and between PennyMac Operating Partnership, L.P. and PennyMac Loan Services LLC.	10-Q	May 4, 2018
10.25	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
10.26	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
10.27	Amendment No. 2 to Amended and Restated Mortgage Banking Services Agreement, dated as of October 31, 2017, by and among PennyMac Loan Services, LLC and PennyMac Corp.	10-Q	November 7, 2017
10.28	Amendment No. 3 to Amended and Restated Mortgage Banking Services Agreement, dated as of December 1, 2017, by and among PennyMac Loan Services, LLC and PennyMac Corp.	10-K	March 9, 2018
10.29	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
10.30	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 9, 2018
10.31	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.	*	
10.32	Master Spread Acquisition and MSR Servicing Agreement, dated as of December 19, 2014, among PennyMac Loan Services, LLC, PennyMac Operating Partnership, L.P., and PennyMac Holdings, LLC.	8-K	December 24, 2014
10.33	Amendment No. 1 to Master Spread Acquisition and MSR Servicing Agreement, dated as of March 3, 2015, among PennyMac Loan Services, LLC, PennyMac Operating Partnership, L.P., and PennyMac Holdings, LLC.	10-Q	May 8, 2015
10.34	Second Amended and Restated Master Spread Acquisition and MSR Servicing Agreement, dated as of December 19, 2016, by and between PennyMac Loan Services, LLC, and PennyMac Holdings, LLC.	8-K	December 21, 2016

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.35	Amended and Restated Master Repurchase Agreement, dated as of October 29, 2018, among PennyMac Loan Services, LLC, Private National Mortgage Acceptance Company, LLC and Bank of America, N.A.	8-K	October 31, 2018
10.36	Guaranty dated as of October 29, 2018, made by Private National Mortgage Acceptance Company, LLC for the benefit of Bank of America, N.A.	8-K	October 31, 2018
10.37	Amended and Restated Master Repurchase Agreement, dated as of March 3, 2017, among Citibank, N.A. and PennyMac Loan Services, LLC.	8-K	March 8, 2017
10.38	Amendment Number One to Amended and Restated Master Repurchase Agreement, dated as of June 19, 2017, between Citibank, N.A. and PennyMac Loan Services, LLC.	8-K	June 21, 2017
10.39	Amendment Number Two to Amended and Restated Master Repurchase Agreement, dated as of March 2, 2018, by and between Citibank, N.A. and PennyMac Loan Services, LLC.	10-Q	May 4, 2018
10.40	Amendment Number Three to Amended and Restated Master Repurchase Agreement, dated as of May 1, 2018, by and between Citibank, N.A. and PennyMac Loan Services, LLC.	10-Q	August 2, 2018
10.41	Amendment Number Four to Amended and Restated Master Repurchase Agreement, dated as of May 9, 2018, by and between Citibank, N.A. and PennyMac Loan Services, LLC.	10-Q	August 2, 2018
10.42	Amendment Number Five to the Amended and Restated Master Repurchase Agreement, dated as of May 14, 2018, by and between Citibank, N.A. and PennyMac Loan Services, LLC.	8-K	May 18, 2018
10.43	Amendment Number Six to the Amended and Restated Master Repurchase Agreement, dated as of June 8, 2018, by and between Citibank, N.A. and PennyMac Loan Services, LLC.	10-Q	August 2, 2018
10.44	Guaranty Agreement, dated as of June 26, 2012, by Private National Mortgage Acceptance Company, LLC in favor of Citibank, N.A.	10-K	March 13, 2015
10.45	Third 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, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	8-K	May 3, 2017
10.46	Amendment No. 1 to Third 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, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	August 8, 2017

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.47	Amendment No. 2 to Third Amended and Restated Master Repurchase Agreement, dated as of December 20, 2017, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, Alpine Securitization LTD, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-K	March 9, 2018
10.48	Amendment No. 3 to Third Amended and Restated Master Repurchase Agreement, dated as of February 1, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch Alpine Securitization LTD, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	8-K	February 7, 2018
10.49	Amendment No. 4 to Third 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 Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	August 2, 2018
10.50	Amendment No. 5 to Third 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 Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	*	
10.51	Amended and Restated Guaranty, dated as of April 28, 2017, by Private National Mortgage Acceptance LLC in favor of Credit Suisse First Boston Mortgage Capital LLC.	8-K	May 3, 2017
10.52	Master Repurchase Agreement, dated as of July 2, 2013, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	8-K	July 8, 2013
10.53	Amendment Number One to the Master Repurchase Agreement, dated as of August 26, 2013, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	S-1	October 1, 2013
10.54	Amendment Number Two to the Master Repurchase Agreement, dated as of January 28, 2014, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	10-Q	May 15, 2014
10.55	Amendment Number Three to the Master Repurchase Agreement, dated as of June 30, 2014, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	10-Q	August 14, 2014
10.56	Amendment Number Four to the Master Repurchase Agreement, dated as of June 29, 2015, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	10-Q	August 7, 2015

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727)	
		Form	Filing Date
10.57	Amendment Number Five to the Master Repurchase Agreement, dated as of July 27, 2015, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	8-K	July 27, 2015
10.58	Amendment Number Six to the Master Repurchase Agreement, dated as of November 9, 2015, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	10-K	March 10, 2016
10.59	Amendment Number Seven to the Master Repurchase Agreement, dated July 26, 2016, by and between PennyMac Loan Services, LLC and Morgan Stanley Bank, N.A.	10-Q	August 9, 2016
10.60	Amendment Number Eight to the Master Repurchase Agreement, dated August 26, 2016, by and between PennyMac Loan Services, LLC, Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC.	10-Q	November 8, 2016
10.61	Amendment Number Nine to the Master Repurchase Agreement, dated June 20, 2017, by and between PennyMac Loan Services, LLC, Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC.	8-K	June 21, 2017
10.62	Amendment Number Ten to the Master Repurchase Agreement, dated August 25, 2017, by and between PennyMac Loan Services, LLC, Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC.	10-Q	November 7, 2017
10.63	Amendment Number Eleven to the Master Repurchase Agreement, dated March 20, 2018, by and between PennyMac Loan Services, LLC, Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC.	10-Q	May 4, 2018
10.64	Amendment Number Twelve to the Master Repurchase Agreement, dated August 24, 2018, by and between PennyMac Loan Services, LLC, Morgan Stanley Bank, N.A. and Morgan Stanley Mortgage Capital Holdings LLC.	8-K	August 29, 2018
10.65	Guaranty Agreement, dated as of July 2, 2013, by Private National Mortgage Acceptance Company, LLC in favor of Morgan Stanley Bank, N.A.	8-K	July 8, 2013
10.66	Mortgage Loan Participation Purchase and Sale Agreement, dated as of August 13, 2014, by and among PennyMac Loan Services, LLC, Private National Mortgage Acceptance Company, LLC and Bank of America, N.A.	10-Q	August 14, 2014
10.67	Amendment No. 1 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of January 30, 2015, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-K	March 13, 2015
10.68	Amendment No. 2 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of December 22, 2015, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-K	March 10, 2016

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.69	Amendment No. 3 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of March 29, 2016, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	August 9, 2016
10.70	Amendment No. 4 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of March 28, 2017, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	August 8, 2017
10.71	Amendment No. 5 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of May 23, 2017, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	August 8, 2017
10.72	Amendment No. 6 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of September 1, 2017, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	8-K	September 8, 2017
10.73	Amendment No. 7 to Mortgage Loan Participation Purchase and Sale Agreement, dated as of April 20, 2018, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	May 4, 2018
10.74	Amendment No. 8 to Mortgage Loan Participation Purchase and Sale Agreement, dated June 29, 2018, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	*	
10.75	Amendment No. 9 to Mortgage Loan Participation Purchase and Sale Agreement, dated October 29, 2018, by and among Bank of America, N.A., PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	*	
10.76	Amended and Restated Guaranty, dated as of August 13, 2014, by Private National Mortgage Acceptance Company, LLC in favor of Bank of America, N.A.	10-Q	August 14, 2014
10.77	Amendment No. 1 to Amended and Restated Guaranty, dated as of October 29, 2018, between Private National Mortgage Acceptance Company, LLC and Bank of America, N.A.	*	
10.78	Mortgage Loan Purchase Agreement, dated as of September 25, 2012, by and between PennyMac Loan Services, LLC and PennyMac Corp.	10-K	March 10, 2016
10.79	Flow Sale Agreement, dated as of June 16, 2015, by and between PennyMac Corp. and PennyMac Loan Services, LLC.	10-Q	August 7, 2015

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.80	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 9, 2016
10.81	Amendment No. 1 to Amended and Restated Flow Commercial Mortgage Loan Purchase Agreement, dated as of September 27, 2017, by and among PennyMac Corp. and PennyMac Loan Services, LLC.	10-Q	November 7, 2017
10.82	Servicing Agreement, dated as of July 13, 2015, between PennyMac Corp., PennyMac Holdings, LLC, any other parties signing this Agreement as owner of Mortgage Loans 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	March 10, 2016
10.83	Addendum to Master Lease Agreement No. 30350-90000, dated as of December 9, 2015, among Private National Mortgage Acceptance Company, LLC and Banc of America Leasing & Capital, LLC.	8-K	December 14, 2015
10.84	Schedule Number 001 to Master Lease Agreement, dated as of December 9, 2015, among Private National Mortgage Acceptance Company, LLC and Banc of America Leasing & Capital, LLC.	8-K	December 14, 2015
10.85	Schedule Number 002 to Master Lease Agreement, dated as of May 4, 2016, among Private National Mortgage Acceptance Company, LLC and Banc of America Leasing & Capital, LLC.	10-Q	March 31, 2016
10.86	Schedule Number 003 to Master Lease Agreement, dated as of November 3, 2016, among Private National Mortgage Acceptance Company, LLC and Banc of America Leasing & Capital, LLC.	8-K	November 4, 2016
10.87	Schedule Number 004 to Master Lease Agreement, dated as of March 23, 2017, among Private National Mortgage Acceptance Company, LLC and Banc of America Leasing & Capital, LLC.	8-K	March 27, 2017
10.88	Guaranty, dated as of December 9, 2015, by PennyMac Loan Services, LLC in favor of Banc of America Leasing & Capital, LLC.	8-K	December 14, 2015
10.89	Amended and Restated Credit Agreement, dated November 18, 2016, by and among Private National Mortgage Acceptance Company, LLC, the lenders that are parties thereto, Credit Suisse AG and Credit Suisse Securities (USA) LLC.	8-K	November 22, 2016
10.90	Amendment No. 1 to Amended and Restated Credit Agreement, dated November 17, 2017, by and among Private National Mortgage Acceptance Company, LLC and Credit Suisse AG.	10-K	March 9, 2018

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.91	Amendment No. 2 to Amended and Restated Credit Agreement and Amendment No. 1 to Amended and Restated Collateral and Guaranty Agreement, dated November 1, 2018, by and among Private National Mortgage Acceptance Company, LLC, each of the Guarantors party thereto, the Lenders party hereto, Credit Suisse AG, Cayman Islands Branch and Credit Suisse AG.	*	
10.92	Amended and Restated Collateral and Guaranty Agreement, dated November 18, 2016, by and among Private National Mortgage Acceptance Company, LLC, Credit Suisse AG, Cayman Islands Branch, PennyMac Financial Services, Inc., PNMAC Capital Management, LLC, PennyMac Loan Services, LLC and PNMAC Opportunity Fund Associates, LLC.	8-K	November 22, 2016
10.93	Collateral and Guaranty Agreement Supplement, dated November 1, 2018, by and between Credit Suisse AG as the Collateral Agent and PennyMac Financial Services, Inc.	*	
10.94	Master Repurchase Agreement, dated as of August 19, 2016, between PennyMac Loan Services, LLC and JPMorgan Chase Bank, N.A.	8-K	August 23, 2016
10.95	First Amendment to Master Repurchase Agreement, dated as of May 23, 2017, between PennyMac Loan Services, LLC and JPMorgan Chase Bank, N.A.	8-K	May 30, 2017
10.96	Second Amendment to Master Repurchase Agreement, dated as of September 27, 2017, between JPMorgan Chase Bank, N.A. and PennyMac Loan Services, LLC.	10-Q	November 7, 2017
10.97	Third Amendment to Master Repurchase Agreement, dated as of October 13, 2017, between JPMorgan Chase Bank, N.A. and PennyMac Loan Services, LLC.	10-Q	November 7, 2017
10.98	Fourth Amendment to Master Repurchase Agreement, dated as of July 26, 2018, between JPMorgan Chase Bank, N.A. and PennyMac Loan Services, LLC.	10-Q	November 2, 2018
10.99	Fifth Amendment to Master Repurchase Agreement, dated as of October 12, 2018, between JPMorgan Chase Bank, N.A. and PennyMac Loan Services, LLC.	10-Q	November 2, 2018
10.100	Guaranty, dated as of August 19, 2016, by Private National Mortgage Acceptance Company, LLC in favor of JPMorgan Chase Bank. N.A.	8-K	August 23, 2016
10.101	Master Repurchase Agreement, dated as of September 19, 2016, between Royal Bank of Canada and PennyMac Loan Services, LLC.	8-K	September 22, 2016
10.102	Amendment No. 1 to Master Repurchase Agreement, dated as of May 3, 2017, between Royal Bank of Canada and PennyMac Loan Services, LLC.	10-Q	August 8, 2017

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727)	
		Form	Filing Date
10.103	Amendment No. 2 to Master Repurchase Agreement, dated as of September 22, 2017, between Royal Bank of Canada and PennyMac Loan Services, LLC.	10-Q	November 7, 2017
10.104	Base Indenture, dated as of December 19, 2016, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC, and Pentalpha Surveillance LLC.	8-K	December 21, 2016
10.105	Amended and Restated Base Indenture, dated as of February 16, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC, and Pentalpha Surveillance LLC.	8-K	February 23, 2017
10.106	Second Amended and Restated Base Indenture, dated as of August 10, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC, and Pentalpha Surveillance LLC.	8-K	August 16, 2017
10.107	Amendment No. 1 to Second Amended and Restated Base Indenture, dated as of February 28, 2018, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC, and Pentalpha Surveillance LLC.	8-K	March 6, 2018
10.108	Amendment No. 2 to Second Amended and Restated Base Indenture, dated as of August 10, 2018, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC, and Pentalpha Surveillance LLC.	8-K	August 15, 2018
10.109	Series 2016-MSRVF1 Indenture Supplement to Indenture, dated as of December 19, 2016, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, and Credit Suisse First Boston Mortgage Capital LLC.	8-K	December 21, 2016
10.110	Amended and Restated Series 2016-MSRVF1 Indenture Supplement to Indenture, dated as of February 28, 2018, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC and Credit Suisse First Boston Mortgage Capital LLC.	8-K	March 6, 2018
10.111	Amendment No. 1 to Amended and Restated Series 2016-MSRVF1 Indenture Supplement, dated as of August 10, 2018, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC and Credit Suisse First Boston Mortgage Capital LLC.	10-Q	November 2, 2018
10.112	Series 2016-MBSADV1 Indenture Supplement to Indenture, dated as of December 19, 2016, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, and Credit Suisse First Boston Mortgage Capital LLC.	10-K	March 9, 2017

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.113	Omnibus Amendment No. 1 to the Series 2016-MSRVF1 Indenture Supplement and Series 2016-MBSADV1 Indenture Supplement, dated as of February 16, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, and Credit Suisse First Boston Mortgage Capital LLC.	8-K	February 23, 2017
10.114	Series 2017-GT1 Indenture Supplement, dated as of February 16, 2017, to Amended and Restated Base Indenture, dated as of February 16, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC, Credit Suisse First Boston Mortgage Capital LLC.	8-K	February 23, 2017
10.115	Series 2017-GT2 Indenture Supplement, dated as of August 10, 2017, to Second Amended and Restated Base Indenture, dated as of August 10, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC and Credit Suisse First Boston Mortgage Capital.	8-K	August 16, 2017
10.116	Series 2018-GT1 Indenture Supplement, dated as of February 28, 2018, to Second Amended and Restated Base Indenture, dated as of August 10, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC and Credit Suisse First Boston Mortgage Capital LLC.	8-K	March 6, 2018
10.117	Series 2018-GT2 Indenture Supplement, dated as of August 10, 2018, to Second Amended and Restated Base Indenture, dated as of August 10, 2017, by and among PNMAC GMSR ISSUER TRUST, Citibank, N.A., PennyMac Loan Services, LLC and Credit Suisse First Boston Mortgage Capital LLC.	8-K	August 15, 2018
10.118	Master Repurchase Agreement, dated as of December 19, 2016, by and among PNMAC GMSR ISSUER TRUST, PennyMac Loan Services, LLC, and Private National Mortgage Acceptance Company, LLC.	8-K	December 21, 2016
10.119	Amendment No. 1 to Master Repurchase Agreement, dated as of February 16, 2017, by and among PNMAC GMSR ISSUER TRUST, PennyMac Loan Services, LLC, and Private National Mortgage Acceptance Company, LLC and consented to by Citibank, N.A., Credit Suisse AG, Cayman Islands Branch, and Credit Suisse First Boston Mortgage Capital LLC.	8-K	February 23, 2017
10.120	Amendment No. 2 to Master Repurchase Agreement, dated as of August 10, 2017, by and among PNMAC GMSR ISSUER TRUST, PennyMac Loan Services, LLC, and Private National Mortgage Acceptance Company, LLC and consented to by Citibank, N.A., Credit Suisse AG, Cayman Islands Branch, and Credit Suisse First Boston Mortgage Capital LLC.	8-K	August 16, 2017
10.121	Guaranty, dated as of December 19, 2016, made by Private National Mortgage Acceptance Company, LLC, in favor of PNMAC GMSR ISSUER TRUST.	8-K	December 21, 2016

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.122	Amendment No. 1 to Guaranty, dated as of February 16, 2017, by and between PNMAC GMSR ISSUER TRUST and Private National Mortgage Acceptance Company, LLC.	8-K	February 23, 2017
10.123	Master Repurchase Agreement, dated as of December 19, 2016, by and among PennyMac Holdings, LLC, PennyMac Loan Services, LLC, and PennyMac Mortgage Investment Trust.	8-K	December 21, 2016
10.124	Guaranty, dated as of December 19, 2016, by PennyMac Mortgage Investment Trust, in favor of PennyMac Loan Services, LLC.	8-K	December 21, 2016
10.125	Subordination, Acknowledgment and Pledge Agreement, dated as of December 19, 2016, between PNMAC GMSR ISSUER TRUST and PennyMac Holdings, LLC.	8-K	December 21, 2016
10.126	Master Repurchase Agreement, dated as of December 19, 2016, by and among, Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, and PennyMac Loan Services, LLC.	8-K	December 21, 2016
10.127	Amendment No. 1 to Master Repurchase Agreement, dated as of February 28, 2018, by and among Credit Suisse First Boston Mortgage Capital LLC, Credit Suisse AG, Cayman Islands Branch, and PennyMac Loan Services, LLC.	8-K	March 6, 2018
10.128	Guaranty, dated as of December 19, 2016, by Private National Mortgage Acceptance Company, LLC in favor of Credit Suisse First Boston Mortgage Capital LLC.	10-Q	November 7, 2017
10.129	Master Repurchase Agreement, dated as of August 21, 2017, by and among PennyMac Loan Services, LLC and Deutsche Bank, AG, Cayman Islands Branch.	8-K	August 24, 2017
10.130	Amendment No. 1 to Master Repurchase Agreement, dated as of April 17, 2018, by and between Deutsche Bank AG, Cayman Islands Branch and PennyMac Loan Services LLC.	10-Q	May 4, 2018
10.131	Amendment No. 2 to Master Repurchase Agreement, dated as of September 27, 2018, by and between Deutsche Bank AG, Cayman Islands Branch and PennyMac Loan Services, LLC.	10-Q	November 2, 2018
10.132	Amendment No. 3 to Master Repurchase Agreement, dated as of December 31, 2018, by and between Deutsche Bank AG, Cayman Islands Branch and PennyMac Loan Services, LLC.	8-K	January 4, 2019
10.133	Amendment No. 4 to Master Repurchase Agreement, dated as of January 29, 2019, by and between Deutsche Bank AG, Cayman Islands Branch and PennyMac Loan Services, LLC.	*	

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727) Form	Filing Date
10.134	Guaranty, dated as of August 21, 2017, by Private National Mortgage Acceptance Company, LLC in favor of Deutsche Bank AG, Cayman Islands Branch.	8-K	August 24, 2017
10.135	Master Repurchase Agreement, dated as of November 17, 2017, by and among BNP Paribas, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	8-K	November 22, 2017
10.136	Amendment No. 1 to Master Repurchase Agreement, dated as of August 20, 2018, among BNP Paribas, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	10-Q	November 2, 2018
10.137	Amendment No. 2 to Master Repurchase Agreement, dated as of November 6, 2018, among BNP Paribas, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	*	
10.138	Guaranty, dated as of November 17, 2017, by Private National Mortgage Acceptance Company, LLC in favor of BNP Paribas.	8-K	November 22, 2017
10.139	Loan and Security Agreement, dated as of February 1, 2018, by and among Credit Suisse AG, Cayman Islands Branch, PennyMac Loan Services, LLC and Private National Mortgage Acceptance Company, LLC.	8-K	February 7, 2018
10.140†	Omnibus Amendment to PennyMac Financial Services, Inc. 2013 Equity Incentive Plan Stock Option Award Agreements (2019).	*	
21.1	Subsidiaries of PennyMac Financial Services, Inc.	*	
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.	**	

Exhibit No.	Exhibit Description	Incorporated by Reference from the Below-Listed Form (Each Filed under SEC File Number 15-68669 or 001-38727)	
		Form	Filing Date
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

** 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 FINANCIAL SERVICES, INC.
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December 31, 2018

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
PennyMac Financial Services, Inc.
3043 Townsgate Road
Westlake Village, CA 91361

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of PennyMac Financial Services, Inc. and subsidiaries (the ‘‘Company’’) as of December 31, 2018 and 2017, the related consolidated statements of income, changes in stockholders’ 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 March 5, 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 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

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
March 5, 2019

We have served as the Company’s auditor since 2008.

PENNYMAC FINANCIAL SERVICES, INC.
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2018	2017
	(in thousands, except share data)	
ASSETS		
Cash (includes $108,174 and $20,765 pledged to creditors)	$ 155,289	$ 37,725
Short-term investments at fair value	117,824	170,080
Mortgage loans held for sale at fair value (includes $2,478,858 and $3,081,987 pledged to creditors)	2,521,647	3,099,103
Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell pledged to creditors	131,025	144,128
Derivative assets	96,347	78,179
Servicing advances, net (includes valuation allowance of $70,582 and $59,958; $162,895 and $114,643 pledged to creditors)	313,197	318,066
Mortgage servicing rights (includes $2,820,612 and $638,010 at fair value; $2,807,333 and $2,098,067 pledged to creditors)	2,820,612	2,119,588
Real estate acquired in settlement of loans	2,250	2,447
Furniture, fixtures, equipment and building improvements, net (includes $16,281 and $23,915 pledged to creditors)	33,374	29,453
Capitalized software, net (includes $1,017 and $1,568 pledged to creditors)	39,748	25,729
Investment in PennyMac Mortgage Investment Trust at fair value	1,397	1,205
Receivable from PennyMac Mortgage Investment Trust	33,464	27,119
Mortgage loans eligible for repurchase	1,102,840	1,208,195
Other	109,559	107,076
Total assets	$ 7,478,573	$ 7,368,093
LIABILITIES		
Assets sold under agreements to repurchase	$ 1,933,859	$ 2,381,538
Mortgage loan participation purchase and sale agreements	532,251	527,395
Notes payable	1,292,291	891,505
Obligations under capital lease	6,605	20,971
Excess servicing spread financing payable to PennyMac Mortgage Investment Trust at fair value	216,110	236,534
Derivative liabilities	3,064	5,796
Accounts payable and accrued expenses	156,212	109,143
Mortgage servicing liabilities at fair value	8,681	14,120
Payable to PennyMac Mortgage Investment Trust	104,631	136,998
Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	46,537	44,011
Income taxes payable	400,546	52,160
Liability for mortgage loans eligible for repurchase	1,102,840	1,208,195
Liability for losses under representations and warranties	21,155	20,053
Total liabilities	5,824,782	5,648,419
Commitments and contingencies – Note 16		
STOCKHOLDERS' EQUITY		
Common stock—authorized 200,000,000 shares of $0.0001 par value; issued and outstanding, 77,494,332 and 23,529,970 shares, respectively	8	2
Class B common stock—authorized 1,000 shares of $0.0001 par value; issued and outstanding, 0 and 46 shares, respectively	—	—
Additional paid-in capital	1,310,648	204,103
Retained earnings	343,135	265,306
Total stockholders' equity attributable to PennyMac Financial Services, Inc. common stockholders	1,653,791	469,411
Noncontrolling interest in Private National Mortgage Acceptance Company, LLC	—	1,250,263
Total stockholders' equity	1,653,791	1,719,674
Total liabilities and stockholders' equity	$ 7,478,573	$ 7,368,093

The accompanying notes are an integral part of these financial statements.

PENNYMAC FINANCIAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF INCOME

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except earnings per share)		
Revenues			
Net mortgage loan servicing fees:			
Mortgage loan servicing fees:			
From non-affiliates	$ 585,101	$ 475,848	$ 385,633
From PennyMac Mortgage Investment Trust	42,045	43,064	50,615
From Investment Funds	3	1,461	2,583
Ancillary and other fees	64,133	58,924	46,910
	691,282	579,297	485,741
Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities	(237,389)	(292,588)	(324,198)
Change in fair value of excess servicing spread payable to PennyMac Mortgage Investment Trust	(8,500)	19,350	23,923
	(245,889)	(273,238)	(300,275)
Net mortgage loan servicing fees	445,393	306,059	185,466
Net gains on mortgage loans held for sale at fair value:			
From non-affiliates	184,439	369,815	539,872
From PennyMac Mortgage Investment Trust	64,583	21,989	(8,092)
	249,022	391,804	531,780
Mortgage loan origination fees:			
From non-affiliates	94,208	112,124	118,844
From PennyMac Mortgage Investment Trust	7,433	7,078	6,690
	101,641	119,202	125,534
Fulfillment fees from PennyMac Mortgage Investment Trust	81,350	80,359	86,465
Net interest income (expense):			
Interest income:			
From non-affiliates	208,954	135,141	73,297
From PennyMac Mortgage Investment Trust	7,462	8,038	7,830
	216,416	143,179	81,127
Interest expense:			
To non-affiliates	129,459	127,569	83,605
To PennyMac Mortgage Investment Trust	15,138	16,951	22,601
	144,597	144,520	106,206
Net interest income (expense)	71,819	(1,341)	(25,079)
Management fees, net:			
From PennyMac Mortgage Investment Trust	24,465	22,584	20,657
From Investment Funds	4	1,001	2,089
	24,469	23,585	22,746
Carried Interest from Investment Funds	(365)	(1,040)	980
Change in fair value of investment in and dividends received from PennyMac Mortgage Investment Trust	332	118	224
Results of real estate acquired in settlement of loans	589	94	(82)
Revaluation of payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	1,126	32,940	551
Other	9,253	3,683	3,302
Total net revenues	984,629	955,463	931,887
Expenses			
Compensation	403,270	358,721	342,153
Servicing	137,104	117,696	85,857
Technology	60,103	52,013	35,322
Professional services	27,615	17,845	18,078
Loan origination	27,398	20,429	22,528
Occupancy and equipment	27,152	22,615	17,140
Marketing	8,207	9,118	5,264
Other	26,083	21,117	22,462
Total expenses	716,932	619,554	548,804
Income before provision for income taxes	267,697	335,909	383,083
Provision for income taxes	23,254	24,387	46,103
Net income	244,443	311,522	336,980
Less: Net income attributable to noncontrolling interest	156,749	210,765	270,901
Net income attributable to PennyMac Financial Services, Inc. common stockholders	$ 87,694	$ 100,757	$ 66,079
Earnings per share			
Basic	$ 2.62	$ 4.34	$ 2.98
Diluted	$ 2.59	$ 4.03	$ 2.94
Weighted average shares outstanding			
Basic	33,524	23,199	22,161
Diluted	35,322	24,999	76,629

The accompanying notes are an integral part of these financial statements.

PENNYMAC FINANCIAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock		Class A Common Stock					
	Number of shares	Par value	Number of shares	Par value	Additional paid-in capital	Retained earnings	Noncontrolling interest in Private National Mortgage Acceptance Company, LLC	Total
				(in thousands)				
Balance at December 31, 2015	—	$ —	21,991	$ 2	$ 172,354	$ 98,470	$ 791,524	$ 1,062,350
Net income	—	—	—	—	—	66,079	270,901	336,980
Stock and unit-based compensation	—	—	111	—	4,646	—	11,701	16,347
Distributions	—	—	—	—	—	—	(15,216)	(15,216)
Issuance of Class A common stock in settlement of directors' fees	—	—	24	—	313	—	—	313
Exchange of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	—	—	301	—	6,877	—	(6,877)	—
Tax effect of exchange of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	—	—	—	—	(1,418)	—	—	(1,418)
Balance at December 31, 2016	—	—	22,427	2	182,772	164,549	1,052,033	1,399,356
Net income	—	—	—	—	—	100,757	210,765	311,522
Stock and unit-based compensation	—	—	—	—	7,545	—	14,406	21,951
Issuance of Class A common stock in settlement of directors' fees	—	—	—	—	160	—	178	338
Repurchase of Class A common stock		—	(505)	—	(8,599)	—	—	(8,599)
Exchange of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	—	—	1,608	—	27,119	—	(27,119)	—
Tax effect of exchange of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	—	—	—	—	(4,894)	—	—	(4,894)
Balance at December 31, 2017	—	—	23,530	2	204,103	265,306	1,250,263	1,719,674
Cumulative effect of change in accounting principle - Adoption of fair value accounting for all existing classes of mortgage servicing rights at fair value	—	—	—	—	—	189	587	776
Balance at January 1, 2018		—	23,530	2	204,103	265,495	1,250,850	1,720,450
Net income	—	—	—	—	—	87,694	156,749	244,443
Stock and unit-based compensation	23	—	299	—	10,932	—	19,636	30,568
Class A common stock dividends ($0.40 per share)	—	—	—	—	—	(10,054)	—	(10,054)
Issuance of Class A common stock in settlement of directors' fees	—	—	—	—	79	—	166	245
Repurchase of Class A common stock	—	—	(236)	—	(1,554)	—	(3,272)	(4,826)
Exchange of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	—	—	1,635	1	33,155	—	(33,156)	—
Exchange of Class A common stock of subsidiary for common stock of PennyMac Financial Services, Inc. pursuant to a reorganization	25,228	3	(25,228)	(3)	—	—	—	—
Exchange of Class A unit of Private National Mortgage Acceptance Company, LLC for common stock of PennyMac Financial Services, Inc. pursuant to a reorganization, net of income tax effect	52,263	5	—	—	1,064,315	—	(1,390,973)	(326,653)
Issuance of common stock in settlement of directors' fees	4	—	—	—	85	—	—	85
Repurchase of common stock	(24)	—	—	—	(467)	—	—	(467)
Balance at December 31, 2018	77,494	$ 8	—	$ —	$ 1,310,648	$ 343,135	$ —	$ 1,653,791

The accompanying notes are an integral part of these financial statements.

PENNYMAC FINANCIAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flow from operating activities			
Net income	$ 244,443	$ 311,522	$ 336,980
Adjustments to reconcile net income to net cash used in operating activities:			
Accrual of servicing rebate payable to Investment Funds	—	129	306
Amortization, impairment and change in fair value of mortgage servicing rights, mortgage servicing liabilities and excess servicing spread	245,889	273,238	300,275
Net gains on mortgage loans held for sale at fair value	(249,022)	(391,804)	(531,780)
Capitalization of interest on mortgage loans held for sale at fair value	(79,317)	(44,922)	(29,234)
Accrual of interest on excess servicing spread financing	15,138	16,951	22,601
Amortization of net debt issuance (premiums) and costs	(29,170)	6,348	11,052
Carried Interest from Investment Funds	365	1,040	(980)
Change in fair value of investment in common shares of PennyMac Mortgage Investment Trust	(192)	23	(83)
Results of real estate acquired in settlement in loans	(589)	(94)	82
Repricing of payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	(1,126)	(32,940)	(551)
Stock-based compensation expense	25,251	20,697	16,198
Provision for servicing advance losses	40,306	43,249	35,503
Depreciation and amortization	12,925	8,395	5,849
Loss from disposition of fixed assets and impairment of capitalized software	—	1,336	—
Purchase of mortgage loans held for sale from PennyMac Mortgage Investment Trust	(37,967,724)	(42,624,288)	(42,051,505)
Originations of mortgage loans held for sale	(5,531,858)	(5,557,244)	(6,491,107)
Purchase of mortgage loans from Ginnie Mae securities and early buyout investors for modification and subsequent sale	(4,036,147)	(3,957,384)	(2,168,685)
Sale to non-affiliates and principal payments of mortgage loans held for sale	44,557,560	50,235,245	49,633,909
Sale of mortgage loans held for sale to PennyMac Mortgage Investment Trust	3,343,028	904,097	21,541
Repurchase of mortgage loans subject to representations and warranties	(26,021)	(20,324)	(19,248)
Collection of repurchase agreement derivatives	31,907	—	—
Increase in servicing advances	(33,415)	(15,675)	(85,955)
Sale of real estate acquired in settlement of loans	4,037	4,655	—
(Increase) decrease in receivable from PennyMac Mortgage Investment Trust	(9,672)	(11,475)	2,969
Decrease in deferred tax assets	—	—	18,668
(Increase) decrease in other assets	(7,791)	16,092	(19,294)
Increase (decrease) in accounts payable and accrued expenses	32,750	(59,378)	23,005
(Decrease) increase in payable to PennyMac Mortgage Investment Trust	(34,472)	(34,076)	5,589
Payments to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	—	(6,726)	—
Increase in income taxes payable	25,313	29,901	25,570
Net cash provided by (used in) operating activities	572,396	(883,412)	(938,325)

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flow from investing activities			
Decrease (increase) in short-term investments	52,256	(84,116)	(39,645)
Net change in assets purchased from PMT under agreement to resell	13,103	5,872	—
Net settlement of derivative financial instruments used for hedging	(122,227)	(36,618)	(27,315)
Purchase of mortgage servicing rights	(227,664)	(178,531)	(146)
Purchase of furniture, fixtures, equipment and leasehold improvements	(13,421)	(6,791)	(21,852)
Acquisition of capitalized software	(17,444)	(16,992)	(8,537)
(Increase) decrease in margin deposits	(7,214)	(22,055)	62,756
Net cash used in investing activities	(322,611)	(339,231)	(34,739)
Cash flow from financing activities			
Sale of assets under agreements to repurchase	41,375,177	35,698,381	45,925,047
Repurchase of assets sold under agreements to repurchase	(41,820,843)	(35,054,437)	(45,355,531)
Issuance of mortgage loan participation certificates	25,284,270	23,011,607	32,336,793
Repayment of mortgage loan participation certificates	(25,279,510)	(23,155,463)	(31,900,130)
Advances on notes payable	1,300,000	935,000	122,920
Repayment of notes payable	(900,000)	(186,935)	(33,661)
Advances of obligations under capital lease	—	10,298	16,952
Repayment of obligations under capital lease	(14,366)	(12,751)	(7,107)
Repayment of excess servicing spread financing	(46,750)	(54,980)	(69,992)
Settlement of excess servicing spread financing	—	—	(59,045)
Payment of debt issuance costs	(19,982)	(22,201)	(11,747)
Acceptance of mortgage servicing liability	—	—	10,139
Payment of dividend to Class A common stockholders	(10,054)	—	—
Distribution to Private National Mortgage Acceptance Company, LLC members	—	—	(7,631)
Issuance of common stock pursuant to exercise of stock options	5,317	1,254	149
Repurchase of common stock	(5,293)	(8,599)	—
Net cash (used in) provided by financing activities	(132,034)	1,161,174	967,156
Net increase (decrease) in cash and restricted cash	117,751	(61,469)	(5,908)
Cash and restricted cash at beginning of year	38,173	99,642	105,550
Cash and restricted cash at end of year	$ 155,924	$ 38,173	$ 99,642
Cash and restricted cash at year end are comprised of the following:			
Cash	$ 155,289	$ 37,725	$ 99,367
Restricted cash included in *Other* assets	635	448	275
	$ 155,924	$ 38,173	$ 99,642

The accompanying notes are an integral part of these financial statements.

PENNYMAC FINANCIAL SERVICES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Organization

PennyMac Financial Services, Inc. (formerly known as New PennyMac Financial Services, Inc.) ("PFSI" or the "Company") is a holding corporation and its primary assets are direct and indirect equity interests in Private National Mortgage Acceptance Company, LLC ("PennyMac"). The Company is the managing member of PennyMac, and it operates and controls all of the businesses and affairs of PennyMac, subject to the consent rights of other members under certain circumstances, and consolidates the financial results of PennyMac and its subsidiaries.

PennyMac is a Delaware limited liability company which, through its subsidiaries, engages in mortgage banking and investment management activities. PennyMac's mortgage banking activities consist of residential mortgage loan production and mortgage loan servicing. PennyMac's investment management activities and a portion of its mortgage loan servicing activities are conducted on behalf of investment vehicles that invest in residential mortgage loans and related assets. PennyMac's primary wholly owned subsidiaries are:

- *PNMAC Capital Management, LLC ("PCM")*—a Delaware limited liability company registered with the Securities and Exchange Commission ("SEC") as an investment adviser under the Investment Advisers Act of 1940, as amended. PCM enters into investment management agreements with entities that invest in residential mortgage loans and related assets.

  Presently, PCM has a management agreement with PennyMac Mortgage Investment Trust ("PMT"), a publicly held real estate investment trust ("REIT"). Previously, PCM had management agreements with PNMAC Mortgage Opportunity Fund, LLC and PNMAC Mortgage Opportunity Fund, L.P. an affiliate of these registered funds, and PNMAC Mortgage Opportunity Fund Investors, LLC (the "Private Fund") (collectively, the "Investment Funds"). All of the Investment Funds were dissolved during 2018.

- *PennyMac Loan Services, LLC ("PLS")*—a Delaware limited liability company that services portfolios of residential mortgage loans on behalf of non-affiliates and the Advised Entities, purchases, originates and sells new prime credit quality residential mortgage loans and engages in other mortgage banking activities for its own account and the account of PMT.

  PLS is approved as a seller/servicer of mortgage loans by the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac") and as an issuer of securities guaranteed by the Government National Mortgage Association ("Ginnie Mae"). PLS is a licensed Federal Housing Administration Nonsupervised Title II Lender with the U.S. Department of Housing and Urban Development ("HUD") and a lender/servicer with the Veterans Administration ("VA") and U.S. Department of Agriculture ("USDA") (each an "Agency" and collectively the "Agencies").

On November 1, 2018, PNMAC Holdings, Inc. (formerly known as PennyMac Financial Services, Inc.) ("PNMAC Holdings" or "Old PFSI") completed a corporate reorganization (the "Reorganization") by which it changed its equity structure to create a single class of common stock held by all stockholders at a new top-level publicly traded parent holding corporation, as opposed to the two classes of common stock, Class A and Class B, that were in place at Old PFSI before the Reorganization. As part of the Reorganization, the Company replaced Old PFSI as the top-level parent holding corporation of the consolidated PennyMac business and changed its name from New PennyMac Financial Services, Inc. ("New PFSI").

As the result of the reorganization:

- Each outstanding share of Class A common stock of Old PFSI was converted on a one-for-one basis into shares of New PFSI common stock.

- Each outstanding share of Class B common stock of Old PFSI was cancelled for no consideration.

- Each Class A unit of PennyMac not held by Old PFSI was contributed to New PFSI and exchanged on a one-for-one basis for shares of New PFSI common stock.

- New PFSI replaced Old PFSI as the publicly-held entity and, through its subsidiaries, conducts all of the operations previously conducted by Old PFSI.

- Old PFSI changed its name to PNMAC Holdings, Inc. and New PFSI changed its name to PennyMac Financial Services, Inc.

- New PFSI assumed Old PFSI's existing equity incentive plan—including all performance share awards, restricted share awards, common stock options and other incentive awards covering shares of Old PFSI's Class A common stock, whether vested or not vested, that were outstanding at the effective time of the Reorganization.

  New PFSI reserved the same number of shares of its common stock as was reserved by Old PFSI before the effective time of the Reorganization, and the terms and conditions that were in effect immediately before the Reorganization under each outstanding incentive award assumed by New PFSI continue in full force and effect after the Reorganization, except that the shares of Class A common stock reserved under Old PFSI's plans and issuable under each such award will be replaced by shares of common stock of New PFSI.

- Old PFSI's existing directors and executive officers hold the same positions with New PFSI.

- After the completion of the Reorganization, PNMAC Holdings became a consolidated subsidiary of the Company and is considered the predecessor of the Company for accounting purposes. Accordingly, PNMAC Holdings' historical consolidated financial statements will be the Company's historical financial statements.

- The Reorganization is to be treated as an integrated transaction that qualifies as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code and/or a transfer described in Section 351(a) of the Internal Revenue Code.

Note 2—Concentration of Risk

A substantial portion of the Company's activities relate to the Advised Entities. Revenues generated from these entities (generally comprised of gains on mortgage loans held for sale, mortgage loan origination fees, fulfillment fees, mortgage loan servicing fees, management fees, carried interest, less net interest paid to these entities) totaled 21%, 20%, and 18% of total net revenues for the years ended December 31, 2018, 2017 and 2016, respectively.

Note 3—Significant Accounting Policies and Recently Issued Accounting Pronouncement

A description of the Company's significant accounting policies applied in the preparation of the accompanying consolidated financial statements follows.

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* (the "ASC" or the "Codification").

Principles of Consolidation

The consolidated financial statements include the accounts of PFSI and its wholly-owned subsidiaries, including PennyMac. Intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make judgments and estimates that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results will likely differ from those estimates.

Fair Value

Most of the Company's assets and certain of its liabilities are measured at or based on their fair values. The Company 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 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 Company 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 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 assets and liabilities, subsequent transactions may be at values significantly different from those reported.

Cash Flows

During the year ended December 31, 2018, the Company adopted Accounting Standards Update 2016-18, *Statement of Cash Flows (Topic 230) – Restricted Cash* ("ASU 2016-18"). ASU 2016-18 requires that a statement of cash flows explain the change during the reporting period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the consolidated statement of cash flows. Accordingly, the Company retrospectively changed the presentation of its consolidated statements of cash flows to conform to the requirements of ASU 2016-18.

For the purpose of presentation in the statement of cash flows, the Company has identified tenant security deposits relating to rental properties owned by PMT and managed by the Company as restricted cash. The tenant security deposits are included in *Other* assets on the Company's consolidated balance sheets.

As the result of adoption of ASU 2016-18, the Company's consolidated statements of cash flows for the years ended December 31, 2017 and 2016 changed as follows:

	Year ended December 31,			
	2017		2016	
	Cash flow from operating activities	Cash and restricted cash at year end	Cash flow from operating activities	Cash and restricted cash at year end
	(in thousands)			
As previously reported	$ (883,585)	$ 37,725	$ (938,522)	$ 99,367
Effect of adoption of ASU 2016-18	173	448	197	275
As reported	$ (883,412)	$ 38,173	$ (938,325)	$ 99,642

Short-Term Investments

Short-term investments, which represent investments in accounts with a depository institution such as money market funds, are carried at fair value. Changes in fair value are recognized in current period income. The Company classifies its short-term investments as "Level 1" fair value assets.

Mortgage Loans Held for Sale at Fair Value

Management has elected to account for mortgage loans held for sale at fair value, with changes in fair value recognized in current period income, to more timely reflect the Company's performance. All changes in fair value are recognized as a component of *Net gains on mortgage loans held for sale at fair value*. The Company classifies most of the mortgage loans held for sale at fair value as "Level 2" fair value assets. Certain of the Company's mortgage loans held for sale may not be saleable into active markets due to identified defects or delinquency. Such mortgage loans are classified as "Level 3" fair value assets.

Sale Recognition

The Company recognizes transfers of mortgage loans as sales 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 the specific mortgage loans.

Interest Income Recognition

Interest income on mortgage loans held for sale at fair value is recognized over the life of the mortgage loans using their contractual interest rates. Income recognition is suspended and the unpaid interest receivable is reversed against interest income when mortgage loans become 90 days delinquent, or when, in management's opinion, a full recovery of interest and principal becomes doubtful. Income recognition is resumed when the mortgage loan becomes contractually current.

Derivative Financial Instruments

The Company holds and issues derivative financial instruments in connection with its operating 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:

- Interest rate lock commitments (“IRLCs”) that are created when the Company commits to purchase or originate a mortgage loan acquired for sale at specified interest rates.
- Derivatives that are embedded in a master repurchase agreement with a non-affiliate that provides for the Company to receive incentives for financing mortgage loans that satisfy certain consumer relief characteristics as provided in the master repurchase agreement.

The Company is exposed to price risk relative to its mortgage loans held for sale as well as to IRLCs. The Company bears price risk from the time a commitment to fund a mortgage loan is made to a borrower or to purchase a mortgage loan from PMT, to the time either the prospective transaction is cancelled or the mortgage loan is sold. During this period, the Company is exposed to losses if mortgage market interest rates increase, because the fair value of the purchase commitment or prospective mortgage loan decreases.

The Company also is exposed to risk relative to the fair value of its mortgage servicing rights (“MSRs”) when interest rates decrease. MSRs and mortgage servicing liabilities (“MSLs”) are generally subject to reduction 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 mortgage loans underlying the MSRs and MSLs, thereby reducing their fair value. Reductions in the fair value of MSRs and MSLs affect earnings primarily through change in fair value and impairment charges.

The Company engages in interest rate risk management activities in an effort to mitigate the effect of changes in market interest rates on the fair value of the Company’s assets. To manage this fair value risk resulting from interest rate risk, the Company uses derivative financial instruments acquired with the intention of reducing the risk that changes in market interest rates will result in unfavorable changes in the fair value of the Company’s IRLCs, inventory of mortgage loans held for sale and MSRs.

IRLCs are accounted for as derivative financial instruments. The Company manages the risk created by IRLCs relating to mortgage loans held for sale by entering into forward sale agreements to sell the mortgage loans and by the purchase and sale of options and futures on mortgage-backed securities (“MBS”). Such agreements are also accounted for as derivative financial instruments. These and other interest-rate derivatives are also used to manage the fair value risk created by changes in prepayment speeds on certain of the MSRs the Company holds.

The Company classifies its IRLCs as “Level 3” fair value assets and liabilities. Fair value of exchange-traded hedging derivative financial instruments are categorized by the Company as “Level 1” fair value assets and liabilities. Fair value of hedging derivative financial instruments based on observable MBS prices or interest rate volatilities in the MBS market are categorized as “Level 2” fair value assets and liabilities.

The Company does not designate its derivative financial instruments for hedge accounting. Therefore, the Company accounts for its derivative financial instruments as free-standing derivatives. All derivative financial instruments are recognized on the consolidated balance sheet at fair value with changes in the fair values being reported in current period income. Changes in fair value of derivative financial instruments hedging IRLCs, mortgage loans held for sale at fair value and MSRs are included in *Net gains on mortgage loans held for sale at fair value* or in *Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities,* as applicable, in the Company’s consolidated statements of income. Changes in fair value of derivative assets relating to a master repurchase agreement are included in *Interest expense*.

When the Company has multiple derivative financial instruments with the same counterparty subject to a master netting arrangement, it offsets the amounts recorded as assets and liabilities and amounts recognized for the right to reclaim cash collateral it has deposited with the counterparty or the obligation to return cash collateral it has collected from the counterparty arising from that master netting arrangement. Such offset amounts are presented as either a net asset or liability by counterparty on the Company’s consolidated balance sheets.

Servicing Advances

Servicing advances represent advances made on behalf of borrowers and the mortgage loans' investors to fund property taxes, insurance premiums and out-of-pocket collection costs (e.g., preservation and restoration of mortgaged or real estate acquired in the settlement of loans ("REO"), legal fees, and appraisals). 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 and provides a valuation allowance for amounts estimated to be uncollectable. Servicing advances are written off when they are deemed uncollectable.

Mortgage Servicing Rights and Mortgage Servicing Liabilities

MSRs and MSLs arise from contractual agreements between the Company and investors (or their agents) in mortgage securities and mortgage loans. Under these contracts, the Company performs mortgage loan servicing functions in exchange for fees and other remuneration. The servicing functions typically performed include, among other responsibilities, collecting and remitting 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 fair value of MSRs and MSLs is derived from the net positive or negative, respectively, cash flows associated with the servicing contracts. The Company receives a servicing fee, net of related guarantee fees based on the remaining outstanding principal balances of the mortgage loans subject to the servicing contracts. The servicing fees are collected from the monthly payments made by the mortgagors.

The Company is contractually entitled to receive other remuneration including various mortgagor-contracted fees such as late charges and collateral reconveyance charges, and the Company is generally entitled to retain the interest earned on funds held pending remittance related to its collection of mortgagor payments. The Company also generally has the right to solicit the mortgagors for other products and services as well as for new mortgages for those considering refinancing or purchasing a new home.

The Company recognizes MSRs and MSLs initially at fair value, either as proceeds from or liabilities incurred in, sales of mortgage loans where the Company assumes the obligation to service the mortgage loan in the sale transaction, or from the purchase of MSRs or receipt of cash for acceptance of MSLs.

Through December 31, 2017, the Company's subsequent accounting for MSRs and MSLs was based on the class of MSR or MSL. The Company identified three classes of MSRs: originated MSRs backed by mortgage loans with initial interest rates of less than or equal to 4.5%, MSRs backed by mortgage loans with initial interest rates of more than 4.5%, and purchased MSRs financed in part through the transfer of the right to receive excess servicing spread ("ESS") cash flows.

- 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 (discussed below).

- Originated MSRs backed by loans with initial interest rates of more than 4.5% and purchased MSRs financed in part by ESS were accounted for at fair value with changes in fair value recorded in current period income. MSLs were and continue to be carried at fair value with changes in fair value recorded in current period income.

Effective January 1, 2018, the Company elected to change the accounting for MSRs it had accounted for using the amortization method through December 31, 2017, to the fair value method as allowed in the *Transfers and Servicing* topic of the FASB's ASC. The Company determined that a single accounting treatment across all currently existing classes of MSRs is consistent with lender valuation under its financing arrangements and simplifies that Company's hedging activities. As a result of this change, the Company recorded an adjustment to increase its investment in MSRs by $848,000, increase its liability for income taxes payable by $72,000 and increase its stockholders' equity by $776,000.

The fair value of MSRs and MSLs is difficult to determine because MSRs and MSLs are not actively traded in observable stand-alone markets. Considerable judgment is required to estimate the fair values of MSRs and MSLs and the exercise of such judgment can significantly affect the Company's income. Therefore, the Company classifies its MSRs and MSLs as "Level 3" fair value assets and liabilities.

MSRs and MSLs Accounted for at Fair Value

Changes in fair value of MSLs and MSRs accounted for at fair value are recognized in current period income in *Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities* in the consolidated statements of income.

MSRs Accounted for Using the Amortization Method

Through December 2017, the Company amortized MSRs that were accounted for using the amortization method. MSR amortization was determined by applying the ratio of the net MSR cash flows projected for the current period to the estimated total remaining projected net MSR cash flows. The estimated total net MSR cash flows were determined at the beginning of each month using prepayment inputs applicable at that time.

MSRs accounted for using the amortization method were periodically evaluated for impairment. Impairment occurs when the current fair value of the MSRs decreases below the asset's amortized cost. If MSRs were impaired, the impairment was recognized in current-period income and the carrying value (carrying value is the MSR's amortized cost reduced by any related valuation allowance) of the MSRs was adjusted through a valuation allowance. If the fair value of impaired MSRs subsequently increased, the increase in fair value was recognized in current-period income. When an increase in fair value of MSR was recognized, the valuation allowance was adjusted to increase the carrying value of the MSRs only to the extent of the valuation allowance.

For impairment evaluation purposes, the Company stratified its MSRs by predominant 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 rate pools of 50 basis points for note rates between 3.0% and 4.5% and a single pool for note rates of less than or equal to 3.0%. If the fair value of MSRs in any of the note interest rate pools was below the carrying value of the MSRs for that pool, impairment was recognized to the extent of the difference between the fair value and the carrying value of that pool.

Management periodically reviewed the various impairment strata to determine whether the fair value of the impaired MSRs in a given stratum was likely to recover. When management deemed recovery of the fair value to be unlikely in the foreseeable future, a write-down of the cost of the MSRs for that stratum to its estimated recoverable value was charged to the valuation allowance.

Both amortization and changes in the amount of the MSR valuation allowance were recorded in current period income in *Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities* in the consolidated statements of income.

Furniture, Fixtures, Equipment and Building Improvements

Furniture, fixtures, equipment and building improvements are stated at historical cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the various classes of assets, which range from five to seven years for furniture and equipment and the lesser of the asset's estimated useful life or the remaining lease term for fixtures and building improvements.

Capitalized Software

The Company capitalizes certain consulting, payroll, and payroll-related costs related to computer software developed for internal use. Once development is complete and the software is placed in service, the Company amortizes the capitalized costs over three to seven years using the straight-line method.

The Company also periodically assesses capitalized software for recoverability when events or changes in circumstances indicate that its carrying amount may not be recoverable. If management identifies an indicator of impairment, it assesses recoverability by comparing the carrying amount of the asset to the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized when the carrying amount is not recoverable and is measured as the excess of carrying value over fair value.

Investment in PennyMac Mortgage Investment Trust at Fair Value

Common shares of beneficial interest in PMT are carried at their fair value with changes in fair value recognized in current period income. Fair value for purposes of the Company's holdings in PMT is based on the published closing price of the shares as of period end. The Company classifies its investment in common shares of PMT as a "Level 1" fair value asset.

Mortgage Loans Eligible for Repurchase

The terms of the Ginnie Mae MBS program allow, but do not require, the Company to repurchase mortgage loans when the borrower has made no payments for the three consecutive months preceding the month of repurchase. As a result of this right, the Company recognizes the mortgage loans in *Mortgage loans eligible for repurchase* at their unpaid principal balances and records a corresponding liability in *Liability for mortgage loans eligible for repurchase* on its consolidated balance sheets.

Carried Interest Due from Investment Funds

Carried Interest, in general terms, is the share of any profits in excess of specified levels that the general partners receive as compensation. The Company had a general partnership interest or other Carried Interest arrangement with the Investment Funds, and earned Carried Interest thereunder. The amount of Carried Interest to be recorded each period was based on the cash flows that would be realized by all partners assuming liquidation of the Investment Funds' remaining investments as of the measurement date. The Company received Carried Interest in the priority of distribution as provided in the charter documents relating to the respective Investment Funds. The Company included its *Carried Interest* in *Other* assets.

Borrowings

The carrying values of borrowings other than ESS are based on the accrued cost of the agreements. The costs of creating the facilities underlying the agreements are included in the carrying value of the agreements and are amortized to *Interest expense* over the terms of the respective borrowing facilities:

- Debt issuance costs relating to revolving facilities, such as repurchase agreement and mortgage loan participation purchase and sale facilities are amortized on the straight line basis over the term of the facility;

- Debt issuance cost relating to non-revolving debts, such as certain of the Company's *Notes payable,* are amortized over the contractual term of the non-revolving debt using the interest method;

- Debt issuance premiums recorded as the results of recognition of repurchase agreement derivatives are amortized to *Interest expense* over the contractual term of the repurchase agreement. Unamortized premiums relating to repurchase agreements repaid before the transaction's contractual maturity are credited to *Interest expense*.

Excess Servicing Spread Financing at Fair Value

The Company finances certain of its purchases of Agency MSRs through the sale to PMT of the right to receive the excess of the servicing fee rate over a specified rate of the underlying MSRs. This excess is referred to as the ESS. ESS is carried at its fair value. Changes in fair value are recognized in current period income in *Change in fair value of excess servicing spread payable to PennyMac Mortgage Investment Trust*.

Interest expense for ESS is accrued using the interest method based upon the expected cash flows from the ESS through the expected life of the underlying mortgage loans.

Liability for Losses Under Representations and Warranties

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, 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 may have to correspondent mortgage loan sellers that, in turn, had sold such mortgage loans to PMT 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 mortgage loan seller, through PMT.

As a result of providing representations and warranties to investors and insurers, 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 repurchase 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 Company's management credit committee.

The level of the liability for representations and warranties is difficult to estimate and requires considerable management judgment. The level of mortgage loan repurchase losses is dependent on economic factors, investor repurchase demand or insurer claim denial 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 Company believes that the current unpaid principal balance of mortgage loans sold to date represents the maximum exposure to repurchases related to representations and warranties.

Mortgage Loan Servicing Fees

Mortgage loan servicing fees are received by the Company for servicing residential mortgage loans. Mortgage loan servicing activities include loan administration, collection, and default management, 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 REO property dispositions.

Mortgage loan servicing fee amounts are based upon fee schedules established by the applicable investor and depend on whether the Company is directly servicing loans, where it holds the MSRs, subservicing MSRs or loans held by PMT or another third party or subservicing distressed mortgage loans for the Advised Entities.

The Company's obligations under its mortgage loan servicing agreements are fulfilled as the Company services the mortgage loans. Fees are collected when the mortgage loan payments are received from the borrowers in the case of MSRs held by the Company or within 30 days of the applicable month-end from the Advised Entities.

Owned mortgage loan servicing fees are recorded net of Agency guarantee fees paid by the Company and are recognized when the mortgage loan payments are received from the borrowers. Mortgage loan servicing fees relating to mortgage loans serviced for the Advised Entities are recognized in the month in which the mortgage loans are serviced.

Fulfillment Fees

Fulfillment fees represent fees the Company collects for services it performs on behalf of PMT in connection with the acquisition, packaging and sale of mortgage loans. Fulfillment fee amounts are based upon a negotiated fee schedule and the unpaid principal balance of the mortgage loans purchased by PMT. The Company's obligation under the agreement is fulfilled when PMT completes the sale or securitization of a mortgage loan it purchases. Fulfillment fee revenue is recognized in the month the mortgage loan is purchased by PMT. Fulfillment fees are generally collected within 30 days of purchase by PMT, although a portion of the fulfillment fees may not be collected until 30 days following sale or securitization to the extent such sale or securitization does not occur in the month of purchase.

Management fees

Management fees represent compensation to the Company for its management services provided to the Advised Entities. Management fees were earned based on the Investment Funds' net assets and are based on PMT's shareholders' equity amounts and profitability in excess of specified thresholds. Management fees are recognized as services are provided and are paid to the Company on a quarterly basis within 30 days of the end of the quarter.

Stock-Based Compensation

The Company's 2013 Equity Incentive Plan provides for awards of nonstatutory and incentive stock options, time-based restricted stock units, performance-based restricted stock units, stock appreciation rights, performance units and stock grants. The Company establishes the cost of its share-based awards at the awards' fair values at the grant date of the awards. The Company estimates the fair value of time-based restricted stock units and performance-based restricted stock units awarded with reference to the fair value of its underlying common stock and expected forfeiture rates on the date of the award. The Company estimates the fair value of its stock option awards with reference to the expected price volatility of its shares of common stock and risk-free interest rate for the period that exercisable stock options are expected to be outstanding.

Compensation costs are fixed, except for performance-based restricted stock units, as of the award date as all grantees are employees of PennyMac or directors of the Company. The cost of performance-based restricted stock units is adjusted in each reporting period after the grant for changes in expected performance attainment until the performance share units vest. The Company amortizes the cost of stock based awards to compensation expense over the vesting period using the graded vesting method. Expense relating to awards is included in *Compensation* expense in the consolidated statements of income.

Income Taxes

The Company is subject to federal and state income taxes. Income taxes are provided using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected 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 management's judgment, it is not more likely than not that a deferred tax asset will be realized.

The Company recognizes tax benefits relating to its tax positions only if, in the opinion of management, it is more likely than not that the tax 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 is greater than 50% likely to be realized upon ultimate settlement with the appropriate taxing authority. The Company will classify any penalties and interest as a component of provision for income taxes.

As a result of the PennyMac recapitalization and reorganization in 2013, the Company expects to benefit from amortization and other tax deductions resulting from increases in the tax basis of PennyMac's assets from the exchange of PennyMac Class A units to the shares of the Company's common stock. Those deductions will be allocated to the Company and will be taken into account in reporting the Company's taxable income.

The Company assumed an agreement with certain of the former unitholders of PennyMac that provides for the additional payment by the Company to exchanging unitholders of PennyMac equal to 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that PFSI realizes due to (i) increases in tax basis resulting from exchanges of the then existing unitholders and (ii) certain other tax benefits related to PFSI entering into the tax receivable agreement, including tax benefits attributable to payments under the tax receivable agreement. Although the Company's Reorganization in 2018 eliminated the potential for unitholders to exchange any additional units subject to this tax receivable agreement, the Company continues to be subject to the agreement and provide payment when applicable for units exchanged before the Reorganization.

Recently Issued Accounting Pronouncement

In February 2016, the FASB issued Accounting Standard Update No. 2016-02, *Leases* (*Topic 842*) ("ASU 2016-02"). ASU 2016-02 changes the standards for the recognition, measurement, presentation and disclosure of leases. ASU 2016-02 requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether the lease is effectively a financed purchase of the leased asset by the lessee. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early adoptions permitted. The Company will adopt the new standard effective January 1, 2019.

The Company will adopt ASU 2016-02 using the required modified retrospective approach and will not adjust prior comparative periods. As part of the adoption of ASU 2016-02, the Company will make accounting policy elections that will:

- Retain current classification of leases; and
- Not recognizing leases with an initial term of 12 months or less on the consolidated balance sheet.

At January 1, 2019, upon adoption of ASU 2016-02, the Company will recognize approximately $79.3 million of lease liability and approximately $58.6 million of right-of-use asset based on the present value of remaining lease payments. The Company does not expect the adoption of ASU 2016-02 to have a significant effect on the amount or timing of its lease expense. The effect of ASU 2016-02 is non-cash in nature, and, as such, it will not affect the Company's cash flows.

Note 4—Transactions with Affiliates

Transactions with PMT

Operating Activities

Mortgage Loan Production Activities and MSR Recapture

The Company sells newly originated loans to PMT under a mortgage loan purchase agreement. Historically, the Company has used the mortgage loan purchase agreement for the purpose of selling to PMT prime jumbo residential mortgage loans. Beginning in the third quarter of 2017, the Company also sells conventional, conforming balance mortgage loans to PMT under the agreement.

Pursuant to the terms of an amended and restated MSR recapture agreement, effective September 12, 2016, if the Company refinances mortgage loans for which PMT previously held the MSRs, the Company is generally required to transfer and convey cash in an amount equal to 30% of the fair market value of the MSRs related to all the mortgage loans so originated. The MSR recapture 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 provides fulfillment and other services to PMT under an amended and restated mortgage banking services agreement for which it receives a fulfillment fee. Pursuant to the terms of the mortgage banking services 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 the Company with respect to any mortgage loans underwritten to the Ginnie Mae Mortgage Backed Securities ("MBS") Guide. PMT does not hold the Ginnie Mae approval required to issue Ginnie Mae MBS and act as a servicer. Accordingly, under the agreement, the Company currently purchases mortgage loans underwritten in accordance with the Ginnie Mae MBS Guide "as is" and without recourse of any kind from PMT at PMT's 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 mortgage loans are held by PMT before being purchased by the Company.

In consideration for the mortgage banking services provided by the Company with respect to PMT's acquisition of mortgage loans under the Company's early purchase program, the Company is entitled to fees accruing (i) at a rate equal to $1,500 per year per early purchase facility administered by the Company, and (ii) in the amount of $35 for each mortgage loan that PMT acquires thereunder. The mortgage banking services 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 loan production activities, including MSR recapture, between the Company and PMT:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Net gains (loss) on mortgage loans held for sale at fair value:			
Net gains on mortgage loans held for sale to PMT	$ 69,359	$ 28,238	$ —
Mortgage servicing rights and excess servicing spread recapture incurred	(4,776)	(6,249)	(8,092)
	$ 64,583	$ 21,989	$ (8,092)
Sale of mortgage loans held for sale to PMT	$ 3,343,028	$ 904,097	$ 21,541
Fulfillment fee revenue	$ 81,350	$ 80,359	$ 86,465
Unpaid principal balance of mortgage loans fulfilled for PMT subject to fulfillment fees	$ 26,194,303	$ 22,971,119	$ 23,188,386
Sourcing fees paid to PMT	$ 10,925	$ 12,084	$ 11,976
Unpaid principal balance of mortgage loans purchased from PMT	$ 36,415,933	$ 40,561,241	$ 39,908,163
Tax service fees earned from PMT included in *Mortgage loan origination fees*	$ 7,433	$ 7,078	$ 6,690
Early purchase program fees earned from PMT included in *Mortgage loan servicing fees*	$ —	$ 7	$ 30

Mortgage Loan Servicing

The Company has a mortgage loan servicing agreement with PMT ("Servicing Agreement"). The Servicing Agreement provides for servicing fees of per-loan monthly amounts based on the delinquency, bankruptcy and/or foreclosure status of the serviced mortgage loan or REO. The Company also remains entitled to customary ancillary income and market-based fees and charges relating to mortgage loans it services for PMT. These include boarding and deboarding fees, liquidation and disposition fees, assumption, modification and origination fees and a percentage of late charges.

- 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 the Company facilitates rentals of PMT's REO under its REO rental program, the Company collects 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 the Company's 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 the Company provides property management services directly. The Company 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 the Company effects a refinancing of a mortgage loan on behalf of PMT and not through a third-party lender and the resulting mortgage loan is readily saleable, or the Company originates a loan to facilitate the disposition of a REO, the Company is entitled to receive from PMT market-based fees and compensation consistent with pricing and terms the Company offers unaffiliated parties on a retail basis.

- Because PMT has a small number of employees and limited infrastructure, the Company 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, the Company receives a supplemental servicing fee of $25 per month for each distressed mortgage loan. The Company is entitled to reimbursement for all customary, good faith reasonable and necessary out-of-pocket expenses incurred by the Company in performance of its servicing obligations.

- 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; provided, however, that with respect to any such incentive payments paid to the Company in connection with a mortgage loan modification for which PMT previously paid the Company a modification fee, the Company is required to reimburse PMT an amount equal to the incentive payments.

- The Company 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. The Company 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 are 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 are $7.50 per month and $8.50 per month for fixed-rate loans and adjustable-rate loans, respectively.

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.

Following is a summary of mortgage loan servicing fees earned from PMT:

	Year ended December 31,		
	2018	**2017**	**2016**
		(in thousands)	
Mortgage loans acquired for sale at fair value:			
Base and supplemental	$ 347	$ 305	$ 330
Activity-based	690	649	733
	1,037	954	1,063
Mortgage loans at fair value:			
Base and supplemental	2,771	6,650	11,078
Activity-based	4,784	8,960	18,521
	7,555	15,610	29,599
Mortgage servicing rights:			
Base and supplemental	32,854	25,991	19,461
Activity-based	599	509	492
	33,453	26,500	19,953
	$ 42,045	$ 43,064	$ 50,615
Property management fees received from PMT included in *Other* income	$ 442	$ 350	$ 138

Investment Management Activities

The Company has a management agreement with PMT ("Management Agreement"). The Management Agreement provides that:

> The base management fee is calculated quarterly and is equal to the sum of (i) 1.5% per year of PMT's average shareholders' equity up to $2 billion, (ii) 1.375% per year of PMT's average shareholders' equity in excess of $2 billion and up to $5 billion, and (iii) 1.25% per year of PMT's average shareholders' equity in excess of $5 billion.
>
> The performance incentive fee is calculated quarterly at a defined annualized percentage of the amount by which PMT's "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 PMT's "net income" for the quarter exceeds (i) an 8% return on equity plus the "high watermark," up to (ii) a 12% return on PMT's equity; plus (b) 15% of the amount by which PMT's "net income" for the quarter exceeds (i) a 12% return on PMT's equity plus the "high watermark," up to (ii) a 16% return on PMT's equity; plus (c) 20% of the amount by which PMT's "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 PMT's common shares of beneficial interest computed in accordance with GAAP adjusted for certain other non-cash charges determined after discussions between the Company and PMT's independent trustees and approval by a majority of PMT's independent trustees.
>
> "Equity" is the weighted average of the issue price per common share of all of PMT'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. 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 the Company 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, and a performance incentive fee is earned.

The base management fee and the performance incentive fee are both receivable quarterly in arrears. The performance incentive fee may be paid in cash or a combination of cash and PMT's common shares (subject to a limit of no more than 50% paid in common shares), at PMT'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 PMT and the Company, the Company 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 the Company, 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 earned from PMT:

	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

Expense Reimbursement

Under the Management Agreement, PMT reimburses the Company for its organizational and operating expenses, including third-party expenses, incurred on PMT's behalf, it being understood that the Company 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 PMT. With respect to the allocation of the Company's and its affiliates' personnel compensation, from and after September 12, 2016, the Company shall be reimbursed $120,000 per fiscal quarter, such amount to be reviewed annually and not preclude reimbursement for any other services performed by the Company or its affiliates.

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

The Company received reimbursements from PMT for expenses as follows:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Reimbursement of:			
Common overhead incurred by the Company (1)	$ 4,640	$ 5,306	$ 7,898
Compensation (1)	480	—	—
Expenses incurred on (the Company's) PMT's behalf, net	1,113	2,257	(163)
	$ 6,233	$ 7,563	$ 7,735
Payments and settlements during the year (2)	$ 71,943	$ 64,945	$ 143,542

(1) The Company adopted Accounting Standards Update 2014-09 *Revenues from Contracts with Customers* ("ASU 2014-09") using the modified retrospective method effective January 1, 2018. Adoption of ASU 2014-09 using the modified retrospective method required the Company to include those reimbursements from PMT in *Other* revenue starting January 1, 2018. Before adoption of ASU 2014-09, the Company included such reimbursements in the respective expense line items.

(2) Payments and settlements include payments for management fees and correspondent production activities itemized in the preceding tables and netting settlements made pursuant to master netting agreements between the Company and PMT.

Conditional Reimbursement of Underwriting Fees

In connection with its initial public offering of common shares of beneficial interest on August 4, 2009 ("IPO"), PMT conditionally agreed to reimburse the Company up to $2.9 million for underwriting fees paid to the IPO underwriters by the Company on PMT's behalf. In the event a termination fee is payable to the Company under the Management Agreement, and the Company has 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. The Company received $69,000, $30,000, and $0 in reimbursement from PMT during the years ended December 31, 2018, 2017, and 2016, respectively.

Investing Activities

Master Repurchase Agreement

On December 19, 2016, the Company, through PLS, entered into a master repurchase agreement with one of PMT's wholly-owned subsidiaries, PennyMac Holdings, LLC ("PMH") (the "PMH Repurchase Agreement"), pursuant to which PMH may borrow from the Company for the purpose of financing PMH's participation certificates representing beneficial ownership in ESS. 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 PennyMac, 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 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.

The Company holds an investment in PMT in the form of 75,000 common shares of beneficial interest.

Following is a summary of investing activities between the Company and PMT:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell:			
Activity during the year:			
Refinancing of note receivable from PennyMac Mortgage Investment Trust	$ —	$ —	$ 150,000
Sale of assets purchased from PMT under agreement to resell	$ 13,103	$ 5,872	$ —
Interest income	$ 7,462	$ 8,038	$ 253
Balance at end of year	$ 131,025	$ 144,128	$ 150,000
Note receivable from PennyMac Mortgage Investment Trust:			
Activity during the year:			
Refinancing with repurchase agreement from PennyMac Mortgage Investment Trust	$ —	$ —	$ 150,000
Interest income	$ —	$ —	$ 7,577
Balance at end of year	$ —	$ —	$ —
Common shares of beneficial interest of PennyMac Mortgage Investment Trust:			
Activity during the year:			
Dividends earned from PennyMac Mortgage Investment Trust	$ 140	$ 141	$ 141
Change in fair value of investment in common shares of PennyMac Mortgage Investment Trust	192	(23)	83
	$ 332	$ 118	$ 224
Balance at end of year:			
Fair value	$ 1,397	$ 1,205	
Number of shares	75	75	

Financing Activities

Spread Acquisition and MSR Servicing Agreements

On December 19, 2016, the Company amended and restated a master spread acquisition and MSR servicing agreement with PMT (the "Spread Acquisition Agreement"), pursuant to which the Company may sell to PMT, from time to time, the right to receive participation certificates representing beneficial ownership in ESS arising from Ginnie Mae MSRs acquired by the Company, in which case the Company 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 PMT in connection with the parties' participation in the GNMA MSR Facility.

To the extent the Company refinances any of the mortgage loans relating to the ESS it has acquired, the Spread Acquisition Agreement also contains recapture provisions requiring that the Company transfer to PMT, 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, the Company 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 the Company 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, the Company may, at its option, wire cash to PMT in an amount equal to such fair market value in lieu of transferring such ESS.

Following is a summary of financing activities between the Company and PMT:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Excess servicing spread financing:			
Issuance pursuant to recapture agreement	$ 2,688	$ 5,244	$ 6,603
Repayment	$ 46,750	$ 54,980	$ 69,992
Settlement	$ —	$ —	$ 59,045
Change in fair value	$ 8,500	$ (19,350)	$ (23,923)
Interest expense	$ 15,138	$ 16,951	$ 22,601
Recapture incurred pursuant to refinancings by the Company of mortgage loans subject to excess servicing spread financing included in *Net gains on mortgage loans held for sale at fair value*	$ 2,584	$ 4,820	$ 6,529

	December 31,	
	2018	2017
	(in thousands)	
Excess servicing spread financing at fair value	$ 216,110	$ 236,534

Receivable from and Payable to PMT

Amounts due from and payable to PMT are summarized below:

	December 31, 2018	December 31, 2017
	(in thousands)	
Receivable from PMT:		
Fulfillment fees	$ 10,006	$ 346
Allocated expenses and expenses incurred on PMT's behalf	9,066	11,542
Management fees	6,559	5,901
Servicing fees	4,841	6,583
Correspondent production fees	2,071	1,735
Conditional Reimbursement	801	870
Interest on assets purchased under agreements to resell	120	142
	$ 33,464	$ 27,119
Payable to PMT:		
Deposits made by PMT to fund servicing advances	$ 100,554	$ 132,844
Mortgage servicing rights recapture payable	179	282
Other	3,898	3,872
	$ 104,631	$ 136,998

Investment Funds

The Investment Funds were dissolved during 2018. Before their dissolution, the Company had investment management agreements with the Investment Funds pursuant to which it received management fees consisting of base management fees and Carried Interest. The management fees were based on the lesser of the funds' net asset values or aggregate capital contributions. The base management fees accrued at annual rates ranging from 1.5% to 2.0% of the applicable amounts on which they were based.

The Company recognized Carried Interest as a participation in the profits in the Investment Funds after the investors in the Investment Funds had achieved a preferred return as defined in the fund agreements. The Carried Interest that the Company recognized from the Investment Funds was determined by the Investment Funds' performance and its contractual rights to share in the Investments Funds' returns in excess of the preferred returns, if any, accruing to the funds' investors. After the investors achieved the preferred returns specified in the respective fund agreements, a "catch up" return accrued to the Company until it received a specified percentage of the preferred return. Thereafter, the Company participated in returns in excess of the preferred return at the rates specified in the fund agreements.

The Company also had loan servicing agreements with the Investment Funds. The loan servicing provided by the Company under the loan servicing agreements with the Investment Funds included collecting principal, interest and escrow account payments, if any, with respect to mortgage loans, as well as managing loss mitigation, which included, among other things, collection activities, loan workouts, modifications, foreclosures and short sales. The Company also engaged in certain loan origination activities that included refinancing Investment Fund mortgage loans and arranging financings that facilitated sales of REOs.

The loan servicing agreements with the Investment Funds generally provided for fee revenue, which varied depending on the type and quality of the loans being serviced. The Company was also entitled to certain customary market-based fees and charges.

Carried interest and amounts due from the Investment Funds are included in *Other* assets, and amounts payable to the Investment Funds are included in *Accounts payable and accrued expenses*, respectively, as of December 31, 2017 and are summarized below:

	December 31, 2017 (in thousands)
Carried Interest due from Investment Funds:	
PNMAC Mortgage Opportunity Fund, LLC	$ 6,389
PNMAC Mortgage Opportunity Fund Investors, LLC	2,163
	$ 8,552
Receivable from Investment Funds:	
Mortgage loan servicing fee rebate deposit	$ 300
Management fees	88
Expense reimbursements	27
Mortgage loan servicing fees	2
	$ 417
Payable to Investment Funds:	
Deposits received to fund servicing advances	$ 2,329
Other	98
	$ 2,427

Exchanged Private National Mortgage Acceptance Company, LLC Unitholders

The Company assumed a tax receivable agreement with certain former owners of PennyMac that provides for the payment from time to time by the Company to PennyMac's exchanged unitholders an amount equal to 85% of the amount of the net tax benefits, if any, that the Company is deemed to realize as a result of (i) increases in tax basis of PennyMac's assets resulting from such unitholders' exchanges and (ii) certain other tax benefits related to entering into the tax receivable agreement, including tax benefits attributable to payments under the tax receivable agreement. Although the Company's Reorganization in 2018 eliminated the potential for unitholders to exchange any additional units subject to this tax receivable agreement, the Company continues to be subject to the agreement and will be required to make payments when applicable for units exchanged before the Reorganization.

Following is a summary of activity in *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement*:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Activity during the year:			
Liability resulting from unit exchanges	$ 3,652	$ 7,723	$ 2,190
Payments under tax receivable agreement	$ —	$ (6,726)	$ —
Repricing of liability (1)	$ (1,126)	$ (32,940)	$ (551)
Balance at end of year	$ 46,537	$ 44,011	$ 75,954

(1) A reduction of $32.0 million in the payable to exchanged PennyMac unitholders under the tax receivable agreement in 2017 was the result of the change in the federal corporate tax rate to 21% from the previous maximum of 35% under Tax Cuts and Jobs Act of 2017 ("the Tax Act").

Note 5—Loan Sales and Servicing Activities

The Company originates or purchases and sells mortgage loans in 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 representations and warranties it makes to purchasers and insurers of the mortgage loans.

The following table summarizes cash flows between the Company and transferees as a result of the sale of mortgage loans in transactions where the Company maintains continuing involvement as servicer with the mortgage loans:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flows:			
Sales proceeds	$ 44,557,560	$ 50,235,245	$ 49,633,909
Servicing fees received (1)	$ 488,483	$ 376,160	$ 261,163
Net servicing advances	$ 28,557	$ 52,353	$ 8,274

(1) Net of guarantee fees paid to the Agencies

The following table summarizes the UPB of the mortgage loans sold by the Company in which it maintains continuing involvement:

	December 31,	
	2018	2017
	(in thousands)	
Unpaid principal balance of mortgage loans outstanding	$ 145,224,596	$ 120,853,138
Delinquencies:		
30-89 days	$ 6,222,864	$ 5,097,688
90 days or more:		
Not in foreclosure	$ 2,208,083	$ 2,303,114
In foreclosure	$ 720,894	$ 606,744
Foreclosed	$ 24,243	$ 30,310
Bankruptcy	$ 970,329	$ 657,368

The following tables summarize the UPB of the Company's mortgage loan servicing portfolio:

	December 31, 2018		
	Servicing rights owned	Contract servicing and subservicing	Total mortgage loans serviced
		(in thousands)	
Investor:			
Non-affiliated entities:			
Originated	$ 145,224,596	$ —	$ 145,224,596
Purchased	56,990,486	—	56,990,486
	202,215,082	—	202,215,082
PennyMac Mortgage Investment Trust	—	94,658,154	94,658,154
Mortgage loans held for sale	2,420,636	—	2,420,636
	$ 204,635,718	$ 94,658,154	$ 299,293,872
Subserviced for the Company (1)	$ 414,219	$ —	$ 414,219
Delinquent mortgage loans:			
30 days	$ 6,677,179	$ 525,989	$ 7,203,168
60 days	1,983,381	113,238	2,096,619
90 days or more:			
Not in foreclosure	3,102,492	217,115	3,319,607
In foreclosure	1,027,493	127,025	1,154,518
Foreclosed	33,493	176,377	209,870
	$ 12,824,038	$ 1,159,744	$ 13,983,782
Bankruptcy	$ 1,415,106	$ 107,083	$ 1,522,189
Custodial funds managed by the Company (2)	$ 3,033,658	$ 970,328	$ 4,003,986

(1) Certain of the mortgage loans for which the Company has purchased the MSRs are subserviced on the Company's behalf by other mortgage loan servicers on an interim basis when servicing of the loans has not yet been transferred to the Company's operating platform.

(2) Custodial funds include cash accounts holding funds on behalf of borrowers and investors relating to mortgage loans serviced under servicing agreements and are not recorded 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.

	December 31, 2017		
	Servicing rights owned	Contract servicing and subservicing	Total mortgage loans serviced
		(in thousands)	
Investor:			
Non-affiliated entities:			
Originated	$ 120,853,138	$ —	$ 120,853,138
Purchased	47,016,708	—	47,016,708
	167,869,846	—	167,869,846
Advised Entities	—	74,980,268	74,980,268
Mortgage loans held for sale	2,998,377	—	2,998,377
	$ 170,868,223	$ 74,980,268	$ 245,848,491
Delinquent mortgage loans:			
30 days	$ 5,326,710	$ 515,922	$ 5,842,632
60 days	1,935,216	215,957	2,151,173
90 days or more:			
Not in foreclosure	3,690,159	541,945	4,232,104
In foreclosure	916,614	293,835	1,210,449
Foreclosed	41,244	278,890	320,134
	$ 11,909,943	$ 1,846,549	$ 13,756,492
Bankruptcy	$ 1,046,969	$ 176,324	$ 1,223,293
Custodial funds managed by the Company (1)	$ 3,267,279	$ 901,041	$ 4,168,320

(1) Custodial funds include cash accounts holding funds on behalf of borrowers and investors relating to mortgage loans serviced under servicing agreements and are not recorded 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.

Following is a summary of the geographical distribution of mortgage loans included in the Company's servicing portfolio for the top five and all other states as measured by UPB:

State	December 31, 2018	December 31, 2017
	(in thousands)	
California	$ 51,377,441	$ 45,621,369
Texas	23,648,042	19,741,970
Florida	22,650,926	17,490,194
Virginia	19,011,950	16,210,673
Maryland	13,774,011	11,350,939
All other states	168,831,502	135,433,346
	$ 299,293,872	$ 245,848,491

Note 6—Fair Value

Most of the Company's assets and certain of its liabilities are measured at or based on their fair values. The application of 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 Company has elected to carry the item at its fair value as discussed in the following paragraphs.

Fair Value Accounting Elections

The Company identified its MSLs and all of its non-cash financial assets other than *Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell*, and, beginning January 1, 2018, all of it MSRs to be accounted for at fair value so changes in fair value will be reflected in income as they occur and more timely reflect the results of the Company's performance. Management has also identified its ESS financing to be accounted for at fair value as a means of hedging the related MSRs' fair value risk.

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. Effective January 1, 2018, the Company elected to change the accounting for the classes of MSRs it had accounted for using the amortization method through December 31, 2017, to the fair value method as allowed in the *Transfers and Servicing* topic of the FASB's ASC. The Company determined that a single accounting treatment across all currently existing classes of MSRs is consistent with lender valuation under its financing arrangements and simplifies the Company's hedging activities.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Following is a summary of assets and liabilities that are measured at fair value on a recurring basis:

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Assets:				
Short-term investments	$ 117,824	$ —	$ —	$ 117,824
Mortgage loans held for sale at fair value	—	2,261,639	260,008	2,521,647
Derivative assets:				
Interest rate lock commitments	—	—	50,507	50,507
Repurchase agreement derivatives	—	—	26,770	26,770
Forward purchase contracts	—	35,916	—	35,916
Forward sales contracts	—	437	—	437
MBS put options	—	720	—	720
MBS call options	—	2,135	—	2,135
Put options on interest rate futures purchase contracts	866	—	—	866
Call options on interest rate futures purchase contracts	5,965	—	—	5,965
Total derivative assets before netting	6,831	39,208	77,277	123,316
Netting	—	—	—	(26,969)
Total derivative assets	6,831	39,208	77,277	96,347
Investment in PennyMac Mortgage Investment Trust	1,397	—	—	1,397
Mortgage servicing rights at fair value	—	—	2,820,612	2,820,612
	$ 126,052	$ 2,300,847	$ 3,157,897	$ 5,557,827
Liabilities:				
Excess servicing spread financing payable to PennyMac Mortgage Investment Trust at fair value	$ —	$ —	$ 216,110	$ 216,110
Derivative liabilities:				
Interest rate lock commitments	—	—	1,169	1,169
Forward purchase contracts	—	215	—	215
Forward sales contracts	—	26,762	—	26,762
Total derivative liabilities before netting	—	26,977	1,169	28,146
Netting	—	—	—	(25,082)
Total derivative liabilities	—	26,977	1,169	3,064
Mortgage servicing liabilities at fair value	—	—	8,681	8,681
	$ —	$ 26,977	$ 225,960	$ 227,855

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Assets:				
Short-term investments	$ 170,080	$ —	$ —	$ 170,080
Mortgage loans held for sale at fair value	—	2,316,892	782,211	3,099,103
Derivative assets:				
Interest rate lock commitments	—	—	60,012	60,012
Repurchase agreement derivatives	—	—	10,656	10,656
Forward purchase contracts	—	4,288	—	4,288
Forward sales contracts	—	2,101	—	2,101
MBS put options	—	3,481	—	3,481
Put options on interest rate futures purchase contracts	3,570	—	—	3,570
Call options on interest rate futures purchase contracts	938	—	—	938
Total derivative assets before netting	4,508	9,870	70,668	85,046
Netting	—	—	—	(6,867)
Total derivative assets	4,508	9,870	70,668	78,179
Investment in PennyMac Mortgage Investment Trust	1,205	—	—	1,205
Mortgage servicing rights at fair value	—	—	638,010	638,010
	$ 175,793	$ 2,326,762	$ 1,490,889	$ 3,986,577
Liabilities:				
Excess servicing spread financing payable to PennyMac Mortgage Investment Trust at fair value	$ —	$ —	$ 236,534	$ 236,534
Derivative liabilities:				
Interest rate lock commitments	—	—	1,740	1,740
Forward purchase contracts	—	1,272	—	1,272
Forward sales contracts	—	7,031	—	7,031
Total derivative liabilities before netting	—	8,303	1,740	10,043
Netting	—	—	—	(4,247)
Total derivative liabilities	—	8,303	1,740	5,796
Mortgage servicing liabilities at fair value	—	—	14,120	14,120
	$ —	$ 8,303	$ 252,394	$ 256,450

As shown above, certain of the Company's mortgage loans held for sale, IRLCs, repurchase agreement derivatives, MSRs at fair value, ESS and MSLs are measured using Level 3 fair value inputs. Following are roll forwards of these items for each of the three years ended December 31, 2018 where significant Level 3 fair value inputs were used:

	Year ended December 31, 2018				
	Mortgage loans held for sale	**Net interest rate lock commitments (1)**	**Repurchase agreement derivatives**	**Mortgage servicing rights**	**Total**
			(in thousands)		
Assets:					
Balance, December 31, 2017	$ 782,211	$ 58,272	$ 10,656	$ 638,010	$ 1,489,149
Reclassification of mortgage servicing rights previously accounted for under the amortization method pursuant to adoption of the fair value method of accounting	—	—	—	1,482,426	1,482,426
Balance, January 1, 2018	782,211	58,272	10,656	2,120,436	2,971,575
Purchases and issuances, net	2,972,042	195,974	49,725	237,803	3,455,544
Sales and repayments	(1,360,667)	—	(31,907)	—	(1,392,574)
Mortgage servicing rights resulting from mortgage loan sales	—	—	—	591,757	591,757
Changes in fair value included in income arising from:					
Changes in instrument-specific credit risk	158	—	—	—	158
Other factors	—	1,285	(1,704)	(129,384)	(129,803)
	158	1,285	(1,704)	(129,384)	(129,645)
Transfers from Level 3 to Level 2	(2,128,551)	—	—	—	(2,128,551)
Transfers to real estate acquired in settlement of loans	(5,185)	—	—	—	(5,185)
Transfers of interest rate lock commitments to mortgage loans held for sale	—	(206,193)	—	—	(206,193)
Balance, December 31, 2018	$ 260,008	$ 49,338	$ 26,770	$ 2,820,612	$ 3,156,728
Changes in fair value recognized during the year relating to assets still held at December 31, 2018	$ (263)	$ 49,338	$ —	$ (129,384)	$ (80,309)

(1) For the purpose of this table, the IRLC asset and liability positions are shown net.

	Year ended December 31, 2018		
	Excess servicing spread financing	**Mortgage servicing liabilities**	**Total**
		(in thousands)	
Liabilities:			
Balance, December 31, 2017	$ 236,534	$ 14,120	$ 250,654
Issuance of excess servicing spread financing pursuant to a recapture agreement with PennyMac Mortgage Investment Trust	2,688	—	2,688
Accrual of interest	15,138	—	15,138
Repayments	(46,750)	—	(46,750)
Mortgage servicing liabilities resulting from mortgage loan sales	—	7,601	7,601
Changes in fair value included in income	8,500	(13,040)	(4,540)
Balance, December 31, 2018	$ 216,110	$ 8,681	$ 224,791
Changes in fair value recognized during the year relating to liabilities still outstanding at December 31, 2018	$ 8,500	$ (13,040)	$ (4,540)

	Year ended December 31, 2017				
	Mortgage loans held for sale	Net interest rate lock commitments (1)	Repurchase agreement derivatives	Mortgage servicing rights	Total
			(in thousands)		
Assets:					
Balance, December 31, 2016	$ 47,271	$ 59,391	$ —	$ 515,925	$ 622,587
Purchases and issuances, net	2,928,249	302,389	10,986	183,850	3,425,474
Sales and repayments	(1,339,580)	—	—	—	(1,339,580)
Mortgage servicing rights resulting from mortgage loan sales	—	—	—	24,471	24,471
Changes in fair value included in income arising from:					
Changes in instrument-specific credit risk	(1,794)	—	—	—	(1,794)
Other factors	—	115,434	(330)	(86,236)	28,868
	(1,794)	115,434	(330)	(86,236)	27,074
Transfers from Level 3 to Level 2	(851,935)	—	—	—	(851,935)
Transfers of interest rate lock commitments to mortgage loans held for sale	—	(418,942)	—	—	(418,942)
Balance, December 31, 2017	$ 782,211	$ 58,272	$ 10,656	$ 638,010	$ 1,489,149
Changes in fair value recognized during the year relating to assets still held at December 31, 2017	$ (556)	$ 58,272	$ (330)	$ (86,236)	$ (28,850)

(1) For the purpose of this table, the IRLC asset and liability positions are shown net.

	Year ended December 31, 2017		
	Excess servicing spread financing	Mortgage servicing liabilities	Total
		(in thousands)	
Liabilities:			
Balance, December 31, 2016	$ 288,669	$ 15,192	$ 303,861
Issuance of excess servicing spread financing pursuant to a recapture agreement with PennyMac Mortgage Investment Trust	5,244	—	5,244
Accrual of interest	16,951	—	16,951
Repayments	(54,980)	—	(54,980)
Mortgage servicing liabilities resulting from mortgage loan sales	—	17,229	17,229
Changes in fair value included in income	(19,350)	(18,301)	(37,651)
Balance, December 31, 2017	$ 236,534	$ 14,120	$ 250,654
Changes in fair value recognized during the year relating to liabilities still outstanding at December 31, 2017	$ (19,350)	$ (18,301)	$ (37,651)

	Year ended December 31, 2016			
	Mortgage loans held for sale	Net interest rate lock commitments (1)	Mortgage servicing rights	Total
	(in thousands)			
Assets:				
Balance December 31, 2015	$ 48,531	$ 43,773	$ 660,247	$ 752,551
Purchases	1,608,627	—	146	1,608,773
Sales and repayments	(1,202,621)	—	—	(1,202,621)
Interest rate lock commitments issued, net	—	429,598	—	429,598
Mortgage servicing rights resulting from mortgage loan sales	—	—	17,319	17,319
Changes in fair value included in income arising from:				
Changes in instrument-specific credit risk	3,469	—	—	3,469
Other factors	—	143,867	(161,787)	(17,920)
	3,469	143,867	(161,787)	(14,451)
Transfers from Level 3 to Level 2	(410,735)	—	—	(410,735)
Transfers of interest rate lock commitments to mortgage loans held for sale	—	(557,847)	—	(557,847)
Balance, December 31, 2016	$ 47,271	$ 59,391	$ 515,925	$ 622,587
Changes in fair value recognized during the year relating to assets still held at December 31, 2016	$ 936	$ 59,391	$ (161,787)	$ (101,460)

(1) For the purpose of this table, the IRLC asset and liability positions are shown net.

	Year ended December 31, 2016		
	Excess servicing spread financing	Mortgage servicing liabilities	Total
	(in thousands)		
Liabilities:			
Balance December 31, 2015	$ 412,425	$ 1,399	$ 413,824
Issuance of excess servicing spread financing pursuant to a recapture agreement with PennyMac Mortgage Investment Trust	6,603	—	6,603
Accrual of interest	22,601	—	22,601
Repayments	(69,992)	—	(69,992)
Settlement	(59,045)	—	(59,045)
Mortgage servicing liabilities resulting from mortgage loan sales	—	14,991	14,991
Mortgage servicing liabilities assumed	—	10,139	10,139
Changes in fair value included in income	(23,923)	(11,337)	(35,260)
Balance, December 31, 2016	$ 288,669	$ 15,192	$ 303,861
Changes in fair value recognized during the year relating to liabilities still outstanding at December 31, 2016	$ (16,713)	$ (11,337)	$ (28,050)

The information used in the preceding roll forwards represents activity for any assets and liabilities measured at fair value on a recurring basis and identified as using "Level 3" significant fair value inputs at either the beginning or the end of the years presented. 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 or funding of the respective mortgage loans and from the return to salability in the active secondary market of certain mortgage loans held for sale.

Assets and Liabilities Measured at Fair Value under the Fair Value Option

Net changes in fair values included in income for assets and liabilities carried at fair value as a result of management's election of the fair value option by income statement line item are summarized below:

	Year ended December 31,								
	2018			2017			2016		
	Net mortgage loan servicing fees	Net gains on mortgage loans held for sale at fair value	Total	Net mortgage loan servicing fees	Net gains on mortgage loans held for sale at fair value	Total	Net mortgage loan servicing fees	Net gains on mortgage loans held for sale at fair value	Total
					(in thousands)				
Assets:									
Mortgage loans held for sale	$ —	$ 188,611	$ 188,611	$ —	$ 426,092	$ 426,092	$ —	$ 513,331	$ 513,331
Mortgage servicing rights	(129,384)	—	(129,384)	(86,236)	—	(86,236)	(161,787)	—	(161,787)
	$ (129,384)	$ 188,611	$ 59,227	$ (86,236)	$ 426,092	$ 339,856	$ (161,787)	$ 513,331	$ 351,544
Liabilities:									
Excess servicing spread financing at fair value payable to PennyMac Mortgage Investment Trust	$ (8,500)	$ —	$ (8,500)	$ 19,350	$ —	$ 19,350	$ 23,923	$ —	$ 23,923
Mortgage servicing liabilities	13,040	—	13,040	18,301	—	18,301	11,337	—	11,337
	$ 4,540	$ —	$ 4,540	$ 37,651	$ —	$ 37,651	$ 35,260	$ —	$ 35,260

Following are the fair value and related principal amounts due upon maturity of assets accounted for under the fair value option:

	December 31, 2018			December 31, 2017		
	Fair value	Principal amount due upon maturity	Difference	Fair value	Principal amount due upon maturity	Difference
			(in thousands)			
Mortgage loans held for sale:						
Current through 89 days delinquent	$ 2,324,203	$ 2,220,371	$ 103,832	$ 2,430,517	$ 2,326,772	$ 103,745
90 days or more delinquent:						
Not in foreclosure	143,631	144,011	(380)	614,329	614,357	(28)
In foreclosure	53,813	56,254	(2,441)	54,257	57,248	(2,991)
	$ 2,521,647	$ 2,420,636	$ 101,011	$ 3,099,103	$ 2,998,377	$ 100,726

Assets Measured at Fair Value on a Nonrecurring Basis

Following is a summary of assets that are measured at fair value on a nonrecurring basis:

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
		(in thousands)		
Real estate acquired in settlement of loans	$ —	$ —	$ 2,150	$ 2,150

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Mortgage servicing rights at lower of amortized cost or fair value	$ —	$ —	$ 1,463,552	$ 1,463,552
Real estate acquired in settlement of loans	—	—	2,355	2,355
	$ —	$ —	$ 1,465,907	$ 1,465,907

The following table summarizes the total net losses on assets measured at fair values on a nonrecurring basis:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Mortgage servicing rights at lower of amortized cost or fair value	$ —	$ (6,853)	$ (60,487)
Real estate acquired in settlement of loans	(75)	(125)	(86)
	$ (75)	$ (6,978)	$ (60,487)

Fair Value of Financial Instruments Carried at Amortized Cost

The Company's *Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell*, *Assets sold under agreements to repurchase*, *Mortgage loan participation purchase and sale agreements*, *Notes payable* and *Obligations under capital lease* are carried at amortized cost.

These assets and liabilities are classified as "Level 3" fair value items due to the Company's reliance on unobservable inputs to estimate these instruments' fair values. The Company has concluded that these assets and liabilities' fair values approximate the carrying value other than the term notes due to their short terms and/or variable interest rates. The fair value of the term notes at December 31, 2018 and 2017, was $1.3 billion and $903.9 million, respectively. The fair value of term notes is estimated using a discounted cash flow approach using indications of market pricing spreads provided by non-affiliated brokers to develop an appropriate discount rate.

Valuation Governance

Most of the Company's financial assets, and all of its MSRs, ESS, derivative liabilities and MSLs, are carried at fair value with changes in fair value recognized in current period income. Certain of the Company's financial assets and all of its MSRs, ESS and MSLs are "Level 3" fair value assets and liabilities which require the use of unobservable inputs that are significant to the estimation of the items' fair values. 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 under the circumstances.

Due to the difficulty in estimating the fair values of "Level 3" fair value assets and liabilities, management has assigned the responsibility for estimating the fair value of these items to specialized staff and subjects the valuation process to significant senior management oversight. The Company's Financial Analysis and Valuation group (the "FAV group") is the Company's specialized staff responsible for estimating the fair values of "Level 3" fair value assets and liabilities other than IRLCs.

With respect to the non-IRLC "Level 3" valuations, the FAV group reports to the Company'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 the Company's senior management valuation committee. The Company'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 the Company'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.

The Company has assigned responsibility for developing IRLCs fair values to its Capital Markets Risk Management staff. The fair values developed by the Capital Markets Risk Management staff are reviewed by the Company's Capital Markets Operations group.

Valuation Techniques and Inputs

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 Loans Held for Sale

Most of the Company's mortgage loans held for sale at fair value are saleable into active markets and are therefore categorized as "Level 2" fair value assets. The fair values of "Level 2" fair value mortgage loans are determined using their quoted market or contracted selling price or market price equivalent.

Certain of the Company's mortgage loans held for sale are not saleable into active markets and are therefore categorized as "Level 3" fair value assets. Mortgage loans held for sale categorized as "Level 3" fair value assets include:

- Certain delinquent government guaranteed or insured mortgage loans purchased by the Company from Ginnie Mae guaranteed pools in its mortgage loan servicing portfolio. The Company's right to purchase delinquent government guaranteed or insured mortgage loans arises as the result of the borrower's failure to make payments for at least three consecutive months preceding the month of repurchase by the Company and provides an alternative to the Company's obligation to continue advancing principal and interest at the coupon rate of the related Ginnie Mae security. Such repurchased mortgage loans may be resold to investors and thereafter may be repurchased to the extent eligible for resale into a new Ginnie Mae guaranteed pool. Such eligibility for resale generally occurs when the repurchased mortgage loans become current either through the borrower's reperformance or through completion of a modification of the mortgage loan's terms.

- Certain of the Company's mortgage loans held for sale that become non-saleable into active markets due to identification of a defect by the Company or to the repurchase by the Company of a mortgage loan with an identified defect.

The Company uses a discounted cash flow model to estimate the fair value of its "Level 3" fair value mortgage loans held for sale. The significant unobservable inputs used in the fair value measurement of the Company's "Level 3" fair value mortgage loans held for sale are discount rates, home price projections, voluntary prepayment/resale speeds and total prepayment 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.

Following is a quantitative summary of key "Level 3" fair value inputs used in the valuation of mortgage loans held for sale at fair value:

Key inputs (1)	**December 31, 2018**	**December 31, 2017**
Discount rate:		
Range	2.8% – 9.2%	2.9% – 10.0%
Weighted average	2.9%	2.9%
Twelve-month projected housing price index change:		
Range	2.2% – 5.0%	3.1% – 5.6%
Weighted average	3.5%	3.6%
Voluntary prepayment / resale speed (2):		
Range	0.1% – 21.8%	0.2% – 72.2%
Weighted average	20.1%	44.6%
Total prepayment speed (3):		
Range	0.1% – 40.5%	0.2% – 75.2%
Weighted average	37.7%	55.8%

(1) Weighted average inputs are based on fair value of mortgage loans.

(2) Voluntary prepayment/resale speed is measured using Life Voluntary Conditional Prepayment Rate ("CPR").

(3) Total prepayment speed is measured using Life Total CPR.

Changes in fair value attributable to changes in instrument specific credit risk are measured by reference to the change in the respective mortgage loan's delinquency status and performance history at year end from the later of the beginning of the year or acquisition date. Changes in fair value of mortgage loans held for sale are included in *Net gains on mortgage loans held for sale at fair value* in the Company's consolidated statements of income.

Derivative Financial Instruments

Interest Rate Lock Commitments

The Company categorizes IRLCs as a "Level 3" fair value asset or liability. The Company estimates the fair value of an IRLC based on quoted Agency MBS prices, its estimate of the fair value of the MSRs it expects to receive in the sale of the mortgage loans and the probability that the mortgage loan will fund or be purchased (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, could result in significant changes in the IRLCs' fair value measurement. 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 increase the pull-through rate for the mortgage loan principal and interest payment cash flow component, which has decreased in fair value.

Changes in fair value of IRLCs are included in *Net gains on mortgage loans acquired for sale at fair value* and may be allocated to *Net mortgage loan servicing fees – Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities* as an economic hedge of the fair value of MSRs in the consolidated statements of income when IRLCs are included as a component of the Company's MSR hedging strategy.

Following is a quantitative summary of key unobservable inputs used in the valuation of IRLCs:

Key inputs (1)	**December 31, 2018**	**December 31, 2017**
Pull-through rate:		
Range	16.6% – 100%	25.0% – 100%
Weighted average	84.1%	85.6%
Mortgage servicing rights value expressed as:		
Servicing fee multiple:		
Range	1.5 – 5.5	1.4 – 5.8
Weighted average	3.8	4.0
Percentage of unpaid principal balance:		
Range	0.4% – 3.2%	0.3% – 3.0%
Weighted average	1.5%	1.4%

(1) Weighted average inputs are based on the committed amounts.

Hedging Derivatives

Fair value of exchange-traded hedging derivative financial instruments are categorized by the Company as "Level 1" fair value assets and liabilities. Fair value of hedging derivative financial instruments based on observable MBS prices or interest rate volatilities in the MBS market are categorized as "Level 2" fair value assets and liabilities.

Changes in the fair value of hedging derivatives are included in *Net gains on mortgage loans acquired for sale at fair value,* or *Net mortgage loan servicing fees – Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities*, as applicable, in the consolidated statements of income.

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 for financial reporting purposes as embedded derivatives and are accounted for separate from the master repurchase agreement. The Company classifies these derivatives as "Level 3" fair value assets. The significant unobservable inputs into the valuation of these derivative assets are the discount rate and the Company's 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 December 31, 2018.

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 prepayment and default rates of the underlying mortgage loans, the applicable pricing spread (discount rate) 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—Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities* in the consolidated statements of income.

Following are the key inputs, separated by the Company's basis of accounting for the respective asset, used in determining the fair value of MSRs at the time of initial recognition, excluding MSR purchases:

	Year ended December 31,				
	2018	2017		2016	
	Fair value	Fair value	Amortized cost	Fair value	Amortized cost
	(Amount recognized and unpaid principal balance of underlying mortgage loans amounts in thousands)				
MSR and pool characteristics:					
Amount recognized	$591,757	$24,471	$556,630	$17,319	$560,212
Unpaid principal balance of underlying mortgage loans	$42,008,585	$2,316,539	$44,664,551	$1,452,779	$44,827,516
Weighted average servicing fee rate (in basis points)	36	31	31	33	30
Key inputs (1):					
Pricing spread (2):					
Range	5.8% – 16.4%	7.6% – 11.2%	7.6% – 15.2%	7.2% – 10.5%	7.2% – 14.4%
Weighted average	9.9%	10.5%	10.7%	9.2%	9.5%
Annual total prepayment speed (3):					
Range	3.9% – 61.8%	3.9% – 71.8%	3.4% – 47.6%	3.3% – 53.8%	2.8% – 50.9%
Weighted average	10.8%	12.6%	9.1%	11.8%	9.0%
Life (in years):					
Range	0.5 – 11.6	0.8 – 11.7	1.5 – 12.2	0.5 – 11.9	1.3 – 12.9
Weighted average	7.3	6.6	8.1	6.8	8.1
Per-loan annual cost of servicing:					
Range	$78 – $99	$78 – $101	$79 – $101	$68 – $105	$68 – $106
Weighted average	$91	$89	$89	$88	$89

(1) Weighted average inputs are based on UPB of the underlying 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 MSRs.

(3) Prepayment speed is measured using Life Total CPR.

Following is a quantitative summary of key inputs, separated by the Company's basis of accounting for the respective asset, used in the valuation and assessment for impairment of the Company's MSRs at year end and the effect on the fair value from adverse changes in those inputs:

	December 31, 2018	December 31, 2017	
	Fair value	Fair value	Amortized cost
	(Carrying value, unpaid principal balance of underlying mortgage loans and effect on fair value amounts in thousands)		
MSR and pool characteristics:			
Carrying value	$2,820,612	$638,010	$1,481,578
Unpaid principal balance of underlying mortgage loans	$201,054,144	$51,883,539	$114,365,698
Weighted average note interest rate	4.0%	4.0%	3.8%
Weighted average servicing fee rate (in basis points)	33	32	31
Key inputs (1):			
Pricing spread (2):			
Range	5.8% – 16.1%	7.6% – 14.1%	7.6% – 14.1%
Weighted average	8.7%	9.8%	10.3%
Effect on fair value of (3):			
5% adverse change	($45,268)	($10,760)	($27,700)
10% adverse change	($89,073)	($21,155)	($54,376)
20% adverse change	($172,556)	($40,916)	($104,869)
Prepayment speed (4):			
Range	8.4% – 32.6%	7.9% – 46.2%	7.4% – 44.1%
Weighted average	9.9%	10.5%	9.7%
Average life (in years):			
Range	1.5 – 7.9	1.2 – 7.8	2.0 – 8.3
Weighted average	7.2	6.6	7.5
Effect on fair value of (3):			
5% adverse change	($47,687)	($10,809)	($23,544)
10% adverse change	($93,626)	($21,239)	($46,284)
20% adverse change	($180,623)	($41,038)	($89,514)
Annual per-loan cost of servicing:			
Range	$78 – $99	$78 – $97	$79 – $97
Weighted average	$93	$89	$89
Effect on fair value of (3):			
5% adverse change	($22,944)	($6,247)	($11,216)
10% adverse change	($45,888)	($12,494)	($22,431)
20% adverse change	($91,775)	($24,987)	($44,863)

(1) 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) For MSRs carried at fair value, an adverse change in one of the above-mentioned key inputs is expected to result in a reduction in fair value which would be recognized 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 event.

(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 contemplate the movements in the indicated inputs; do not incorporate changes 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 management to account for changing circumstances. For these reasons, the preceding estimates should not be viewed as earnings forecasts.

Excess Servicing Spread Financing at Fair Value

The Company categorizes ESS as a "Level 3" fair value liability. Because the ESS is a claim to a portion of the cash flows from MSRs, the fair value measurement of the ESS is similar to that of MSRs. The Company uses the same discounted cash flow approach to measuring the ESS as it uses to measure MSRs 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. The key inputs used in the estimation of ESS fair value include pricing spread (discount rate) and prepayment speed. Significant changes to either of those inputs in isolation could result in a significant change in the fair value of ESS. Changes in these key inputs are not necessarily directly related.

ESS is generally subject to fair value increases when mortgage interest rates increase. Increasing mortgage interest rates normally discourage mortgage refinancing activity. Decreased refinancing activity increases the life of the mortgage loans underlying the ESS, thereby increasing its fair value. Changes in the fair value of ESS are included in *Net mortgage loan servicing fees—Change in fair value of excess servicing spread payable to PennyMac Mortgage Investment Trust.*

Following are the key inputs used in determining the fair value of ESS financing:

	December 31, 2018	December 31, 2017
Carrying value (in thousands)	$216,110	$236,534
ESS and pool characteristics:		
Unpaid principal balance of underlying mortgage loans (in thousands)	$23,196,033	$27,217,199
Average servicing fee rate (in basis points)	34	34
Average excess servicing spread (in basis points)	19	19
Key inputs (1):		
Pricing spread (2):		
Range	2.8% – 3.2%	3.8% – 4.3%
Weighted average	3.1%	4.1%
Annualized prepayment speed (3):		
Range	8.2% – 29.5%	8.4% – 41.4%
Weighted average	9.7%	10.8%
Average 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 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 ESS.

(3) Prepayment speed is measured using Life Total CPR.

Mortgage Servicing Liabilities

MSLs are categorized as "Level 3" fair value liabilities. The Company uses a discounted cash flow approach to estimate the fair value of MSLs. This approach consists of projecting net servicing cash flows discounted at a rate that management believes market participants would use in their determinations of fair value. The key inputs used in the estimation of the fair value of MSLs include the applicable pricing spread (discount rate), the prepayment rates of the underlying mortgage loans, and the per-loan annual cost to service the respective mortgage loans. Changes in the fair value of MSLs are included in *Net servicing fees—Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities* in the consolidated statements of income.

Following are the key inputs used in determining the fair value of MSLs:

	December 31,	
	2018	2017
MSL and pool characteristics:		
Carrying value (in thousands)	$ 8,681	$ 14,120
Unpaid principal balance of underlying mortgage loans (in thousands)	$ 1,160,938	$ 1,620,609
Servicing fee rate (in basis points)	25	25
Key inputs:		
Pricing spread (1)	7.3%	7.7%
Prepayment speed (2)	32.2%	32.9%
Average life (in years)	3.8	3.5
Annual per-loan cost of servicing	$ 373	$ 404

(1) The Company applies a pricing spread to the United States Dollar LIBOR curve for purposes of discounting cash flows relating to MSLs.

(2) Prepayment speed is measured using Life Total CPR.

Note 7—Mortgage Loans Held for Sale at Fair Value

Mortgage loans held for sale at fair value include the following:

	December 31, 2018	December 31, 2017
	(in thousands)	
Government-insured or guaranteed	$ 2,116,126	$ 2,085,764
Conventional conforming	145,513	231,128
Purchased from Ginnie Mae pools serviced by the Company	250,585	777,300
Repurchased pursuant to representations and warranties	9,423	4,911
	$ 2,521,647	$ 3,099,103
Fair value of mortgage loans pledged to secure:		
Assets sold under agreements to repurchase	$ 1,923,857	$ 2,530,299
Mortgage loan participation purchase and sale agreements	555,001	551,688
	$ 2,478,858	$ 3,081,987

Note 8—Derivative Activities

Derivative Notional Amounts and Fair Value of Derivatives

The Company had the following derivative financial instruments recorded on its consolidated balance sheets:

Instrument	December 31, 2018			December 31, 2017		
		Fair value			Fair value	
	Notional amount	Derivative assets	Derivative liabilities	Notional amount	Derivative assets	Derivative liabilities
			(in thousands)			
Derivatives not designated as hedging instruments:						
Not subject to master netting arrangements:						
Interest rate lock commitments	2,805,400	$ 50,507	$ 1,169	3,654,955	$ 60,012	$ 1,740
Repurchase agreement derivatives		26,770	—		10,656	—
Used for hedging purposes:						
Forward purchase contracts	6,657,026	35,916	215	4,920,883	4,288	1,272
Forward sales contracts	6,890,046	437	26,762	5,204,796	2,101	7,031
MBS put options	4,635,000	720	—	4,925,000	3,481	—
MBS call options	1,450,000	2,135	—	—	—	—
Put options on interest rate futures purchase contracts	3,085,000	866	—	2,125,000	3,570	—
Call options on interest rate futures purchase contracts	1,512,500	5,965	—	100,000	938	—
Treasury futures purchase contracts	835,000	—	—	100,000	—	—
Treasury futures sale contracts	1,450,000	—	—	—	—	—
Interest rate swap futures purchase contracts	625,000	—	—	1,400,000	—	—
Total derivatives before netting		123,316	28,146		85,046	10,043
Netting		(26,969)	(25,082)		(6,867)	(4,247)
		$ 96,347	$ 3,064		$ 78,179	$ 5,796
Deposits placed with derivative counterparties		$ 1,887			$ 2,620	

The following table summarizes notional amount activity for derivative contracts used in the Company's hedging activities:

Instrument	Year ended December 31, 2018			
	Amount beginning of year	Additions	Dispositions/ expirations	Amount end of year
	(in thousands)			
Forward purchase contracts	4,920,883	184,780,152	(183,044,009)	6,657,026
Forward sale contracts	5,204,796	230,735,936	(229,050,686)	6,890,046
MBS put options	4,925,000	31,085,000	(31,375,000)	4,635,000
MBS call options	—	14,325,000	(12,875,000)	1,450,000
Put options on interest rate futures purchase contracts	2,125,000	20,559,800	(19,599,800)	3,085,000
Call options on interest rate futures purchase contracts	100,000	4,387,500	(2,975,000)	1,512,500
Put options on interest rate futures sale contracts	—	20,474,800	(20,474,800)	—
Call options on interest rate futures sale contracts	—	2,100,000	(2,100,000)	—
Treasury futures purchase contracts	100,000	9,837,500	(9,102,500)	835,000
Treasury futures sale contracts	—	11,213,800	(9,763,800)	1,450,000
Interest rate swap futures purchase contracts	1,400,000	1,510,000	(2,285,000)	625,000
Interest rate swap futures sales contracts	—	2,285,000	(2,285,000)	—

Instrument	Year ended December 31, 2017			
	Amount beginning of year	Additions	Dispositions/ expirations	Amount end of year
	(in thousands)			
Forward purchase contracts	12,746,191	181,761,564	(189,586,872)	4,920,883
Forward sale contracts	16,577,942	226,000,107	(237,373,253)	5,204,796
MBS put options	1,175,000	25,050,000	(21,300,000)	4,925,000
MBS call options	1,600,000	17,700,000	(19,300,000)	—
Put options on interest rate futures purchase contracts	1,125,000	11,360,000	(10,360,000)	2,125,000
Call options on interest rate futures purchase contracts	900,000	1,939,300	(2,739,300)	100,000
Put options on interest rate futures sale contracts	—	10,010,000	(10,010,000)	—
Call options on interest rate futures sale contracts	—	2,739,300	(2,739,300)	—
Treasury futures purchase contracts	—	544,900	(444,900)	100,000
Treasury futures sale contracts	—	444,900	(444,900)	—
Interest rate swap futures purchase contracts	200,000	2,100,000	(900,000)	1,400,000
Interest rate swap futures sales contracts	—	900,000	(900,000)	—

Instrument	Year ended December 31, 2016			
	Amount beginning of year	Additions	Dispositions/ expirations	Amount end of year
	(in thousands)			
Forward purchase contracts	5,254,293	210,412,697	(202,920,799)	12,746,191
Forward sale contracts	6,230,811	262,202,884	(251,855,753)	16,577,942
MBS put options	1,275,000	19,225,000	(19,325,000)	1,175,000
MBS call options	—	1,600,000	—	1,600,000
Put options on interest rate futures purchase contracts	1,650,000	15,331,000	(15,856,000)	1,125,000
Call options on interest rate futures purchase contracts	600,000	5,687,500	(5,387,500)	900,000
Put options on interest rate futures sale contracts	—	9,436,000	(9,436,000)	—
Call options on interest rate futures sale contracts	—	550,000	(550,000)	—
Treasury futures purchase contracts	—	585,800	(585,800)	—
Treasury futures sale contracts	—	585,800	(585,800)	—
Interest rate swap futures purchase contracts	—	400,000	(200,000)	200,000
Interest rate swap futures sales contracts	—	200,000	(200,000)	—

Derivative Balances and Netting of Financial Instruments

The Company has elected to present net derivative asset and liability positions, and cash collateral obtained from (or posted to) its counterparties when subject to a master netting arrangement that is legally enforceable on all counterparties in the event of default. The derivatives that are not subject to a master netting arrangement are IRLCs and repurchase agreement derivatives.

Offsetting of Derivative Assets

Following are summaries of derivative assets and related netting amounts.

	December 31, 2018			December 31, 2017		
	Gross amount of recognized assets	Gross amount offset in the consolidated balance sheet	Net amount of assets in the consolidated balance sheet	Gross amount of recognized assets	Gross amount offset in the consolidated balance sheet	Net amount of assets in the consolidated balance sheet
	(in thousands)					
Derivatives not subject to master netting arrangements:						
Interest rate lock commitments	$ 50,507	$ —	$ 50,507	$ 60,012	$ —	$ 60,012
Repurchase agreement derivatives	26,770	—	26,770	10,656	—	10,656
	77,277	—	77,277	70,668	—	70,668
Derivatives subject to master netting arrangements:						
Forward purchase contracts	35,916	—	35,916	4,288	—	4,288
Forward sale contracts	437	—	437	2,101	—	2,101
MBS put options	720	—	720	3,481	—	3,481
MBS call options	2,135	—	2,135	—	—	—
Put options on interest rate futures purchase contracts	866	—	866	3,570	—	3,570
Call options on interest rate futures purchase contracts	5,965	—	5,965	938	—	938
Netting		(26,969)	(26,969)	—	(6,867)	(6,867)
	46,039	(26,969)	19,070	14,378	(6,867)	7,511
	$ 123,316	$ (26,969)	$ 96,347	$ 85,046	$ (6,867)	$ 78,179

Derivative Assets, Financial Instruments, and Cash 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 netting.

	December 31, 2018				December 31, 2017			
		Gross amount not offset in the consolidated balance sheet				Gross amount not offset in the consolidated balance sheet		
	Net amount of assets in the consolidated balance sheet	Financial instruments	Cash collateral received	Net amount	Net amount of assets in the consolidated balance sheet	Financial instruments	Cash collateral received	Net amount
	(in thousands)							
Interest rate lock commitments	$ 50,507	$ —	$ —	$ 50,507	$ 60,012	$ —	$ —	$ 60,012
Deutsche Bank	26,770	—	—	26,770	10,656	—	—	10,656
RJ O'Brien	6,831	—	—	6,831	4,508	—	—	4,508
Wells Fargo Bank, N.A.	3,707	—	—	3,707	—	—	—	—
Bank of America, N.A.	2,781	—	—	2,781	—	—	—	—
Citibank, N.A.	2,488	—	—	2,488	472	—	—	472
JPMorgan Chase Bank, N.A.	1,399	—	—	1,399	267	—	—	267
Federal National Mortgage Association	456	—	—	456	1,092	—	—	1,092
Others	1,408	—	—	1,408	1,172	—	—	1,172
	$ 96,347	$ —	$ —	$ 96,347	$ 78,179	$ —	$ —	$ 78,179

Offsetting of Derivative Liabilities and Financial Liabilities

Following is a summary of net derivative liabilities and assets sold under agreements to repurchase and related netting amounts. Assets sold under agreements to repurchase do not qualify for netting.

	December 31, 2018			December 31, 2017		
	Gross amount of recognized liabilities	Gross amount offset in the consolidated balance sheet	Net amount of liabilities in the consolidated balance sheet	Gross amount of recognized liabilities	Gross amount offset in the consolidated balance sheet	Net amount of liabilities in the consolidated balance sheet
	(in thousands)					
Derivatives not subject to master netting arrangements – Interest rate lock commitments	$ 1,169	$ —	$ 1,169	$ 1,740	$ —	$ 1,740
Derivatives subject to a master netting arrangement:						
Forward purchase contracts	215	—	215	1,272	—	1,272
Forward sale contracts	26,762	—	26,762	7,031	—	7,031
Netting	—	(25,082)	(25,082)	—	(4,247)	(4,247)
	26,977	(25,082)	1,895	8,303	(4,247)	4,056
Total derivatives	28,146	(25,082)	3,064	10,043	(4,247)	5,796
Assets sold under agreements to repurchase:						
Amount outstanding	1,935,200	—	1,935,200	2,380,866	—	2,380,866
Unamortized premiums and debt issuance costs, net	(1,341)	—	(1,341)	672	—	672
	1,933,859	—	1,933,859	2,381,538	—	2,381,538
	$ 1,962,005	$ (25,082)	$ 1,936,923	$ 2,391,581	$ (4,247)	$ 2,387,334

Derivative Liabilities, Financial Instruments, and Collateral Held 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 qualify under the accounting guidance for netting. All assets sold under agreements to repurchase are secured by sufficient collateral or have fair value that exceeds the liability amount recorded on the consolidated balance sheets.

	December 31, 2018				December 31, 2017			
		Gross amounts not offset in the consolidated balance sheet				Gross amounts not offset in the consolidated balance sheet		
	Net amount of liabilities in the consolidated balance sheet	Financial instruments	Cash collateral pledged	Net amount	Net amount of liabilities in the consolidated balance sheet	Financial instruments	Cash collateral pledged	Net amount
	(in thousands)							
Interest rate lock commitments	$ 1,169	$ —	$ —	$ 1,169	$ 1,740	$ —	$ —	$ 1,740
Credit Suisse First Boston Mortgage Capital LLC	691,030	(690,766)	—	264	1,010,562	(1,010,320)	—	242
Deutsche Bank	741,978	(741,978)	—	—	593,864	(593,864)	—	—
Bank of America, N.A.	170,820	(170,820)	—	—	406,787	(406,355)	—	432
BNP Paribas	149,675	(149,482)	—	193	87,753	(87,753)	—	—
Morgan Stanley Bank, N.A.	77,687	(77,687)	—	—	139,491	(138,983)	—	508
JPMorgan Chase Bank, N.A.	54,326	(54,326)	—	—	90,442	(90,442)	—	—
Royal Bank of Canada	35,181	(35,181)	—	—	24,835	(23,752)	—	1,083
Citibank, N.A.	14,960	(14,960)	—	—	23,010	(23,010)	—	—
Barclays Capital	—	—	—	—	6,387	(6,387)	—	—
Others	1,438	—	—	1,438	1,791	—	—	1,791
	$ 1,938,264	$ (1,935,200)	$ —	$ 3,064	$ 2,386,662	$ (2,380,866)	$ —	$ 5,796

Following are the gains (losses) recognized by the Company on derivative financial instruments and the income statement 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 gains on mortgage loans held for sale at fair value	$ (8,934)	$ (1,120)	$ 15,618
Repurchase agreement derivatives	Interest expense	$ (1,704)	$ (330)	$ —
Hedged item:				
Interest rate lock commitments and mortgage loans held for sale	Net gains on mortgage loans held for sale at fair value	$ 81,522	$ (21,255)	$ 20,619
Mortgage servicing rights	Net mortgage loan servicing fees−Amortization, impairment and change in fair value of mortgage servicing rights and mortgage servicing liabilities	$ (121,045)	$ (37,855)	$ 26,405

Note 9—Mortgage Servicing Rights and Mortgage Servicing Liabilties

Mortgage Servicing Rights Carried at Fair Value:

The activity in MSRs carried at fair value is as follows:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Balance at beginning of year	$ 638,010	$ 515,925	$ 660,247
Reclassification of mortgage servicing rights previously accounted for under the amortization method pursuant to adoption of the fair value method of accounting	1,482,426	—	—
Balance after reclassification	2,120,436	515,925	660,247
Additions:			
Purchases	237,803	183,850	146
Resulting from mortgage loan sales	591,757	24,471	17,319
	829,560	208,321	17,465
Change in fair value due to:			
Changes in inputs used in valuation model (1)	174,458	(4,771)	(80,244)
Other changes in fair value (2)	(303,842)	(81,465)	(81,543)
Total change in fair value	(129,384)	(86,236)	(161,787)
Balance at end of year	$ 2,820,612	$ 638,010	$ 515,925

	December 31,	
	2018	2017
	(in thousands)	
Fair value of mortgage servicing rights pledged to secure *Assets sold under agreements to repurchase* and *Notes payable*	$ 2,807,333	$ 630,711

(1) Principally reflects changes in discount rate and prepayment speed inputs, primarily due to changes in market interest rates, and changes in expected borrower performance and servicer losses given default.

(2) Represents changes due to realization of cash flows.

Mortgage Servicing Rights Carried at Lower of Amortized Cost or Fair Value:

The activity in MSRs carried at the lower of amortized cost or fair value is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Amortized cost:			
Balance at beginning of year	$ 1,583,378	$ 1,206,694	$ 798,925
Transfer of mortgage servicing rights to mortgage servicing rights carried at fair value pursuant to adoption of the fair value method of accounting	(1,583,378)	—	—
Balance after reclassification	—	1,206,694	798,925
Mortgage servicing rights resulting from mortgage loan sales	—	556,630	560,212
Amortization	—	(179,946)	(139,666)
Application of valuation allowance to recognize other-than-temporary impairment		—	(12,777)
Balance at end of year	—	1,583,378	1,206,694
Valuation allowance:			
Balance at beginning of year	(101,800)	(94,947)	(47,237)
Reduction resulting from transfer of mortgage servicing rights to mortgage servicing rights carried at fair value pursuant to adoption of the fair value method of accounting	101,800	—	—
Balance after reclassification	—	(94,947)	(47,237)
Increase in valuation allowance	—	(6,853)	(60,487)
Application of valuation allowance to recognize other-than-temporary impairment	—	—	12,777
Balance at end of year	—	(101,800)	(94,947)
Mortgage servicing rights, net at end of year	$ —	$ 1,481,578	$ 1,111,747
Fair value of mortgage servicing rights at:			
Beginning of year		$ 1,112,302	$ 766,345
End of year		$ 1,482,426	$ 1,112,302

	December 31, 2017
	(in thousands)
Fair value of mortgage servicing rights pledged to secure assets sold under agreements to repurchase and note payable	$ 1,467,356

Mortgage Servicing Liabilities Carried at Fair Value:

The activity in mortgage servicing liability carried at fair value is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Balance at beginning of year	$ 14,120	$ 15,192	$ 1,399
Mortgage servicing liabilities resulting from mortgage loan sales	7,601	17,229	14,991
Mortgage servicing liabilities assumed	—	—	10,139
Changes in fair value due to:			
Changes in valuation inputs used in valuation model (1)	10,787	6,526	5,264
Other changes in fair value (2)	(23,827)	(24,827)	(16,601)
Total change in fair value	(13,040)	(18,301)	(11,337)
Balance at end of year	$ 8,681	$ 14,120	$ 15,192

(1) Principally reflects changes in expected borrower performance and servicer losses given default.

(2) Represents changes due to realization of cash flows.

Servicing fees relating to MSRs and MSLs are recorded in *Net mortgage loan servicing fees—Loan servicing fees—From non-affiliates* on the consolidated statements of income; late charges and other ancillary fees relating to MSRs and MSLs are recorded in *Net mortgage loan servicing fees—Mortgage loan servicing fees—Ancillary and other fees* on the Company's consolidated statements of income. Such amounts are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Contractual servicing fees	$ 585,101	$ 475,848	$ 385,633
Ancillary and other fees:			
Late charges	27,940	25,097	19,341
Other	6,276	4,603	4,706
	$ 619,317	$ 505,548	$ 409,680

Note 10—Furniture, Fixtures, Equipment and Building Improvements

Furniture, fixtures, equipment and building improvements is summarized below:

	December 31,	
	2018	2017
	(in thousands)	
Furniture, fixtures, equipment and building improvements	$ 55,251	$ 54,186
Less: Accumulated depreciation and amortization	(21,877)	(24,733)
	$ 33,374	$ 29,453
Fixed assets pledged to secure obligations under capital lease	$ 16,281	$ 23,915

Depreciation and amortization expenses are summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Depreciation and amortization expenses	$ 9,500	$ 8,150	$ 6,842
Less: Depreciation and amortization allocated to PMT(1)	—	(1,396)	(1,350)
Depreciation and amortization expenses included in *Occupancy and equipment*	$ 9,500	$ 6,754	$ 5,492

(1) The Company's management agreement with PMT provides for allocation by the Company of certain common overhead costs to PMT. The Company adopted ASU 2014-09 using the modified retrospective method effective January 1, 2018, Adoption of ASU 2014-09 required the Company to include those reimbursements from PMT of $1.2 million in *Other* revenue starting January 1, 2018. Before adoption of ASU 2014-09, the Company included such reimbursements in the respective expense line items.

Note 11—Capitalized Software

Capitalized software is summarized below:

	December 31,	
	2018	2017
	(in thousands)	
Cost	$ 45,039	$ 29,621
Less: Accumulated amortization	(5,291)	(3,892)
	$ 39,748	$ 25,729
Capitalized software pledged to secure obligation under capital lease	$ 1,017	$ 1,568

Software amortization expense totaled $3.4 million, $1.6 million and $357,000 for the years ended December 31, 2018, 2017 and 2016, respectively. The Company recorded $0, $827,000 and $0 of impairment of capitalized software during the year ended December 31, 2018, 2017 and 2016, respectively.

Note 12—Carried Interest Due from Investment Funds

The activity in the Company's Carried Interest due from Investment Funds, which were dissolved during the year ended December 31, 2018, is included in *Other* assets, and is summarized as follows:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Balance at beginning of year	$ 8,552	$ 70,906	$ 69,926
Carried Interest recognized during the year	(365)	(1,040)	980
Cash received during the year	(8,187)	(61,314)	—
Balance at end of year	$ —	$ 8,552	$ 70,906

The Carried Interest that the Company recognized from the Investment Funds was determined by the Investment Funds' performance and its contractual rights to share in the Investments Funds' returns in excess of the preferred returns, if any, that accrued to the funds' investors. The Company recognized Carried Interest as a participation in the profits in the Investment Funds after the investors in the Investment Funds achieved a preferred return as defined in the fund agreements. After the investors achieved the preferred returns specified in the respective fund agreements, a "catch up" return accrued to the Company until it received a specified percentage of the preferred return. Thereafter, the Company participated in future returns in excess of the preferred return at the rates specified in the fund agreements.

Note 13—Borrowings

The borrowing facilities described throughout this Note 13 contain various covenants, including financial covenants governing the Company's net worth, debt-to-equity ratio, profitability and liquidity. Management believes that the Company was in compliance with these covenants as of December 31, 2018.

Assets Sold Under Agreements to Repurchase

The Company has multiple borrowing facilities in the form of asset sales under agreements to repurchase. These borrowing facilities are secured by mortgage loans held for sale at fair value or participation certificates backed by MSRs. Eligible mortgage loans and participation certificates backed by MSRs are sold at advance rates based on the fair value (as determined by the lender) of the assets sold. Interest is charged at a rate based on the lender's overnight cost of funds rate or on LIBOR depending on the terms of the respective agreements. Mortgage loans and MSRs financed under these agreements may be re-pledged by the lenders.

Assets sold under agreements to repurchase are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Average balance of assets sold under agreements to repurchase	$ 1,626,729	$ 1,829,257	$ 1,438,181
Weighted average interest rate (1)	3.87 %	3.18 %	2.91 %
Total interest expense (2)	$ 22,463	$ 60,286	$ 49,791
Maximum daily amount outstanding	$ 2,380,121	$ 3,022,656	$ 2,661,746

	December 31,	
	2018	2017
	(dollars in thousands)	
Carrying value:		
Unpaid principal balance	$ 1,935,200	$ 2,380,866
Unamortized debt issuance premiums and costs, net	(1,341)	672
	$ 1,933,859	$ 2,381,538
Weighted average interest rate	4.22 %	3.24 %
Available borrowing capacity (3):		
Committed	$ 695,767	$ 316,503
Uncommitted	2,354,033	2,257,631
	$ 3,049,800	$ 2,574,134
Fair value of assets securing repurchase agreements:		
Mortgage loans held for sale	$ 1,923,857	$ 2,530,299
Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell	$ 131,025	$ 144,128
Servicing advances (4)	$ 162,895	$ 114,643
Mortgage servicing rights (4)	$ 2,807,333	$ 2,098,067
Margin deposits placed with counterparties (5)	$ 3,750	$ 3,750

(1) Excludes the effect of amortization of net premiums totaling $40.5 million and $1.3 million, for the years ended December 31, 2018 and 2017, respectively; and debt issuance costs of $7.3 million for the year ended December 31, 2016.

(2) In 2017, PFSI 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. The Company included $48.1 million and $9.2 million of such incentives as a reduction in *Interest expense* during the year ended December 31, 2018 and 2017, respectively. 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.

(3) 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.

(4) Beneficial interests in the Ginnie Mae MSRs and servicing advances are pledged to the Issuer Trust and together serve as the collateral backing the VFN, 2018-GT1 Notes and 2018-GT2 Notes described in *Notes Payable*. The VFN financing is included in *Assets sold under agreements to repurchase* and 2018-GT1 Notes and 2018-GT2 Notes are included in *Notes payable* on the Company's consolidated balance sheet.

(5) Margin deposits are included in *Other* assets on the Company’s consolidated balance sheets.

Following is a summary of maturities of outstanding advances under repurchase agreements by maturity date:

Remaining maturity at December 31, 2018	Balance
	(dollars in thousands)
Within 30 days	$ 397,374
Over 30 to 90 days	1,397,080
Over 90 to 180 days	746
Over one to two years	140,000
Total assets sold under agreements to repurchase	$ 1,935,200
Weighted average maturity (in months)	2.9

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

Counterparty	Amount at risk	Weighted average maturity of advances under repurchase agreement	Facility maturity
	(in thousands)		
Credit Suisse First Boston Mortgage Capital LLC	$ 1,416,794	April 26, 2020	April 26, 2020
Credit Suisse First Boston Mortgage Capital LLC	$ 33,906	February 2, 2019	April 26, 2019
Deutsche Bank AG	$ 53,901	March 16, 2019	June 30, 2019
Bank of America, N.A.	$ 15,863	January 30, 2019	October 28, 2019
BNP Paribas	$ 9,222	March 18, 2019	August 2, 2019
Morgan Stanley Bank, N.A.	$ 5,825	March 7, 2019	August 23, 2019
JP Morgan Chase Bank, N.A.	$ 5,286	March 3, 2019	October 11, 2019
Royal Bank of Canada	$ 2,129	January 25, 2019	March 29, 2019
Citibank, N.A.	$ 586	February 28, 2019	June 7, 2019

The Company is subject to margin calls during the period the agreements are outstanding and therefore may be required to repay a portion of the borrowings before the respective agreements mature if the fair value (as determined by the applicable lender) of the assets securing those agreements decreases.

Mortgage Loan Participation Purchase and Sale Agreements

Certain of the borrowing facilities secured by mortgage loans held for sale are in the form of mortgage loan participation purchase and sale agreements. Participation certificates, each of which represents an undivided beneficial ownership interest in mortgage loans that have been pooled with Fannie Mae, Freddie Mac or Ginnie Mae, are sold to a lender pending the securitization of the mortgage loans and sale of the resulting securities. A commitment to sell the securities resulting from the pending securitization between the Company and a non-affiliate is also assigned to the lender at the time a participation certificate is sold.

The purchase price paid by the lender for each participation certificate is based on the trade price of the security, plus an amount of interest expected to accrue on the security to its anticipated delivery date, minus a present value adjustment, any related hedging costs and a holdback amount that is based on a percentage of the purchase price. The holdback amount is not required to be paid to the Company until the settlement of the security and its delivery to the lender.

The mortgage loan participation and sale agreements are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Average balance	$ 248,539	$ 208,613	$ 268,416
Weighted average interest rate (1)	3.29 %	2.34 %	1.75 %
Total interest expense	$ 8,754	$ 5,496	$ 5,523
Maximum daily amount outstanding	$ 722,611	$ 532,266	$ 1,268,871

(1) Excludes the effect of amortization of debt issuance costs totaling $588,000, $545,000 and $740,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

	December 31,	
	2018	2017
	(dollars in thousands)	
Carrying value:		
Unpaid principal balance	$ 532,466	$ 527,706
Unamortized debt issuance costs	(215)	(311)
	$ 532,251	$ 527,395
Weighted average interest rate	3.77 %	2.81 %
Fair value of mortgage loans pledged to secure mortgage loan participation purchase and sale agreements	$ 555,001	$ 551,688

Notes Payable

Term Notes

On February 16, 2017, the Company, through the Issuer Trust, issued an aggregate principal amount of $400 million in Term Notes (the “2017-GT1 Notes”) to qualified institutional buyers under Rule 144A of the Securities Act of 1933, as amended (the “Securities Act”). The 2017-GT1 Notes bore interest at a rate equal to one-month LIBOR plus 4.75% per annum. The 2017-GT1 Notes were scheduled to mature on February 25, 2020 or, if extended pursuant to the terms of the related indenture supplement, February 25, 2021 (unless earlier redeemed in accordance with their terms).

On August 10, 2017, the Company, through the Issuer Trust, issued an aggregate principal amount of $500 million in Term Notes (the “2017-GT2 Notes”) to qualified institutional buyers under Rule 144A of the Securities Act. The 2017-GT2 Notes bore interest at a rate equal to one-month LIBOR plus 4.0% per annum. The 2017-GT2 Notes were scheduled to mature on August 25, 2022 or, if extended pursuant to the terms of the related indenture supplement, August 25, 2023 (unless earlier redeemed in accordance with their terms).

On February 28, 2018, the Company, through the Issuer Trust, issued an aggregate principal amount of $650 million in Term Notes (the “2018-GT1 Notes”) to qualified institutional buyers under Rule 144A of the Securities Act. The 2018-GT1 Notes bear interest at a rate equal to one-month LIBOR plus 2.85% per annum. The 2018-GT1 Notes will mature on February 25, 2023 or, if extended pursuant to the terms of the related indenture supplement, February 25, 2025 (unless earlier redeemed in accordance with their terms).

On February 28, 2018, in connection with its issuance of the 2018-GT1 Notes, the Company also redeemed all of the 2017-GT1 Notes previously issued by the Issuer Trust. The redemption amount for the 2017-GT1 Notes was $400 million plus all accrued and unpaid interest. As a result, the Company recognized the unamortized debt issuance cost of $3.4 million in *Interest Expense*.

On August 10, 2018, the Company, through the Issuer Trust, issued an aggregate principal amount of $650 million in Term Notes (the “2018-GT2 Notes”) to qualified institutional buyers under Rule 144A of the Securities Act. The 2018-GT2 Notes bear interest at a rate equal to one-month LIBOR plus 2.65% per annum. The 2018-GT2 Notes will mature on August 25, 2023 or, if extended pursuant to the terms of the related indenture supplement, August 25, 2025 (unless earlier redeemed in accordance with their terms).

On August 10, 2018, in connection with its issuance of the 2018-GT2 Notes, the Company also redeemed all of the 2017-GT2 Notes previously issued by the Issuer Trust. The redemption amount for the 2017-GT2 Notes was $500 million plus all accrued and unpaid interest. As a result, the Company recognized the unamortized debt issuance cost of $4.6 million in *Interest Expense*.

All the Term Notes rank pari passu with each other and with the VFN issued by Issuer Trust to PLS and are secured by certain participation certificates relating to Ginnie Mae MSRs and ESS that are financed pursuant to the GNMA MSR Facility.

Corporate Revolving Line of Credit

On November 1, 2018, the Company, through its subsidiary, PennyMac (the “Borrower”), entered into amendments (the "Amendments") to that certain (i) amended and restated credit agreement, dated as of November 18, 2016, by and among the Borrower, the lenders that are parties thereto and Credit Suisse AG, as administrative agent and collateral agent, and Credit Suisse Securities (USA) LLC, as sole bookrunner and sole lead arranger (the “Credit Agreement”); and (ii) amended and restated collateral and guaranty agreement, dated as of November 18, 2016, by and among the Borrower, as grantor, Credit Suisse AG, Cayman Islands Branch (“CS Cayman”), as collateral agent, and PNMAC Holdings, Inc. (formerly known as PennyMac Financial Services, Inc.) and certain of its subsidiaries, PCM, PLS and PNMAC Opportunity Fund Associates, LLC (Associates), as guarantors and grantors (“the “Guaranty”). Pursuant to the Credit Agreement, the lenders have agreed to make revolving loans to the Borrower in an amount not to exceed $150 million. Interest on the loans shall accrue at a per annum rate of interest equal to, at the election of the Borrower, either LIBOR plus the applicable margin or an alternate base rate (as defined in the Credit Agreement). During the existence of certain events of default, interest shall accrue at a higher default rate. The proceeds of the loans are to be used solely for working capital and general corporate purposes of the Borrower and its subsidiaries.

The primary purposes of the Amendments are to (i) extend the maturity date of the Credit Agreement to October 31, 2019; (ii) name the Company as an additional guarantor under the Credit Agreement; and (iii) release Associates from its obligations as a guarantor under the Credit Agreement. Accordingly, the obligations of the Borrower under the Credit Agreement are now guaranteed by PFSI, PNMAC Holdings, Inc., PCM and PLS, and secured by a grant by each of the referenced grantors of its respective right, title and interest in and to limited and otherwise unencumbered (other than specified permitted encumbrances) specified contract rights, specified deposit accounts, all documents and instruments related to such specified contract rights and specified deposit accounts, and any and all proceeds and products thereof. All other terms and conditions of the Credit Agreement and Guaranty remain the same in all material respects.

MSR Note Payable

During December 2015, the Company issued a note payable in favor of Barclays Bank PLC that was secured by Fannie Mae and Freddie Mac MSRs. Interest was charged at a rate based on LIBOR plus the applicable contract margin. The facility expired on February 1, 2018.

On February 1, 2018, the Company issued a note payable in favor of CS Cayman that is secured by Fannie Mae and Freddie Mac MSRs. Interest is charged at a rate based on LIBOR plus the applicable contract margin. The facility expires on February 1, 2020. The maximum amount that the Company may borrow under the note payable is $400 million, less any amount outstanding under the agreement to repurchase pursuant to which the Company finances the VFN. The Company did not borrow under this note payable during the year ended December 31, 2018.

Notes payable are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Average balance	$ 1,169,452	$ 586,135	$ 108,475
Weighted average interest rate (1)	5.29 %	5.86 %	5.13 %
Total interest expense	$ 73,610	$ 39,369	$ 8,688
Maximum daily amount outstanding	$ 1,300,000	$ 900,006	$ 153,849

(1) Excluding the effect of amortization of debt issuance costs and non-utilization fees totaling $11.7 million, $4.5 million and $3.0 million for the years ended December 31, 2018, 2017 and 2016, respectively.

	December 31,	
	2018	2017
	(dollars in thousands)	
Carrying value:		
Unpaid principal balance	$ 1,300,000	$ 900,006
Unamortized debt issuance costs	(7,709)	(8,501)
	$ 1,292,291	$ 891,505
Weighted average interest rate	5.07 %	5.66 %
Unused amount	$ 150,000	$ 280,000
Assets pledged to secure notes payable:		
Cash	$ 108,174	$ 20,765
Servicing advances (1)	$ 162,895	$ 114,643
Mortgage servicing rights (1)	$ 2,807,333	$ 2,098,067
Other assets−Carried Interest	$ —	$ 8,552

(1) Beneficial interests in the Ginnie Mae MSRs and servicing advances are pledged to the Issuer Trust and together serve as the collateral backing the VFN, 2018-GT1 Notes and 2018-GT2 Notes. The VFN financing is included in *Assets sold under agreements to repurchase* and 2018-GT1 Notes and 2018-GT2 Notes are included in *Notes payable* on the Company's consolidated balance sheet.

Obligations Under Capital Lease

In December 2015, the Company entered into a capital lease transaction secured by certain fixed assets and capitalized software. The capital lease matures on March 23, 2020 and bears interest at a spread over one-month LIBOR.

Obligations under capital lease are summarized below:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Average balance	$ 13,498	$ 24,830	$ 18,620
Weighted average interest rate	3.96 %	3.07 %	2.47 %
Total interest expense	$ 536	$ 769	$ 510
Maximum daily amount outstanding	$ 20,971	$ 30,044	$ 24,242

	December 31, 2018	December 31, 2017
	(in thousands)	
Unpaid principal balance	$ 6,605	$ 20,971
Weighted average interest rate	4.46 %	3.26 %
Assets pledged to secure obligations under capital lease:		
Furniture, fixtures and equipment	$ 16,281	$ 23,915
Capitalized software	$ 1,017	$ 1,568

Excess Servicing Spread Financing at Fair Value

In conjunction with the Company's purchase from non-affiliates of certain MSRs on pools of Agency-backed residential mortgage loans, the Company has entered into sale and assignment agreements with PMT. Under these agreements, the Company sold to PMT the right to receive ESS cash flows relating to certain MSRs. The Company retained a fixed base servicing fee and all ancillary income associated with servicing the loans. The Company continues to be the servicer of the mortgage loans and retains all servicing obligations, including responsibility to make servicing advances.

Following is a summary of ESS:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Balance at beginning of year	$ 236,534	$ 288,669	$ 412,425
Issuances of excess servicing spread to PennyMac Mortgage Investment Trust pursuant to recapture agreement	2,688	5,244	6,603
Accrual of interest	15,138	16,951	22,601
Repayment	(46,750)	(54,980)	(69,992)
Settlement (1)	—	—	(59,045)
Change in fair value	8,500	(19,350)	(23,923)
Balance at end of year	$ 216,110	$ 236,534	$ 288,669

(1) On February 29, 2016, the Company and PMT terminated that certain master spread acquisition and MSR servicing agreement that the parties entered into effective February 1, 2013 (the "2/1/2013 Spread Acquisition Agreement") and all amendments thereto. In connection with the termination of 2/1/2013 Spread Acquisition Agreement, the Company reacquired from PMT all of its right, title and interest in and to all of the Fannie Mae ESS previously sold by the Company to PMT under the 2/1/2013 Spread Acquisition Agreement and then subject to such 2/1/2013 Spread Acquisition Agreement. On February 29, 2016, the Company also reacquired from PMT all of its right, title and interest in and to all of the Freddie Mac ESS previously sold to PMT by the Company.

Note 14—Liability for Losses Under Representations and Warranties

Following is a summary of the Company's liability for losses under representations and warranties:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Balance at beginning of year	$ 20,053	$ 19,067	$ 20,611
Provision for losses on mortgage loans sold:			
Resulting from sales of mortgage loans	5,824	5,890	7,090
Reduction in liability due to change in estimate	(4,672)	(4,301)	(7,672)
Incurred losses, net	(50)	(603)	(962)
Balance at end of year	$ 21,155	$ 20,053	$ 19,067
Unpaid principal balance of mortgage loans subject to representations and warranties at end of year	$ 137,849,704	$ 120,855,101	

Note 15—Income Taxes

The Company files U.S. federal and state corporate income tax returns for PFSI and partnership returns for PennyMac. The Company's federal tax returns are subject to examination for 2015 and forward and its state tax returns are generally subject to examination for 2014 and forward. PennyMac's federal partnership returns are subject to examination for 2015 and forward, and its state tax returns are generally subject to examination for 2014 and forward. No returns are currently under examination.

As a result of the Reorganization, the Company recorded through equity a net deferred tax liability attributable to the noncontrolling interest in the amount of $320.5 million. Beginning from November 1, 2018, the Company's income subject to the corporate federal and state statutory rates will include the portion of its income formerly attributed to the conversion of the noncontrolling interest. As a result, the Company expects an increase in the effective tax rate.

The Reorganization is to be treated as an integrated transaction that qualifies as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code and/or a transfer described in Section 351(a) of the Internal Revenue Code.

PFSI received a ruling from the California Franchise Tax Board in November 2018 which allows the Company to apply a reduced California statutory rate of 8.84% compared to the 10.84% rate previously applied by the Company. As a result, the Company recorded a tax benefit of $8.5 million due to remeasurement of deferred tax assets and tax liabilities.

The Company's tax expense for the year ended December 31, 2017 was significantly impacted by the Tax Act. The Tax Act reduces the U.S. federal corporate tax rate to 21% from the previous maximum rate of 35%, effective January 1, 2018. Other than the change in the applicable federal rate, the changes introduced by the Tax Act did not have a significant impact on the 2018 tax expense.

In the fourth quarter of 2017, the Company recorded a tax benefit of $13.7 million due to a re-measurement of deferred tax assets and liabilities resulting from a decrease in the federal tax rate. The re-measurement of the deferred tax assets and liabilities is predominantly based on a reduction to the federal rate as described above which will result in lower tax expense when these deferred tax assets and liabilities are realized.

Revaluation of the deferred tax asset resulting from PennyMac unitholder exchanges under the tax receivable agreement resulted in the repricing of the Company's corresponding liability under the tax receivable agreement. The Company recorded a reduction of $32.0 million in the *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders* under the tax receivable agreement for the year ended December 31, 2017 as a result of the Tax Act.

The following table details the Company's income tax expense:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Current expense:			
Federal	$ 12	$ (81)	$ (1,622)
State	274	56	(244)
Total current expense	286	(25)	(1,866)
Deferred expense:			
Federal	23,395	14,674	38,082
State	(427)	9,738	9,887
Total deferred expense	22,968	24,412	47,969
Total provision for income taxes	$ 23,254	$ 24,387	$ 46,103

As the result of the Company's reclassification of the noncontrolling interest to paid-in capital pursuant to the Reorganization on November 1, 2018, the liability for deferred taxes for the year ended December 31, 2018 reflects each individual adjustment item in the underlying investment in PennyMac. The provision for deferred income taxes for the years ended December 31, 2017, and 2016 primarily relates to the Company's investment in PennyMac partially offset by the Company's generation and utilization of a net operating loss and generation of tax credits. The portion attributable to its investment in PennyMac primarily relates to MSRs that PennyMac received pursuant to sales of mortgage loans held for sale at fair value and Carried Interest from the Investment Funds.

The following table is a reconciliation of the Company's provision for income taxes at statutory rates to the provision for income taxes at the Company's effective tax rate:

	Year ended December 31,		
	2018	2017	2016
Federal income tax statutory rate	21.0 %	35.0 %	35.0 %
Less: Income attributable to noncontrolling interest	(12.3)%	(22.0)%	(24.8)%
State income taxes, net of federal benefit	2.3 %	2.2 %	1.6 %
Tax rate revaluation	(2.2)%	(8.0)%	0.0 %
Other	(0.1)%	0.1 %	0.2 %
Effective tax rate	8.7 %	7.3 %	12.0 %

The components of the Company's provision for deferred income taxes are as follows:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Mortgage servicing rights	$ 46,064	$ —	$ —
Investment in PennyMac	—	34,011	40,493
Net operating loss	(14,902)	(9,675)	8,110
Compensation accruals	(3,596)	—	—
Reserves and losses	(1,848)	—	—
Additional tax basis in partnership from exchanges of partnership units into the Company's common stock	(1,391)	—	—
Other	(1,302)	—	—
Tax credits	(57)	76	(634)
Total provision for deferred income taxes	$ 22,968	$ 24,412	$ 47,969

The components of *Income taxes payable* are as follows:

	December 31, 2018	December 31, 2017
	(in thousands)	
Taxes currently payable (receivable)	$ 218	$ (2,126)
Deferred income tax liability, net	400,328	54,286
Income taxes payable	$ 400,546	$ 52,160

The tax effects of temporary differences that gave rise to deferred income tax assets and liabilities are presented below:

	December 31, 2018	December 31, 2017
	(in thousands)	
Deferred income tax assets:		
Additional tax basis in partnership from exchanges of partnership units into the Company's common stock	$ 44,165	$ —
Compensation accruals	28,752	—
Reserves and losses	26,589	—
Net operating loss carryforward	25,104	10,202
Tax credits carryforward	616	558
Gross deferred tax assets	125,226	10,760
Deferred income tax liabilities:		
Mortgage servicing rights	517,042	—
Investment in PennyMac	—	65,046
Other	8,512	—
Gross deferred tax liabilities	525,554	65,046
Net deferred income tax liability	$ 400,328	$ 54,286

The Company recorded a deferred tax asset of $25.1 million related to a net operating loss of approximately $93.5 million. For federal income tax purposes, as it relates to net operating loss carryforwards, $1.3 million arising in 2015 expires in 2035, $35.2 million arising in 2017 expires in 2037, and $57.0 million arising in 2018 has no expiration date. Net operating losses arising in tax years beginning after December 31, 2017 are limited in annual use to 80% of taxable income (without regard to net operating loss deduction) but can be carried forward indefinitely. For state income tax purposes, net operating losses arising in years 2015, 2017, and 2018 generally expire in 2035, 2037, and 2038, respectively. The Company has tax credits of $0.6 million, which generally have no expiration date.

At December 31, 2018 and 2017, the Company had no unrecognized tax benefits and does not anticipate any unrecognized tax benefits. Should the recognition of any interest or penalties relative to unrecognized tax benefits be necessary, it is the Company’s policy to record such expenses in the Company’s income tax accounts. No such accruals existed at December 31, 2018 and 2017.

Note 16—Commitments and Contingencies

Litigation

The Company is a party to legal proceedings and potential claims arising in the ordinary course of our business. The amount, if any, of ultimate liability with respect to such matters cannot be determined, but despite the inherent uncertainties of litigation, management believes that the ultimate disposition of such proceedings and exposure will not have a material adverse impact on the financial condition, results of operations, or cash flows of the Company.

Regulatory Matters

The Company and/or its subsidiaries are subject to various state and federal regulations related to its loan production and servicing operations by the various states it operates in as well as federal agencies such as the Consumer Financial Protection Bureau, HUD, the Federal Housing Administration as well as subject to the requirements of the Agencies it sells loans to and performs loan servicing for. As the result, the Company may become involved in information-gathering requests, reviews, investigations and proceedings (both formal and informal) by the various federal, state and local regulatory bodies.

Commitments to Purchase and Fund Mortgage Loans

The Company's commitments to purchase and fund mortgage loans totaled $2.8 billion as of December 31, 2018.

Leases

The Company leases office facilities. Rent expense during the years ended December 31, 2018, 2017 and 2016 was $12.3 million, $12.3 million and $9.1 million, respectively.

The following table provides a summary of future minimum lease payments required under lease agreements, which may also contain renewal options as of December 31, 2018:

Year ended December 31,	Future minimum lease payments
	(in thousands)
2019	$ 15,586
2020	15,664
2021	14,693
2022	12,107
2023	11,155
Thereafter	24,495
	$ 93,700

Note 17—Stockholders' Equity

In June 2017, the Company's board of directors authorized a stock repurchase program under which the Company may repurchase up to $50 million of its outstanding common stock.

The following table summarizes the Company's stock repurchase activity:

	Year ended December 31,		Cumulative total (1)
	2018	2017	
	(in thousands)		
Shares of common repurchased	260	505	765
Cost of shares of common stock repurchased	$ 5,293	$ 8,599	$ 13,892

(1) Amounts represent the total shares common stock repurchased under the stock repurchase program through December 31, 2018.

The shares of repurchased common stock were canceled upon settlement of the repurchase transactions and returned to the authorized but unissued common stock pool.

Note 18—Noncontrolling Interest

As a result of the Reorganization on November 1, 2018, noncontrolling interest unitholders contributed their Class A units of PNMAC for shares of PFSI common stock without any cash considerations on a one-for-one basis and became stockholders of the Company. Consequently, the noncontrolling interest was reclassified to the Company's paid-in capital accounts.

Net income attributable to the Company's common stockholders and the effects of changes in noncontrolling ownership interest in PennyMac for each of the three years ended December 31, 2018 is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Net income attributable to PennyMac Financial Services, Inc. common stockholders	$ 87,694	$ 100,757	$ 66,079
Increase in the Company's paid-in capital accounts for exchanges of Class A units of Private National Mortgage Acceptance Company, LLC to Class A common stock of PennyMac Financial Services, Inc.	$ 33,156	$ 27,119	$ 6,877
Shares of Class A common stock of PennyMac Financial Services, Inc. issued pursuant to exchange of Class A units of Private National Mortgage Acceptance Company, LLC by noncontrolling interest unitholders and issued as equity compensation	1,635	1,608	301
Increase in the Company's paid-in capital for exchanges of Class A units of Private National Mortgage Acceptance Company, LLC to common stock of PennyMac Financial Services, Inc. pursuant to the Reorganization	$ 1,064,320	$ —	$ —
Shares of common stock of PennyMac Financial Services, Inc. issued for exchange of Class A units of Private National Mortgage Acceptance Company, LLC by noncontrolling interest unitholders pursuant to the Reorganization	52,263	—	—

	December 31,	
	2018	2017
Percentage of Private National Mortgage Acceptance Company, LLC held by noncontrolling interest	— %	69.2 %

Note 19—Net Gains on Mortgage Loans Held for Sale

Net gains on mortgage loans held for sale at fair value is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
From non-affiliates:			
Cash loss:			
Mortgage loans	$ (469,647)	$ (174,669)	$ (62,283)
Hedging activities	93,288	(16,866)	10,275
	(376,359)	(191,535)	(52,008)
Non-cash gain:			
Mortgage servicing rights and mortgage servicing liabilities resulting from mortgage loan sales	584,156	563,872	562,540
Provision for losses relating to representations and warranties:			
Pursuant to mortgage loan sales	(5,824)	(5,890)	(7,090)
Reduction in liability due to change in estimate	4,672	4,301	7,672
Change in fair value relating to mortgage loans and derivatives held at year end:			
Interest rate lock commitments	(8,934)	(1,120)	15,618
Mortgage loans	(1,506)	4,576	2,796
Hedging derivatives	(11,766)	(4,389)	10,344
	184,439	369,815	539,872
From PennyMac Mortgage Investment Trust	64,583	21,989	(8,092)
	$ 249,022	$ 391,804	$ 531,780

Note 20—Net Interest Income (Expense)

Net interest income (expense) is summarized below:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Interest income:			
From non-affiliates:			
Short-term investments	$ 2,038	$ 2,356	$ 2,558
Mortgage loans held for sale at fair value	128,732	91,972	54,584
Placement fees relating to custodial funds	78,184	40,813	16,155
	208,954	135,141	73,297
From PennyMac Mortgage Investment Trust—Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell	7,462	8,038	7,830
	216,416	143,179	81,127
Interest expense:			
To non-affiliates:			
Assets sold under agreements to repurchase (1)	22,463	60,286	49,791
Mortgage loan participation purchase and sale agreements	8,754	5,496	5,523
Notes payable	73,610	39,369	8,688
Obligations under capital lease	536	769	510
Interest shortfall on repayments of mortgage loans serviced for Agency securitizations	18,777	16,933	15,102
Interest on mortgage loan impound deposits	5,319	4,716	3,991
	129,459	127,569	83,605
To PennyMac Mortgage Investment Trust—Excess servicing spread financing at fair value	15,138	16,951	22,601
	144,597	144,520	106,206
	$ 71,819	$ (1,341)	$ (25,079)

(1) In 2017, the Company entered 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 years ended December 31, 2018 and 2017, the Company included $48.1 million and $9.2 million, respectively 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 in the second quarter of 2019.

Note 21—Stock-based Compensation

The Company's 2013 Equity Incentive Plan provides for grants of stock options, time-based and performance-based restricted stock units ("RSUs"), stock appreciation rights, performance units and stock grants. As of December 31, 2018, the Company has 3.9 million units available for future awards.

Following is a summary of the stock-based compensation expense by instrument awarded:

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Performance-based RSUs	$ 12,425	$ 11,020	$ 9,475
Time-based RSUs	6,608	4,768	2,494
Stock options	6,218	4,909	4,464
Exchangeable PNMAC units	—	—	72
	$ 25,251	$ 20,697	$ 16,505

Performance-Based RSUs

The performance-based RSUs provide for the issuance of shares of the Company's common stock based on the attainment of earnings per share and/or return on equity and are generally adjusted for grantee job performance ratings. The satisfaction of the performance goals and issuance of shares will be approved by a committee of the Company's board of directors. Approximately 649,000 shares vested under the grants with a performance period ended December 31, 2018 will be issued to the grantees in March 2019.

The fair value of the performance-based RSUs is measured based on the fair value of the Company's common stock at the grant date, taking into consideration management's estimate of the expected outcome of the performance goal, and the number of shares to be forfeited during the vesting period. The Company assumes forfeiture rates of 0 - 23.2% per year based on the grantees' employee classification. The actual number of shares that vest could vary from zero, if the performance goals are not met, to as much as 130% of the units granted, if the performance goals are meaningfully exceeded.

The table below summarizes performance-based RSU activity:

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except per unit amounts)		
Number of units:			
Outstanding at beginning of year	2,389	2,475	2,350
Granted	524	694	813
Vested (1)	(730)	(446)	—
Forfeited or cancelled	(291)	(334)	(688)
Outstanding at end of year	1,892	2,389	2,475
Weighted average grant date fair value per unit:			
Outstanding at beginning of year	$ 15.57	$ 14.24	$ 16.30
Granted	$ 24.40	$ 18.04	$ 11.28
Vested	$ 12.86	$ 13.65	$ —
Forfeited	$ 16.17	$ 14.45	$ 16.87
Outstanding at end of year	$ 14.48	$ 15.57	$ 14.24
Compensation expense recorded during the year	$ 12,425	$ 11,020	$ 9,475

(1) The actual number of performance-based RSUs vested during the year ended December 31, 2018 was 774,000 shares, which is approximately 106% of the 730,000 originally granted units due to the performance goals exceeding the established target.

Following is a summary of performance-based RSUs as of December 31, 2018:

Unamortized compensation cost (in thousands)	$ 5,805
Number of shares expected to vest (in thousands)	1,784
Weighted average remaining vesting period (in months)	11

Time-Based RSUs

The RSU grant agreements provide for the award of time-based RSUs, entitling the award recipient to one share of the Company's common stock for each RSU. One-third of the time-based RSUs vest on each of the first, second, and third anniversaries of the grant date, subject to the recipient's continued service through each anniversary.

Compensation cost relating to time-based RSUs is based on the grant date fair value of the Company's common stock and the number of shares expected to vest. For purposes of estimating the cost of the time-based RSUs granted, the Company assumes forfeiture rates of 0 - 23.2% per year based on the grantees' employee classification.

The table below summarizes time-based RSU activity:

	Year ended December 31,		
	2018	**2017**	**2016**
	(in thousands, except per unit amounts)		
Number of units:			
Outstanding at beginning of year	600	382	271
Granted	328	408	261
Vested	(254)	(173)	(127)
Forfeited	(47)	(17)	(23)
Outstanding at end of year	627	600	382
Weighted average grant date fair value per unit:			
Outstanding at beginning of year	$ 16.37	$ 13.71	$ 17.81
Granted	$ 24.25	$ 18.02	$ 11.77
Vested	$ 16.08	$ 14.66	$ 17.99
Forfeited	$ 19.40	$ 14.87	$ 15.55
Outstanding at end of year	$ 20.39	$ 16.37	$ 13.71
Compensation expense recorded during the year	$ 6,608	$ 4,768	$ 2,494

Following is a summary of RSUs as of December 31, 2018:

Unamortized compensation cost (in thousands)	$ 4,158
Number of units expected to vest (in thousands)	579
Weighted average remaining vesting period (in months)	11

Stock Options

The stock option award agreements provide for the award of stock options to purchase the optioned common stock. In general, and except as otherwise provided by the agreement, one-third of the stock option awards vests on each of the first, second, and third anniversaries of the grant date, subject to the recipient's continued service through each anniversary. Each stock option has a term of ten years from the date of grant but expires (1) immediately upon termination of the holder's employment or other association with the Company for cause, (2) one year after the holder's employment or other association is terminated due to death or disability and (3) three months after the holder's employment or other association is terminated for any other reason.

The fair value of each stock option award is estimated on the date of grant using a variant of the Black Scholes model based on the following inputs:

	Year ended December 31,		
	2018	2017	2016
Expected volatility (1)	30%	31%	28%
Expected dividends	0%	0%	0%
Risk-free interest rate	1.7% - 3.0%	0.8% - 2.7%	0.3% - 2.1%
Expected grantee forfeiture rate	0.0% - 23.2%	0.0% - 21.1%	0.0% - 20.2%

(1) Based on historical volatilities of the Company's common stock.

The Company uses its historical employee departure behavior to estimate the grantee forfeiture rates used in its option-pricing model. The expected term of common stock options granted is derived from the Company's option pricing model and represents the period that common stock options granted are expected to be outstanding. The risk-free interest rate for periods within the contractual term of the common stock option is based on the U.S. Treasury yield curve in effect at the time of grant.

The table below summarizes stock option award activity:

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except per option amounts)		
Number of stock options:			
Outstanding at beginning of year	3,457	2,738	1,845
Granted	674	861	962
Exercised	(322)	(90)	(9)
Forfeited	(116)	(52)	(60)
Outstanding at end of year	3,693	3,457	2,738
Weighted average exercise price per option:			
Outstanding at beginning of year	$ 16.40	$ 15.81	$ 18.17
Granted	$ 24.40	$ 18.05	$ 11.29
Exercised	$ 16.24	$ 15.04	$ 17.33
Forfeited	$ 18.46	$ 15.58	$ 15.66
Outstanding at end of year	$ 17.81	$ 16.40	$ 15.81
Compensation expense recorded during the year	$ 6,218	$ 4,909	$ 4,464

Following is a summary of stock options as of December 31, 2018:

Number of options exercisable at end of year (in thousands)	2,235
Weighted average exercise price per exercisable option	$ 16.69
Weighted average remaining contractual term (in years):	
Outstanding	7.0
Exercisable	6.0
Aggregate intrinsic value:	
Outstanding (in thousands)	$ 14,764
Exercisable (in thousands)	$ 10,207
Expected vesting amounts:	
Number of options expected to vest (in thousands)	1,368
Weighted average vesting period (in months)	10

Note 22—Earnings Per Share of Common Stock

Basic earnings per share of common stock is determined using net income attributable to the Company's common stockholders divided by the weighted average number of shares of common stock outstanding during the year. Diluted earnings per share of common stock is determined by dividing net income attributable to the Company's common stockholders by the weighted average number of shares of common stock outstanding, assuming all dilutive shares of common stock were issued.

Potentially dilutive shares of common stock include non-vested stock-based compensation awards and PennyMac Class A units. The Company applies the treasury stock method to determine the diluted weighted average shares of common stock outstanding based on the outstanding non-vested stock-based compensation awards. As a result of the Reorganization on November 1, 2018, all Class A units of PNMAC converted for shares of PFSI common stock on a one-for-one basis.

The following table summarizes the basic and diluted earnings per share calculations:

	Year ended December 31,		
	2018	2017	2016
	(in thousands, except per share data)		
Basic earnings per share of common stock:			
Net income attributable to common stockholders	$ 87,694	$ 100,757	$ 66,079
Weighted average shares of common stock outstanding	33,524	23,199	22,161
Basic earnings per share of common stock	$ 2.62	$ 4.34	$ 2.98
Diluted earnings per share of common stock:			
Net income attributable to common stockholders	$ 87,694	$ 100,757	$ 66,079
Net income attributable to dilutive stock-based compensation units	3,868	—	—
Net income attributable to PennyMac Class A units exchangeable to Class A common stock, net of income taxes	—	—	159,570
Net income attributable to common stockholders for diluted earnings per share	$ 91,562	$ 100,757	$ 225,649
Weighted average shares of common stock outstanding applicable to basic earnings per share	33,524	23,199	22,161
Effect of dilutive shares:			
Common shares issuable under stock-based compensation plan	1,798	1,800	517
PennyMac Class A units exchangeable to Class A common stock	—	—	53,951
Weighted average shares of common stock applicable to diluted earnings per share	35,322	24,999	76,629
Diluted earnings per share of common stock	$ 2.59	$ 4.03	$ 2.94

Calculations of diluted earnings per share require certain potentially dilutive shares to be excluded when their inclusion in the diluted earnings per share calculation would be anti-dilutive. The following table summarizes the anti-dilutive weighted-average number of outstanding performance-based RSUs, time-based RSUs, stock options and Exchangeable PNMAC Class A units excluded from the calculation of diluted earnings per share:

	Year ended December 31,		
	2018	**2017**	**2016**
	(in thousands, except exercise price data)		
Performance-based RSUs (1)	1,084	497	2,054
Time-based RSUs	3	—	—
Stock options (2)	740	1,323	1,829
Exchangeable PNMAC Class A units (3)	43,700	53,299	—
Total anti-dilutive stock-based compensation and PNMAC Class A units	45,527	55,119	3,883
Weighted average exercise price of anti-dilutive stock options (2)	$ 17.81	$ 16.40	$ 15.81

(1) Certain performance-based RSUs were outstanding but not included in the computation of earnings per share because the performance thresholds included in such RSUs have not been achieved.

(2) Certain stock options were outstanding but not included in the computation of diluted earnings per share because the weighted-average exercise prices were above the average stock prices during the year.

(3) Exchangeable PNMAC units were anti-dilutive during 2017 primarily due to the effect of adoption of the Tax Act on earnings attributable to PNMAC unitholders.

Note 23—Supplemental Cash Flow Information

	Year ended December 31,		
	2018	**2017**	**2016**
		(in thousands)	
Cash paid for interest	$ 161,001	$ 158,147	$ 104,938
(Refunds received) cash paid for income taxes, net	$ (2,059)	$ (5,513)	$ 1,866
Non-cash investing activity:			
Mortgage servicing rights resulting from mortgage loan sales	$ 591,757	$ 581,101	$ 577,531
Mortgage servicing liabilities resulting from mortgage loan sales	$ 7,601	$ 17,229	$ 14,991
Unsettled portion of MSR acquisitions	$ 10,139	$ 5,319	$ —
Refinancing of *Note receivable from PennyMac Mortgage Investment Trust* as *Assets purchased from PennyMac Mortgage Investment Trust under agreements to resell* pledged to creditors	$ —	$ —	$ 150,000
Non-cash financing activity:			
Issuance of *Excess servicing spread payable to PennyMac Mortgage Investment Trust* pursuant to a recapture agreement	$ 2,688	$ 5,244	$ 6,603
Unpaid distribution to Private National Mortgage Acceptance Company, LLC members	$ —	$ —	$ 7,585
Issuance of Class A common stock and common stock in settlement of director fees	$ 330	$ 338	$ 313

Note 24—Regulatory Capital and Liquidity Requirements

The Company, through PLS and PennyMac, is required to maintain specified levels of "Capital" to remain a seller/servicer in good standing with the Agencies. Such "Capital" requirements generally are tied to the size of the Company's loan servicing portfolio or loan origination volume.

The Company is subject to financial eligibility requirements for sellers/servicers eligible to sell or service mortgage loans with Fannie Mae and Freddie Mac. The eligibility requirements include tangible net worth of

$2.5 million plus 25 basis points of the Company's total 1-4 unit servicing portfolio, excluding mortgage loans subserviced for others and a liquidity requirement equal to 3.5 basis points of the aggregate UPB serviced for the Agencies plus 200 basis points of total nonperforming Agency servicing UPB in excess of 600 basis points.

The Company is also subject to financial eligibility requirements for Ginnie Mae single-family issuers. The eligibility requirements include net worth of $2.5 million plus 35 basis points of PLS' outstanding Ginnie Mae single-family obligations and a liquidity requirement equal to the greater of $1.0 million or 10 basis points of PLS' outstanding Ginnie Mae single-family securities.

The Agencies' capital and liquidity requirements, the calculations of which are specified by each Agency, are summarized below:

	December 31, 2018		December 31, 2017	
Agency–company subject to requirement	**Actual (1)**	**Requirement (1)**	**Actual (1)**	**Requirement (1)**
	(dollars in thousands)			
Capital				
Fannie Mae & Freddie Mac – PLS	$ 1,788,430	$ 514,089	$ 1,561,977	$ 429,671
Ginnie Mae – PLS	$ 1,535,826	$ 733,342	$ 1,307,580	$ 674,133
Ginnie Mae – PennyMac	$ 1,786,430	$ 806,676	$ 1,511,201	$ 741,574
HUD – PLS	$ 1,535,826	$ 2,500	$ 1,307,580	$ 2,500
Liquidity				
Fannie Mae & Freddie Mac – PLS	$ 271,802	$ 70,775	$ 196,415	$ 58,754
Ginnie Mae – PLS	$ 271,802	$ 189,592	$ 196,415	$ 153,431
Tangible net worth / Total assets ratio				
Fannie Mae & Freddie Mac – PLS	21 %	6 %	21 %	6 %

(1) Calculated in compliance with the respective Agency's requirements.

Noncompliance with an Agency's requirements can result in such Agency taking various remedial actions up to and including terminating PennyMac's ability to sell loans to and service loans on behalf of the respective Agency.

Note 25—Segments

The Company operates in three segments: production, servicing and investment management.

Two of the segments are in the mortgage banking business: production and servicing. The production segment performs mortgage loan origination, acquisition and sale activities. The servicing segment performs servicing of newly originated mortgage loans, execution and management of early buyout transactions and servicing of mortgage loans sourced and managed by the investment management segment for PMT, including executing the loan resolution strategy identified by the investment management segment relating to distressed mortgage loans.

The investment management segment represents the activities of the Company's investment manager, which include sourcing, performing diligence, bidding and closing investment asset acquisitions, managing correspondent production activities for PMT and managing the acquired assets for PMT.

Financial performance and results by segment are as follows:

	Year ended December 31, 2018				
	Mortgage Banking			Investment	
	Production	Servicing	Total	Management	Total
			(in thousands)		
Revenue: (1)					
Net mortgage loan servicing fees	$ —	$ 445,393	$ 445,393	$ —	$ 445,393
Net gains on mortgage loans held for sale at fair value	141,959	107,063	249,022	—	249,022
Mortgage loan origination fees	101,641	—	101,641	—	101,641
Fulfillment fees from PennyMac Mortgage Investment Trust	81,350	—	81,350	—	81,350
Net interest income (expense):					
Interest income	66,408	149,992	216,400	16	216,416
Interest expense	7,371	137,177	144,548	49	144,597
	59,037	12,815	71,852	(33)	71,819
Management fees	—	—	—	24,469	24,469
Carried Interest from Investment Funds	—	—	—	(365)	(365)
Other	2,008	2,650	4,658	5,516	10,174
Total net revenue	385,995	567,921	953,916	29,587	983,503
Expenses	298,729	395,619	694,348	22,584	716,932
Income before provision for income taxes and non-segment activities	87,266	172,302	259,568	7,003	266,571
Non-segment activities (2)	—	—	—	—	1,126
Income before provision for income taxes	$ 87,266	$ 172,302	$ 259,568	$ 7,003	$ 267,697
Segment assets at year end (3)	$ 2,434,897	$ 5,031,920	$ 7,466,817	$ 11,681	$ 7,478,498

(1) All revenues are from external customers.

(2) Represents repricing of *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement*.

(3) Excludes non-segment assets, which consist of working capital of $75,000.

	Year ended December 31, 2017				
	Mortgage Banking			Investment	
	Production	Servicing	Total	Management	Total
			(in thousands)		
Revenue: (1)					
Net mortgage loan servicing fees	$ —	$ 306,059	$ 306,059	$ —	$ 306,059
Net gains on mortgage loans held for sale at fair value	286,242	105,562	391,804	—	391,804
Mortgage loan origination fees	119,202	—	119,202	—	119,202
Fulfillment fees from PennyMac Mortgage Investment Trust	80,359	—	80,359	—	80,359
Net interest income (expense):					
Interest income	61,195	81,984	143,179	—	143,179
Interest expense	35,359	109,112	144,471	49	144,520
	25,836	(27,128)	(1,292)	(49)	(1,341)
Management fees	—	—	—	23,585	23,585
Carried Interest from Investment Funds	—	—	—	(1,040)	(1,040)
Other	2,002	1,710	3,712	183	3,895
Total net revenue	513,641	386,203	899,844	22,679	922,523
Expenses	275,133	327,531	602,664	16,890	619,554
Income before provision for income taxes and non-segment activities	238,508	58,672	297,180	5,789	302,969
Non-segment activities (2)	—	—	—	—	32,940
Income before provision for income taxes	$ 238,508	$ 58,672	$ 297,180	$ 5,789	$ 335,909
Segment assets at year end (3)	$ 2,459,014	$ 4,886,594	$ 7,345,608	$ 19,880	$ 7,365,488

(1) All revenues are from external customers

(2) Primarily represents repricing of *Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement*, of which $32.0 million is the result of the change in the federal tax rate under the Tax Act.

(3) Excludes parent company assets, which consist primarily of working capital of $2.6 million.

	Year ended December 31, 2016				
	Mortgage Banking			Investment	
	Production	Servicing	Total	Management	Total
			(in thousands)		
Revenues: (1)					
Net mortgage loan servicing fees	$ —	$ 185,466	$ 185,466	$ —	$ 185,466
Net gains on mortgage loans held for sale at fair value	464,027	67,753	531,780	—	531,780
Mortgage loan origination fees	125,534	—	125,534	—	125,534
Fulfillment fees from PennyMac Mortgage Investment Trust	86,465	—	86,465	—	86,465
Net interest income (expense):					
Interest income	48,944	32,182	81,126	1	81,127
Interest expense	32,669	73,537	106,206	50	106,256
	16,275	(41,355)	(25,080)	(49)	(25,129)
Management fees	—	—	—	22,746	22,746
Carried Interest from Investment Funds	—	—	—	980	980
Other	2,104	1,022	3,126	319	3,445
Total net revenue	694,405	212,886	907,291	23,996	931,287
Expenses	278,309	248,985	527,294	21,510	548,804
Income before provision for income taxes and non-segment activities	416,096	(36,099)	379,997	2,486	382,483
Non-segment activities (2)	—	—	—	—	600
Income before provision for income taxes	$ 416,096	$ (36,099)	$ 379,997	$ 2,486	$ 383,083
Segment assets at year end (3)	$ 2,195,330	$ 2,841,551	$ 5,036,881	$ 91,517	$ 5,128,398

(1) All revenues are from external customers.

(2) Represents *Revaluation of Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement*.

(3) Excludes parent Company assets, which consist primarily of working capital of $5.5 million

Note 26—Selected Quarterly Data (Unaudited)

Following is a presentation of selected quarterly financial data:

	Quarter ended							
	2018				2017			
	Dec. 31	Sept. 30	June. 30	Mar. 31	Dec. 31	Sept. 30	June. 30	Mar. 31
	(in thousands, except per share data)							
During the quarter:								
Net mortgage loan servicing fees	$ 105,212	$ 109,703	113,689	$ 116,789	$ 106,902	$ 78,081	$ 46,913	$ 74,163
Net gains on mortgage loans held for sale at fair value	59,748	56,914	60,946	71,414	98,621	108,136	98,091	86,956
Mortgage loan origination fees	26,165	26,485	24,428	24,563	30,267	33,168	30,193	25,574
Fulfillment fees from PennyMac Mortgage Investment Trust	28,591	26,256	14,559	11,944	19,175	23,507	21,107	16,570
Other income	31,485	31,571	30,676	13,491	43,669	7,743	5,417	1,210
	251,201	250,929	244,298	238,201	298,634	250,635	201,721	204,473
Expenses	192,895	189,232	169,600	165,205	176,861	156,491	143,761	142,441
Income before provision for income taxes	58,306	61,697	74,698	72,996	121,773	94,144	57,960	62,032
Provision for income taxes	5,346	5,545	6,293	6,070	(2,125)	11,652	7,214	7,646
Net income	52,960	56,152	68,405	66,926	123,898	82,492	50,746	54,386
Less: Net income attributable to noncontrolling interest	14,211	41,663	50,568	50,307	61,580	65,411	40,267	43,507
Net income attributable to PennyMac Financial Services, Inc. common stockholders	$ 38,749	$ 14,489	$ 17,837	$ 16,619	$ 62,318	$ 17,081	$ 10,479	$ 10,879
Earnings per share of common stock:								
Basic	$ 0.65	$ 0.58	$ 0.71	$ 0.70	$ 2.67	$ 0.73	$ 0.45	$ 0.48
Diluted	$ 0.63	$ 0.57	$ 0.70	$ 0.67	$ 2.44	$ 0.71	$ 0.44	$ 0.47
At quarter end:								
Mortgage loans held for sale	$ 2,521,647	$ 2,416,955	$ 2,527,231	$ 2,584,236	$ 3,099,103	$ 2,935,593	$ 3,037,602	$ 2,277,751
Mortgage servicing rights	2,820,612	2,785,964	2,486,157	2,354,489	2,119,588	2,016,485	1,951,599	1,725,061
Servicing advances, net	313,197	259,609	258,900	284,145	318,066	262,650	291,907	317,513
Mortgage loans eligible for repurchase	1,102,840	889,335	879,621	1,018,488	1,208,195	584,394	462,487	318,378
Other assets	720,277	640,667	689,797	661,533	623,141	589,247	661,143	612,674
Total assets	$ 7,478,573	$ 6,992,530	$ 6,841,706	$ 6,902,891	$ 7,368,093	$ 6,388,369	$ 6,404,738	$ 5,251,377
Short-term debt	$ 2,332,143	$ 2,222,385	$ 2,264,041	$ 2,336,826	$ 2,922,542	$ 2,640,743	$ 3,311,029	$ 2,331,357
Long-term debt	1,648,973	1,566,672	1,473,188	1,380,358	1,135,401	1,151,545	671,789	690,476
Liability for mortgage loans eligible for repurchase	1,102,840	889,335	879,621	1,018,488	1,208,195	584,394	462,487	318,378
Other liabilities	740,826	397,428	362,912	373,020	382,281	421,396	448,181	453,571
Total liabilities	5,824,782	5,075,820	4,979,762	5,108,692	5,648,419	4,798,078	4,893,486	3,793,782
Total equity	1,653,791	1,916,710	1,861,944	1,794,199	1,719,674	1,590,291	1,511,252	1,457,595
Total liabilities and equity	$ 7,478,573	$ 6,992,530	$ 6,841,706	$ 6,902,891	$ 7,368,093	$ 6,388,369	$ 6,404,738	$ 5,251,377

Note 27—Parent Company Information

The Company’s debt financing agreements require PLS, the Company’s indirect controlled subsidiary, to comply with financial covenants that include a minimum tangible net worth of $500 million. PLS is limited from transferring funds to the Parent by this minimum tangible net worth requirement.

As a result of the Reorganization, the parent company financial statements include amounts from both Old PFSI and New PFSI. The parent company’s condensed statement of income and cash flows for the year ended December 31, 2018 includes the balances from Old PFSI for ten month period ended October 31, 2018 and the balances from New PFSI for two month period ended December 31, 2018.

PENNYMAC FINANCIAL SERVICES, INC.
CONDENSED BALANCE SHEETS

	December 31,	
	2018	2017
	(in thousands)	
ASSETS		
Cash	$ —	$ 2,605
Investments in subsidiaries	1,975,231	556,439
Due from subsidiaries	582	6,538
Total assets	$ 1,975,813	$ 565,582
LIABILITIES AND STOCKHOLDERS' EQUITY		
Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	$ —	$ 44,011
Payable to subsidiaries	575	—
Income taxes payable	321,447	52,160
Total liabilities	322,022	96,171
Stockholders' equity	1,653,791	469,411
Total liabilities and stockholders' equity	$ 1,975,813	$ 565,582

PENNYMAC FINANCIAL SERVICES, INC.
CONDENSED STATEMENTS OF INCOME

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Revenues			
Dividends from subsidiary	$ 10,054	$ —	$ 6,418
Interest	—	—	49
Revaluation of Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	—	32,940	551
Total revenue	10,054	32,940	7,018
Expenses			
Interest	32	—	—
Total expenses	32	—	—
Income before provision for income taxes and equity in undistributed earnings in subsidiaries	10,022	32,940	7,018
Provision for income taxes	20,897	24,387	46,103
Income (loss) before equity in undistributed earnings of subsidiaries	(10,875)	8,553	(39,085)
Equity in undistributed earnings of subsidiaries	98,569	92,204	105,164
Net income	$ 87,694	$ 100,757	$ 66,079

PENNYMAC FINANCIAL SERVICES, INC.
CONDENSED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flows from operating activities			
Net income	$ 87,694	$ 100,757	$ 66,079
Adjustments to reconcile net income to net cash provided by operating activities			
Equity in undistributed earnings of subsidiaries	(98,569)	(92,204)	(105,164)
Revaluation of Payable to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	—	(32,940)	(551)
Decrease in deferred tax asset	—	—	18,668
Decrease (increase) in intercompany receivable	(3,737)	5,646	(76)
Payments to exchanged Private National Mortgage Acceptance Company, LLC unitholders under tax receivable agreement	—	(6,726)	—
Increase in income taxes payable	22,889	29,912	25,559
Net cash provided by operating activities	8,277	4,445	4,515
Cash flows from investing activities			
Increase in investments in subsidiaries	(77)	—	—
Net cash used by investing activities	(77)	—	—
Cash flows from financing activities			
Payment of dividend to Class A common stockholders	(10,054)	—	—
Exercise of from Class A common stock options	803	1,254	149
Repurchase of Class A common stock	(1,554)	(8,599)	—
Net cash (used in) provided by financing activities	(10,805)	(7,345)	149
Net change in cash and restricted cash	(2,605)	(2,900)	4,664
Cash and restricted cash at beginning of year	2,605	5,505	841
Cash and restricted cash at end of year	$ —	$ 2,605	$ 5,505

Note 28—Subsequent Events

Management has evaluated all events and transactions through the date of the Company issued these consolidated financial statements. During this period:

- During March 2019, the Company acquired from a non-affiliate seller Ginnie Mae MSRs with a total UPB of approximately $11.9 billion.

- During February 2019, the Company entered into an agreement with a non-affiliate seller to acquire approximately $4.5 billion in UPB of Ginnie Mae MSRs. The MSR acquisition by the Company is subject to the negotiation and execution of definitive documentation, continuing due diligence and customary closing conditions. There can be no assurance that the committed amounts will ultimately be acquired or that the transaction will be completed at all.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

PENNYMAC FINANCIAL SERVICES, INC.
(Registrant)
By: /s/ David A. Spector
David A. Spector
President and
Chief Executive Officer
(Principal Executive Officer)

Dated: March 5, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ David A. Spector David A. Spector	President and Chief Executive Officer (Principal Executive Officer)	March 5, 2019
/s/ Andrew S. Chang Andrew S. Chang	Chief Financial Officer (Principal Financial Officer)	March 5, 2019
/s/ Gregory L. Hendry Gregory L. Hendry	Chief Accounting Officer (Principal Accounting Officer)	March 5, 2019
/s/ Stanford L. Kurland Stanford L. Kurland	Executive Chairman	March 5, 2019
/s/ Matthew Botein Matthew Botein	Director	March 5, 2019
/s/ James Hunt James Hunt	Director	March 5, 2019
/s/ Patrick Kinsella Patrick Kinsella	Director	March 5, 2019
/s/ Anne D. McCallion Anne D. McCallion	Director	March 5, 2019
/s/ Joseph Mazzella Joseph Mazzella	Director	March 5, 2019
/s/ Farhad Nanji Farhad Nanji	Director	March 5, 2019
Jeffrey Perlowitz	Director	
/s/ Theodore Tozer Theodore Tozer	Director	March 5, 2019

/s/ Mark Wiedman Mark Wiedman	Director	March 5, 2019
/s/ Emily Youssouf Emily Youssouf	Director	March 5, 2019

EXECUTIVE MANAGEMENT*

Stanford L. Kurland
Executive Chairman

David A. Spector
President and Chief Executive Officer

Steven R. Bailey
Senior Managing Director and Chief Mortgage Operations Officer

Andrew S. Chang
Senior Managing Director and Chief Financial Officer

Vandad Fartaj
Senior Managing Director and Chief Investment Officer

Jim Follette
Senior Managing Director and Chief Mortgage Fulfillment Officer

Jeffrey P. Grogin
Senior Managing Director and Chief Administrative Officer

Doug Jones
Senior Managing Director and Chief Mortgage Banking Officer

Anne D. McCallion
Senior Managing Director and Chief Enterprise Operations Officer

Lior Ofir
Senior Managing Director and Chief Information Officer

Daniel S. Perotti
Senior Managing Director and Deputy Chief Financial Officer

Derek W. Stark
Senior Managing Director and Chief Legal Officer and Secretary

David M. Walker
Senior Managing Director and Chief Risk Officer

*as of March 22, 2019

Pictured left to right, front row: Stanford L. Kurland, David A. Spector; back row: Theodore W. Tozer, Matthew Botein, Farhad Nanji, Patrick Kinsella, Emily Youssouf, Joseph Mazzella, James K. Hunt, Jeffrey A. Perlowitz and Anne D. McCallion

BOARD OF DIRECTORS*

Stanford L. Kurland
Executive Chairman,
PennyMac Financial Services, Inc.

David A. Spector
President and Chief Executive Officer,
PennyMac Financial Services, Inc.

Matthew Botein[2][3]
Managing Partner, *Gallatin Point LLC*
Consultant, *BlackRock, Inc.*

James K. Hunt[2][4]
Independent Lead Director
Managing Partner and CEO, Middle Market Credit (Retired),
Kayne Anderson Capital Advisors, LLC

Patrick Kinsella[1][5][6]
Senior Audit Partner (Retired), *KPMG LLP*
Adjunct Professor, *USC Marshall School of Business*

Joseph Mazzella[4][5]
Managing Director and General Counsel (Retired),
Highfields Capital Management LP

Anne D. McCallion
Senior Managing Director and Chief Enterprise Operations Officer,
PennyMac Financial Services, Inc.

Farhad Nanji[2][4]
Co-Founder, *MFN Partners Management, L.P.*
Managing Director (Retired), *Highfields Capital Management LP*

Jeffrey A. Perlowitz[3][6]
Managing Director and Co-Head of Global Securitized Markets (Retired), *Citigroup*

Theodore W. Tozer[1][5][6]
President (Retired),
Government National Mortgage Association (Ginnie Mae)

Emily Youssouf[1][3]
Clinical Professor, *NYU Schack Institute of Real Estate*

*as of March 22, 2019

Board Committees:
[1]Audit Committee
[2]Compensation Committee
[3]Finance Committee
[4]Governance and Nominating Committee
[5]Related-Party Matters Committee
[6]Risk Committee